BOARD OF DIRECTORS
SAN LORENZO VALLEY WATER DISTRICT
AGENDA
January 17, 2019

MISSION STATEMENT: Our Mission is to provide our customers and future generations with reliable, safe and high quality water at an equitable price; to create and maintain outstanding service and community relations; to manage and protect the environmental health of the aquifers and watersheds; and to ensure the fiscal vitality of the San Lorenzo Valley Water District.

Notice is hereby given that a meeting of the Board of Directors of the San Lorenzo Valley Water District will be held on **Thursday, January 17, 2019 at 5:00 p.m.**, SLVWD, 13057 Highway 9, Boulder Creek, CA 95006.

In compliance with the requirements of Title II of the American Disabilities Act of 1990, the San Lorenzo Valley Water District requests that any person in need of any type of special equipment, assistance or accommodation(s) in order to communicate at the District's Public Meeting can contact the District Secretary's Office at (831) 430-4636 a minimum of 72 hours prior to the scheduled meeting.

Agenda documents, including materials related to an item on this agenda submitted to the Board of Directors after distribution of the agenda packet, are available for public inspection and may be reviewed at the office of the District Secretary, 13060 Highway 9, Boulder Creek, CA 95006 during normal business hours. Such documents are also available on the District website at www.slvwd.com subject to staff's ability to post the documents before the meeting.

1. Convene Meeting/Roll Call

2. Additions and Deletions to Closed Session Agenda:
   Additions to the Agenda, if any, may only be made in accordance with California Government Code Section 54954.2 (Ralph M. Brown Act) which includes, but is not limited to, additions for which the need to take action is declared to have arisen after the agenda was posted, as determined by a two-thirds vote of the Board of Directors (or if less than two-thirds of the members are present, a unanimous vote of those members present).

3. Oral Communications Regarding Items in Closed Session:
   This portion of the agenda is reserved for Oral Communications by the public for items which are on the Closed Session portion of the Agenda. Any person may address the Board of Directors at this time, on Closed Session items. Normally, presentations must not exceed three (3) minutes in length, and individuals may only speak once during Oral Communications. No actions may be taken by the Board of Directors on any Oral Communications presented; however, the Board of Directors may request that the matter be placed on a future agenda. Please state your name and town/city of residence at the beginning of your statement for the record.

4. Adjournment to Closed Session

At any time during the regular session, the Board may adjourn to Closed Session in compliance with, and as authorized by, California Government Code Section 54956.9 and Brown Act, Government Code Section 54950. Members of the public will be given the opportunity to address any scheduled item prior to adjourning to closed session.

a. CONFERENCE WITH LEGAL COUNSEL- EXISTING LITIGATION
Government Code Section 54956.9(d)(1)
Vierra v. San Lorenzo Valley Water District, et al.
(Santa Cruz Superior Court Case No. 18CV00890)

b. CONFERENCE WITH LEGAL COUNSEL- EXISTING LITIGATION
Government Code Section 54956.9(d)(1)
Holloway v. Showcase Realty Agents, Inc. et al.
(Santa Cruz Superior Court Case No. CV180394; 6th District Court of Appeal Case Nos. H043704, H043492).

c. CONFERENCE WITH LEGAL COUNSEL- ANITICIPATED LITIGATION
Government Code Section 54956.9(d)(2)
One Case

Closed Session Note:

The Brown Act prohibits the disclosure of confidential information acquired in a closed session by any person present and offers various remedies to address willful breaches of confidentiality. These include injunctive relief, disciplinary action against an employee, and referral of a member of the legislative body to the grand jury. It is incumbent upon all those attending lawful closed sessions to protect the confidentiality of those discussions. Only the legislative body acting as a body may agree to divulge confidential closed session information; regarding attorney/client privileged communications, the entire body is the holder of the privilege and only a majority vote of the entire body can authorize the waive of the privilege.

5. Convene to Open Session at 6:00 p.m.

6. Report of Actions Taken in Closed Session

7. Roll Call

8. Additions and Deletions to Open Session Agenda:

Additions to the Agenda, if any, may only be made in accordance with California Government Code Section 54954.2 (Ralph M. Brown Act) which includes, but is not limited to, additions for which the need to take action is declared to have arisen after the agenda was posted, as determined by a two-thirds vote of the Board of Directors (or if less than two-thirds of the members are present, a unanimous vote of those members present).

9. Oral Communications:
This portion of the agenda is reserved for Oral Communications by the public for items which are not on the agenda. Please understand that California law (The Brown Act) limits what the Board can do regarding issues raised during Oral Communication. No action or discussion may occur on issues outside of those already listed on today's agenda.

Any person may address the Board of Directors at this time, on any subject that lies within the jurisdiction of the District. Normally, communication must not exceed three (3) minutes in length, and individuals may only speak once during Oral Communications.

If you wish to speak on a non-agendized item, please submit a 'speaker slip' to the District Secretary. It is not required, but individuals who have submitted a 'speaker slip' will be given priority. Time for Oral Communications at the start of the meeting will be limited to 15 minutes in total. If there are additional speakers, the Board will continue Oral Communications after the Consent Agenda.

Any Director may request that a matter raised during Oral Communication be placed on a future agenda.

10. Unfinished Business:
Members of the public will be given the opportunity to address each scheduled item prior to Board deliberations. The Chairperson of the Board may establish a time limit for members of the public to address the Board on agendum.

a. BOARD POLICY MANUAL
Discussion and possible action by the Board regarding the Board Policy Manual.

11. New Business:
Members of the public will be given the opportunity to address each scheduled item prior to Board deliberations. The Chairperson of the Board may establish a time limit for members of the public to address the Board on agenda items.

a. REVIEW ALL COMMITTEES AND MAKE PUBLIC APPOINTMENTS
Discussion and possible action by the Board regarding the Committees' review and appointments.

b. CALIFORNIA ENVIRONMENTAL QUALITY ACT PIPELINE PROJECT
Discussion and possible action by the Board regarding the CEQA Pipeline Project.

c. SLVWD PROHIBITION OF GLYPHOSATE
Discussion and possible action by the Board regarding the prohibition of Glyphosate.

d. SANTA MARGARITA GROUNDWATER AGENCY – JOINT POWERS AUTHORITY GUIDING PRINCIPLES & SUSTAINABLE AGENCY ROLES AND RESPONSIBILITIES
Presentation by Dave Ceppos regarding the SMGWA – JPA guiding principles & sustainable agency roles and responsibilities.

12. Consent Agenda:

The Consent Agenda contains items which are considered to be routine in nature and will be adopted by one (1) motion without discussion. Any item on the consent agenda will be moved to the regular agenda upon request from individual Directors or a member of the public.

a. MINUTES FROM BOARD OF DIRECTORS MEETING JANUARY 3, 2019
Consideration and possible action by the Board to approve minutes from the January 3, 2019 BoD meeting.

13. District Reports:

No action will be taken and discussion may be limited at the Chairperson's discretion. The District encourages that questions be submitted in writing (bod@slvwd.com) on items listed in the District Reports. Questions submitted, if any, will be posted in the next available District Reports, along with a reply.

- DEPARTMENT STATUS REPORTS
  Receipt and consideration by the Board of Department Status Reports regarding ongoing projects and other activities.
  - Administration/Engineering
  - Finance
  - Environmental
  - Operations
  - Legal

- COMMITTEE REPORTS
  - Future Committee Agenda Items
  - Committee Meeting Notes/Minutes

14. Written Communication:
  - Email from S. Tapper
  - Email from M. Lee

15. Informational Material: None

16. Adjournment

Certification of Posting

I hereby certify that on January 11, 2019 I posted a copy of the foregoing agenda in the outside display case at the District Office, 13060 Highway 9, Boulder Creek, California, said time being at least 72 hours in advance of the meeting of the Board of Directors of the San Lorenzo Valley Water District (Government Code Section 54954.2).

Executed at Boulder Creek, California on January 11, 2019.

_____
Holly B. Hossack
District Secretary

5

MEMO

To: Board of Directors

From: District Manager

Subject: Board Policy Manual

Date: January 17, 2019

Recommendation

It is recommended that the Board of Directors review this memo and continue the review of several edits of the Board of Directors Policy Manual and if appropriate adopt the attached Resolution approving the Board Policy Manual.

Background

On January 3, 2019 the Board reviewed edits to the policy and made several changes. The policy review was not completed and may require additional review. It is anticipated that the review will be completed at this meeting for adoption by the Board.

The previous Board of Directors Policy Manual was adopted by the Board December 15, 2016 Resolution No. 19 (16-17). Since then the Administration Committee has reviewed/modified said document and several drafts of the document have been reviewed.

At the December 13, 2018 Board of Directors meeting the Board adopted Resolution No. 22 (18-19) with the proviso that staff bring the policy manual back to the Board to a workshop for review. As part of the workshop several draft documents were provided for review.

The current policy manual requires that the policy manual be reviewed annually by District Counsel and ratified by Resolution of the Board of Directors at the Board of Directors meeting in December of each calendar year or as soon thereafter as reasonable.

Attached are the following documents for review:

- EXHIBIT “A” - Board of Directors Policy Manual, current adopted policy and current policy with edits from the January 3, 2019 BoD meeting

- CSDA Policy Manual Template
- California Water Code 30507 – Compensation for Directors

SAN LORENZO VALLEY WATER DISTRICT
RESOLUTION NO. 26 (18-19)

SUBJECT: BOARD POLICY MANUAL 2019

WHEREAS, on December 13, 2018, the Board of Directors of the San Lorenzo Valley Water District adopted Resolution No. 22 (18-19) Board of Directors Policy Manual 2019; and

WHEREAS, on January 3 and 17, 2019 the Board of Directors reviewed the Policy Manual and agreed to revisions; and

WHEREAS, the proper functioning of the District Board and Board Meetings is critical to proper functioning of the District; and

WHEREAS, an adopted set of rules and procedures assist in the proper functioning of the Board; and

WHEREAS, the Board of directors as a whole, agrees with the Policy Manual and agrees to follow said Policy Manual;

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the San Lorenzo Valley Water District that the Board adopts and approves the revised 2019 San Lorenzo Valley Water District Board of Directors Policy Manual.

****

PASSED AND ADOPTED by the Board of Directors of the San Lorenzo Valley Water District, County of Santa Cruz, State of California, on the 17th day of January 2019, by the following vote of the members thereof:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Holly B. Hossack
District Secretary

SAN LORENZO VALLEY WATER DISTRICT

BOARD OF DIRECTORS POLICY MANUAL 2017

ADOPTED

December 15, 2016

RESOLUTION NO. 19 (16-17)

MODIFICATIONS TO POLICY MANUAL SINCE LAST FULL BOARD APPROVAL

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1. MISSION STATEMENT

"Our mission is to provide our customers and all future generations with reliable, safe and high quality water at an equitable price; to create and maintain outstanding customer service; to manage and protect the environmental health of the aquifers and watersheds; and to ensure the fiscal vitality of the San Lorenzo Valley Water District".

Adopted by the Board of Directors of the San Lorenzo Valley Water District on June 2, 2000.

The mission of the San Lorenzo Valley Water District will be accomplished through the implementation of the following objectives:

OBJECTIVE I; STAFFING

Provide an efficient and adequate staff of employees and consultants, dedicated to the District mission and responsive to the Board. Provide staff and consultants with proper resources.

OBJECTIVE II; COMMUNICATIONS

Establish and maintain an environment that encourages the open exchange of ideas and information between Board members, staff and the public that is positive, honest, concise, understandable, responsive and cost-efficient.

OBJECTIVE III; EDUCATION

Develop and maintain comprehension and competence regarding issues that come before the Board of Directors and Staff. Ensure the District's customers are informed regarding the benefits of safe operations, proper claims procedures, District operations and conservation.

2. AUTHORITY OF BOARD

A) The Board of Directors shall act only at regular, regularly adjourned, or special meetings, as provided by State Law.

B) Individual Directors shall have no power to act for the San Lorenzo Valley Water District, or the Board of Directors, or to direct District staff, except as authorized by the Board of Directors.

C) Until a quorum is present there can be no meeting of the Board of Directors. The presence of a minimum of 3 Board members is required to constitute a quorum of the Board of Directors.

3. CODE OF ETHICS AND CONDUCT

The Board of Directors of the San Lorenzo Valley Water District is committed to providing excellence in legislative leadership that results in providing the highest quality services to its constituents. The Board of Directors is expected to maintain the highest ethical standards, to follow District policies and regulation, and to abide by all applicable local, state and federal laws. Board of Directors conduct should enhance the integrity and goals of the District. In order to assist in the governing of behavior between and among members of the Board of Directors, the following rules shall be observed:

A) The dignity, style, values and opinions of each Director shall be respected.

B) Responsiveness and attentive listening in communications is encouraged.

C) The needs of the District's constituents shall be the priority of the Board of Directors.

D) The primary responsibility of the Board of Directors is the formulation and evaluation of policy. Routine matters concerning the operational aspects of the District are to be delegated to staff members of the District.

E) Directors should commit themselves to emphasizing the positive.

F) Directors should commit themselves to focusing on issues and not personalities. The presentation of the opinions of others should be encouraged.

G) Differing viewpoints are healthy in the decision-making process. Individual Directors have the right to disagree with ideas and opinions, but without being disagreeable. Once the Board of Directors takes action, Directors should commit to supporting said action and not to creating barriers to the implementation of said action.

H) Directors should practice the following procedures:

1. In seeking clarification on informational items, Directors may directly approach the District Manager to obtain information needed to supplement, upgrade, or enhance their knowledge to improve legislative decision-making.

2. In handling complaints or inquiries from residents and property owners of the District, said complaints should be referred to the District Manager and may be followed up by the Board of Directors.

3. In handling items related to safety concerns, hazards should be reported to the District Manager. Emergency situations should be dealt with immediately by seeking appropriate assistance.

4. In seeking clarification for policy-related concerns, especially those involving personnel, legal action, land acquisition, sale or development, finance, and programming, said concerns should be referred directly to the District Manager.

I) When approached by District personnel concerning specific District policy, Directors should direct inquiries to the District Manager.

J) The work of the District is a team effort. All individuals should work together in the collaborative process, assisting each other in conducting the affairs of the District.

K) When responding to constituent requests and concerns at board meetings, the Board President's discretion determines the amount of time for comments. Specific questions or concerns will be directed to the District Manager for future action by the Board or staff. Directors should be courteous, responding to individuals in a positive manner and routing their questions through appropriate channels and to responsible management personnel.

L) Directors should develop a working relationship with the District Manager wherein current issues, concerns and District projects can be discussed comfortably and openly.

M) Directors should function as a part of the whole. Issues should be brought to the attention of the Board of Directors as a whole, rather than to individual members selectively.

(N) Members' interaction with public, press or other entities must recognize the limitation of any Board member to speak for the Board except to repeat explicitly stated Board decisions, while respecting the right of Board members to express individual opinions.

O) Directors are responsible for monitoring the District's progress in attaining its goals and objectives, while pursuing its mission.

P) The Board will further inform itself, individually and collectively, through ongoing outreach to determine community wishes and through continuing education on issues relevant to the District.

Q) Continual Board development will include orientation of new Board members in the Board's governance process and periodic Board discussion of process improvement.

4. ETHICS TRAINING

Pursuant to California Government Code section 53234 et seq. or as amended, all Directors shall receive two (2) hours of training in general ethics principles and ethics laws relevant to public service within one (1) year of election or appointment to the Board of Directors, and at least once every two (2) years thereafter. All ethics training shall be provided by entities whose curriculum has been approved by the California Attorney General and the Fair Political Practices Commission. The District Manager and any other employee(s) of the District designated by the Board of Directors shall also receive the ethics training specified herein. The District shall maintain records indicating the name of the entity that provided the training and the dates ethics training was completed. Records shall be maintained for a period of at least five (5) years after the date on which the training was received. These records are public records subject to disclosure under the California Public Records Act.

5. GOVERNING LAWS

The Board of Directors shall comply with and shall be guided by applicable provisions of Federal laws; State laws, including the Water Code, Government Code, Section 1090 of the Government Code, Elections Code and Public Resources Code; this Policy Manual, and the rules and regulations of the District as established by the motions, resolutions and ordinances enacted by the Board of Directors. Motions, resolutions and ordinances may be enacted by the Board in accordance with Water Code section 30523 or as amended.

6. ELECTION OF OFFICERS

There shall be two (2) officers: a president and a vice president, who shall be members of the District Board of Directors. Election of officers shall be held at the Board of Directors meeting in December of each calendar year. Officers will serve for a one (1) year term. Elections will conform to the applicable provisions of this Policy Manual.

7. ROLE OF THE BOARD POWERS, DUTIES AND FUNCTIONS

A) POWERS

The Board of Directors is responsible for the establishment of policy and general control of the District. This broad authority shall be exercised in accordance with all applicable federal, state and local laws and regulations. The Board of Directors may execute any powers delegated by law to the District, and shall discharge any duty imposed by law upon the District.

The enabling codes established by the California State Legislature empowers the Board of Directors to have broad authority and flexibility in carrying out financial programs and activities which meet its individual needs, provided these programs or activities are not in conflict with, inconsistent with, or preempted by law.

B) DUTIES

The primary duties of the Board of Directors are as follows:

1. Take action at legal meetings.
2. Establish and periodically review written policies for District operation and administration.
3. Be responsible for all District finances.
   a. Approve fiscal budget.
   b. Monitor the budget spending.
4. Set rates, fees and charges for District services.
5. Personnel
   a. Hire and discharge General Manager and Legal Counsel.
   b. Annually evaluate the General Manager and Legal Counsel.
6. Establish written policy on how Board of Director's Meetings are conducted.
7. Review and revise the Master Plan for the District.
8. Ratify committee appointments made by the President.
9. Establish Director compensation limits.

C) FUNCTIONS

The powers and duties of the Board of Directors include governance, executive and quasi-judicial functions. These relate to the Board's own operations as a governing body and to all functions of the District.

1. GOVERNANCE FUNCTIONS

To fulfill its responsibility, the Board is committed to establishing policies to govern District activities. The Board of Directors shall consider and approve or disapprove matters submitted to it by a Director, Staff or the public. The Board of Directors shall prescribe rules for its own governance which are consistent with its "enabling code" or by Federal or State Laws and regulations.

2. EXECUTIVE FUNCTIONS

The Board of Directors is authorized to delegate any of its powers and duties to an officer or employee of the District. The Board of Directors; however, retains ultimate responsibility over the performance of those powers or duties so delegated.

3. QUASI-JUDICIAL FUNCTIONS

The Board of Directors desires that public complaints be resolved at the lowest possible administrative level. The method of resolving public complaints shall be as follows:

a. The individual with a complaint shall first discuss the matter with the District Manager. If this individual registering the complaint is not satisfied with the disposition of the complaint by the District Manager, said complaint may be filed with the Board of Directors.

b. The Board of Directors may consider the matter at a subsequent regular meeting or call a special meeting. The Board of Directors will expeditiously resolve the matter.

c. This policy in no way prohibits or intends to deter a member of the public from appearing before the Board of Directors to present a verbal complaint or statement in regards to actions of the Board of Directors, District programs or services, or impending considerations of the Board of Directors.

8. ROLE OF INDIVIDUAL DIRECTORS

The Board of Directors is the unit of authority for the District. Apart from their normal function as a part of this unit, individual Directors may not commit the District to any policy, act or expenditure unless duly authorized by the Board of Directors. Nor may an individual Director direct staff to perform specific duties unless duly authorized by the Board of Directors. Directors do not represent any factional segment of the constituency, but are, rather, a part of the body which represents and acts for the constituency as a whole.

A) Each Director has the right to place an item on a subsequent Board of Directors Meeting. The deadline for submittal of an agenda item by a Director shall be the preceding Wednesday at 5:00 p.m. before the scheduled Board of Directors meeting date at the office of the District Secretary. Agenda item requests received after the submittal deadline for a specific agenda will be added to the next following regularly scheduled agenda.

B) Directors will make every effort to attend assigned Board of Directors and Committee meetings:

1. To prepare adequately for each such meeting;

2. To observe the rules of decorum as set forth herein; and

3. Whenever any individual Directors will be absent or late for a Board of Directors or Committee meeting said Director shall notify the District Secretary or Board President at the earliest opportunity.

C) When requesting information from staff, Directors shall contact the District Manager. When responding to constituent requests and concerns, Directors should reroute such inquiries to the District Manager.

D) Each Director shall decide individually on what contact information will be released by District staff to the general public. In order to accomplish this in an orderly and consistent manner, each Director shall provide the District Secretary with a completed and signed Director Contact Authorization Form. Directors shall be responsible for any and all updates and amendments to said Director Contact Authorization Form.

9. BOARD OF DIRECTORS MEETINGS

A) REGULAR TIME AND PLACE OF MEETINGS

Regularly scheduled meetings of the Board of Directors shall be held, on the third (3rd) Thursday of each month at 5:00 pm; at the District Operations Building, 13057 Highway 9, Boulder Creek, CA, unless otherwise specified by action of the Board of Directors. Special meetings of the Board of Directors, as that term or its successor terms are defined within the meaning of the Ralph M. Brown Act (California Government Code section 54950 et seq.), may be duly authorized and held as deemed necessary by the President or a majority of the Board of Directors. Notice and location of special meetings shall be as prescribed by law. Emergency meetings of the Board of Directors, as that term or its successor terms are defined within the meaning of the Ralph M. Brown Act, may be duly authorized and held as deemed necessary only by a majority of the Board of Directors. Notice and location of emergency meetings shall be as prescribed by law.

B) PUBLIC NATURE OF MEETINGS

All meetings of the Board of Directors shall be open to the public, except when the Board is convened in Closed Session as authorized under provisions of the Ralph M. Brown Act (California Government Code section 54950 et seq.).

C) QUORUM AND VOTING REQUIREMENTS

The presence of three (3) or more Directors shall constitute a quorum for the transaction of District business. No ordinance, resolution or motion shall be passed by the Board of Directors without a majority vote of the Board, unless

otherwise required or prescribed by State law. (See for example, Government Code section 54954.2, Board Policy Manual subparagraph K, below.)

D) BOARD ACTION

The Board of Directors shall act only by ordinance, resolution, or motion. Except where action is taken by the unanimous vote of all Directors present and voting, the ayes and noes shall be taken upon the passage of all ordinances, resolutions or motions and shall be entered in the minutes. An ordinance does not require two readings at separate meetings unless otherwise prescribed by law. Unless otherwise provided by its own terms, all ordinances, resolutions and motions shall become effective upon adoption. Any member of the Board of Directors, including the President, can make a motion. Motions require seconds. The President may vote on all motions unless disqualified or abstaining. The President shall not call for a vote on any motion until sufficient time has been allowed to permit any and all members of the Board of Directors to speak. Complex motions should generally be prepared in writing and read aloud to the members of the Board of Directors at the time the motion is made. If a motion is not in writing, and if it is necessary for full understanding of the matter before the Board of Directors, the President shall restate the question prior to the vote. Common motions may be stated in abbreviated form, and will be put into complete form in the minutes. Until the President states the question, the maker may modify their motion or withdraw it completely. However, after the President has stated the question, the motion may be changed only by a motion to amend which is passed by a majority vote of the Board of Directors.

The President of the Board may at any time, during debate or otherwise, declare a recess. Declaration of a recess shall not be subject to any motions.

E) PARLIAMENTARY PROCEDURES

Unless otherwise inconsistent with any provision stated herein, Parliamentary Procedure for Board of Directors meetings shall be based upon the current edition of Sturgis Standard Code of Parliamentary Procedure. No action of the Board of Directors shall be deemed invalid for the reason that said action was not in conformance with Sturgis Standard Code of Parliamentary Procedure.

F) ROUTINE BUSINESS

Matters of routine business such as approval of the minutes and approval of minor matters may be expedited by assuming unanimous consent of the members of the Board of Directors and having the President state that without objection the matter will stand approved. Should any Director object to such unanimous consent, the President shall then call for a vote.

G) ORDERLY DISCUSSION

In order to promote discussion of the issues before the Board of Directors, each Director shall be recognized by the chair before speaking. Notwithstanding any provision of this Policy, however, each Director shall have a right to be heard within reason on any issue before the Board of Directors. Each Director may seek information or comment by the staff on any question.

H) CLOSED SESSION

Except as provided by law, all proceedings in Closed Sessions shall remain confidential.

I) MEETING AGENDAS

The District Manager, in consultation with the Board President, shall be responsible for the preparation of a written agenda for each regular meeting and/or special meeting of the Board of Directors as those terms or its successor terms are defined by the Ralph M. Brown Act (California Government Code section 54950 et seq.). The District Manager and the Board President shall meet, annually, in January of each calendar year to identify recurring items of business which should be placed on written agendas at appropriate times during the coming year. The District Manager, in consultation with the President, shall be responsible for the preparation of a written agenda for each regular meeting and/or special meeting of "other legislative bodies," of the San Lorenzo Valley Water District, as those terms or its successor terms are defined by the Ralph M. Brown Act. Any Director may request that an item be placed on the agenda for a regular meeting of the Board of Directors. The District Secretary shall be responsible for the posting of the appropriate notice and agenda for all meetings of the Board of Directors and/or "other legislative bodies."

A copy of the agenda for each regular meeting of the Board of Directors shall be forwarded to each Board member, at least three (3) days in advance of each regular meeting, together with copies of all applicable supporting documentation; minutes to be approved; staff report; and other available documents pertinent to the meeting. Directors shall review agenda materials before each meeting. Individual directors may confer directly with the District Manager to request additional information on the agenda items.

J) ORDER OF BUSINESS

As a practice for normal business. The Board President may rearrange this order at any time.

1. Convene Meeting, Roll Call.
2. Additions and Deletions to Agenda.
3. Oral Communications Related to Closed Session
4. Adjournment to Closed Session.
5. Reconvene to Open Session at 6:30 PM (time-certain).
6. Report Actions Taken in Closed Session.
7. Additions and Deletions to Agenda.
8. Oral Communications.
9. Written Communications.
10. Consent Agenda.
11. Unfinished Business.
12. New Business.
13. General Manager Reports.
    a. Manager Reports.
    b. Committee/Director Reports.
14. Informational Material.
15. (If applicable) Adjournment to Closed Session.

16. (If applicable) Reconvene to Open Session to Report Actions Taken in Closed Session.
17. Adjournment

K) ADDITIONS AND DELETIONS TO AGENDA

Additions to the Agenda, if any, shall be made in accordance with California Government Code Section 54954.2 or as amended (Ralph M. Brown Act), which includes, but is not limited to, additions for which the need to take action is declared to have arisen after the agenda was posted, as determined by a two-thirds vote of the Board of Directors. If less than two-thirds of the members are present a unanimous vote of those members present is required.

L) ORAL COMMUNICATION

The Board of Directors encourages public participation. The Oral Communications portion of the agenda is reserved for citizen communication on matters not otherwise on the agenda. Any person may address the Board of Directors on any subject that lies within the jurisdiction of the District during this portion of the agenda. Unless otherwise altered by the President or presiding officer, individual citizen communication during the Oral Communication portion of the agenda shall not exceed three (3) minutes in length and individuals may only speak once. The Ralph M. Brown Act (Section 54954.3 or as amended) prohibits any action being taken by the Board of Directors on any Oral Communications presented; however, the Board of Directors may request that the matter be placed on a future agenda. Each person addressing the Board of Directors shall be requested to give his or her name and address for the record, and designate the subject matter. Citizens may also address the Board of Directors on specific agenda items, including those on the consent agenda, only after first obtaining recognition by the President or presiding officer. Participation by interested citizens on specific agenda items is subject to orderly procedure, including time limits and decorum established under the authority of the President or presiding officer and applicable law.

All communications by interested citizens, whether during Oral Communications, or other items on the agenda, shall be addressed to the Board of Directors as a single body and not to individual Board members, staff or members of the audience. No person other than the Board of Directors and the person having the floor shall be permitted to enter into discussion, either directly or through a director, without the permission of the President or presiding officer. No member of the public shall approach the Board of Directors table

while the Board is in session unless granted permission by the President or presiding officer. Proper decorum must be observed by Directors, staff, speakers and the audience. The President or presiding officer shall preserve order and decorum, discourage personal attacks, and confine debate to the question under discussion. The President or presiding

officer, or a majority of the board, may eject from a meeting any person who becomes disorderly, abusive, or disruptive, or who fails or refuses to obey a ruling of the president regarding a matter of order or procedure. The President shall rule out of order any

irrelevant, repetitive or disruptive comments. No cell phone operation or audible pager use is allowed in the Board of Directors chambers.

M) CONSENT AGENDA

The purpose of a consent agenda is to minimize the time required for the handling of any non-controversial matters. Consent agenda items are considered to be routine and non-controversial, with documentation provided to the Board of Directors that is adequate and sufficient for approval without inquiry or discussion. Any item on the consent agenda will be moved to the regular agenda upon request from individual Directors or a member of the public. Unless moved to the regular agenda, the consent agenda shall be voted upon as one single item without discussion or debate.

N) STUDY SESSIONS

Study sessions or workshop meetings are for the purpose of discussing an item(s) that may come before the Board at a later time for official action, to facilitate planning, or discussion of special topics of interest. Study sessions provide a more informal forum for the Board of Directors, staff and the public to engage in open-ended discussion and share information on a particular subject(s). No formal action(s) can be taken at a study session; direction can be given to staff regarding preparation of an agenda item for discussion and possible action at a subsequent meeting. From time to time, study sessions may be duly authorized as deemed necessary by the President or a majority of the Board.

O) WRITTEN CORRESPONDENCE

The Written Correspondence portion of the agenda is established to act as a report of written materials received by the Board as a whole, but may also include items requested for inclusion by individual Directors or members of the public. Written Communications which require no official actions by the Board of Directors may be listed only by title and date received, and not presented in its entirety. Written Correspondence not presented in its entirety will be maintained by the District Secretary for a period of two (2) years.

10. TECHNOLOGICAL CONFERENCING

Teleconferencing may be used for all purposes in connection with any meeting within the

subject matter jurisdiction of any legislative body of the District. Teleconferencing is defined as a meeting of a legislative body of the District, the members of which are in different locations, connected by electronic means, through either audio or video, or both. If a legislative body of the District elects to use teleconferencing, it shall comply with all applicable requirements of the Ralph M. Brown Act (Section 54953, or as amended.)

11. PRESIDENT

A) DUTIES

The President shall sit as presiding officer and conduct all meetings of the Board of Directors, shall carry out the resolution and orders of the Board of Directors and shall exercise such other powers and perform such other duties as the Board of Directors shall prescribe; including the following:

1. Call the meeting to order at the appointed time.
2. Announce the business to come before the Board of Directors in its proper order.
3. Enforce the Board of Directors policies and rules with respect to the order of business and the conduct of meetings.
4. Recognize persons who desire to speak, and protect the speaker who has the floor from disturbance or interference.
5. Explain what the effect of a motion would be if it is not clear to every member of the Board of Directors.
6. Restrict discussion to the question when a motion is before the Board of Directors.
7. Rule on parliamentary procedure.
8. Put motions to a vote, and state clearly the results of the vote.

B) RESPONSIBILITIES

The President shall have all the rights to discuss and vote on any issues before the Board of Directors. The President shall have the following responsibilities:

1. Sign all instruments, acts, and carry out stated requirements and the will of the Board of Directors.
2. Consult with the District Manager on the preparation of the Board of Directors agendas. In addition, any Director shall have the right to place any matter on the agenda for any meeting in accordance with the provisions of this policy.
3. Appoint and disband all committees, subject to Board of Directors approval.
4. Call such meetings of the Board of Directors as they may deem necessary, giving notice as prescribed by law.
5. Confer with the District Manager and/or District Counsel on matters which may occur between Board of Directors meetings.

6. Be responsible for the orderly conduct of all Board of Directors meetings.

7. Act as spokesperson for the Board of Directors.

8. Coordinate and prepare the Board of Directors annual evaluation of the General Manager and Legal Counsel.

9. Other duties as authorized by the Board of Directors.

12. VICE-PRESIDENT

When the President resigns or is absent or disabled, the Vice President shall perform the President's duties. When the President disqualifies himself/herself from participating in an agenda item, the Vice-President shall perform the duties of the presiding officer.

13. MINUTES

Minutes of all regularly scheduled Board of Directors meetings will be audio recorded. Said audio record shall be subject to inspection in accordance with State Laws, including the California Public Records Act.

14. COMMITTEES

The Board shall organize committees that are advisory to the Board with regard to matters within their respective areas of responsibility.

The five District standing committees are as follows: Administrative, Budget & Finance, Engineering, Environmental and Lompico Oversight. Each standing committee shall have no power or authority to commit the District or to take any action on behalf of the Board of Directors. Standing Committees shall hold meetings at such times as deemed necessary by consensus of the committee members. Committees are encouraged to meet at least monthly.

Committee meetings shall be held in accordance with the provisions of the Ralph M. Brown Act. In order to promote attendance by Directors at Committee meetings without inadvertently creating a violation of the Ralph M. Brown Act, Directors that are not members of a committee may attend as observers, but shall not participate at the Committee's meeting.

Committee appointments will be reviewed by the full Board at the Board of Director's meeting in December of each Calendar Year, or as soon thereafter as practical. Applications to serve as a Public Member will be available at the District's Office or on-line at the District's

website (www.slvwd.com). Public Member Applications will be reviewed by the full Board. Each committee member shall be appointed by a simple majority vote of the Board.

Administrative, Budget & Finance, Engineering, Environmental Committees may have no more than two Board Members and no more than one Public Member. During the appointment discussion each Director may present a public member to serve on each committee; Administrative, Budget & Finance, Engineering, Environmental Committees. If more than one public member is presented to serve on an individual committee, the full Board shall vote to determine which public member shall be seated on that committee for the year.

The Lompico Oversight Committee may have no more than five Public Members. Public members serving on the Lompico Oversight Committee shall have a residential mailing address within Assessment District 2016-1.

Members of the committees serve at the pleasure of the Board. Each committee shall designate their own chairperson. For the Administrative, Budget & Finance, Engineering and Environmental Committees the chairperson shall be a member of the Board. Each committee may elect a vice- chairperson. Members of committees, including the chairperson and vice-chairperson shall serve until their successors are appointed. The chairperson of a committee is its presiding officer and shall be responsible for communicating the recommendation of the committee to the Board. In the absence of the chairperson, the vice-chairperson shall perform the duties of the chairperson. The chairperson and vice-chairperson are not deprived of any of the rights and privileges of a committee member by reason of being the presiding officer.

A majority of the members of each committee shall constitute a quorum for the transaction of business. Only members of the committee are entitled to make, second or vote on any motion or other action of the committee. Each committee member shall be entitled to one vote on all matters considered by the committee. A simple majority vote of the members of the Committee shall designate approval of a motion.

During the first regular meeting after January 1st of each year, each Committee shall review the District's current Strategic Plan and identify Strategic Plan Elements pertaining to said Committee. The Committee's findings regarding such Strategic Plan review shall be reported back to the Board at the next available regular Board Meeting for discussion and to allow the Board to provide direction back to the committees regarding completion of identified Strategic Plan Elements.

During the first regular meeting after January 1st of each year, each Committee shall prepare a multi-month forward looking calendar of items to be discussed by said Committee. Said calendar shall be no less than a three month look-ahead. Each Committee chairperson shall maintain said look-ahead calendar and submit same to the Board on a monthly basis.

The committee Chairperson shall record summary minutes of each committee meeting. The minutes of each committee meeting and any recommendation of a committee shall include a summary of the information presented.

All committee member absences will be considered by the majority of the committee members to determine whether or not the absence is without cause. Sickness, jury duty, vacation and/or bereavement will be considered excused absences. When three meetings in a row or a total of six meetings in one calendar year are missed the remaining committee members will consider

removal of the individual from the committee. The removal must be voted upon and approved by the majority of the committee members with the exception of the committee member in question.

Vacancies shall be reported to the full Board as soon as practically possible. Vacancies shall be filled by simple majority vote of the Board.

Committee Members shall comply with the obligations and responsibilities of office including the obligation to comply with the disclosure requirements of the Political Reform Act (Form 700). The reporting categories made applicable to the Directors by San Lorenzo Valley Water District's local conflict of code shall apply to the members of the committee members.

All committee communications must go through the designated committee chairperson.

A committee has jurisdiction to consider and make a recommendation to staff, other committees and to the Board regarding any item of business within the responsibility of the committee. Committee recommendations shall be communicated to the Board. A committee may consider other matters referred to it by the Board.

The Board may refer a recommendation back to any committee for reevaluation whenever the Board deems additional evaluation is required.

Each Standing Committee shall, as a minimum, be responsible for the following:

Administrative Committee

The Committee shall be responsible for matters of internal and external administrative matters including: communications, staffing and staff support; District's data gap grant programs; interagency relations; codes and policies, pending State and Federal legislation; and other administrative programs.

Budget and Finance Committee

The Committee shall be responsible for the review of District finances including: rates, fees, charges and other sources of revenue; budget and reserves; audit; investments; insurance; and other financial matters.

Engineering Committee

The Committee shall be responsible for the review matters of design, construction, replace and repair of the District facilities and property including: The Capital Improvement Program; Master Plans and other engineering, operational and planning related matters.

Environmental Committee

The Committee shall be responsible for matters of stewardship of the District's property including: Urban Water Management Plans; Water Conservation Programs; Classis Watershed Education Grants; Watershed Management; Resource Management and other environmental related matter.

Lompico Assessment District Oversight Committee

The Committee shall be responsible to review matters of revenue and expenses directly related to Assessment District 2016-1 projects.

15. MEETING STIPENDS

Each Director may receive compensation as established by resolution of the Board of Directors. Pursuant to California Water Code section 30507, each Director may receive compensation in an amount not to exceed one hundred dollars ($100.00) per day for each day's attendance at meetings of the Board, or for each day's service rendered as a Director by request or approval of the Board, not to exceed six hundred dollars ($600.00) in any calendar month.

Consistent with California Water Code section 30507, by resolution of the Board of Directors, the District has established the following per day (daily meeting stipend) for each day's attendance at meetings, as defined herein. Such compensation is in addition to any approved reimbursement for meals, lodging, travel and other expenses consistent with the policies stated herein.

a) To be entitled to a daily meeting stipend of one hundred dollars ($100.00), the event in question must constitute one of the following:

   1. A meeting of the San Lorenzo Valley Water District Board of Directors within the meaning of California Government Code section 54952(a); or

   2. Any meeting attended or service provided on a given day at the formal request of the District Board of Directors, and for which the Board at a public meeting approved payment of a daily meeting stipend.

b) To be entitled to a daily meeting stipend of twenty five dollars ($25.00), the event in question must be a meeting of a designated District standing committee within the meaning of California Government Code section 54952(b). Only Directors appointed to the District standing committees shall be entitled to said daily meeting stipend.

16. TRAINING, EDUCATIONAL PROGRAMS, CONFERECENCES AND MEETINGS

The Board of Directors has determined that the following provisions shall be applicable to Director training, educational programs, conferences and meetings:

A) Directors are encouraged to attend educational conferences and professional meetings when the purposes of such activities are to improve District operation. Directors may attend, on behalf of the District, such training, educational programs, conferences and meetings as have been approved by the Board of Directors.

B) It is the policy of the District to encourage Board development and excellence of performance by reimbursing necessary and reasonable expenses incurred for tuition, travel, lodging and meals as a result of training, educational courses, participation with professional organizations, and attendance at local, state and national conferences associated with the interests of the District. Cash advances or use of District credit cards for these purposes is not permitted. All reimbursement of actual and necessary expenses shall be pursuant to District policy on expenditure reimbursement as stated herein.

C) Attendance by Directors at seminars, workshops, courses, professional organization meetings, and conferences etc. shall be approved by the Board of Directors at a public meeting prior to incurring any authorized reimbursable costs.

D) The District Manager or designee is responsible for making arrangements for Directors for conference and registration expenses, and for per diem. Per Diem, when appropriate, shall include reimbursement of expenses for meals, lodging, and travel. All expenses for which reimbursement is requested by Directors, or which are billed to the District by Directors, shall be submitted to the District Manager, together with validated receipts.

E) To conserve District resources and keep Directors' reimbursement expenses for training, educational programs, conferences and meetings within community standards for public officials, reimbursement expenditures should adhere to the following guidelines. Expenses to the District for Board of Directors' training, education programs, conferences and meetings should be kept to a minimum by:

1. Utilizing hotel(s) recommended by the event sponsor in order to obtain discounted rates.

2. Traveling together whenever feasible and economically beneficial.

3. Requesting reservations sufficiently in advance, when possible, to obtain discounted air fares and hotel rates.

F) A Director shall not attend a conference or training event for which there is an expense to the District if it occurs after the Director has announced a pending

resignation, or if it occurs after an election in which it has been determined that a Director will not retain a seat on the Board. A Director shall not attend a conference or training event when it is apparent that there is no significant benefit to the District.

G) Whenever a Director who has not previously attended a particular conference or educational program is available to attend same, that Director shall have preference for attendance over a Director who has previously attended the same program.

H) Upon returning from seminars, workshops, conferences, etc., where expenses are reimbursed by the District, Directors will either prepare a written report for

distribution to the Board, or make a verbal report during the next regular meeting of the Board. The report shall detail what was learned at the session(s) that will be of benefit to the District. Materials from the session(s) may be delivered to the District office to be included in the District library for the future use of other Directors and staff.

l) Nothing in this policy shall permit the conduct of business in violation of the Ralph M. Brown Act when more than three (3) Directors attend the same event.

17. EXPENDITURE REIMBURSEMENT

The purpose of this policy is to prescribe the manner in which members of the San Lorenzo Valley Water District Board of Directors may be reimbursed for expenditures related to approved District business. The District shall adhere to California Government Code sections 53232 through 53232.4 or as amended when dealing with issues of expenditure reimbursements for Directors. This policy shall apply to all members of the Board of Directors, and is intended to result in no personal gain or loss to a Director.

Directors may be reimbursed for out-of-pocket expenditure(s) relative to reasonable and necessary costs associated with appropriate District business. The Board of Directors must provide approval for said District business at a public meeting prior to incurring any authorized reimbursement costs.

Directors are eligible to receive reimbursements for travel, meals, lodging, and other reasonable and necessary expenses associated with approved District business. Reimbursement rates shall coincide with guidelines established herein, or rates set by Internal Revenue Service Publication 1542 or its successor publication(s), whichever are greater.

If lodging is in connection with a prior approved event, such lodging costs shall not exceed the maximum group rate published by the conference or activity sponsor. If the published group rate is unavailable, Directors shall be reimbursed for comparable lodging at government or IRS rates.

If travel is in connection with a prior approved event, the most economical mode and class of transportation reasonably consistent with scheduling needs must be used, using the most direct and time-efficient route. Directors shall use government or group rates offered by the event provider of transportation when available. If the group rate is unavailable, Directors shall be reimbursed for comparable travel at government or IRS rates.

Directors shall submit their requests for reimbursement on a form approved by the District Manager. The reimbursement form shall include an explanation of the District-related purpose for the expenditure(s). Receipts documenting all expenditure are required to be submitted in conjunction with the expense report form. Failure to submit necessary receipts will result in denial of the reimbursement claim. Expense reports shall be submitted within a

reasonable time, and at no time more than fourteen (14) calendar days after incurring the expense. The District Manager will review and approve reimbursement requests.

Any and all expenses that do not fall within the adopted travel reimbursement policy or the IRS reimbursable rates are required to be approved by the Board of Directors in a public meeting prior to the expense(s) being incurred. Expenses that do not adhere to the adopted travel reimbursement policy or the IRS reimbursable rates, and that do not receive prior approval from the Board of Directors in a public meeting prior to the expense being incurred, shall not be eligible for reimbursement.

State law provides criminal penalties for misuse of public resources, which includes falsification of expense reports. Penalties include fines, imprisonment, and restitution.

18. PERSONNEL POLICIES

A) PERSONNEL SYSTEM RULES AND REGULATIONS

San Lorenzo Valley Water District is committed to the provision of an orderly, equitable and uniform personnel system. The Board of Directors by resolution shall establish written rules and regulations for the administration of the personnel system. Personnel system rules and regulations shall be reviewed at the Board of Directors meeting in December of each calendar year or as soon thereafter as reasonable.

B) SEXUAL HARASSMENT

The San Lorenzo Valley Water District is committed to creating and maintaining a work environment free of objectionable and disrespectful conduct and/or communication of a sexual nature and prohibits sexual harassment by all employees and the Board of Directors. The Board of Directors by resolution shall establish a written policy and procedure manual relative to sexual harassment. The District's sexual harassment policy shall be reviewed at the Board of Directors meeting in December of each calendar year or as soon thereafter as reasonable.

Conduct which creates an intimidating, hostile or offensive work environment will not be tolerated. Verbal behavior, physical behavior, gestures and other non-verbal behavior which create said environment will not be tolerated. Any employee or member of the public who feel that they have been or are being harassed by a Director is strongly encouraged to immediately report such incident to the District Manager without fear of reprisal regardless of the outcome of the complaint. The District Manager shall assign the investigation of the alleged misconduct to an outside party such as an attorney or law firm experienced in such matters. The District Manager shall notify the President of the Board of Directors of said alleged misconduct. Thereafter, the President, at the next meeting of the Board of Directors, shall report the facts and nature of the allegations to the entire Board of Directors.

If the Director charged with sexual harassment is the President of the Board of Directors, the District Manager shall report the fact and nature of the allegation(s) to the entire Board of Directors at its next meeting.

If an allegation of sexual harassment against a Director is investigated and found to be supported, the Board of Directors reserves the right to take such remedial action as is appropriate under all of the circumstances, including, if warranted, initiating an action for recall of such Director. The Directors agree that an accusation of sexual harassment against any one of them must be investigated. It is further agreed that such an investigation is not an invasion of their right of privacy.

C) NONDISCRIMINATION

The District shall not unlawfully discriminate against qualified employees or job applicants on the basis of age, sex, race, color, creed, religion, national origin, ancestry, marital status, sexual orientation, physical or mental disability, veteran status, or status with regard to public assistance. Equal opportunity shall be provided to all qualified employees and applicants in every aspect of personnel policy and practice.

All employees are expected to carry out the responsibilities in a manner that is free from discriminatory statements or conduct.

D) REASONABLE ACCOMMODATION-AMERICANS WITH DISABILITIES ACT

Pursuant to the Americans with Disabilities Act, employers have a duty to reasonably accommodate employees and job applicants with known disabilities. This accommodation is not required for individuals who are not otherwise qualified for the job nor is accommodation generally required until the person with the disability requests it. The following optional regulation includes procedures recommended by the Equal Employment Opportunity Commission for use when determining what accommodation to make.

Requests for reasonable accommodation may first be considered informally by the site administrator. If an accommodation cannot be made at the site because it would impose undue hardship or because of a lack of funds, the site administrator shall ask that the request be submitted in writing to the General Manager. The site administrator shall provide the employee or applicant with any assistance he/she may need in order to submit this request.

The duty to reasonably accommodate an individual with a disability is limited to those accommodations which do not impose an undue hardship upon the district.

Undue hardship is determined on a case-by case basis and includes any action that is unduly costly, extensive, substantial, disruptive, or that fundamentally alters the nature or operation of the agency. The burden of proving undue hardship rests with the agency, and what may be an undue hardship for one agency may not be

an undue hardship for another, depending on factors such as cost and agency size. Even if cost does pose an undue hardship, the disabled person should have the opportunity to pay for the portion of the cost that constitutes an undue hardship, or to personally provide the accommodation.

19. CONFLICT OF INTEREST CODE

Pursuant to provision of California Government Code section 81,000 et seq., commonly known as the Political Reform Act, the District shall adopt and maintain a Conflict of Interest Code. The Conflict of Interest Code and, any amendments thereto shall be adopted by resolution of the Board of Directors. The Board of Directors shall review the adopted Conflict of Interest Code on a bi-annual basis. At a regularly scheduled Board of Directors meeting in September of each even-numbered year, the Board of Directors shall review its Conflict of Interest Code and, if amendments are needed, shall submit said amendments to the Santa Cruz County Board of Supervisors in accordance with applicable deadlines. If no amendments are needed, the Board of Directors shall submit a written statement saying that its Conflict of Interest Code is still accurate.

20. RESIGNATIONS

Resignations by Directors shall be in writing, state the effective date and be submitted to the President of the Board of Directors and District Secretary. In the event the President of the Board of Directors resigns, the resignation shall be submitted to the Vice-President of the Board of Directors and the District Secretary.

21. VACANCIES

Directors are expected to carry out their responsibilities to the best of their abilities. In order to accomplish this goal, Directors should be present for scheduled meeting or events whenever possible. In accordance with California Government Code section 1770 a Director position vacancy will occur whenever "he or she ceases to discharge the duties of his or her office for the period of three consecutive months, except when prevented by sickness", or when absent from the Board of Directors without the permission of the majority of the Board of Directors.

If such vacancy occurs, the Board of Directors will take action in accordance with California Government Code section 1770.

In order to accomplish this in an orderly and consistent manner, when a vacancy of an elected Director occurs, the District Board of Directors, after discussion and consideration, shall when deemed appropriate, instruct staff to:

A) Place a public notice advising that a vacancy has occurred in accordance with applicable provisions of law; and

B) Said notice shall advise prospective candidates of the steps to take to apply for appointment; and

C) The District's Board of Directors shall establish the closing date for the receipt of applications; and

D) Applicants shall submit the following, by the date specified in the notice:

a) a letter of interest, and

b) a resume, with particular emphasis on the applicant's knowledge of special districts, and

E) Applicant(s) shall be interviewed at the next regularly scheduled meeting of the District's Board of Directors following the date of closure for applications; and

F) The District's Board of Directors shall make the appointment without undue delay, but need not act at the same meeting.

22. INCONSISTENT, INCOMPATIBLE AND CONFLICTING EMPLOYMENT OR ACTIVITIES

Pursuant to the provision of the California Government Code section 1126, the Board of Directors of the San Lorenzo Valley Water District has determined that it would be inconsistent and incompatible for a Board member to be a paid employee of the District. Therefore, based on this decision, a member of the Board of Directors shall not be a paid District employee.

23. DIRECTORS' LEGAL LIABILITIES

The District shall defend and indemnify Directors from any claim, liability or demand that arises out of a Director's performance of his or her duties or responsibilities as a Director or Officer of the District.

24. INVESTMENT POLICY

San Lorenzo Valley Water District is committed to the establishment of formal policies relative to the prudent investment of the District's unexpended cash. The Board of Directors by resolution shall establish written guidelines for the investment of all San Lorenzo Valley Water District funds or funds in the custody of the District, in a manner which conforms to all

state and local statutes governing the investment of public funds. Said guidelines shall provide for an optimal combination of safety, liquidity and yield. The District's Investment Policy and, any amendments thereto, shall be adopted by resolution of the Board of Directors. The Investment Policy shall be reviewed at the Board of Directors meeting in December of each calendar year or as soon thereafter as reasonable.

25. ANNUAL DISCLOSURE OF REIMBURSEMENTS

The District shall annually disclose any reimbursements paid by the San Lorenzo Valley Water District of at least one hundred dollars ($100.00) for each individual charge for services or products received. The Board of Directors shall review said reimbursement information for the preceding fiscal year (July 1 - June 30) at a regularly scheduled Board of Directors meeting in September of each calendar year.

26. GENERAL PROVISIONS

Any of the within policies not required by law may be altered, amended, or repealed by a majority of the Board at a duly authorized meeting.

27. ANNUAL REVIEW

This Board of Directors Policy Manual shall be reviewed annually by District Counsel and ratified by Resolution of the Board of Directors at the Board of Directors meeting in December of each calendar year or as soon thereafter as reasonable.

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*** END ***

Edits by Bob Fultz, Director

SAN LORENZO VALLEY WATER DISTRICT

BOARD OF DIRECTORS POLICY MANUAL 2017

ADOPTED

December 15, 2016

RESOLUTION NO. 19 (16-17)

MODIFICATIONS TO POLICY MANUAL SINCE LAST FULL BOARD APPROVAL

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1. MISSION STATEMENT

"Our mission is to provide our customers and all future generations with reliable, safe and high quality water at an equitable price; to create and maintain outstanding customer service; to manage and protect the environmental health of the aquifers and watersheds; and to ensure the fiscal vitality of the San Lorenzo Valley Water District".

Adopted by the Board of Directors of the San Lorenzo Valley Water District on June 2, 2000.

The mission of the San Lorenzo Valley Water District will be accomplished through the implementation of the following objectives:

OBJECTIVE I; STAFFING

Provide an efficient and adequate staff of employees and consultants, dedicated to the District mission and responsive to the Board. Provide staff and consultants with proper resources.

OBJECTIVE II; COMMUNICATIONS

Establish and maintain an environment that encourages the open exchange of ideas and information between Board members, staff and the public that is positive, honest, concise, understandable, responsive and cost-efficient.

OBJECTIVE III; EDUCATION

Develop and maintain comprehension and competence regarding issues that come before the Board of Directors and Staff. Ensure the District's customers are informed regarding the benefits of safe operations, proper claims procedures, District operations and conservation.

2. AUTHORITY OF BOARD

A) The Board of Directors shall act only at regular, regularly adjourned, or special meetings, as provided by State Law.

B) Individual Directors shall have no power to act for the San Lorenzo Valley Water District, or the Board of Directors, or to direct District staff, except as authorized by the Board of Directors.

C) Until a quorum is present there can be no meeting of the Board of Directors. The presence of a minimum of 3 Board members is required to constitute a quorum of the Board of Directors.

3. CODE OF ETHICS AND CONDUCT

The Board of Directors of the San Lorenzo Valley Water District is committed to providing excellence in legislative leadership that results in providing the highest quality services to its constituents. The Board of Directors is expected to maintain the highest ethical standards, to follow District policies and regulation, and to abide by all applicable local, state and federal laws. Board of Directors conduct should enhance the integrity and goals of the District. In order to assist in the governing of behavior between and among members of the Board of Directors, the following rules shall be observed:

A) The dignity, style, values and opinions of each Director shall be respected.

B) Responsiveness and attentive listening in communications is encouraged.

C) The needs of the District's constituents shall be the priority of the Board of Directors.

D) The primary responsibility of the Board of Directors is the formulation and evaluation of policy. Routine matters concerning the operational aspects of the District are to be delegated to staff members of the District.

E) Directors should commit themselves to emphasizing the positive.

F) Directors should commit themselves to focusing on issues and not personalities. The presentation of the opinions of others should be encouraged.

G) Differing viewpoints are healthy in the decision-making process. Individual Directors have the right to disagree with ideas and opinions, but without being disagreeable. Once the Board of Directors takes action, Directors should commit to supporting said action and not to creating barriers to the implementation of said action.

H) Directors should practice the following procedures:

1. In seeking clarification on informational items, Directors may directly approach the District Manager to obtain information needed to supplement, upgrade, or enhance their knowledge to improve legislative decision-making.

2. In handling complaints or inquiries from residents and property owners of the District, said complaints should be referred to the District Manager and may be followed up by the Board of Directors.

3. In handling items related to safety concerns, hazards should be reported to the District Manager. Emergency situations should be dealt with immediately by seeking appropriate assistance.

4. In seeking clarification for policy-related concerns, especially those involving personnel, legal action, land acquisition, sale or development, finance, and programming, said concerns should be referred directly to the District Manager.

I) When approached by District personnel concerning specific District policy, Directors should direct inquiries to the District Manager.

J) The work of the District is a team effort. All individuals should work together in the collaborative process, assisting each other in conducting the affairs of the District.

K) When responding to constituent requests and concerns at board meetings, the Board President's discretion determines the amount of time for comments. Specific questions or concerns will be directed to the District Manager for future action by the Board or staff. Directors should be courteous, responding to individuals in a positive manner and routing their questions through appropriate channels and to responsible management personnel.

L) Directors should develop a working relationship with the District Manager wherein current issues, concerns and District projects can be discussed comfortably and openly.

M) Directors should function as a part of the whole. Issues should be brought to the attention of the Board of Directors as a whole, rather than to individual members selectively.

(N) Members' interaction with public, press or other entities must recognize the limitation of any Board member to speak for the Board except to repeat explicitly stated Board decisions, while respecting the right of Board members to express individual opinions.

O) Directors are responsible for monitoring the District's progress in attaining its goals and objectives, while pursuing its mission.

P) The Board will further inform itself, individually and collectively, through ongoing outreach to determine community wishes and through continuing education on issues relevant to the District.

Q) Continual Board development will include orientation of new Board members in the Board's governance process and periodic Board discussion of process improvement.

4. ETHICS TRAINING

Pursuant to California Government Code section 53234 et seq. or as amended, all Directors shall receive two (2) hours of training in general ethics principles and ethics laws relevant to public service within one (1) year of election or appointment to the Board of Directors, and at least once every two (2) years thereafter. All ethics training shall be provided by entities whose curriculum has been approved by the California Attorney General and the Fair Political Practices Commission. The District Manager and any other employee(s) of the District designated by the Board of Directors shall also receive the ethics training specified herein. The District shall maintain records indicating the name of the entity that provided the training and the dates ethics training was completed. Records shall be maintained for a period of at least five (5) years after the date on which the training was received. These records are public records subject to disclosure under the California Public Records Act.

5. GOVERNING LAWS

The Board of Directors shall comply with and shall be guided by applicable provisions of Federal laws; State laws, including the Water Code, Government Code, Section 1090 of the Government Code, Elections Code and Public Resources Code; this Policy Manual, and the rules and regulations of the District as established by the motions, resolutions and ordinances enacted by the Board of Directors. Motions, resolutions and ordinances may be enacted by the Board in accordance with Water Code section 30523 or as amended.

6. ELECTION OF OFFICERS

There shall be two (2) officers: a president and a vice president, who shall be members of the District Board of Directors. Election of officers shall be held at a Board of Directors meeting in December of each calendar year. Officers will serve for a one (1) year term. Elections will conform to the applicable provisions of this Policy Manual.

Deleted: the

7. ROLE OF THE BOARD POWERS, DUTIES AND FUNCTIONS

A) POWERS

The Board of Directors is responsible for the establishment of policy and general control of the District. This broad authority shall be exercised in accordance with all applicable federal, state and local laws and regulations. The Board of Directors may execute any powers delegated by law to the District, and shall discharge any duty imposed by law upon the District.

The enabling codes established by the California State Legislature empowers the Board of Directors to have broad authority and flexibility in carrying out financial programs and activities which meet its individual needs, provided these programs or activities are not in conflict with, inconsistent with, or preempted by law.

B) DUTIES

The primary duties of the Board of Directors are as follows:

1. Take action at legal meetings.
2. Establish and periodically review written policies for District operation and administration.
3. Be responsible for all District finances.
   a. Approve fiscal budget.
   b. Monitor the budget spending.
4. Set rates, fees and charges for District services.
5. Personnel
   a. Hire and discharge General Manager and Legal Counsel. b. Annually evaluate the General Manager and Legal Counsel.
6. Establish written policy on how Board of Director's Meetings are conducted.
7. Review and revise the Master Plan for the District.
8. Ratify committee appointments made by the President.
9. Establish Director compensation limits.

C) FUNCTIONS

The powers and duties of the Board of Directors include governance, executive and quasi-judicial functions. These relate to the Board's own operations as a governing body and to all functions of the District.

1. GOVERNANCE FUNCTIONS

To fulfill its responsibility, the Board is committed to establishing policies to govern District activities. The Board of Directors shall consider and approve or disapprove matters submitted to it by a Director, Staff or the public. The Board of Directors shall prescribe rules for its own governance which are consistent with its "enabling code" or by Federal or State Laws and regulations.

2. EXECUTIVE FUNCTIONS

The Board of Directors is authorized to delegate any of its powers and duties to an officer or employee of the District. The Board of Directors; however, retains ultimate responsibility over the performance of those powers or duties so delegated.

3. QUASI-JUDICIAL FUNCTIONS

The Board of Directors desires that public complaints be resolved at the lowest possible administrative level. The method of resolving public complaints shall be as follows:

a. The individual with a complaint shall first discuss the matter with the District Manager. If this individual registering the complaint is not satisfied with the disposition of the complaint by the District Manager, said complaint may be filed with the Board of Directors.

b. The Board of Directors may consider the matter at a subsequent regular meeting or call a special meeting. The Board of Directors will expeditiously resolve the matter.

c. This policy in no way prohibits or intends to deter a member of the public from appearing before the Board of Directors to present a verbal complaint or statement in regards to actions of the Board of Directors, District programs or services, or impending considerations of the Board of Directors.

8. ROLE OF INDIVIDUAL DIRECTORS

The Board of Directors is the unit of authority for the District. Apart from their normal function as a part of this unit, individual Directors may not commit the District to any policy, act or expenditure unless duly authorized by the Board of Directors. Nor may an individual Director direct staff to perform specific duties unless duly authorized by the Board of Directors. Directors do not represent any factional segment of the constituency, but are, rather, a part of the body which represents and acts for the constituency as a whole.

A) Each Director has the right to place items on a subsequent Board of Directors Meeting, subject to scheduling by the Board president. The deadline for submittal of an agenda item by a Director shall be the preceding Wednesday at 5:00 p.m. before the scheduled Board of Directors meeting date at the office of the District Secretary. Agenda item requests received after the submittal deadline for a specific agenda will be added to the next following regularly scheduled agenda, subject to scheduling by the Board president.

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B) Directors will make every effort to attend assigned Board of Directors and Committee meetings:

1. To prepare adequately for each such meeting;
2. To observe the rules of decorum as set forth herein; and
3. Whenever any individual Directors will be absent or late for a Board of Directors or Committee meeting said Director shall notify the District Secretary or Board President at the earliest opportunity.

C) When requesting information from staff, Directors shall contact the District Manager. When responding to constituent requests and concerns, Directors should reroute such inquiries to the District Manager.

D) Each Director shall decide individually on what contact information will be released by District staff to the general public. In order to accomplish this in an orderly and consistent manner, each Director shall provide the District Secretary with a completed and signed Director Contact Authorization Form. Directors shall be responsible for any and all updates and amendments to said Director Contact Authorization Form.

9. BOARD OF DIRECTORS MEETINGS

A) REGULAR TIME AND PLACE OF MEETINGS

Regularly scheduled meetings of the Board of Directors shall be held, on the first (1st) and third (3rd) Thursday of each month at 5:30 pm; at the District Operations Building, 13057 Highway 9, Boulder Creek, CA, unless otherwise specified by action of the Board of Directors. Special meetings of the Board of Directors, as that term or its successor terms are defined within the meaning of the Ralph M. Brown Act (California Government Code section 54950 et seq.), may be duly authorized and held as deemed necessary by the President or a majority of the Board of Directors. Notice and location of special meetings shall be as prescribed by law. Emergency meetings of the Board of Directors, as that term or its successor terms are defined within the meaning of the Ralph M. Brown Act, may be duly authorized and held as deemed necessary only by a majority of the Board of Directors. Notice and location of emergency meetings shall be as prescribed by law.

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B) PUBLIC NATURE OF MEETINGS

All meetings of the Board of Directors shall be open to the public, except when the Board is convened in Closed Session as authorized under provisions of the Ralph M. Brown Act (California Government Code section 54950 et seq.).

C) QUORUM AND VOTING REQUIREMENTS

The presence of three (3) or more Directors shall constitute a quorum for the transaction of District business. No ordinance, resolution or motion shall be passed by the Board of Directors without a majority vote of the Board, unless otherwise required or prescribed by State law. (See for example, Government Code section 54954.2, Board Policy Manual subparagraph K, below.)

D) BOARD ACTION

The Board of Directors shall act only by ordinance, resolution, or motion. Except where action is taken by the unanimous vote of all Directors present and voting, the ayes and noes shall be taken upon the passage of all ordinances, resolutions or motions and shall be entered in the minutes. An ordinance does not require two readings at separate meetings unless otherwise prescribed by law. Unless otherwise provided by its own terms, all ordinances, resolutions and motions shall become effective upon adoption. Any member of the Board of Directors, including the President, can make a motion. Motions require seconds. The President may vote on all motions unless disqualified or abstaining. The President shall not call for a vote on any motion until sufficient time has been allowed to permit any and all members of the Board of Directors to speak. Complex motions should generally be prepared in writing and read aloud to the members of the Board of Directors at the time the motion is made. If a motion is not in writing, and if it is necessary for full understanding of the matter before the Board of Directors, the President shall restate the question prior to the vote. Common motions may be stated in abbreviated form, and will be put into complete form in the minutes. Until the President states the question, the maker may modify their motion or withdraw it completely. However, after the President has stated the question, the motion may be changed only by a motion to amend which is passed by a majority vote of the Board of Directors.

The President of the Board may at any time, during debate or otherwise, declare a recess. Declaration of a recess shall not be subject to any motions.

E) PARLIAMENTARY PROCEDURES

Unless otherwise inconsistent with any provision stated herein, Parliamentary Procedure for Board of Directors meetings shall be based upon the current edition of Robert's Rules of Order Newly Revised. No action of the Board of Directors shall be deemed invalid for the reason that said action was not in conformance with Robert's Rules of Order Newly Revised.

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F) ROUTINE BUSINESS

Matters of routine business such as approval of the minutes and approval of minor matters may be expedited by assuming unanimous consent of the members of the Board of Directors and having the President state that without objection the matter will stand approved. Should any Director object to such unanimous consent, the President shall then call for a vote.

G) ORDERLY DISCUSSION

In order to promote discussion of the issues before the Board of Directors, each Director shall be recognized by the chair before speaking. Notwithstanding any provision of this Policy, however, each Director shall have a right to be heard within reason on any issue before the Board of Directors. Each Director may seek information or comment by the staff on any question.

H) CLOSED SESSION

Except as provided by law, all proceedings in Closed Sessions shall remain confidential.

I) MEETING AGENDAS

The District Manager, in consultation with the Board President, shall be responsible for the preparation of a written agenda for each regular meeting and/or special meeting of the Board of Directors as those terms or its successor terms are defined by the Ralph M. Brown Act (California Government Code section 54950 et seq.). The District Manager and the Board President shall meet, annually, in January of each calendar year to identify recurring items of business which should be placed on written agendas at appropriate times during the coming year. The District Manager, in consultation with the President, shall be responsible for the preparation of a written agenda for each regular meeting and/or special meeting of "other legislative bodies," of the San Lorenzo Valley Water District, as those terms or its successor terms are defined by the Ralph M. Brown Act. Any Director may request that an item be placed on the agenda for a regular meeting of the Board of Directors. The District Secretary shall be responsible for the posting of the appropriate notice and agenda for all meetings of the Board of Directors and/or "other legislative bodies."

A copy of the agenda for each regular meeting of the Board of Directors shall be forwarded to each Board member, at least three (3) days in advance of each regular meeting, together with copies of all applicable supporting documentation; minutes to be approved; staff report; and other available documents pertinent to the meeting. Directors shall review agenda materials before each meeting. Individual directors may confer directly with the District Manager to request additional information on the agenda items.

J) ORDER OF BUSINESS

As a practice for normal business. The Board President may rearrange this order at any time. Introductory language for each agenda section may be modified by action of the Board of Directors from time to time. Changes to the introductory language for each agenda section shall take effect at the next Board of Directors meeting.

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1. Convene Meeting, Roll Call.
2. Additions and Deletions to Closed Session Agenda.

3. Public Comment Related to items on the Closed Session Agenda
4. Adjournment to Closed Session.
5. Reconvene to Open Session at 6:30 PM (time-certain).
6. Closed Session report.
7. Additions and Deletions to Open Session Agenda.
8. Public Comment on any topic within the jurisdiction of the District and which is not on the Open Session Agenda.
9. Unfinished Business.
10. New Business.
11. Consent Agenda
12. District Reports
    a. District Manager Report
    b. Department Status Reports
    c. Committee Reports
    d. Director Reports
13. Written Communications
14. Informational Material.
15. (If applicable) Adjournment to Closed Session.
16. (If applicable) Reconvene to Open Session to Report Actions Taken in Closed Session.
17. Adjournment

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K) ADDITIONS AND DELETIONS TO AGENDA

Additions to the Agenda, if any, shall be made in accordance with California Government Code Section 54954.2 or as amended (Ralph M. Brown Act), which includes, but is not limited to, additions for which the need to take action is declared to have arisen after the agenda was posted, as determined by a two-thirds vote of the Board of Directors. If less than two-thirds of the members are present a unanimous vote of those members present is required.

L) PUBLIC COMMENT

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The Board of Directors encourages public participation in the governance of the District through public comment periods. In order to present, members of the public must first be recognized by the president.

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1. If the Board meeting has a Closed Session agenda, members of the public may comment on or ask questions about the items which are on the Closed Session portion of each agenda. Comments or questions may be submitted in writing or orally. If in writing, the entire written communications will be placed in the minutes. If orally, members of the public may have to up to five (5) minutes (unless time is shortened by the President due to circumstances–e.g., in the event of a large number of people wishing to comment orally) to present to the Board of Directors. The President may extend this time at his or her discretion–e.g., in order to allow for a wrap up of the presentation. Oral comments will be summarized and included in the minutes if the member of the public provides his or her name at the beginning of their comment time.

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2. Prior to the start of the Open Session agenda, members of the public may comment on or ask questions about topics which are within the jurisdiction of the District and which are not on the Open Session portion of the agenda. It is the objective of the Board to have as close to a normal conversation with members of the public as possible while still conforming to the requirements of the Brown Act. This means that the Board cannot take action or discuss a topic or question in depth during this meeting (Ralph M. Brown Act Section 54954.3 or as amended). However, the Board can ask clarifying questions in order to make sure that it understands questions or comments. The Board can discuss how to best handle questions or comments. All questions will be answered either in real-time (by the Board or Staff) or at a later time, unless the questions relate to confidential topics. If a question is answered in real-time, the Board President will ask if the question was answered and, if not, allow a short follow-up request for clarification. If a question cannot be answered in real-time, it will be answered and included in the minutes for that meeting which will be published at a later time. In addition, the Board may agendize a public comment item for a future Board meeting if that seems appropriate or the Board may send the item to committee for follow-up and possible action. Comments and/or questions may be submitted in writing or orally. If in writing, the entire written communications will be placed in the minutes. If orally, members of the public may have to up to five (5) minutes (unless time is shortened by the President at his or her discretion due to circumstances–e.g., in the event of a large number of people wishing to comment orally) to present to the Board of Directors. The President may extend this time at his or her discretion–e.g., in order to allow for a wrap up of the presentation. Oral comments will be summarized and included in the minutes if the member of the public provides his or her name at the beginning of their comment time. In the interests of respecting everyone's time, members of the public are encouraged to (i) avoid repeating someone

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else's point–just indicate agreement–and add new content and (ii) to avoid repetition during their comments.

In addition, members of the public may address each agenda item prior to Board disposition of that item, including items on the Consent Agenda. After presentation of the agenda item, the order of discussion will be: Board comment, public comment and then back to the Board for further deliberations. The Board President may establish a time limit for public comment on an agenda item and may also allow a second round of public comment at his or her discretion. In order to present, members of the public must first be recognized by the President.

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No member of the public shall approach the Board of Directors table while the Board is in session unless granted permission by the President or presiding officer. Proper decorum must be observed by Directors, staff, speakers and the audience at all times. The President or presiding officer shall preserve order and decorum, discourage personal attacks, and confine debate to the question under discussion. The President shall rule out of order any irrelevant, repetitive or disruptive comments. Please mute or turn off your electronic devices while the Board is in session.

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It is the policy of the Board of Directors to invite all members of the public to participate in the governance of the District and to provide wide latitude for the free expression of all points of view. However, the President, or a majority of the board, may eject from a meeting any person who becomes disorderly, abusive, or disruptive, or who fails or refuses to obey a ruling of the president regarding a matter of order or procedure. In addition, as a last resort, per California Government code 54957.9: *In the event that any meeting is willfully interrupted by a group or groups of persons so as to render the orderly conduct of such meeting unfeasible and order cannot be restored by the removal of individuals who are willfully interrupting the meeting, the members of the legislative body conducting the meeting may order the meeting room cleared and continue in session. Representatives of the press or other new media, except those participating in the disturbance, shall be allowed to attend any session held pursuant to this section. Nothing in this section shall prohibit the legislative body from establishing a procedure for readmitting an individual or individuals not responsible for willfully disturbing the orderly conduct of the meeting.*

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The Oral Communications portion of the agenda is reserved for citizen communication on matters not otherwise on the agenda. Any person may address the Board of Directors on any subject that lies within the jurisdiction of the District during this portion of the agenda. Unless otherwise altered by the President or presiding officer, individual citizen communication during the Oral Communication portion of the agenda shall not exceed three (3) minutes in length and individuals may only speak once. The Ralph M. Brown Act (Section 54954.3 or as amended) prohibits any action being taken by the Board of Directors on any Oral Communications presented; however, the Board of Directors may request that the matter be placed on a future agenda. Each person addressing the Board of Directors shall be requested to give his or her name and address for the record, and designate the subject matter. Citizens may also address the Board of Directors on specific agenda items, including those on the consent agenda, only after first obtaining recognition by the President or presiding officer. Participation by interested citizens on specific agenda items

is subject to orderly procedure, including time limits and decorum established under the authority of the President or presiding officer and applicable law.

All communications by interested citizens, whether during Oral Communications, or other items on the agenda, shall be addressed to the Board of Directors as a single body and not to individual Board members, staff or members of the audience. No person other than the Board of Directors and the person having the floor shall be permitted to enter into discussion, either directly or through a director, without the permission of the President or presiding officer. No member of the public shall approach the Board of Directors table

while the Board is in session unless granted permission by the President or presiding officer. Proper decorum must be observed by Directors, staff, speakers and the audience. The President or presiding officer shall preserve order and decorum, discourage personal attacks, and confine debate to the question under discussion. The President or presiding

officer, or a majority of the board, may eject from a meeting any person who becomes disorderly, abusive, or disruptive, or who fails or refuses to obey a ruling of the president regarding a matter of order or procedure. The President shall rule out of order any

irrelevant, repetitive or disruptive comments. No cell phone operation or audible pager use is allowed in the Board of Directors chambers.

M) CONSENT AGENDA

The purpose of a consent agenda is to minimize the time required for the handling of any non-controversial matters. Consent agenda items are considered to be routine and non-controversial, with documentation provided to the Board of Directors that is adequate and sufficient for approval without inquiry or discussion. Any item on the consent agenda will be moved to the regular agenda upon request from individual Directors or a member of the public. Unless moved to the regular agenda, the consent agenda shall be voted upon as one single item without discussion or debate.

N) STUDY SESSIONS

Study sessions or workshop meetings are for the purpose of discussing an item(s) that may come before the Board at a later time for official action, to facilitate planning, or discussion of special topics of interest. Study sessions provide a more informal forum for the Board of Directors, staff and the public to engage in open-ended discussion and share information on a particular subject(s). No formal action(s) can be taken at a study session; direction can be given to staff regarding preparation of an agenda item for discussion and possible action at a subsequent meeting. From time to time, study sessions may be duly authorized as deemed necessary by the President or a majority of the Board.

O) WRITTEN COMMUNICATIONS

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The Written Correspondence portion of the agenda is established to act as a report of written materials received by the Board as a whole, but may also include items requested for inclusion by individual Directors or members of the public. Written Communications will always e presented in its entirety. Written Correspondence not presented in its entirety will be maintained by the District Secretary for a period of two (2) years.

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10. TECHNOLOGICAL CONFERENCING

Teleconferencing may be used for all purposes in connection with any meeting within the subject matter jurisdiction of any legislative body of the District. Teleconferencing is defined as a meeting of a legislative body of the District, the members of which are in different locations, connected by electronic means, through either audio or video, or both. If a legislative body of the District elects to use teleconferencing, it shall comply with all applicable requirements of the Ralph M. Brown Act (Section 54953, or as amended.)

11. PRESIDENT

A) DUTIES

The President shall sit as presiding officer and conduct all meetings of the Board of Directors, shall carry out the resolution and orders of the Board of Directors and shall exercise such other powers and perform such other duties as the Board of Directors shall prescribe; including the following:

1. Call the meeting to order at the appointed time.
2. Announce the business to come before the Board of Directors in its proper order.
3. Enforce the Board of Directors policies and rules with respect to the order of business and the conduct of meetings.
4. Recognize persons who desire to speak, and protect the speaker who has the floor from disturbance or interference.
5. Explain what the effect of a motion would be if it is not clear to every member of the Board of Directors.
6. Restrict discussion to the question when a motion is before the Board of Directors.
7. Rule on parliamentary procedure.
8. Put motions to a vote, and state clearly the results of the vote.

B) RESPONSIBILITIES

The President shall have all the rights to discuss and vote on any issues before the Board of Directors. The President shall have the following responsibilities:

1. Sign all instruments, acts, and carry out stated requirements and the will of the Board of Directors.
2. Consult with the District Manager on the preparation of the Board of Directors agendas. In addition, any Director shall have the right to place any matter on the agenda for any meeting in accordance with the provisions of this policy.
3. Appoint and disband all committees, subject to Board of Directors approval.
4. Call such meetings of the Board of Directors as they may deem necessary, giving notice as prescribed by law.
5. Confer with the District Manager and/or District Counsel on matters which may occur between Board of Directors meetings.

6. Be responsible for the orderly conduct of all Board of Directors meetings.

7. Act as spokesperson for the Board of Directors.

8. Coordinate and prepare the Board of Directors annual evaluation of the General Manager and Legal Counsel.

9. Other duties as authorized by the Board of Directors.

12. VICE-PRESIDENT

When the President resigns or is absent or disabled, the Vice President shall perform the President's duties. When the President disqualifies himself/herself from participating in an agenda item, the Vice-President shall perform the duties of the presiding officer.

13. MINUTES

All Board of Directors meetings and committee meetings will be audio recorded and made available through the District's website. Said audio record shall be subject to inspection in accordance with State Laws, including the California Public Records Act.

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In addition, the District Secretary shall record the minutes for Board of Directors meetings and committee meetings which shall also be posted on the District's website.

The minutes shall be of the form of summary minutes and will include the following information: the time the meeting was called to order, the names of the Directors (or, as appropriate, the committee members) attending the meeting, the vote (roll call or voice) on each matter considered at the meeting, the time the Board of Directors began and ended any closed session, the names of the Directors and the names, and titles where applicable, of any other persons attending any closed session, a list of those members of the public who spoke on each matter if the speakers identified themselves, whether such speakers supported or opposed the matter, a brief summary of each Board member's and public members statement during the public comment period for each agenda item (if they identified themselves), and the time the meeting was adjourned. Any person speaking during a public comment period may supply written comments which shall be included in the minutes.

The draft minutes of each meeting shall be available for inspection and copying upon request no later than ten working days after the meeting, unless circumstances prevent meeting that goal in which case the minutes shall be available as soon as possible. The officially adopted minutes shall be available for inspection and copying upon request no later than ten working days after the meeting at which the minutes are adopted, unless circumstances prevent meeting that goal in which case the minutes shall be available as soon as possible.

Changes to this section shall take effect at the next Board of Directors meeting.

14. COMMITTEES

The Board shall organize committees that are advisory to the Board with regard to matters within their respective areas of responsibility.

The five District standing committees are as follows: Administrative, Budget & Finance, Engineering, Environmental and Lompico Oversight. Each standing committee shall have no power or authority to commit the District or to take any action on behalf of the Board of Directors. Standing Committees shall hold meetings at such times, frequency and locations as deemed necessary by consensus of the committee members. Committees are encouraged to meet at least monthly.

Committee meetings shall be held in accordance with the provisions of the Ralph M. Brown Act. In order to promote attendance by Directors at Committee meetings without inadvertently creating a violation of the Ralph M. Brown Act, Directors that are not members of a committee are discouraged from attending but may attend as observers, and, if attending, shall not participate at the Committee's meeting.

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Committee appointments will be reviewed by the full Board at a Board of Director's meeting in December of each Calendar Year, or as soon thereafter as practical. Applications to serve as a Public Member will be available at the District's Office or on-line at the District's

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website (www.slvwd.com). Public Member Applications will be reviewed by the full Board. Each committee member shall be appointed by a simple majority vote of the Board.

Administrative, Budget & Finance, Engineering, Environmental Committees may have no more than two Board Members and at least one Public Member. If more than one public member applies to serve on an individual committee, the full Board shall vote to determine which public member shall be seated on that committee for the year or may choose to appoint more than one public member to a committee by adjusting the size of the committee appropriately. At any time, the Board may also choose to appoint additional public members to any standing committee.

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The Lompico Oversight Committee may have no more than five Public Members. Public members serving on the Lompico Oversight Committee shall have a residential mailing address within Assessment District 2016-1.

Members of the committees serve at the pleasure of the Board. Each committee shall designate their own chairperson. For the Administrative, Budget & Finance, Engineering and Environmental Committees the chairperson shall be a member of the Board. Each committee may elect a vice- chairperson. Members of committees, including the chairperson and vice-chairperson shall serve until their successors are appointed. The chairperson of a committee is its presiding officer and shall be responsible for communicating the recommendation of the committee to the Board. In the absence of the chairperson, the vice-chairperson shall perform the duties of the chairperson. The chairperson and vice-chairperson are not deprived of any of the rights and privileges of a committee member by reason of being the presiding officer.

A majority of the members of each committee shall constitute a quorum for the transaction of business. Only members of the committee are entitled to make, second or vote on any motion or other action of the committee. Each committee member shall be entitled to one vote on all matters considered by the committee. A simple majority vote of the members of the Committee shall designate approval of a motion.

During the first regular meeting after January 1st of each year, each Committee shall review the District's current Strategic Plan and identify Strategic Plan Elements pertaining to said Committee. The Committee's findings regarding such Strategic Plan review shall be reported back to the Board at the next available regular Board Meeting for discussion and to allow the Board to provide direction back to the committees regarding completion of identified Strategic Plan Elements.

During the first regular meeting after January 1st of each year, each Committee shall prepare a multi-month forward looking calendar of items to be discussed by said Committee. Said calendar shall be no less than a three month look-ahead. Each Committee chairperson shall maintain said look-ahead calendar and submit same to the Board on a monthly basis.

The committee Chairperson shall record summary minutes of each committee meeting. The minutes of each committee meeting and any recommendation of a committee shall include a summary of the information presented.

All committee member absences will be considered by the majority of the committee members to determine whether or not the absence is without cause. Sickness, jury duty, vacation and/or bereavement will be considered excused absences. When three meetings in a row or a total of

six meetings in one calendar year are missed the remaining committee members will consider

removal of the individual from the committee. The removal must be voted upon and approved by the majority of the committee members with the exception of the committee member in question.

Vacancies shall be reported to the full Board as soon as practically possible. Vacancies shall be filled by simple majority vote of the Board.

Committee Members shall comply with the obligations and responsibilities of office including the obligation to comply with the disclosure requirements of the Political Reform Act (Form 700). The reporting categories made applicable to the Directors by San Lorenzo Valley Water District's local conflict of code shall apply to the members of the committee members.

All committee communications must go through the designated committee chairperson.

A committee has jurisdiction to consider and make a recommendation to staff, other committees and to the Board regarding any item of business within the responsibility of the committee. Committee recommendations shall be communicated to the Board. A committee may consider other matters referred to it by the Board.

The Board may refer a recommendation back to any committee for reevaluation whenever the Board deems additional evaluation is required.

Each Standing Committee shall, as a minimum, be responsible for the following:

Administrative Committee

The Committee shall be responsible for matters of internal and external administrative matters including: communications, staffing and staff support; District's data gap grant programs; interagency relations; codes and policies, pending State and Federal legislation; and other administrative programs.

Budget and Finance Committee

The Committee shall be responsible for the review of District finances including: rates, fees, charges and other sources of revenue; budget and reserves; audit; investments; insurance; and other financial matters.

Engineering Committee

The Committee shall be responsible for the review matters of design, construction, replace and repair of the District facilities and property including: The Capital Improvement Program; Master Plans and other engineering, operational and planning related matters.

Environmental Committee

The Committee shall be responsible for matters of stewardship of the District's property including: Urban Water Management Plans; Water Conservation Programs; Classis Watershed Education Grants; Watershed Management; Resource Management and other environmental related matter.

Lompico Assessment District Oversight Committee

The Committee shall be responsible to fulfill their charter as it relates to Assessment District 2016-1 projects.

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Changes to this Section 14 shall take effect immediately.

15. MEETING STIPENDS

Each Director may receive compensation as established by resolution of the Board of Directors. Pursuant to California Water Code section 30507, each Director may receive compensation in an amount not to exceed one hundred dollars ($100.00) per day for each day's attendance at meetings of the Board, or for each day's service rendered as a Director by request or approval of the Board, not to exceed six hundred dollars ($600.00) in any calendar month.

Consistent with California Water Code section 30507, by resolution of the Board of Directors, the District has established the following per day (daily meeting stipend) for each day's attendance at meetings, as defined herein. Such compensation is in addition to any approved reimbursement for meals, lodging, travel and other expenses consistent with the policies stated herein.

a) To be entitled to a daily meeting stipend of one hundred dollars ($100.00), the event in question must constitute one of the following:

1. A meeting of the San Lorenzo Valley Water District Board of Directors within the meaning of California Government Code section 54952(a); or

2. Any meeting attended or service provided on a given day at the formal request of the District Board of Directors, and for which the Board at a public meeting approved payment of a daily meeting stipend.

b) To be entitled to a daily meeting stipend of twenty five dollars ($25.00), the event in question must be a meeting of a designated District standing committee within the meaning of California Government Code section 54952(b). Only Directors appointed to the District standing committees shall be entitled to said daily meeting stipend.

16. TRAINING, EDUCATIONAL PROGRAMS, CONFERECENCES AND MEETINGS

The Board of Directors has determined that the following provisions shall be applicable to Director training, educational programs, conferences and meetings:

A) Directors are encouraged to attend educational conferences and professional meetings when the purposes of such activities are to improve District operation. Directors may attend, on behalf of the District, such training, educational programs,

conferences and meetings as have been approved by the Board of Directors.

B) It is the policy of the District to encourage Board development and excellence of performance by reimbursing necessary and reasonable expenses incurred for tuition, travel, lodging and meals as a result of training, educational courses, participation with professional organizations, and attendance at local, state and national conferences associated with the interests of the District. Cash advances or use of District credit cards for these purposes is not permitted. All reimbursement of actual and necessary expenses shall be pursuant to District policy on expenditure reimbursement as stated herein.

C) Attendance by Directors at seminars, workshops, courses, professional organization meetings, and conferences etc. shall be approved by the Board of Directors at a public meeting prior to incurring any authorized reimbursable costs.

D) The District Manager or designee is responsible for making arrangements for Directors for conference and registration expenses, and for per diem. Per Diem, when appropriate, shall include reimbursement of expenses for meals, lodging, and travel. All expenses for which reimbursement is requested by Directors, or which are billed to the District by Directors, shall be submitted to the District Manager, together with validated receipts.

E) To conserve District resources and keep Directors' reimbursement expenses for training, educational programs, conferences and meetings within community standards for public officials, reimbursement expenditures should adhere to the following guidelines. Expenses to the District for Board of Directors' training, education programs, conferences and meetings should be kept to a minimum by:

1. Utilizing hotel(s) recommended by the event sponsor in order to obtain discounted rates.

2. Traveling together whenever feasible and economically beneficial.

3. Requesting reservations sufficiently in advance, when possible, to obtain discounted air fares and hotel rates.

F) A Director shall not attend a conference or training event for which there is an expense to the District if it occurs after the Director has announced a pending

resignation, or if it occurs after an election in which it has been determined that a Director will not retain a seat on the Board. A Director shall not attend a conference or training event when it is apparent that there is no significant benefit to the District.

G) Whenever a Director who has not previously attended a particular conference or educational program is available to attend same, that Director shall have preference for attendance over a Director who has previously attended the same program.

H) Upon returning from seminars, workshops, conferences, etc., where expenses are reimbursed by the District, Directors will either prepare a written report for

distribution to the Board, or make a verbal report during the next regular meeting of the Board. The report shall detail what was learned at the session(s) that will be of benefit to the District. Materials from the session(s) may be delivered to the District office to be included in the District library for the future use of other Directors and staff.

I) Nothing in this policy shall permit the conduct of business in violation of the Ralph M. Brown Act when more than three (3) Directors attend the same event.

17. EXPENDITURE REIMBURSEMENT

The purpose of this policy is to prescribe the manner in which members of the San Lorenzo Valley Water District Board of Directors may be reimbursed for expenditures related to approved District business. The District shall adhere to California Government Code sections 53232 through 53232.4 or as amended when dealing with issues of expenditure reimbursements for Directors. This policy shall apply to all members of the Board of Directors, and is intended to result in no personal gain or loss to a Director.

Directors may be reimbursed for out-of-pocket expenditure(s) relative to reasonable and necessary costs associated with appropriate District business. The Board of Directors must provide approval for said District business at a public meeting prior to incurring any authorized reimbursement costs.

Directors are eligible to receive reimbursements for travel, meals, lodging, and other reasonable and necessary expenses associated with approved District business. Reimbursement rates shall coincide with guidelines established herein, or rates set by Internal Revenue Service Publication 1542 or its successor publication(s), whichever are greater.

If lodging is in connection with a prior approved event, such lodging costs shall not exceed the maximum group rate published by the conference or activity sponsor. If the published group rate is unavailable, Directors shall be reimbursed for comparable lodging at government or IRS rates.

If travel is in connection with a prior approved event, the most economical mode and class of transportation reasonably consistent with scheduling needs must be used, using the most direct and time-efficient route. Directors shall use government or group rates offered by the event provider of transportation when available. If the group rate is unavailable, Directors shall be reimbursed for comparable travel at government or IRS rates.

Directors shall submit their requests for reimbursement on a form approved by the District Manager. The reimbursement form shall include an explanation of the District-related purpose for the expenditure(s). Receipts documenting all expenditure are required to be submitted in conjunction with the expense report form. Failure to submit necessary receipts will result in denial of the reimbursement claim. Expense reports shall be submitted within a

reasonable time, and at no time more than fourteen (14) calendar days after incurring the expense. The District Manager will review and approve reimbursement requests.

Any and all expenses that do not fall within the adopted travel reimbursement policy or the IRS reimbursable rates are required to be approved by the Board of Directors in a public meeting prior to the expense(s) being incurred. Expenses that do not adhere to the adopted travel reimbursement policy or the IRS reimbursable rates, and that do not receive prior approval from the Board of Directors in a public meeting prior to the expense being incurred, shall not be eligible for reimbursement.

State law provides criminal penalties for misuse of public resources, which includes falsification of expense reports. Penalties include fines, imprisonment, and restitution.

18. PERSONNEL POLICIES

A) PERSONNEL SYSTEM RULES AND REGULATIONS

San Lorenzo Valley Water District is committed to the provision of an orderly, equitable and uniform personnel system. The Board of Directors by resolution shall establish written rules and regulations for the administration of the personnel system. Personnel system rules and regulations shall be reviewed at a Board of Directors meeting in December of each calendar year or as soon thereafter as reasonable.

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B) SEXUAL HARASSMENT

The San Lorenzo Valley Water District is committed to creating and maintaining a work environment free of objectionable and disrespectful conduct and/or communication of a sexual nature and prohibits sexual harassment by all employees and the Board of Directors. The Board of Directors by resolution shall establish a written policy and procedure manual relative to sexual harassment. The District's sexual harassment policy shall be reviewed at a Board of Directors meeting in December of each calendar year or as soon thereafter as reasonable.

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Conduct which creates an intimidating, hostile or offensive work environment will not be tolerated. Verbal behavior, physical behavior, gestures and other non-verbal behavior which create said environment will not be tolerated. Any employee or member of the public who feel that they have been or are being harassed by a Director is strongly encouraged to immediately report such incident to the District Manager without fear of reprisal regardless of the outcome of the complaint. The District Manager shall assign the investigation of the alleged misconduct to an outside party such as an attorney or law firm experienced in such matters. The District Manager shall notify the President of the Board of Directors of said alleged misconduct. Thereafter, the President, at the next meeting of the Board of Directors, shall report the facts and nature of the allegations to the entire Board of Directors.

If the Director charged with sexual harassment is the President of the Board of Directors, the District Manager shall report the fact and nature of the allegation(s) to the entire Board of Directors at its next meeting.

If an allegation of sexual harassment against a Director is investigated and found to be supported, the Board of Directors reserves the right to take such remedial action as is appropriate under all of the circumstances, including, if warranted, initiating an action for recall of such Director. The Directors agree that an accusation of sexual harassment against any one of them must be investigated. It is further agreed that such an investigation is not an invasion of their right of privacy.

C) NONDISCRIMINATION

The District shall not unlawfully discriminate against qualified employees or job applicants on the basis of age, sex, race, color, creed, religion, national origin, ancestry, marital status, sexual orientation, physical or mental disability, veteran status, or status with regard to public assistance. Equal opportunity shall be provided to all qualified employees and applicants in every aspect of personnel policy and practice.

All employees are expected to carry out the responsibilities in a manner that is free from discriminatory statements or conduct.

D) REASONABLE ACCOMMODATION-AMERICANS WITH DISABILITIES ACT

Pursuant to the Americans with Disabilities Act, employers have a duty to reasonably accommodate employees and job applicants with known disabilities. This accommodation is not required for individuals who are not otherwise qualified for the job nor is accommodation generally required until the person with the disability requests it. The following optional regulation includes procedures recommended by the Equal Employment Opportunity Commission for use when determining what accommodation to make.

Requests for reasonable accommodation may first be considered informally by the site administrator. If an accommodation cannot be made at the site because it would impose undue hardship or because of a lack of funds, the site administrator shall ask that the request be submitted in writing to the General Manager. The site administrator shall provide the employee or applicant with any assistance he/she may need in order to submit this request.

The duty to reasonably accommodate an individual with a disability is limited to those accommodations which do not impose an undue hardship upon the district.

Undue hardship is determined on a case-by case basis and includes any action that is unduly costly, extensive, substantial, disruptive, or that fundamentally alters the nature or operation of the agency. The burden of proving undue hardship rests with the agency, and what may be an undue hardship for one agency may not be

an undue hardship for another, depending on factors such as cost and agency size. Even if cost does pose an undue hardship, the disabled person should have the opportunity to pay for the portion of the cost that constitutes an undue hardship, or to personally provide the accommodation.

19. CONFLICT OF INTEREST CODE

Pursuant to provision of California Government Code section 81,000 et seq., commonly known as the Political Reform Act, the District shall adopt and maintain a Conflict of Interest Code. The Conflict of Interest Code and, any amendments thereto shall be adopted by resolution of the Board of Directors. The Board of Directors shall review the adopted Conflict of Interest Code on a bi-annual basis. At a regularly scheduled Board of Directors meeting in September of each even-numbered year, the Board of Directors shall review its Conflict of Interest Code and, if amendments are needed, shall submit said amendments to the Santa Cruz County Board of Supervisors in accordance with applicable deadlines. If no amendments are needed, the Board of Directors shall submit a written statement saying that its Conflict of Interest Code is still accurate.

20. RESIGNATIONS

Resignations by Directors shall be in writing, state the effective date and be submitted to the President of the Board of Directors and District Secretary. In the event the President of the Board of Directors resigns, the resignation shall be submitted to the Vice-President of the Board of Directors and the District Secretary.

21. VACANCIES

Directors are expected to carry out their responsibilities to the best of their abilities. In order to accomplish this goal, Directors should be present for scheduled meeting or events whenever possible. In accordance with California Government Code section 1770 a Director position vacancy will occur whenever "he or she ceases to discharge the duties of his or her office for the period of three consecutive months, except when prevented by sickness", or when absent from the Board of Directors without the permission of the majority of the Board of Directors.

If such vacancy occurs, the Board of Directors will take action in accordance with California Government Code section 1770.

In order to accomplish this in an orderly and consistent manner, when a vacancy of an elected Director occurs, the District Board of Directors, after discussion and consideration, shall when deemed appropriate, instruct staff to:

A) Place a public notice advising that a vacancy has occurred in accordance with applicable provisions of law; and

B) Said notice shall advise prospective candidates of the steps to take to apply for appointment; and

C) The District's Board of Directors shall establish the closing date for the receipt of applications; and

D) Applicants shall submit the following, by the date specified in the notice:

a) a letter of interest, and

b) a resume, with particular emphasis on the applicant's knowledge of special districts, and

E) Applicant(s) shall be interviewed at the next regularly scheduled meeting of the District's Board of Directors following the date of closure for applications; and

F) The District's Board of Directors shall make the appointment without undue delay, but need not act at the same meeting.

22. INCONSISTENT, INCOMPATIBLE AND CONFLICTING EMPLOYMENT OR ACTIVITIES

Pursuant to the provision of the California Government Code section 1126, the Board of Directors of the San Lorenzo Valley Water District has determined that it would be inconsistent and incompatible for a Board member to be a paid employee of the District. Therefore, based on this decision, a member of the Board of Directors shall not be a paid District employee.

23. DIRECTORS' LEGAL LIABILITIES

The District shall defend and indemnify Directors from any claim, liability or demand that arises out of a Director's performance of his or her duties or responsibilities as a Director or Officer of the District, as provided by Government Codes 825 and 995.

24. INVESTMENT POLICY

San Lorenzo Valley Water District is committed to the establishment of formal policies relative to the prudent investment of the District's unexpended cash. The Board of Directors by resolution shall establish written guidelines for the investment of all San Lorenzo Valley Water District funds or funds in the custody of the District, in a manner which conforms to all

state and local statutes governing the investment of public funds. Said guidelines shall provide for an optimal combination of safety, liquidity and yield. The District's Investment Policy and, any amendments thereto, shall be adopted by resolution of the Board of Directors. The Investment Policy shall be reviewed at a Board of Directors meeting in December of each calendar year or as soon thereafter as reasonable.

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25. ANNUAL DISCLOSURE OF REIMBURSEMENTS

The District shall annually disclose any reimbursements paid by the San Lorenzo Valley Water District of at least one hundred dollars ($100.00) for each individual charge for services or products received. The Board of Directors shall review said reimbursement information for the preceding fiscal year (July 1 - June 30) at a regularly scheduled Board of Directors meeting in September of each calendar year.

26. GENERAL PROVISIONS

Any of the within policies not required by law may be altered, amended, or repealed by a majority of the Board at a duly authorized meeting.

27. ANNUAL REVIEW

This Board of Directors Policy Manual shall be reviewed at least annually and ratified by Resolution of the Board of Directors at a Board of Directors meeting, at least in December of each calendar year or as soon thereafter as reasonable.

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California Special Districts Association

SAMPLE POLICY HANDBOOK

POLICY TITLE: Operating Principles of the Board (Norms)
POLICY NUMBER: 4005

4005.1 IMPLEMENTATION

- The [*DISTRICT*] is committed to practice these norms, whereupon we will evaluate, learn, and adjust according to what we learn.

- Upon the occasion of the occurrence of what appears to be a breach of these norms, we are committed to addressing this perception first to the individual(s) involved, before raising the issue with the Board itself. Because we value learning and improvement, we are committed to debriefing each of these at each of our Board meetings.

4005.2 COMMUNICATION NORMS

- All communication will be accurate and brief.
- Board and staff will attempt to describe our behavior before we engage in it, and actively listen when communicated with.
- Always Check Your Assumptions (C.Y.A.).
- Revisit and display these norms at each Board meeting.

4005.3 PROCESS NORMS

- The Board needs to address and resolve policy issues and set priorities. The Team is committed to doing this by practicing the building of consensus and orderly implementation.
- The Team is committed to [*DISTRICT*]'s mission and to work as a team.
- The Team needs to monitor and respond to changes in the market and environment.
- Staff needs to make available all information and analysis of alternatives so that the Board can make "reasoned decisions."
- The Board will jointly discuss and identify its interest(s) prior to establishing a position and negotiating with external organizations.
- All requests from the Board for information/agenda items will be funneled through the General Manager and distributed to all Board members.

4005.3 RELATIONSHIP NORMS

- Create an environment that promotes respect and appreciation between the Board, Staff, Consultants, and customers.
- Fundamental agreement that the focus of [*DISTRICT*]'s mission is its accomplishments and future vision that meets the needs of its customers.
- Establish, accept and support common purpose and vision.
- The "Team" includes the Board, Staff, Consultants and Membership.

4005.4 CAPACITY NORMS

- Continue the process of hiring qualified personnel.
- Expand education for the Board, Staff and Consultants.
- Expect creative decision-making.
- Maintain competitive advantage by adhering to a policy of updating technology and resources.
- Ensure a cooperative and open work environment.

California Special Districts Association

SAMPLE POLICY HANDBOOK

POLICY TITLE: Code of Ethics
POLICY NUMBER: 4010

4010.1 The Board of Directors of [*DISTRICT NAME*] is committed to providing excellence in legislative leadership that results in the provision of the highest quality services to its constituents and to comply with State laws including AB 1234 (Salinas) approved in 2006.(copy attached as reference)

In order to assist in the governance of the behavior between and among members of the Board of Directors and District staff, the following rules shall be observed.

4010.1.1 The dignity, style, values and opinions of each Director shall be respected.

4010.1.2 Responsiveness and attentive listening in communication is encouraged.

4010.1.3 The needs of the District's constituents should be the priority of the Board of Directors. When a Director believes he/she may have a conflict of interest, the legal counsel shall be requested to make a determination if one exists or not.

4010.1.4 The primary responsibility of the Board of Directors is the formulation and evaluation of policy. Routine matters concerning the operational aspects of the District are to be delegated to professional staff members of the District.

4010.1.5 Directors should commit themselves to emphasizing the positive, avoiding double talk, hidden agendas, gossip, backbiting, and other negative forms of interaction.

4010.1.6 Directors should commit themselves to focusing on issues and not personalities. The presentation of the opinions of others should be encouraged. Cliques and voting blocks based on personalities rather than issues should be avoided.

4010.1.7 Differing viewpoints are healthy in the decision-making process. Individuals have the right to disagree with ideas and opinions, but without being disagreeable. Once the Board of Directors takes action, Directors should commit to supporting said action and not to create barriers to the implementation of said action.

4010.1.8 Directors should practice the following procedures:

4010.1.8.1 In seeking clarification on informational items, Directors may directly approach professional staff members to obtain information needed to supplement,

upgrade, or enhance their knowledge to improve legislative decision-making.

4010.1.8.2 In handling complaints from residents and property owners of the District, said complaints should be referred directly to the General Manager.

4010.1.8.3 In handling items related to safety, concerns for safety or hazards should be reported to the General Manager or to the District office. Emergency situations should be dealt with immediately by seeking appropriate assistance.

4010.1.8.4 In presenting items for discussion at Board meetings, See Policy #5020.

4010.1.8.5 In seeking clarification for policy-related concerns, especially those involving personnel, legal action, land acquisition and development, finances, and programming, said concerns should be referred directly to the General Manager or legal counsel.

4010.1.9 If approached by District personnel concerning specific District policy, Directors should direct inquiries to the appropriate staff supervisor or General Manager. The chain of command should be followed.

4010.2 The work of the District is a team effort. All individuals should work together in the collaborative process, assisting each other in conducting the affairs of the District.

4010.2.1 When responding to constituent requests and concerns, Directors should be courteous, responding to individuals in a positive manner and routing their questions through appropriate channels and to responsible management personnel.

4010.2.2 Directors should develop a working relationship with the General Manager wherein current issues, concerns and District projects can be discussed comfortably and openly.

4010.2.3 Directors should function as a part of the whole. Issues should be brought to the attention of the Board as a whole, rather than to individual members selectively.

4010.2.4 Directors are responsible for monitoring the District's progress in attaining its goals and objectives, while pursuing its mission.

California Special Districts Association

SAMPLE POLICY HANDBOOK

POLICY TITLE: Voluntary Candidate Expenditure Ceiling
POLICY NUMBER: 4015

4015.1 In accordance with *Government Code §85400* (Proposition 208), the voluntary expenditure ceiling for candidates for the Board of Directors of [*DISTRICT NAME*], and controlled committees of such candidates, shall be one dollar ($1) per resident for each election in which the candidate is seeking election to the Board of Directors.

4015.2 Proposition 208 establishes a two-tiered scheme of campaign contribution limitations applicable to candidates running for local office based on whether the recipient candidate accepts or rejects the voluntary expenditure ceiling established by the local jurisdiction. The decision by a candidate as to whether to accept the ceiling must be made before a candidate accepts any contributions.

4015.2.1 If a candidate for the Board of Directors elects to abide by the ceiling, he/she may accept contributions from businesses, political action committees (PAC's), or individuals in an amount up to $250.

4015.2.2 If a candidate for the Board of Directors elects not to abide by the ceiling, he/she may accept contributions from businesses, political action committees (PAC's), or individuals in an amount up to $100.

California Special Districts Association

SAMPLE POLICY HANDBOOK

POLICY TITLE: **Attendance at Meetings**
POLICY NUMBER: **4020**

4020.1 Members of the Board of Directors shall attend all regular and special meetings of the Board unless there is good cause for absence.

California Special Districts Association

SAMPLE POLICY HANDBOOK

POLICY TITLE: Expenditure Reimbursement
POLICY NUMBER: 4025

4025.1 Purpose. The purpose of this policy is to prescribe the manner in which District employees and directors may be reimbursed for expenditures related to District business.

4025.2 Scope. This policy applies to all employees and members of the Board of Directors and is intended to result in no personal gain or loss to an employee or director.

4025.3 Implementation. Whenever District employees or directors desire to be reimbursed for out-of-pocket expenses for item(s) or service(s) appropriately relating to District business, they shall submit their requests on a reimbursement form approved by the General Manager. Included on the reimbursement form will be an explanation of the District-related purpose for the expenditure(s), and receipts evidencing each expense shall be attached.

4025.4.1 The Finance Division Manager or the General Manager will review and approve reimbursement requests. Reimbursement requests by the Finance Division Manager will be reviewed and approved by the General Manager. Reimbursement requests by the General Manager will be reviewed and approved by the Finance Division Manager.

4025.4.2 All expenses must be reasonable and necessary, and employees and directors are encouraged to exercise prudence in all expenditures.

4025.4.3 The most economical mode and class of transportation reasonably consistent with scheduling requirements will be used. In the event a more expensive class of transportation is used, the reimbursable amount will be limited to the cost of the most economical class of transportation available. Reimbursement for use of personal vehicles will be at the applicable IRS-approved rate.

4025.4.4 Expenditures for food and lodging will be moderate and reasonable.

California Special Districts Association

SAMPLE POLICY HANDBOOK

POLICY TITLE: **Remuneration**
POLICY NUMBER: **4030**

4030.1 Members of the Board of Directors shall receive a monthly "Director's Fee," the amount of which shall be established annually by the Board at its regular meeting in July and be consistent with applicable state law.

[refer to *Special Districts: Compensation for Directors and Trustees* for individual district type government code sections.]

California Special Districts Association

SAMPLE POLICY HANDBOOK

POLICY TITLE: Directors' Health Insurance
POLICY NUMBER: 4035

4035.1 Members of the Board of Directors of the [*insert district name*] may participate in the health benefits plan provided by the District through the Public Employees Retirement System [*specify name of district's program if different*] on a self-pay basis. The District will pay the minimum monthly enrollment fee – currently set at $___ - for each enrolled Director required of it by the Public Employees' Medical and Hospital Care Act. [*Specify details of district's payment on behalf of directors if different than the foregoing.*]

4035.2 In accordance with Government Code §53208.5, the benefits provided to Directors by the health benefits plan may not be greater than the most generous schedule of benefits being received by any group of District employees. Family members of the Director are also eligible for enrollment in the health benefits plan in accordance with the Act and Regulations of the PERS Board of Administration.

4035.3 The health benefits plan for Directors will be available only to active members of the Board of Directors, and shall not be available after a Director is no longer an elected or appointed official of the District.

California Special Districts Association

SAMPLE POLICY HANDBOOK

POLICY TITLE: Duties of Board President
POLICY NUMBER: 4040

4040.1 The President of the Board of Directors shall serve as chairperson at all Board meetings. He/she shall have the same rights as the other members of the Board in voting, introducing motions, resolutions and ordinances, and any discussion of questions that follow said actions.

4040.2 In the absence of the President, the Vice President of the Board of Directors shall serve as chairperson over all meetings of the Board. If the President and Vice President of the Board are both absent, the remaining members present shall select one of themselves to act as chairperson of the meeting.

4040.3 DUTIES Regarding Meetings of the Board

The president shall preside over and conduct all meetings of the Board of Directors, and shall carry out the resolution and orders of the Board of Directors and shall exercise such other powers and perform such other duties as the Board of Directors shall prescribe including the following:

1. Call the meeting to order at the appointed time;
2. Announce the business to come before the Board in its proper order;
3. Enforce the Board's policies in relation to the order of business and the conduct of meetings;
4. Recognize persons who desire to speak, and protect the speaker who has the floor from disturbance or interference;
5. Explain what the effect of a motion would be if it is not clear to every member;
6. Restrict discussion to the question when a motion is before the Board;
7. Rule on parliamentary procedure; and
8. Put motions to a vote, and state clearly the results of the vote.

4040.4 RESPONSIBILITIES

The president shall have all the rights to discuss and vote on any issues before the Board, but not to move or second any motion. If the president wishes to move or second a motion he/she must pass the gavel to the Vice-President and step down as the presiding officer for that particular agenda item. Responsibilities of the President include:

1. Sign all instruments, act, and carry out stated requirements and the will of the Board;
2. Sign the minutes of the Board meeting following their approval;
3. Appoint and disband all committees, subject to Board ratification;
4. Call such meetings of the Board as he/she may deem necessary, giving notice as prescribed by

law;
5. Coordinate the preparation of meeting agendas with the General Manager;
6. Confer with the General Manager or designee on crucial matters which may occur between Board of Directors meetings;
7. Be responsible for the orderly conduct of all Board meetings;
8. Be the Spokesperson for the Board; and
9. Perform other duties as authorized by the Board.

California Special Districts Association

SAMPLE POLICY HANDBOOK

POLICY TITLE: Board Secretary
POLICY NUMBER: 4045

4045 The position of Secretary of the Board of Directors is required by state law. The Secretary performs duties including recording of minutes and actions of the Board of Directors and certifying all actions and resolutions of the Board.

4045.1 If for any reason the President and Vice-President resign or are absent or disabled, the Secretary shall perform the President's duties until the position of President is filled.

4045.2 If for any reason the President and Vice-President disqualify themselves from participating in an agenda item or become partisan in the debate on any such item, the Secretary shall perform the duties of the presiding officer.

4045.3 DUTIES of the Secretary

The secretary of the Governing Board shall have the following duties:

1. Certify or attest to actions taken by the Board when required;
2. Sign the minutes of the Board meeting following their approval;
3. Sign the documents as directed by the Board on behalf of the Authority, and sign all other items which require the signature of the Secretary; and
4. Perform any other duties assigned by the Board.

4045.4 RESPONSIBILITIES of the Secretary

It is the responsibility of the Secretary with assistance of the agency Executive Officer to ensure:

1. Minutes of the Board of Directors meetings are recorded. These recordings are for use by the Secretary only for the purpose of preparing minutes for adoption at the next regularly scheduled meeting of the Board. Upon adoption of these minutes the recording media will be reused;
2. Minutes of each Board meeting are prepared and maintained;
3. Board records and other documents & reports are maintained, as required by law; and
4. Board officers receive the correspondence addressed to them.

California Special Districts Association

SAMPLE POLICY HANDBOOK

POLICY TITLE: Clerk of the Board
POLICY NUMBER: 4047

4047.1 The Clerk of the Board shall be responsible for performing the duties imposed by law or District Resolution. Additionally, the duties of the Clerk of the Board include:

1. May provide input in formulating the budget of the office of the Board and have the authority to expend funds in accordance with the annual budget of the Board.
2. Manage the office of the Board and responsibility for maintaining confidential information and files; prepare the Board agenda, minutes, resolutions, ordinances, notices and other related matters.
3. Attend Regular, Special, Emergency, and Adjourned Board meetings and other meetings as required, taking non-verbatim notes of business transacted and prepare minutes; post/publish all notices and agendas required by law.
4. Prepare reports, memoranda and other documents; act as custodian of the District seal; serve as filing officer or filing official.
5. Be responsible for receiving, forwarding or retaining statements of economic interest or campaign statements in accordance with California Code of Regulations, Title 2, Section 18227;.
6. Maintain resolutions, ordinances, Board approved policies and District agreements; attest to ordinances and resolutions, and accept correspondence on behalf of the Board.

4047.2 The Board may appoint an Assistant to the Clerk of the Board to perform the duties of the Clerk of the Board in the absence of the Clerk.

California Special Districts Association

SAMPLE POLICY HANDBOOK

POLICY TITLE: Legal Counsel and Auditor
POLICY NUMBER: 4048

4048 The Board of Directors shall appoint a Legal Counsel to assist the Board and District in all applicable issues and activities.

4048.1 Legal Counsel shall be the legal adviser of the District and shall perform such duties as may be prescribed by the Board of Directors. Legal Counsel is required to review and approve as to form District legal documents, i.e. contracts, agreements, etc. The Legal Counsel shall present and report on all legal issues and Closed Session items before the Board. The Legal Counsel shall serve at the pleasure of the Board, and shall be compensated for services as determined by the Board.

4048.1.2 The Legal Counsel reports to the Board as a whole but is available to each director for consultation regarding legal matters particular to that Board members participation. No Board member may request a legal opinion of legal counsel without concurrence by the Board except as such requests relate to questions regarding that member's participation. The Legal Counsel shall be available to the District General Manager for consultation on applicable issues and activities.

4048.2 The District Auditor shall be appointed by the Board by a majority vote in a public meeting. The Board shall determine the duties and compensation of the Auditor. The Auditor shall serve at the pleasure of the Board. Selection of the Auditor shall be done in a noticed public meeting and at least every five years.

4048.2.1 The Board may appoint a committee to oversee the work of an independent auditor, who will report to the Board, to conduct an annual audit of the District's books, records, and financial affairs in accordance with state law and the Finance Committee Charter for Audit Compliance. The Chief Financial Officer/General Manager will install and maintain an accounting system that will completely and at all times show the financial condition of the District.

California Special Districts Association

SAMPLE POLICY HANDBOOK

POLICY TITLE: Members of the Board of Directors
POLICY NUMBER: 4050

4050.1 Directors shall thoroughly prepare themselves to discuss agenda items at meetings of the Board of Directors. Information may be requested from staff or exchanged between Directors before meetings.

4050.1.1 Information exchanged before meetings shall be distributed through the General Manager, and all Directors will receive all information being distributed.

4050.1.2 Copies of information exchanged before meetings shall be available at the meeting for members of the public in attendance, and shall also be provided to anyone not present upon their request.

4050.2 Directors shall at all times conduct themselves with courtesy to each other, to staff, and to members of the audience present at Board meetings.

4050.3 Directors shall defer to the chairperson for conduct of meetings of the Board, but shall be free to question and discuss items on the agenda. All comments should be brief and confined to the matter being discussed by the Board.

4050.4 Directors may request for inclusion into minutes brief comments pertinent to an agenda item only at the meeting that item is discussed (including, if desired, a position on abstention or dissenting vote).

4050.5 Directors shall abstain from participating in consideration on any item involving a personal or financial conflict of interest. Unless such a conflict of interest exists, however, Directors should not abstain from the Board's decision-making responsibilities.

4050.6 Requests by individual Directors for substantive information and/or research from District staff will be channeled through the General Manager.

California Special Districts Association

SAMPLE POLICY HANDBOOK

POLICY TITLE: Committees of the Board of Directors
POLICY NUMBER: 4060

4060.1 The Board President shall appoint such ad hoc committees as may be deemed necessary or advisable by himself/herself and/or the Board. The duties of the ad hoc committees shall be outlined at the time of appointment, and the committee shall be considered dissolved when its final report has been made.

4060.2 The following shall be standing committees of the Board:

4060.2.1 Planning Committee;

4060.2.2 Ordinance Committee;

4060.2.3 Personnel Committee;

4060.2.4 Finance Committee; and,

4060.2.5 Public Relations Committee.

4060.3 The Board President shall appoint and publicly announce the members of the standing committees for the ensuing year no later than the Board's regular meeting in January.

4060.4 The Board's standing committees may be assigned to review District functions, activities, and/or operations pertaining to their designated concerns, as specified below. Said assignment may be made by the Board President, a majority vote of the Board, or on their own initiative. Any recommendations resulting from said review should be submitted to the Board via a written or oral report.

4060.4.1 All meetings of standing committees shall conform to all open meeting laws (e.g., "Brown Act") that pertain to regular meetings of the Board of Directors.

4060.5 The Board's standing Planning Committee shall be concerned with the formulation of plans for arranging, realizing, and/or achieving District goals.

4060.6 The Board's standing Ordinance Committee shall be concerned with proposed ordinances, resolutions and/or District policies, except those pertaining specifically to personnel.

4060.7 The Board's standing Personnel Committee shall be concerned with the functions, activities, operations, compensation and welfare of District staff.

4060.8 The Board's standing Finance Committee shall be concerned with the financial management of the District, including the preparation of an annual budget and major expenditures.

4060.9 The Board's standing Public Information Committee shall be concerned with assuring that information regarding the affairs of the District is adequately and appropriately communicated to its constituents and the public at large.

California Special Districts Association

SAMPLE POLICY HANDBOOK

POLICY TITLE: **Basis of Authority**
POLICY NUMBER: **4070**

4070.1 The Board of Directors is the unit of authority within the District. Apart from his/her normal function as a part of this unit, Directors have no individual authority. As individuals, Directors may not commit the District to any policy, act, or expenditure.

4070.2 Directors do not represent any fractional segment of the community, but are, rather, a part of the body that represents and acts for the community as a whole.

California Special Districts Association

SAMPLE POLICY HANDBOOK

POLICY TITLE: Membership in Associations
POLICY NUMBER: 4080

4080.1 The Board of Directors shall ordinarily hold membership in and attend meetings of such national, state, and local associations as may exist which have applicability to the functions of the District, and shall look upon such memberships as an opportunity for in-service training.

4080.2 The Board of Directors shall maintain membership in the California Special Districts Association and shall ensure that annual dues are paid when due.

4080.3 The Board of Directors shall maintain membership in the [*LOCAL*] Chapter of the California Special Districts Association and shall ensure that annual dues are paid when due.

> **4080.3.1** At the regular Board meeting in [*MONTH*], a member of the Board shall be selected to represent the District in accordance with said chapter's constitution/bylaws, and another member of the Board or staff member shall at the same time be selected to serve as an alternate for the representation.

California Special Districts Association

SAMPLE POLICY HANDBOOK

POLICY TITLE: Training, Education and Conferences
POLICY NUMBER: 4090

4090.1 Members of the Board of Directors are encouraged to attend educational conferences and professional meetings when the purposes of such activities are to improve District operation. Hence, there is no limit as to the number of Directors attending a particular conference or seminar when it is apparent that their attendance is beneficial to the District.

4090.1.1 "Junkets" (a tour or journey for pleasure at public expense), however, will not be permitted.

4090.2 It is the policy of the District to encourage Board development and excellence of performance by reimbursing actual expenses incurred for tuition, travel, lodging and meals as a result of training, educational courses, participation with professional organizations, and attendance at local, state and national conferences associated with the interests of the District. Cash advances or use of District credit cards for these purposes is not permitted.

4090.2.1 The Finance Division Manager is responsible for making arrangements for Directors for conference and registration expenses, and for per diem. Per diem, when appropriate, shall include reimbursement of expenses for meals, lodging, and travel. All expenses for which reimbursement is requested by Directors, or which are billed to the District by Directors, shall be submitted to the Finance Division Manager, together with validated receipts in accordance with State law.

4090.2.2 Attendance by Directors of seminars, workshops, courses, professional organization meetings, and conferences shall be approved by the Board of Directors prior to incurring any reimbursable costs.

4090.2.3 Expenses to the District for Board of Directors' training, education and conferences should be kept to a minimum by utilizing recommendations for transportation and housing accommodations put forth by the Finance Division Manager and by:

4090.2.3.1 Utilizing hotel(s) recommended by the event sponsor in order to obtain discounted rates.

4090.2.3.2 Directors traveling together whenever feasible and economically beneficial.

4090.2.3.3 Requesting reservations sufficiently in advance, when possible, to obtain discounted air fares and hotel rates.

4090.3 A Director shall not attend a conference or training event for which there is an expense to the District if it occurs after the District has announced his/her pending resignation, or if it occurs after an election in which it has been determined that the Director will not retain his/her seat on the Board. A Director shall not attend a conference or training event when it is apparent that there is no significant benefit to the District.

4090.4 Upon returning from seminars, workshops, conferences, etc., where expenses are reimbursed by the District, Directors will either prepare a written report for distribution to the Board, or make a verbal report during the next regular meeting of the Board. Said report shall detail what was learned at the session(s) that will be of benefit to the District. Materials from the session(s) may be delivered to the District office to be included in the District library for the future use of other Directors and staff.

California Special Districts Association

SAMPLE POLICY HANDBOOK

POLICY TITLE: Ethics Training
POLICY NUMBER: 4095

4095 All directors and designated executive staff of [*District*] shall receive two hours of training in general ethics principles and ethics laws relevant to public service within one year of election or appointment to the board of directors and at least once every two years thereafter, pursuant to Government Code Sections 53234 through 53235.2.

4095.1 This policy shall also apply to all staff members that the board of directors designates and to members of all commissions, committees and other bodies that are subject to the Ralph M. Brown Open Meeting Act.

4095.2 All ethics training shall be provided by entities whose curricula have been approved by the California Attorney General and the Fair Political Practices Commission.

4095.3 Directors shall obtain proof of participation after completing the ethics training. Applicable costs for attending the training will be reimbursed by the District.

4095.3.1 District staff shall maintain records indicating both the dates that directors completed the ethics training and the name of the entity that provided the training. These records shall be maintained for at least five years after directors receive the training, and are public records subject to disclosure under the California Public Records Act.

4095.4 District staff shall provide the board of directors with information on available training that meets the requirements of this policy at least once every year.

4095.5 Ethics training may consist of either a training course or a set of self-study materials with tests, and may be taken at home, in person or online.

4095.6 Any director of [*District*] that serves on the board of another agency is only required to take the training once every two years.

California Special Districts Association

SAMPLE POLICY HANDBOOK

POLICY TITLE: Filling of Vacancy(s) on Board of Directors (Trustees)
POLICY NUMBER: 4097

4097.1 The District Board of Directors (Trustees) are elected (or appointed) in accordance with the Principal Act of the District. From time to time a vacancy may occur on the Board for a variety of reasons. This policy is established to provide general guidelines and procedures for filling a vacancy on the Board. Under state law, the District has a total of sixty (60) days in which to take action.

4097.2 The Board of Directors shall be informed immediately of the resignation or death of a member of the Board of Directors. The Board of Directors shall consider whether to act to fill the vacancy, either by appointment or by calling a special election.

4097.3 The District shall notify the county elections official of the vacancy no later than fifteen (15) days after the District Board is notified of the vacancy or the effective date of the vacancy, whichever is later.

4097.4 In cases where the Board determines to appoint a replacement to the Board, the District may publish a public notice of a vacancy and the process for considering candidates in a local newspaper of general circulation. The Board may establish an application and interview process including requiring a resume or application form detailing qualifications and experience of the candidates.

4097.4.1 The District shall post a notice of vacancy in at least three conspicuous places in the District at least fifteen (15) days before the Board makes an appointment. If the Board makes an appointment, the District shall notify the county elections official within fifteen (15) days of making the appointment.

4097.5 The Board may review and invite those candidates that a majority of the Board determine are the most qualified or all of the candidates for an interview before the Board at a public noticed meeting. The Board may then consider the interviewed candidates and vote to determine if a majority of the Board can agree on a selected replacement candidate.

4097.6 If the Board of Directors chooses to call an election, the Board must do so within sixty (60) days of notification of the vacancy or the effective date of the vacancy, whichever is later.

4097.7 All costs for any election shall be identified for consideration by the Board for the decision of appointment or election.

4097.8 A selected replacement Director shall serve out the balance of the term of the position and be subject to reelection under the Principal Act of the District.

4097.9 If the Board fails to take action in the sixty (60) day period, state law provides that the Board of Supervisors may appoint a successor to fill the vacancy.

Cal Wat Code § 30507

Deering's California Codes are current through all 1016 chapters of the 2018 Regular Session and the November 6, 2018 Ballot Measures.

Deering's California Codes Annotated > WATER CODE > Division 12 County Water Districts > Part 3 Internal Organization > Chapter 1 Officers and Employees Generally > Article 1 Directors

§ 30507. Compensation of directors

Each director shall receive compensation in an amount not to exceed one hundred dollars ($100) per day for each day's attendance at meetings of the board or for each day's service rendered as a director by request of the board, not exceeding a total of six days in any calendar month, together with any expenses incurred in the performance of his or her duties required or authorized by the board. For purposes of this section, the determination of whether a director's activities on any specific day are compensable shall be made pursuant to Article 2.3 (commencing with *Section 53232) of Chapter 2 of Part 1 of Division 2 of Title 5 of the Government Code*. Reimbursement for these expenses is subject to *Sections 53232.2 and 53232.3 of the Government Code*.

History

Added Stats 1949 ch 274 § 1. Amended Stats 1951 ch 278 § 1; Stats 1959 ch 1053 § 1; Stats 1970 ch 183 § 1; Stats 1972 ch 573 § 1; Stats 1973 ch 613 § 2; Stats 1975 ch 320 § 3; Stats 1981 ch 45 § 1, effective June 3, 1981, ch 725 § 2; *Stats 2005 ch 700 § 30 (AB 1234)*, effective January 1, 2006.

Annotations

Notes

Historical Derivation:

Amendments:

Historical Derivation:

(a) Former Wat C § 30508, as added Stats 1949 ch 274 § 1, amended Stats 1951 ch 278 § 2.

(b) Stats 1913 ch 592 § 9, as amended Stats 1927 ch 151 § 1, Stats 1933 ch 873 § 3.

Amendments:

1951 Amendment:

Substituted "such sum as may be fixed by the board not exceeding twenty dollars ($20)" for "ten dollars ($10)".

1959 Amendment:

Substituted (1) “fifty dollars ($50)” for “twenty dollars ($20)”; and (2) “two” for “three”.

1970 Amendment:

Added “in case of a district having less than 75,000 registered voters residing therein, or not exceeding four meetings in any calendar month in the case of a district having 75,000 or more registered voters residing therein or a total assessed valuation in excess of forty million dollars ($40,000,000)” at the end of the section.

1972 Amendment:

(1) Substituted “four” for “two” before “meetings”; and (2) deleted the addition made by the 1970 Amendment.

1973 Amendment:

Substituted (1) “compensation in an amount not to exceed” for “such sum as may be fixed by the board not exceeding”; and (2) “per day for each day’s attendance at meetings of the board or for each day’s service rendered as a director by request of the board, not exceeding a total of six days in any calendar month, together with any expenses incident thereto” for “for each meeting of the board attended by him, not exceeding four meetings in any calendar month”.

1975 Amendment:

Substituted “incurred in the performance of his duties required or authorized by the board” for “incident thereto”.

1981 Amendment (ch 45):

Substituted (1) “may” for “shall” after “Each director”; and (2) “one hundred dollars ($100)” for “fifty dollars ($50)”.

1981 Amendment (ch 725):

Substituted “shall” for “may” after “Each director”.

2005 Amendment:

(1) Added “or her”; and (2) added the last sentence.

Commentary

Code Commissioner’s Notes:

Compare § 21166.

Deering’s California Codes Annotated
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End of Document

M E M O

TO: Board of Directors

FROM: District Manager

SUBJECT: SAN LORENZO VALLEY WATER DISTRICT COMMITTEES REVIEW AND OPENINGS

DATE: January 17, 2019

RECOMMENDATION:

The District has openings on 4 of the 5 standing committees. It is recommended that the Board review the current appointments and fill the openings on the Administration Committee, Budget & Finance Committee, Engineering Committee and Lompico Assessment District Oversight Committee (LADOC).

BACKGROUND:

The District has 5 standing committees:
- Administration Committee
- Budget & Finance Committee
- Engineering Committee
- Environmental Committee
- Lompico Assessment District Oversight Committee

The committees consist of 2 Board Members and 1 public member, except the LADOC which consists of 5 public members residing within the Lompico Assessment District.

The Environmental Committee has a public member in place, Jenni Gomez.

The LADOC has 4 public members in place, Toni Nelson (president), Mary Ann LoBalbo (vice president), Jenni Gomez and John Wright. There is 1 opening on the committee.

On November 27, 2018 the District advertised openings for public members on the Administration, Budget & Finance, Engineering and LADOC committees. Attached are the applications that were received.

STRATEGIC PLAN:
Element 6.2 Increase Civic Understanding and Engagement

FISCAL IMPACT:
None

ADMINISTRATION COMMITTEE APPLICATIONS

RECEIVED
DEC 06 2018
SAN LORENZO VALLEY
WATER DISTRICT

Committee Application Form

Thank you for your interest in participating in a SLVWD Committee.

Members of the public play a vital role in shaping the District and your willingness to contribute time and effort is greatlyappreciated.

Please send your completed application to the District Secretary, 13060 Hwy. 9, Boulder Creek, CA 95006 or to hmorrison@slvwd.com.

Personal Details

Name: Andy Benkert Mr. ☒ Mrs. ☐ Miss ☐ Ms. ☐

Postal Address: PO Box 231 Ben Lomond 95005

Telephone: (Home) NA (Mobile) 408-656-3853

E-Mail: andybenkert@gmail.com

Committee you would like to serve on: Administrative Cmte.

Expectations

Be prepared to participate in a monthly Committee meeting (or quarterly for the Lompico Assessment District Oversight Committee). Learn about the water resources of our Valley. Participate in the rewarding experience of providing service to your community.

Why You Want to Participate

Please use the back of this form to add more information and/or attach a resume

I have had a long-term interest in water resources and policy. I briefly served as an alternate on ~~the~~ a Santa Clara Valley Water District committee, and served a term and a half on the Fish & Game Commission for Santa Clara County. Now I would like to serve the community and learn more about our water resources here in the SLV.

RECEIVED
DEC 11 2018
SAN LORENZO VALLEY
WATER DISTRICT

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Personal Details

Name: Tina To Mr. ☐ Mrs. ☑ Miss ☐ Ms. ☐

Postal Address: 200 Chipmunk Hollow Rd, Boulder Creek CA 95006

Telephone: (Home)_____ (Mobile) 831-252-1534

E-Mail: tinamarieto@gmail.com

Committee you would like to serve on: Administrative

Expectations

Be prepared to participate in a monthly Committee meeting (or quarterly for the Lompico Assessment District Oversight Committee). Learn about the water resources of our Valley. Participate in the rewarding experience of providing service to your community.

Why You Want to Participate

Please use the back of this form to add more information and/or attach a resume

I have a masters degree in environmental science. I currently work in social science and I would like to use my earth science knowledge for public good. I think there should be more scientists in leadership roles.

Tina Marie To

Email: tinamarieto@gmail.com **Mobile:** +1(831) 252-1534

EDUCATION

Certificate of Bioinformatics, *University of California at Davis, Genome Center (2018).*
Masters of Science in Environmental Science (MS), *University of Sydney* (2017).
Bachelors: Law and Earth Science (BA), *University of California at Santa Cruz/Berkeley* (2010).

WORK EXPERIENCE

Field Interviewer / Data Collection
National Opinion Research Center at University of Chicago. San Francisco Bay Area, California (May 2018 to present)

Data collection for social science research with a focus on preschool children and childcare.

Education Consultant
Various schools. San Francisco Bay Area, California (2012-2016, 4 years)

Assisted schools with theatre and arts programs. Managed up to 50 students and/or volunteers at a time. Taught after school programs and aided in the classroom. Managed budgets and fulfilled administrative tasks.

Human Resources Specialist
Target Stores. San Jose, California, USA (11/2016-01/2017).

On-boarding of personnel. Raise morale, solve personnel problems, maintain confidential information. Seasonal.

Post-graduate Research Assistant (Software Analyst) Intern
University of Technology Sydney – Climate Change Cluster. Sydney, Australia (05/2014-09/2014, five months).

In-depth analysis of ten remote sensing softwares for viability with research programs. Analyzing multi-spectral and thermal images to determine drought stress. Image stitching, data analysis, and report writing. Processing of big data (~100Gb per process). UAV/drones field assistant. Software: ArcGIS, AgiSoft, Excel, GPS, Google Earth, and proprietary image stitching software.

Political Advocate
Various Employers. California and Iowa (2007-2012, 5.5 years) Roles: Central Committee Member (elected office), Field Organizer, and Grassroots Campaigner.

National presidential campaign and local ballot measures. Database management of tens of thousands of voters, organizing hundreds of constituents, cold calling, rallying supporters, political marketing, various kinds of research and voting on issues.

See https://www/linkedin.com/in/tinato/ for more detail. References available.

RECEIVED
JAN 02 2019
SAN LORENZO VALLEY
WATER DISTRICT

Committee Application Form

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Personal Details

Name: M'Liss Jarvis Bounds Mr. ☐ Mrs. ☒ Miss ☐ Ms. ☐

Postal Address: 16095 Kings Creek Road, Boulder Creek, CA 95006

Telephone: (Home) 831-703-4162 (Mobile) 831-331-7959

E-Mail: boundses gmail.com

Committee you would like to serve on: Administrative Committee

Expectations

Be prepared to participate in a monthly Committee meeting (or quarterly for the Lompico Assessment District Oversight Committee). Learn about the water resources of our Valley. Participate in the rewarding experience of providing service to your community.

Why You Want to Participate

Please use the back of this form to add more information and/or attach a resume

I am a 15 year resident of Boulder Creek. I intend to live here for the rest of my life. I have been a paralegal for almost 40 years. I want to take my experience in the legal field to assist our local community by serving on the San Lorenzo Valley Water District Administrative Committee.

I believe that my experience could be valuable to the District and would appreciate being considered for this position.

Thank you.

RECEIVED
JAN 07 2019
SAN LORENZO VALLEY
WATER DISTRICT

Committee Application Form

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Please send your completed application to the District Secretary, 13060 Hwy. 9, Boulder Creek, CA 95006 or to hmorrison@slvwd.com.

Personal Details

Name: Chris White Mr. ☐ Mrs. ☒ Miss ☐ Ms. ☐

Postal Address: 265 Riverside Park Dr. Ben Lomond 95005

Telephone: (Home) 831-246-1772 (Mobile) 831-246-1772

E-Mail: rappa01@yahoo.com

Committee you would like to serve on: Administration

Expectations

Be prepared to participate in a monthly Committee meeting (or quarterly for the Lompico Assessment District Oversight Committee). Learn about the water resources of our Valley. Participate in the rewarding experience of providing service to your community.

Why You Want to Participate

Please use the back of this form to add more information and/or attach a resume

Please see attached.

CHRIS WHITE

RAPPA01@YAHOO.COM

831.246.1772

LINKEDIN: CHRISWHITE01

265 RIVERSIDE PARK DRIVE
BEN LOMOND, CA 95005

JANUARY 5, 2019

Dear Board of Directors,

Please accept this application as an expression of my interest in joining the Administration Committee of the San Lorenzo Valley Water District (SLVWD). As a resident of the San Lorenzo Valley for 15 years, I value SLVWD's independence and would like to help build a more fiscally and environmentally strong water district.

As a member of the Administration Committee, I would bring over 25 years of marketing, communication and program management experience. Working in public higher education for the past 18 years, I also have experience navigating public policy, government code, and legislative mandates. In my current position I work with a Board of Trustees and understand the differing roles and responsibilities elected officials and administrative staff have within the same organization. With this background and knowledge, I believe I would serve as an excellent committee member to the District.

My attached resume will provide you with more details regarding my qualifications and experience. Please contact me by phone or email so that we may set up a face to face meeting. I look forward to hearing from you and thank you for your time.

Sincerely,

Chris White

CHRIS WHITE

RAPPA01@YAHOO.COM

831.246.1772

CHRISWHITE01

EDUCATION

BA Politics, 1990
UC Santa Cruz

EXPERIENCE

PRESIDENT/ASSOCATION OF CLASSIFIED EMPLOYEES

January 2016 to present

- Provide overall direction and guidance on the day-to-day operations for the Association of Classified Employees (ACE), an independent labor organization representing 400 non-instructional staff at Foothill-De Anza Community College District.
- Preside over all membership and executive board meetings.
- Represent ACE with actions affecting policies, aims and means of accomplishing ACE's purpose.
- Appoint members for all standing and ad hoc committees.
- Chief spokesperson for ACE.

PROGRAM MANAGER/ONLINE EDUCATION INITIATIVE

August 2014 – December 2015

- Provide overall direction and guidance to the day-to-day operations for the Online Education Initiative (OEI), a statewide program which creates a centralized online education program for California Community Colleges.
- Implement program policies and directives according to district, federal or state guidelines.
- Coordinate delivery of services to program participants.

PROGRAM MANAGER, MARKETING/ FOOTHILL COLLEGE

November 2000 – August 2014

- Established and implemented integrated marketing campaigns to promote awareness and recruit students to the college. Worked with college administrators to identify target audiences.
- Developed college's social media presence. Increased engagement rate year over year by 25 percent.
- Managed various projects, including event coordination, publications production, photo shoots, video productions and special projects.
- Developed and monitored department budget. Reduced expenses by 20 percent.
- Hired and supervised student interns.

PRESIDENT, CLASSIFIED SENATE/FOOTILL COLLEGE

July 2011 – July 2012

- Represented 150 classified staff in the participatory governance processes of the college and district.
- Collaborated with the district Board of Trustees, chancellor, college president, academic senate president and other participatory governance representatives to develop student-centered policies and initiatives.
- Appointed staff representatives to college and district committees.
- Updated the Classified Senate Constitution and Bylaws to better utilize web technology. Increased participation by 20 percent.
  Initiated a classified employee giving campaign to raise funds for student programs. Increased classified staff contributions to student scholarships by 15 percent.

BUDGET & FINANCE COMMITTEE APPLICATIONS

Committee Application Form

Thank you for your interest in participating in a SLVWD Committee.

Members of the public play a vital role in shaping the District and your willingness to contribute time and effort is greatlyappreciated.

Please send your completed application to the District Secretary, 13060 Hwy. 9, Boulder Creek, CA 95006 or to hmorrison@slvwd.com.

Personal Details

Name: LYDIA HAMMACK Mr. ☐ Mrs. ☐ Miss ☐ Ms. ☐

Postal Address: 12561 COLEMAN AVE FELTON, CA 95018

Telephone: (Home) 831-335-5489 (Mobile) 775-741-0180

E-Mail: LoHAMMACK@ATT.NET

Committee you like to serve on: BUDGET & FINANCE COMMITTEE

Expectations

Be prepared to participate in a monthly Committee meeting. Learn about the water resources of our Valley. Rewarding experience of providing service to your community.

Why You Want to Participate

Please use the back of this form to add more information and/or attach a resume

11/27/18

I have always volunteered and been active where I live.

(See work & volunteer summary with references.)

I have the experience to be considered for the Budget & Finance committee.

Being retired, I have both days & evenings available for attending meetings.

Thank-you Lydia Hammack

Lydia Hammack
12561 Coleman Ave Felton, CA 95018
Home Phone # 831-335-5489 / Cell # 775-741-0180 / Email **l.hammack@att.net**

EMPLOYMENT HISTORY

July 2007 to July 2012 Bookkeeper for Highland Ranches Property Owners Association.
Duties included: A/R; A/P; Payroll -including associated tax reporting & filing; Assured insurance coverage was current; Reconciliation and month-end reports for Board of Directors; Tracked address and lot owner changes; Assisted in property transfers via certification of lot information for title companies.

March 2006 to August 2012 Bookkeeper & Finance Manager for Sierra Association of Foster Families. Duties included: A/R; A/P; Payroll -including associated tax reporting & filing; Complied Audit materials, Reconciliation and month-end reports for Executive Director; Reviewed & tracked budgets for 12 grants.

July 2004 to January 2014 Bookkeeper for Virginia City Highlands Property Owners Association.
Duties included: A/R; A/P; Payroll -including associated tax reporting & filing; Assured insurance coverage was current; Reconciliation and month-end reports for Board of Directors; Tracked address and lot owner changes; Assisted in property transfers via certification of lot information for title companies.

1994 to September 2012 Storey County Planning Commissioner - Highlands representative.
Appointed by and made recommendations to the Storey County Commissioners.
During 2003 -Complied a database of well log information for the Virginia Highlands utilizing records from state well logs; cross-referencing with building permits & assessor parcel information; Plotted well & home locations on maps. Research included data on depths, GPM, static level and information of original plus deepened wells.

VOLUNTEER WORK EXPERIENCE

1996 to 2012 - Storey County Precinct 5 election board chair.

Highland Ranches Property Owners Association board of directors,
President 1998-2001. VP 1995-1998. Handled correspondence with homeowners, Attorneys and Title Companies; Designed forms for annual meetings, elections & dues notice mailings; Chaired meetings; Designed and maintained hrpoa.org website until retirement.

Virginia Range Wildlife Protection Association board of directors, 1988-2000.
Serving several terms as President of the board from 1992 thru 2000: Coordinated donations & fundraising activities; Lobbied Legislators & County to pass bills helpful to "wild horses"; Spoke to various groups about wildlife, horses & adoption; Managed the Storey County Horse Adoption Program; Participated in state & local meetings about range conditions and horse management; Chaired meetings; Designed & maintained vrwpa.org website until August 2001.

2015 Worked on the "vote YES" for the Lompico / SLV water merger.

August 2016 to July 2018 LADOC (SLVWD) board member,- Vice Chair, Chair (two quarterly meetings)

Education: Major-Graphic Arts; Minor - Journalism

Bookkeeping training for my 1st bookkeeping job from Dave Thomas -Board Treasurer for VCHPOA & a forensic accountant who worked at a Reno Nevada CPA firm
References:
Dave Thomas & Pam Loy (Turner & Loy LLC) 775-847-9604 /wk 775-823-3777
Pat Whitten, Storey County Manager -Cell 775-721-7001 / Ofc -775-847-0968
Austin Osborne, Storey County Planning Director -Ofc -775-847-1144

Committee Application Form

Thank you for your interest in participating in a SLVWD Committee.

Members of the public play a vital role in shaping the District and your willingness to contribute time and effort is greatlyappreciated.

Please send your completed application to the District Secretary, 13060 Hwy. 9, Boulder Creek, CA 95006 or to hmorrison@slvwd.com.

Personal Details

Name: Lee Allan Sanders Mr. [X] Mrs. [ ] Miss [ ] Ms. [ ]

Postal Address: 9860 East Zayante Road, Felton, CA 95018-9041

Telephone: (Home) 8313346006 (Mobile) 8313346006

E-Mail: leeallansanders@gmail.com

Committee you would like to serve on: Budget & Finance

Expectations

Be prepared to participate in a monthly Committee meeting (or quarterly for the Lompico Assessment District Oversight Committee). Learn about the water resources of our Valley. Participate in the rewarding experience of providing service to your community.

Why You Want to Participate

Please use the back of this form to add more information and/or attach a resume

Why I (Lee Allan Sanders), want to serve on the Budget & Finance Committee for SLVWD:

- Attend, listen and take part in Budget & Finance Committee meetings
- Learn what current practices are in place
- Discuss what best practices are currently in use
- Study and understand what the budgetary and financial structure of SLVWD currently is
- Discover how to help improve processes in my area of assigned focus
- Help keep rate-payers informed about Budget & Finance Committee approaches to challenges
- Be available to rate-payers to receive input from customers
- Offer program & project management skills to the SLVWD Budget & Finance Committee

Contact

P.O. Box 1497
Felton, California 95018
USA
8313346006 (Work)
leeallansanders@gmail.com

www.linkedin.com/in/leeallansanders (LinkedIn)

Top Skills

Program Management
Training
Project Management

Lee Allan Sanders

Art Educator, all forms, types, ages, content :-)
Felton, California

Summary

Art Educator, in all the forms that can take :-)

Experience

Saori Santa Cruz
Gallery Community Management
2009 - Present
Central California Coast

Oversight and guidance to the fiber arts gallery located at Saori Santa Cruz. Event and education support. Volunteer position and coordination of volunteer recruitment.

Monterey County Department of Social Services (MCDSS)
Eligibility Worker (freelance)
October 2013 - December 2013 (3 months)
Monterey County - Several offices

Community Benefits Organization delivering program components to clients residing in Monterey County, California.

Profile of Santa Cruz
Marketing Coordinator for Internal Communications, Social Media and Community Management (freelance)
November 2012 - October 2013 (1 year)
Central California Coast

Organization-wide cross-functional communications management for internal, social media, and community communications.

University of California
Project Manager
October 2005 - November 2012 (7 years 2 months)
Central California Coast

Global resource management for highly interactive multimedia online course development.

[redacted]

Plantronics, Inc.
Marketing Manager
June 1980 - December 2004 (24 years 7 months)
Central California Coast

Brand and service organization global development.

Mount Madonna Center
Director
May 1980 - June 1982 (2 years 2 months)
Watsonville, California

Board of Directors member, Advocacy Coordinator, Childcare Manager

Marcos de Niza High School
Art Teacher
August 1970 - August 1975 (5 years 1 month)
Tempe, Arizona

High school and Adult Evening school art teacher focusing on 3-dimensional art.

Education

Arizona State University
Bachelor of Arts (B.A.), Education

Rensselaer Polytechnic Institute
Electrical Engineering

ENGINEERING COMMITTEE APPLICATIONS

Committee Application Form

Thank you for your interest in participating in a SLVWD Committee.

Members of the public play a vital role in shaping the District and your willingness to contribute time and effort is greatlyappreciated.

Please send your completed application to the District Secretar , 13060 Hwy. 9, Boulder Creek, CA 95006 or to hmorrison@slvwd.com.

Personal Details

Name: Mark Smolley Mr. ☐ Mrs. ☐ Miss ☐ Ms. ☐

Postal Address: 5933 Valley Drive, Felton

Telephone: (Home)_____ (Mobile) 650-815-5840

E-Mail: m.smolley@ccm.to

Committee you would like to serve on: Engineering

Expectations

Be prepared to participate in a monthly Committee meeting (or quarterly for the Lompico Assessment District Oversight Committee). Learn about the water resources of our Valley. Participate in the rewarding experience of providing service to your community.

Why You Want to Participate

Please use the back of this form to add more information and/or attach a resume

I recently moved to Felton and I am interested in becoming involved in the local community. My previous community involvement includes serving on the Board of a non-profit organization for six years (Rebuilding Together). I found the experience to be rewarding and informative.
In addition, my professional experience gives me an understanding of the Water District's services. In my role as a Construction Project Manager for the past 20 years, I supervised the engineering and construction of utilities, including major water pipeline installations. In addition, I managed the installation of groundwater production and monitoring wells.

Mark Smolley
5933 Valley Drive, Felton
650-815-5840

APPLE, Inc — Cupertino, CA (2015 – 2018)
Project Manager for construction of all utilities at new 170-acre campus which included:

- Water lines in public streets for California Water Service which consisted of 4,000 feet of 12-inch diameter pipeline.
- Gas services from PG&E for three buildings and utility plant.
- Water services from Utility Plant to six buildings. Over 10,000 feet of piping installed which included Chilled, Hot, and Tempered, and Fire water services. Managed flushing and commissioning of water services.
- Electrical and telecom services to six buildings. Interfaced with Apple internal teams to activate both services.

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO — San Francisco, CA (2008 – 2014)
Project Manager at the Mission Bay campus. Single point of contact for construction teams, UCSF departments, PG&E, City and State agencies, public infrastructure developer and the surrounding community. Responsibilities included coordinating architects and engineers, preparing Design-Build documents, and managing all contractor activities. Projects managed include:

- Genentech Hall Renovation - Installation of Robotic Cage Wash Equipment in an operating research laboratory.
- Cardiovascular Research Building - Installed Telecom, Security and AV systems. Utility Infrastructure services from PG&E and City of San Francisco.
- Surcharge of undeveloped areas on UCSF campus.
- Expansion of on-campus utility plant to increase energy efficiency of campus utility network.
- Installation of new Wireless Access Units at Mission Bay Housing complex in 530 apartment units.
- Managed environmental consultants and compliance of campus-wide storm water regulations.
- Commissioned chillers & boilers in addition to steam, hot water, & chilled water piping for Utility Plant.

SAN MATEO COMMUNITY COLLEGE DISTRICT — San Mateo, CA (2006 – 2007)
Construction and renovations at three college campuses for the District's Bond Program. Included Bridging Documents for Design-Build projects totaling $200 million; preparing work scopes, budgets and schedules for the construction of new facilities; and preparing bid packages along with evaluating contractor bids and proposals. Interfaced with Division of State Architect.

CALPINE CONSTRUCTION MANAGEMENT COMPANY — San Jose, CA (2001 – 2005)
Construction Project Manager for all utilities for the Metcalf Energy Center, a 600-megawatt power plant. Utilities included a 230-kilovolt switchyard, natural gas pipeline, water lines, rail line, landscaping, and access road. Obtained environmental and construction permits from State, County and City agencies. Primary point of contact for PG&E, California ISO, and California Energy Commission. Commissioned switchyard and gas pipeline services.

HOYA CORPORATION — Fremont, CA (1997 – 2000)
Project Manager for the design, bidding, and construction of a 32,000 SF manufacturing facility, which provided laser glass to the National Ignition Facility for the world's most powerful laser. Construction included hazardous materials occupancy and a chlorine gas system, which required negotiating variances with the City of Fremont. Managed contractors, architects, and electrical, mechanical, structural, and chemical engineers.

EMCON ASSOCIATES — San Jose, CA (1986 – 1997)
Project Manager in charge of all aspects of environmental investigations and cleanups for industrial facilities. Managed budgets and schedules for 15 clients with annual revenues of $1.5 million. Typical projects included:

Ikea Store, Emeryville, CA — Environmental cleanup of a 12-acre property, including lead and asbestos abatement, building demolition, excavation, and site remediation. Negotiated precedent-setting clean up levels with State regulatory agencies resulting in $3 million savings.

Barbers Point Power Plant, Oahu, HI — Evaluated water resources for an electrical cogeneration plant. Determined locations and depths for new water production wells.

PERSONAL INFORMATION

- BS in Geology from Pennsylvania State University
- California Professional Geologist
- Rebuilding Together, Silicon Valley chapter – Board member (2003 – 2009)

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SAN LORENZO VALLEY
WATER DISTRICT

Committee Application Form

Thank you for your interest in participating in a SLVWD Committee.

Members of the public play a vital role in shaping the District and your willingness to contribute time and effort is greatlyappreciated.

Please send your completed application to the District Secretary, 13060 Hwy. 9, Boulder Creek, CA 95006 or to hmorrison@slvwd.com.

Personal Details

Name: Susan Miracle Mr. ☐ Mrs. ☐ Miss ☐ Ms. ☐

Postal Address: 566 Scenic Way, Ben Lomond, CA 95005

Telephone: (Home) 831-609-6065 (Mobile) _____

E-Mail: s.miracle@sbcglobal.net

Committee you would like to serve on: Engineering

Expectations

Be prepared to participate in a monthly Committee meeting (or quarterly for the Lompico Assessment District Oversight Committee). Learn about the water resources of our Valley. Participate in the rewarding experience of providing service to your community.

Why You Want to Participate

Please use the back of this form to add more information and/or attach a resume

I am fairly new to the mountains, and I would like the opportunity to get involved in the community. I would also like to understand my water supply better.

I am a Power Electronics Engineer with Lockheed Martin. I have also been an HOA president and teacher.

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SAN LORENZO VALLEY
WATER DISTRICT

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Personal Details

Name: Joel Busa Mr. ☑ Mrs. ☐ Miss ☐ Ms. ☐

Postal Address: 164 McPheeters Circle, Boulder Creek

Telephone: (Home) 831-338-9368 (Mobile) 831-818-3206

E-Mail: jbusah2o@gmail.com

Committee you would like to serve on: Engineering

Expectations

Be prepared to participate in a monthly Committee meeting (or quarterly for the Lompico Assessment District Oversight Committee). Learn about the water resources of our Valley. Participate in the rewarding experience of providing service to your community.

Why You Want to Participate

Please use the back of this form to add more information and/or attach a resume

Please see attached

I worked as an employee of the San Lorenzo Valley Water District for a total of 38 years.
During that period, I functioned in a few different capacities but the majority of my time was spent in water treatment, water quality and system operation.
My daily job duties gave me intimate knowledge and insight into the workings of the District's facilities including storage tanks, pumping stations, wells, pressure regulator stations, treatment facilities, telecommunications and the SCADA system.
My position not only included operation of the District facilities but also troubleshooting and repair of the system components

Throughout my time of employment at SLVWD, the District went through many changes which included improvements to the infrastructure. I was present at the initial startup after construction of several facilities, as well as the facilities that were upgraded and repaired during my tenure. I also supervised the merging of the Manana Woods water system and the Felton water system (Cal-Am) with the SLV system. The knowledge that I gained over the years allowed me to participate in the writing of Operations Manuals for many of these facilities that are used today.
I believe my experience allows me a unique perspective and uncommon knowledge of the workings of the District that would be beneficial to the committee. I would like the opportunity to share this knowledge with the committee with the ultimate goal of improved District facilities for all.
Thank You for your consideration.

Joel Busa
164 McPheeters Circle
Boulder Creek Ca

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JAN 02 2019
SAN LORENZO VALLEY
WATER DISTRICT

Committee Application Form

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Please send your completed application to the District Secretary, 13060 Hwy. 9, Boulder Creek, CA 95006 or to hmorrison@slvwd.com.

Personal Details

Name: Douglas A Fraser Mr. [X] Mrs. [ ] Miss [ ] Ms. [ ]

Postal Address: 125 Mayfair Road, Boulder Creek, CA 95006

Telephone: (Home)_____ (Mobile) 650-845-7938

E-Mail: doug.fraserbc@gmail.com

Committee you would like to serve on: Engineering

Expectations

Be prepared to participate in a monthly Committee meeting (or quarterly for the Lompico Assessment District Oversight Committee). Learn about the water resources of our Valley. Participate in the rewarding experience of providing service to your community.

Why You Want to Participate

Please use the back of this form to add more information and/or attach a resume

I am an experienced water engineer with over 40 years of experience in design, construction, operation, and maintenance of industrial and municipal water systems. My most applicable experience to SLVWD was as a Technical Services Manager and a Senior Project Engineer at Cal Am's Monterey system. I also worked on the Felton system prior to turnover to SLVWD and managed the transition. I managed projects involving pipeline/main replacement, well rehabilitation, tank construction and rehabilitation, arsenic treatment, ASR, and desalination. I also spent close to a year working for the Santa Cruz Water Department in a short term role as an engineer at Graham Hill Water Treatment Plant, particularly looking at watershed issues and impacts of seasonal water quality to the system. I believe I am both qualified and familiar with the unique issues facing SLVWD, and as a ratepayer who is frankly shocked at the increases we've experienced, I think I can lend a critical but objective eye to oversight. Please refer to my LinkedIn profile here: www.linkedin.com/in/dougfraserbc

RECEIVED
JAN 07 2019
SAN LORENZO VALLEY
WATER DISTRICT

Committee Application Form

Thank you for your interest in participating in a SLVWD Committee.

Members of the public play a vital role in shaping the District and your willingness to contribute time and effort is greatlyappreciated.

Please send your completed application to the District Secretary, 13060 Hwy. 9, Boulder Creek, CA 95006 or to hmorrison@slvwd.com.

Personal Details

Name: LEW FARRIS Mr. ☒ Mrs. ☐ Miss ☐ Ms. ☐

Postal Address: 409 HILLVIEW DR FELTON CA 95018

Telephone: (Home) 831-335-5174 (Mobile) 831-239-1071

E-Mail: LANLCCJL @ CRUZIO.COM

Committee you would like to serve on: ENGINEERING

Expectations

Be prepared to participate in a monthly Committee meeting (or quarterly for the Lompico Assessment District Oversight Committee). Learn about the water resources of our Valley. Participate in the rewarding experience of providing service to your community.

Why You Want to Participate

Please use the back of this form to add more information and/or attach a resume

PLEASE SEE ATTACHED.

Informational attachment to application for citizen member of the Engineering Committee serving the San Lorenzo Valley Water District

Name: Lew Farris

City: Felton

Email: lanlccjl@cruzio.com

Background-

Bachelor's degree in Chemistry, University of California Irvine, 1973

~30 years of increasing responsibility in the Biotech Industry, followed by ~15 years as consultant and Lead Auditor of ISO 9001 (general industry) and ISO 13485 (medical device industry)

Extensive experience in design, manufacture, installation, and validation of high volume, high purity water systems the world over

Involved with water testing to USP/NCCLS standards (potable water as a starting point)

Spent one year (2014) as a volunteer on the Citizens Action Committee, enpowered by SLVWD to help address items in the first Grand Jury report

Why participate on the Engineering Committee?

I am currently retired, and wanting to give back to the community. Additionally, having attended most of the Board of Director's meetings in the last 3 years, this gives me a unique perspective on technical issues guiding SLVWD's strategic future.

Thank you for the consideration.

LADOC APPLICATION

Lompico Oversight Committee Application Form

Thank you for your interest in participating in a Lompico Oversight Committee.

Members of the public play a vital role in shaping the District and your willingness to contribute time and effort is greatly appreciated.

Please send your completed application to the District Secretary, 13060 Hwy. 9, Boulder Creek, CA 95006 or to hmorrison@slvwd.com

Personal Details

Name: Debra A. Loewen Mr. ☐ Mrs. ☐ Miss ☐ Ms. ☐

Postal Address: PO Box 66165, Scotts Valley CA 95067

Telephone: (Home) 831 335-7963 (Mobile) _____

E-Mail: LFsolar@yahoo.com

The Committee

This committee will be made up of 5 individuals interested in assisting in the transition of Lompico County Water District in the merger with SLVWD. We ask that you be customers of the former Lompico water district. Your input with SLVWD will be advisory.

Why You Want to Participate

I'm very excited about potential changes to the Lompico Oversight Committee starting in 2018, to include training, analysis, preparing reports, and community outreach for AD-16. I'd love to be part of this team moving forward.

I have experience being a citizen member on two committees while a customer of Lompico County Water District (LCWD). I found this type of collaborative work on both committees with board members and other citizens greatly satisfying and rewarding.

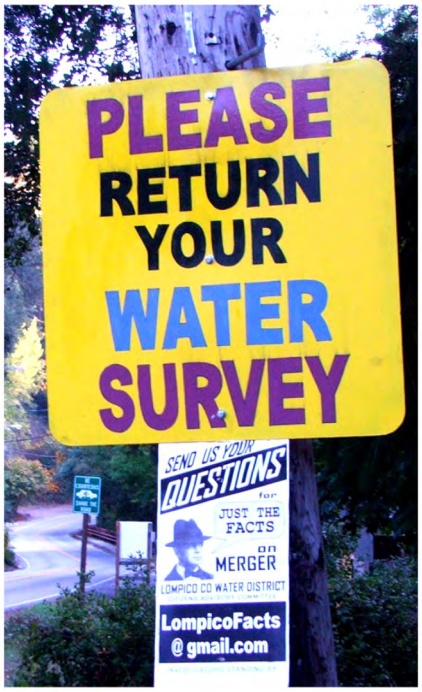
My experience includes

2011-2015 Citizens Advisory Committee, LCWD. This committee was tasked by the board to provide reliable, fact-based information about the proposed SLVWD merger to Lompico customers. Included research, outreach, website posts, and organizing workshops.

2013-2014 Citizen member, Grand & Loan Committee, LCWD, working with two board members, Shannar Abraham and Sherwin Gott; Research, prepare reports and make recommendations to the board; Attend workshops, gather info from State & Federal agencies.

My work on the Lompico Citizens Advisory Committee included making signs and creating graphics that would reach out to the community and invite participation.

I also contributed collaboratively to our website posts, answering ratepayer questions by interviewing experts and writing responses in a clear and concise factual form approved by the committee.



The Citizen's Advisory Committee organized a workshop at our local fire house, inviting San Lorenzo Valley Water District staff & experts from throughout the County to answer questions one-on-one with Lompico ratepayers, to help analyze this important decision to merge or remain independent. The committee provided written and visual tools, such as comparing "units", to answer common questions.

My work on the Grant & Loan committee included preparing graphics for identifying the committee at workshops (business cards for contacts), reports to the board, and overviews of potential projects for presentations to the board and potential funding agencies. As a member of the public I've attended several water district Brown Act and Board Training workshops sponsored by the California Rural Water Association.

Education: BA San Jose State University, Art.

Major Work Experience:
Civil Service, San Mateo County and City of San Jose, Public Library systems; public and technical services
Graphics and Drafting business, self-employed in partnership with my husband; design services.
Contractor, solar thermal water systems; Co-Owner, Field Technician and Office Manager 31 years

Retired

MEMO

TO: Board of Directors

FROM: District Manager
PREPARED BY: Environmental Analyst

SUBJECT: Discussion and Possible Action Regarding approving Initial Study for the Lyon and Sequoia Pipeline Projects

DATE: January 17, 2019

RECOMMENDATION

It is recommended that the Board of Directors review this memo and approve the attached Initial Study for the Lyon and Sequoia Pipeline Projects.

BACKGROUND

Lyon Zone

Lyon Zone Water Distribution System Project (Lyon Project) consists of replacing the existing 6" water distribution line in the Lyon and Big Steel Zones with approximately 5,600 linear feet of 12-inch ductile iron pipe. The new pipeline will parallel the existing 8" line preferably in the same easement, beginning at the Big Steel, Lyon, and Little Lyon Reservoirs and ending at the intersection of Central Avenue and Lomond Street in Boulder Creek, CA. The current pipeline goes through homeowner yards and under houses, making maintenance a challenge. Past analysis states that if the existing line was upsized, water could flow from Lyon and Big Steel Reservoirs to fill the Reader, Blackstone, and Bear Creek Reservoirs. This will add flexibility to utilize multiple supply sources throughout the District. PRVs will need to be installed. (USDA, 2018)

Sequoia Avenue

The Sequoia Avenue Pipeline Project (Project) will prevent water losses and service outages in the Reader Pressure Zone. The existing 6" cast iron pipe is in extremely poor condition, experiencing two breaks annually which results in major water loss. Several hundred customers' service is interrupted to fix these breaks. The proposed Project consists of the following:

- Remove 800 feet of existing 6" pipe located above ground and supported by aging redwood timbers along Sequoia Avenue.
- Install 800 feet of 8" HDPE water main and appurtenances to replace the existing above ground section of pipeline along Sequoia Avenue. The alignment of the new main will be in the Sequoia Avenue right-of-way (ROW). Surveying is required to confirm the location of the ROW along the abandoned section of road. The new pipe will be constructed above ground on supports. Construction includes connections to existing service laterals, fire hydrants as requested by the Fire Department or District Standards, and other appurtenances as describe by District standards. (USDA, 2018)

PROJECT LOCATION

The project site is composed of two locations in northwestern Santa Cruz County within the census-designated place of Boulder Creek. The Lyon Pipeline location extends from the Big Steel, Lyon, and Little Lyon Reservoirs along State Route (SR) 236, Pine Street, and Lomond Street, ending at the intersection of Central Avenue and Lomond Street. The Sequoia Avenue Pipeline location extends along Sequoia Avenue from its intersection with Hoot Owl Way. Both pipeline locations are composed of existing roadway rights-of-way (ROW) and utility easements.

DESCRIPTION OF PROJECT

The Lyon and Sequoia Avenue Pipelines Project (herein referred to as "proposed project" or "project") would include installation and operation of approximately 6,400 linear feet (LF) of potable water pipelines and appurtenance structures as well as abandonment of an existing pipeline and removal of approximately 800 LF of existing pipeline within two locations. The purpose of the proposed pipelines is to reduce water losses, improve the adequacy and resiliency of the existing water supply system, and reduce routine maintenance and repair impacts to private property and environmentally-sensitive habitat.

The Lyon Pipeline would be constructed from April 2020 through July 2020, and the Sequoia Avenue Pipeline would be constructed in July 2021. Construction of the Lyon Pipeline would entail conventional, open trench construction while construction of the Sequoia Avenue would entail aboveground pipeline installation on supports. Construction would occur within existing utility easements and roadway ROW. Typical construction activities include traffic control, surveying the alignments, setting up stormwater pollution prevention measures, sawcutting the existing pavement along the trench alignment, and excavating an open trench to five to six feet total depth. Project construction would also include installing new pipeline (including valves, blow-offs, and hydrants), pressure testing and disinfection of the new water main, tying into the existing distribution system, switching over customer services to the new pipeline, backfilling the trench and repairing the pavement, abandoning the existing pipeline in-place or removing the existing pipeline, and restoring any damaged features to pre-construction condition or better.

Lyon Pipeline

The Lyon Pipeline would consist of approximately 5,600 LF of 12-inch ductile iron pipe (DIP). Figure 2 shows the Lyon Pipeline location. The proposed Lyon Pipeline would parallel an existing eight-inch main line. The northwestern terminus of the Lyon Pipeline would be located at the Big Steel, Lyon, and Little Lyon Reservoirs. From the reservoirs, the alignment would proceed east to SR 236, then continue along the SR 236 ROW in a generally southeast direction. The pipeline would turn south at the intersection of SR 236 and Pine Street, proceed along Pine Street to the intersection of Pine Street and

Lomond Street, turn west and proceed along Lomond Street, and end at the intersection of Central Avenue and Lomond Street. The southeastern terminus of the Lyon Pipeline would connect to the existing eight-inch asbestos-cement main that runs along Highway 9 (also known as Central Avenue).
In conjunction with construction of the Lyon Pipeline, the existing six-inch steel distribution pipeline in the Lyon Pipeline location would be abandoned in place. The existing pipeline generally runs in a northwest to southeast direction from the Little Lyon Reservoir. The existing pipeline would be cut and capped at its western terminus adjacent to the Little Lyon Reservoir and at its connection point located just north of the intersection of SR 236 and Redwood Avenue.

Sequoia Avenue Pipeline

The Sequoia Avenue Pipeline would consist of approximately 800 LF of an eight-inch high density polyethylene (HDPE) water main and appurtenances along the Sequoia Avenue (an abandoned road) ROW. Figure 3 shows a map of the Sequoia Avenue Pipeline location. The project would also remove 800 feet of existing six-inch above ground pipeline along Sequoia Avenue, which includes segments of original cast iron and replacement plastic pipe. The Sequoia Avenue Pipeline would run in a northeast to southwest direction along the Sequoia Avenue ROW with an elevation gain of approximately 72 feet. The northwestern terminus would connect at the intersection of Hoot Owl Way and Sequoia Avenue. The new pipeline would be constructed aboveground on supports. Construction would include connections to existing service laterals and fire hydrants as requested by the Fire Department or SLVWD standards, and other appurtenances as described by SLVWD standards.

RECOMMENDATION

Review and approve the Initial Study (attached) for the Lyon and Sequoia pipeline projects. If approved the public comment period for the initial study will commence January 18th and the public hearing will be scheduled for the February 21 Board Meeting to meet the 30 day public comment period. Following the Public Hearing, the board will consider adopting the MND. Once adopted the Mitigated Negative Declaration will be ready to be submitted to the county. It is recommended that the Board review and approve the Initial Study to be submitted to initiate the CEQA process.

FISCAL IMPACT: None

2015 STRATEGIC PLAN:
Strategic Element 1.0 – Water Supply Management
Strategic Element 3.0 – Capital Facilities

Lyon and Sequoia Avenue Pipelines Project

Administrative Draft

Initial Study – Mitigated Negative Declaration

prepared by

San Lorenzo Valley Water District
13060 CA-9
Boulder Creek, California 95006

prepared with the assistance of

Rincon Consultants, Inc.
437 Figueroa Street, Suite 203
Monterey, California 93940

November 2018

Rincon Consultants, Inc.
Environmental Scientists Planners Engineers
www.rinconconsultants.com

Lyon and Sequoia Avenue Pipelines Project

Administrative Draft

Initial Study – Mitigated Negative Declaration

prepared by

San Lorenzo Valley Water District
13060 CA-9
Boulder Creek, California 95006

prepared with the assistance of

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November 2018

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Environmental Scientists Planners Engineers
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Initial Study

1. Project Title

Lyon and Sequoia Avenue Pipelines Project

2. Lead Agency Name and Address

San Lorenzo Valley Water District (SLVWD)
13060 CA-9
Boulder Creek, California 95006

3. Contact Person and Phone Number

Commented [A1]: District: Confirm correct

Jen Michelsen
Environmental Programs Manager
San Lorenzo Valley Water District
(831) 430-4627

4. Project Location

The project site is composed of two locations in northwestern Santa Cruz County within the census-designated place of Boulder Creek. The Lyon Pipeline location extends from the Big Steel, Lyon, and Little Lyon Reservoirs along State Route (SR) 236, Pine Street, and Lomond Street, ending at the intersection of Central Avenue and Lomond Street. The Sequoia Avenue Pipeline location extends along Sequoia Avenue from its intersection with Hoot Owl Way. Both pipeline locations are composed of existing roadway rights-of-way (ROW) and utility easements. Figure 1 shows the two pipeline locations in a regional context. Figure 2 and Figure 3 depict the pipeline locations and surrounding areas at a local scale.

5. Project Sponsor's Name and Address

San Lorenzo Valley Water District (SLVWD)
13060 CA-9
Boulder Creek, California 95006

6. General Plan Designation

The Lyon Pipeline location is within land designated by the County of Santa Cruz General Plan/Local Coastal Program (GP/LCP) as Resource Conservation, Rural Residential, Suburban Residential, and Community Commercial. The Sequoia Avenue Pipeline location is within land designated by the County of Santa Cruz GP/LCP as Rural Residential and Mountain Residential (County of Santa Cruz 2018a).

San Lorenzo Valley Water District
Lyon and Sequoia Avenue Pipelines Project

Figure 1 Regional Location Map

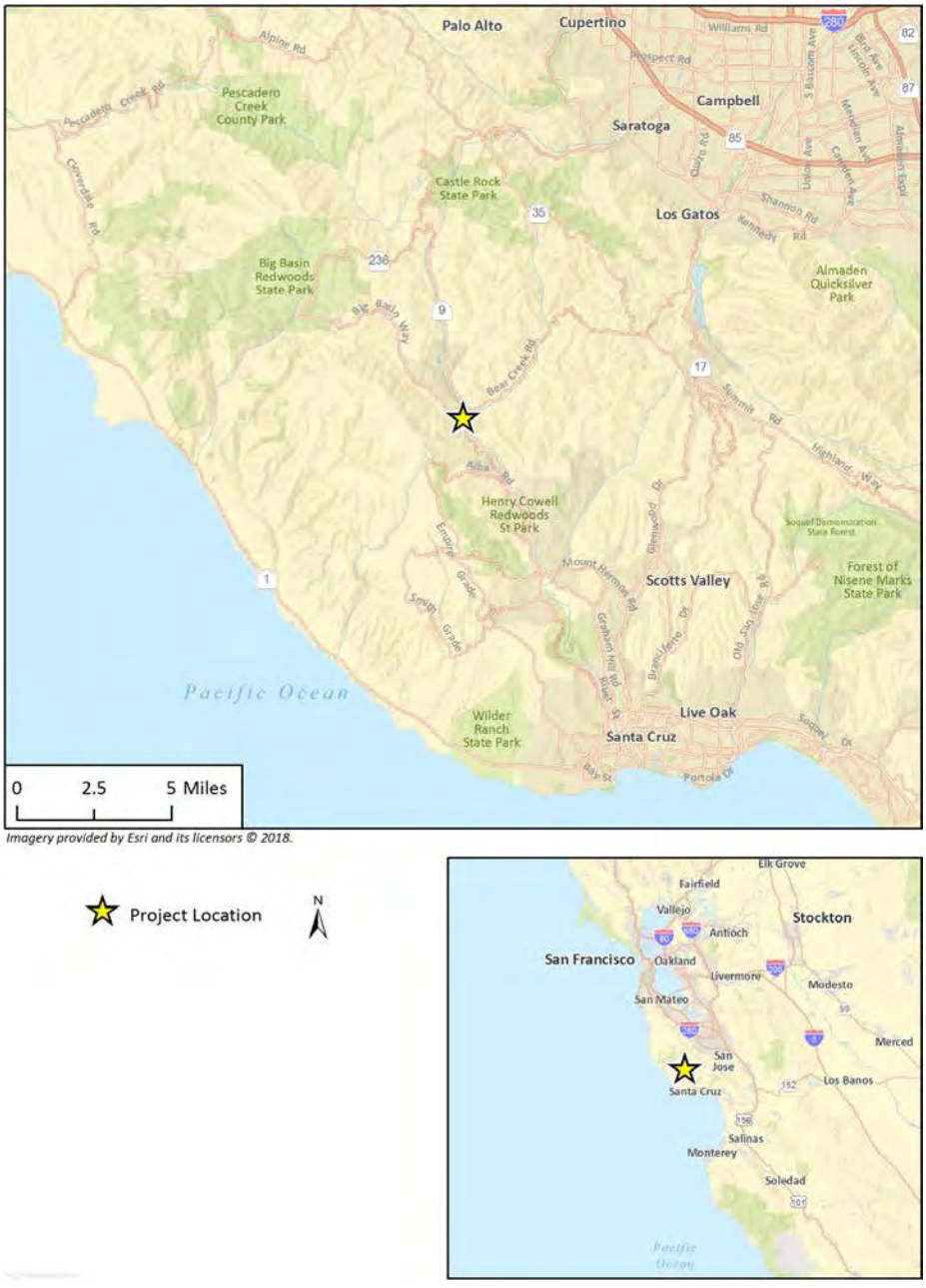

Figure 2 Lyon Pipeline Location

Figure 3 Sequoia Avenue Pipeline Location

7. Zoning

The Lyon Pipeline location is zoned as Parks, Recreation, and Open Space (PR); Special Use (SU); Residential Agricultural (RA); Single-Family Residential, Minimum Lot Size of 6,000 Square Feet (R-1-6); Single-Family Residential, Minimum Lot Size of 15,000 Square Feet (R-1-15); and Community Commercial with Historic Landmark Designation (C-2-L). The Sequoia Avenue Pipeline location is zoned as R-1-15 and SU (County of Santa Cruz 2018a).

8. Description of Project

The Lyon and Sequoia Avenue Pipelines Project (herein referred to as "proposed project" or "project") would include installation and operation of approximately 6,400 linear feet (LF) of potable water pipelines and appurtenance structures as well as abandonment of an existing pipeline and removal of approximately 800 LF of existing pipeline within two locations. The purpose of the proposed pipelines is to reduce water losses, improve the adequacy and resiliency of the existing water supply system, and reduce routine maintenance and repair impacts to private property and environmentally-sensitive habitat.

The Lyon Pipeline would be constructed from April 2020 through July 2020, and the Sequoia Avenue Pipeline would be constructed in July 2021. Construction of the Lyon Pipeline would entail conventional, open trench construction while construction of the Sequoia Avenue would entail aboveground pipeline installation on supports. Construction would occur within existing utility easements and roadway ROW. Typical construction activities include traffic control, surveying the alignments, setting up stormwater pollution prevention measures, sawcutting the existing pavement along the trench alignment, and excavating an open trench to five to six feet total depth. Project construction would also include installing new pipeline (including valves, blow-offs, and hydrants), pressure testing and disinfection of the new water main, tying into the existing distribution system, switching over customer services to the new pipeline, backfilling the trench and repairing the pavement, abandoning the existing pipeline in-place or removing the existing pipeline, and restoring any damaged features to pre-construction condition or better.

Commented [A2]: District: if abandoned Sequoia Avenue is paved, are we re-paving?

Lyon Pipeline

The Lyon Pipeline would consist of approximately 5,600 LF of 12-inch ductile iron pipe (DIP). Figure 2 shows the Lyon Pipeline location. The proposed Lyon Pipeline would parallel an existing eight-inch main line. The northwestern terminus of the Lyon Pipeline would be located at the Big Steel, Lyon, and Little Lyon Reservoirs. From the reservoirs, the alignment would proceed east to SR 236, then continue along the SR 236 ROW in a generally southeast direction. The pipeline would turn south at the intersection of SR 236 and Pine Street, proceed along Pine Street to the intersection of Pine Street and Lomond Street, turn west and proceed along Lomond Street, and end at the intersection of Central Avenue and Lomond Street. The southeastern terminus of the Lyon Pipeline would connect to the existing eight-inch asbestos-cement main that runs along Highway 9 (also known as Central Avenue).

In conjunction with construction of the Lyon Pipeline, the existing six-inch steel distribution pipeline in the Lyon Pipeline location would be abandoned in place. The existing pipeline generally runs in a northwest to southeast direction from the Little Lyon Reservoir. The existing pipeline would be cut and capped at its western terminus adjacent to the Little Lyon Reservoir and at its connection point located just north of the intersection of SR 236 and Redwood Avenue.

Sequoia Avenue Pipeline

The Sequoia Avenue Pipeline would consist of approximately 800 LF of an eight-inch high density polyethylene (HDPE) water main and appurtenances along the Sequoia Avenue (an abandoned road) ROW. Figure 3 shows a map of the Sequoia Avenue Pipeline location. The project would also remove 800 feet of existing six-inch aboveground pipeline along Sequoia Avenue, which includes segments of original cast iron and replacement plastic pipe. The Sequoia Avenue Pipeline would run in a northeast to southwest direction along the Sequoia Avenue ROW with an elevation gain of approximately 72 feet. The northwestern terminus would connect at the intersection of Hoot Owl Way and Sequoia Avenue. The new pipeline would be constructed aboveground on supports. Construction would include connections to existing service laterals and fire hydrants as requested by the Fire Department or SLVWD standards, and other appurtenances as described by SLVWD standards.

Commented [A3]: District: Is this the Boulder Creek Fire Protection District or County fire department? We will need this for our mailing list.

9. Surrounding Land Uses and Setting

The pipeline locations primarily traverse residential, commercial, and open space areas. Specifically, land uses in and around the project site are predominantly residential areas, commercial uses including retail stores, offices, and restaurants, and heavily forested open space.

10. Other Public Agencies Whose Approval is Required

Commented [A4]: District: confirm correct and that no more are needed

- California Water Resources Control Board, Drinking Water Branch: Review/Approval of Change in Water System Operation Permit
- County of Santa Cruz: Potential Encroachment Permit for Work in Public Right-of-Way

As a public water service district, SLVWD is not required to obtain development permits from the County of Santa Cruz (pursuant to Santa Cruz County Code Section 13.10.140(b) and California Government Code Section 53091(e)).

Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is "Potentially Significant" or "Potentially Significant Unless Mitigation Incorporated" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
■ Biological Resources	☐ Cultural Resources	■ Geology and Soils
☐ Greenhouse Gas Emissions	■ Hazards and Hazardous Materials	■ Hydrology and Water Quality
☐ Land Use and Planning	☐ Mineral Resources	■ Noise
☐ Population and Housing	☐ Public Services	☐ Recreation
■ Transportation/Traffic	☐ Tribal Cultural Resources	☐ Utilities and Service Systems
☐ Mandatory Findings of Significance		

Determination

Based on this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

■ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potential significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	Date
Printed Name	Title

Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	■	☐
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	■	☐
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	■	☐
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	■	☐

a. Would the project have a substantial adverse effect on a scenic vista?

The proposed project is located within the census-designated place of Boulder Creek in the County of Santa Cruz. The Lyon Pipeline location is surrounded by residential and commercial uses as well as heavily forested open space. The Sequoia Avenue Pipeline location is surrounded by rural residential uses and heavily forested open space. The Conservation and Open Space Element of the County of Santa Cruz GP/LCP identifies visual resources as vistas from designated scenic roads, Coastal Special Scenic Areas, ocean views, agricultural fields, wooded forests, open meadows, mountain hillside views, and unique hydrologic, geologic, and paleontological features. The Conservation and Open Space Element also includes scenic protection policies for preserving open beaches and blufftops and significant trees. Scenic roads designated by the GP/LCP in the project site vicinity are SR 236 and Highway 9 (County of Santa Cruz 1994). No mapped scenic resources are located on or near the project site (County of Santa Cruz 2017a). However, SR 236 and Highway 9, both of which are designated scenic roads according to the GP/LCP, run through or near the project site. Vistas from scenic roads near the Lyon Pipeline location consist primarily of redwood forest and mixed forest woodland hillsides visible from SR 236 and views of the town of Boulder Creek from Highway 9. Although Highway 9 also runs near the Sequoia Avenue Pipeline location, intervening topography and mature woodlands obstruct views of the project site from Highway 9. Therefore, no scenic vistas are present in the immediate vicinity of the Sequoia Avenue Pipeline location.

During construction of the Lyon Pipeline, scenic vistas from SR 236 and Highway 9 would be temporarily impaired by the staging and operation of construction equipment; however, once construction is complete, the Lyon Pipeline would not result in permanent aesthetic changes that would alter scenic vistas from their existing conditions because it would be entirely underground. Therefore, the Lyon Pipeline would not interrupt or impede a scenic vista. In addition, no trees would be removed due to construction of the project, and any damaged features, including vegetation and roadway pavement, would be restored to pre-construction condition or better. Therefore, project impacts to scenic vistas would be less than significant.

Commented [A5]: District: please confirm

LESS THAN SIGNIFICANT IMPACT

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

There are no officially designated State scenic highways in the vicinity of the project site. SR 236, which runs adjacent to the Lyon Pipeline location, is eligible for designation as a State scenic highway but is not officially designated by the California Department of Transportation (Caltrans; Caltrans 2017). Although SR 236 and Highway 9 are not designated State scenic highways, it is noted that these two highways are identified as scenic roads in the Conservation and Open Space Element of the County of Santa Cruz GP/LCP (County of Santa Cruz 1994).

Construction of the Lyon Pipeline could temporarily impair views of scenic resources from SR 236 and Highway 9 by staging and operating construction equipment in the immediate field of view. Upon completion of construction, the Lyon Pipeline would not be visible near SR 236 or Highway 9 because the pipeline would be entirely underground, and the pipeline location would be restored to pre-construction conditions or better. Although Highway 9 also runs near the Sequoia Avenue Pipeline location, intervening topography and mature woodlands obstruct views of the pipeline location from Highway 9. Therefore, no scenic vistas are present in the immediate vicinity of the Sequoia Avenue Pipeline location.

In summary, the project would not impact scenic resources within an officially designed State scenic highway, and project impacts to scenic resources visible from eligible State scenic highways and County-designated scenic roads would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Construction of the proposed project would be visible from surrounding land uses and would temporarily alter the existing visual character and quality of the project area and vicinity. The visual character of the Sequoia Avenue Pipeline location consists of redwood forest, mixed woodlands, and a paved roadway. The visual character of the Lyon Pipeline consists of dense redwood forest, mixed woodlands, paved roadways, rural and suburban residential neighborhoods, and low-intensity commercial development. See Figure 4 through Figure 15 for representative site photographs of the Lyon and Sequoia Avenue Pipeline locations.

A temporary change in visual character would result from the presence of construction equipment and material, stockpiles of soil, and construction vehicles during laydown of the pipeline, but this change would end once project construction is complete. Pipeline installation would occur at a rate of approximately 200 LF per day over a period of approximately four months for the Lyon Pipeline and approximately one month for the Sequoia Avenue Pipeline. Thus, the visual character of the

Figure 4 Lyon Pipeline – View from Large Water Tank

Figure 5 Lyon Pipeline – View of Existing Pipeline from Water Tank

Figure 6 Lyon Pipeline – View of Entrance Gate

Figure 7 Lyon Pipeline – View of Shoulder

Figure 8 Lyon Pipeline – View of Existing Pipeline

Figure 9 Lyon Pipeline – View of Ravine Where Existing Pipeline Is Located

Figure 10 Lyon Pipeline – View along Road

Figure 11 Lyon Pipeline – View along Road

Figure 12 Sequoia Avenue – View of End of Alignment

Figure 13 Sequoia Avenue Pipeline – View of End of Alignment

Figure 14 Sequoia Avenue Pipeline Location

Figure 15 Sequoia Avenue Pipeline Location

surrounding areas would be affected for short durations only, and the alteration of visual character and quality from pipeline construction would be temporary, short-term, and not substantial.

The proposed project would not substantially alter the visual character and quality of the project site in the long-term. The Lyon Pipeline would be entirely underground and would not be visible once installed and the disturbed areas are restored to pre-construction conditions or better. The Sequoia Avenue Pipeline location currently contains an existing pipeline that is aboveground, which includes segments of original cast iron and replacement plastic pipe. The existing pipeline would be removed and replaced by a new aboveground pipeline constructed on supports. Accordingly, the Sequoia Avenue Pipeline would not substantially impact the visual character and quality of the alignment area because it would replace the existing aboveground pipeline with similar infrastructure.

In summary, the project would not substantially degrade the visual character or quality of the pipeline alignments or their surroundings, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The proposed project would not create a new source of light or glare once construction is complete because the Lyon Pipeline would be underground, and the aboveground Sequoia Avenue Pipeline would not include any light sources and would be constructed of non-reflective material.

Construction would occur during the daytime hours, although nighttime construction may be required in an emergency. If emergency nighttime construction is required, lights may be visible from surrounding roadways and residential and other land uses. However, the lighting would not face toward adjacent uses and would be directed down towards construction activities. Any necessary lights during construction activities would create a new temporary light source that would otherwise not be present. Because the proposed project involves installation of a linear pipeline, the active construction area would be continuously moving along the length of the alignment as each segment of pipeline is installed. As such, the active construction area would not typically be in the same location for more than five days.

In summary, the project would not create a new source of permanent substantial light or glare that would adversely affect daytime or nighttime views in the vicinity of the project site. Therefore, impacts related to light and glare would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	■
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	■
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	■
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	■
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	■

a. Would the project convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

e. Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

The project site is not located on or near land mapped as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance under the California Department of Conservation's (CDOC) Farmland Mapping and Monitoring Program (FMMP; CDOC 2016a). Furthermore, the project site is not on land enrolled under the Williamson Act or zoned for agricultural use (CDOC 2016b). Due to the absence of agricultural land at the project site, the project would not involve changes to the existing environment that could result in conversion of Farmland to a non-agricultural use. No impact to agricultural resources would occur.

Part of the Lyon Pipeline location is zoned Parks, Recreation, and Open Space, which permits timber harvesting, and both pipeline locations contain second growth redwood forest and mixed woodlands. Construction of the proposed project would not require removal or damage to any existing trees. In addition, the Lyon Pipeline would be entirely underground, and the existing aboveground Sequoia Avenue Pipeline would be removed and replaced with an aboveground pipeline. Therefore, the project would not substantially change the existing conditions of the on-site forest land and would not cause the loss of forest land or conversion of forest land to non-forest use. No impact to forestry resources would occur.

Commented [A6]: District: please confirm

NO IMPACT

3 Air Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	■
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	■	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	■	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	■	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	■	☐

Air Quality Standards and Attainment

The project site is within the North Central Coast Air Basin (NCCAB), which consists of Monterey, Santa Cruz, and San Benito counties and forms an area of more than 5,100 square miles (Monterey Bay Air Resources District [MBARD] 2008). The NCCAB is under the regulatory jurisdiction of the MBARD, which is the local air quality management agency that is required to monitor air pollutant levels to ensure that National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are met and, if they are not met, to develop strategies to meet the standards.

Depending on whether or not the standards are met or exceeded, the NCCAB is classified as being in "attainment" or "nonattainment" for a particular air pollutant. The MBARD's 2016 Air Quality Management Plan (AQMP) assesses the attainment status of the NCCAB. The NAAQS and CAAQS attainment statuses for the NCCAB are listed in Table 1. As shown in the table, the NCCAB is in nonattainment only for the State standards for eight-hour ozone (O_3) and particulate matter 10 microns in diameter or less in size (PM_{10}; MBARD 2017). The NCCAB is in attainment or unclassified for all other State and federal ambient air quality standards.

Table 1 North Central Coast Air Basin Attainment Status

Pollutant	Standard	Designation
1-Hour Ozone	NAAQS	Attainment
	CAAQS	Attainment
8-Hour Ozone	NAAQS	Attainment
	CAAQS	**Nonattainment**
CO	NAAQS	Attainment
	CAAQS	Attainment/Unclassified[1]
NO_2	NAAQS	Attainment
	CAAQS	Attainment
SO_2	NAAQS	Attainment
	CAAQS	Attainment
PM_{10}	NAAQS	Attainment
	CAAQS	Nonattainment
$PM_{2.5}$	NAAQS	Attainment
	CAAQS	Attainment
Lead	NAAQS	Attainment
	CAAQS	Attainment

NAAQS: National Ambient Air Quality Standards
CAAQS: California Ambient Air Quality Standards
CO: carbon monoxide
PM_{10}: particulate matter 10 microns in diameter or less in size
$PM_{2.5}$: particulate matter 2.5 microns in diameter or less in size
NO_2: nitrogen dioxide
SO_2: sulfur dioxide
[1] Monterey County is classified as in Attainment and San Benito and Santa Cruz counties are listed as Unclassified.
Source: MBARD 2017

Air Quality Management

Under California law, the MBARD is required to prepare a plan for air quality improvement for pollutants for which the MBARD is in non-compliance. In March 2017, the District adopted the *2012-2015 Air Quality Management Plan* (2016 AQMP), which assesses and updates elements of the 2012 AQMP, including the air quality trends analysis, emission inventory, and mobile source programs. The 2016 AQMP addresses ways in which the MBARD can achieve attainment of the state 8-hour ozone standard in the NCCAB. In 2012, the United States Environmental Protection Agency designated the NCCAB as attainment for the current national 8-hour ozone standard of 0.075 parts per million (ppm). In October 2015, the national standard was reduced to 0.070 ppm. However, the NCCAB continues to be in attainment with the federal ozone standard (MBARD 2017).

Air Emission Thresholds

The MBARD has issued criteria for determining the level of significance for project-specific impacts within its jurisdiction in accordance with the NAAQS and CAAQS. Based on criteria set forth in the

MBARD's *CEQA Air Quality Guidelines* (MBARD 2008), the proposed project's impacts on criteria air pollution would be significant if the project would be inconsistent with the adopted AQMP or would result in air pollutant emissions during construction or operation that exceed the thresholds in Table 2.

Table 2 Criteria Pollutant Thresholds of Significance

Pollutant/Precursor	Maximum Construction Emissions (lbs/day)	Maximum Operational Emissions (lbs/day)
VOC/NO_X	n/a	137
CO	n/a	550
SO_X	n/a	150
PM_{10}	82[1]	82

Notes: lbs/day = pounds per day; CO = carbon monoxide; NO_X = oxides of nitrogen; SO_X = oxides of sulfur; PM_{10} = particulate matter with a diameter of 10 microns or less; VOC = volatile organic compounds (also referred to as reactive organic gases [ROG]).

[1] This threshold only applies if construction is located nearby or upwind of sensitive receptors. In addition, a significant air quality impact related to PM_{10} emissions may occur if a project uses equipment that is not "typical construction equipment" as specified in Section 5.3 of the MBARD's *CEQA Air Quality Guidelines*.

Source: MBARD 2008

Sensitive receptors typically include residences, schools, healthcare facilities, and other live-in housing facilities such as prisons or dormitories. The closest sensitive receptors to the project site are residences.

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

A project may be inconsistent with the AQMP if it would generate population growth exceeding the forecasts used in the development of the AQMP. The project does not include new housing or businesses, nor would operation and maintenance of the project components require new employees; therefore, the project would not directly result in population growth. The proposed project would expand the conveyance capacity of existing water infrastructure by increasing the width of pipelines that currently serve existing customers. The project would not directly induce population growth because the increased capacity is intended to serve existing demand, accommodate planned growth, improve performance reliability, and add flexibility to utilize multiple supply sources throughout SLVWD's service area rather than to serve additional new growth. The MBARD *CEQA Air Quality Guidelines* (2008) states that indirect emissions from a proposed non-residential project that is intended to meet the needs of the population are consistent with the AQMP if the current population of the County does not exceed the AQMP population forecasts. The current population of the County of Santa Cruz is estimated at 276,864, and according to the Association of Monterey Bay Area Governments (AMBAG), the population of the County of Santa Cruz is forecast to reach 308,582 by 2035 (California Department of Finance 2018; AMBAG 2014). Therefore, the project would not indirectly induce population growth above anticipated by the AQMP and would not conflict with or obstruct implementation of the AQMP. No impact would occur.

Commented [A7]: District: please confirm correct

NO IMPACT

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

c. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

The project would generate short-term emissions associated with project construction due to the operation of heavy construction equipment, dust from excavation, haul trips, and construction worker trips, and long-term emissions associated with SLVWD employee vehicle trips to check and maintain the pipelines. Construction and operational project emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2. CalEEMod is used by jurisdictions throughout California to quantify criteria pollutant emissions. Complete CalEEMod assumptions and results are contained in Appendix A.

Construction Emissions

Project construction would generate temporary air pollutant emissions. These impacts are associated with fugitive dust and exhaust emissions from heavy construction equipment. The excavation phase of the project would involve the largest use of heavy equipment and generation of fugitive dust.

The Lyon Pipeline would be constructed from April 2020 through July 2020, and the Sequoia Avenue Pipeline would be constructed in July 2021. For the purposes of modeling, this analysis relied upon the following assumptions:

- Underground pipelines would be constructed via open trench excavation measuring two feet in width and five to six feet in depth
- Construction of the proposed project would disturb approximately 0.8 acre in total and would occur in segments at the following rates:
  - 750 LF of site preparation/clearing per day
  - 750 LF of grading/trenching/backfilling per day
  - 200 LF of pipeline installation per day
  - 1,000 LF of asphalt paving and restoration per day
- Approximately 2,274 cubic yards (cy) of soil would be exported and approximately 1,466 cy of soil would be imported
- Construction crews would work five days per week for up to ten hours per day

Table 3 summarizes maximum daily pollutant emissions during construction of the project.

Table 3 Estimated Maximum Construction Daily Emissions

	Maximum Emissions (lbs/day)				
Construction Year	**VOC**	**NO_x**	**CO**	**PM_{10}**	**$PM_{2.5}$**
2020	2.4	21.1	21.4	2.2	1.6
2021	1.1	16.9	10.3	1.4	0.8
Annual Maximum	2.4	21.1	21.4	2.2	1.6
MBARD Thresholds (lbs/day)	N/A	N/A	N/A	82	N/A
Threshold Exceeded?	N/A	N/A	N/A	No	N/A

Notes: All emissions were estimated using CalEEMod. See Appendix A for calculations.

As shown in Table 3, project construction emissions would not exceed the MBARD's construction emission thresholds. Compliance with the MBARD's Rule 400 (Visible Emissions), Rule 403 (Particulate Matter), Rule 425 (Use of Cutback Asphalt), and Rule 426 (Architectural Coatings) would reduce emissions of dust particulates and VOCs during construction activity. During construction the project sites would be watered once daily to control fugitive dust emissions, which would further reduce PM_{10} and $PM_{2.5}$ emissions.

In addition, the MBARD recommends the use of the following best management practices (BMPs) for the control of short-term construction emissions (MBARD 2008). These measures were not included in CalEEMod so as to provide a more conservative estimate of air pollutant emissions; however, if adhered to, these BMPs would further reduce air pollution emissions.

- Water all active construction areas at least twice daily; frequency should be based on the type of operation, soil, and wind exposure
- Prohibit all grading activities during periods of high wind (over 15 miles per hour)
- Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days)
- Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydroseed areas
- Haul trucks shall maintain at least two feet of freeboard
- Cover all trucks hauling soil, sand, and other loose materials
- Plant tree windbreaks on the windward perimeter of construction projects if adjacent to open land
- Plant vegetative ground cover in disturbed areas as quickly as possible
- Cover inactive storage piles
- Install wheel washers at the entrance to construction sites for all existing trucks
- Sweep streets, if visible soil material is carried out from the construction site
- Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the MBARD shall be visible to ensure compliance with Rule 402 (Nuisance)
- Limit the area under construction at any one time

Therefore, construction-related air quality impacts would be less than significant.

Operational Emissions

Although the proposed project would result in an upgrade of the pipelines' conveyance capacity, long-term emissions generated by increased electricity demand from the pump stations and appurtenances are not included in this analysis because these emissions are emitted elsewhere, and air quality is a local issue. In addition, electricity suppliers are regulated separately by MBARD as stationary sources. This analysis conservatively assumes that the proposed project would result in a net increase of twelve, 10-mile employee trips to each of the two project sites every year for as-needed maintenance and for checking meters. However after construction, the proposed project would likely not require more trips to the pipeline locations than are currently occurring because the existing pipelines also require trips for maintenance. Nonetheless, as shown in Table 4, maintenance trips would not generate substantial operational emissions, and emissions would not exceed the MBARD thresholds for any criteria pollutant. Therefore, operation of the proposed project would have a less than significant operational air quality impact.

Table 4 Operational Emissions (pounds/day)

	Estimated Maximum Daily Emissions (pounds/day)				
Emissions Source	**VOC**	**NO_X**	**CO**	**SO_X**	**PM_{10}**
Area	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Mobile	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Total Operational Emissions	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
MBARD Thresholds	137	137	550	150	82
Threshold Exceeded?	No	No	No	No	No

ROG: reactive organic gases; NO_X: nitrogen oxides; CO: carbon monoxide; SO_X: sulfur oxides; PM_{10}: particulate matter 10 microns in size or less

See Appendix A for modeling details and CalEEMod results.

Notes: Emissions presented are the highest of the winter and summer modeled emissions. Numbers may not add up due to rounding.

LESS THAN SIGNIFICANT IMPACT

d. Would the project expose sensitive receptors to substantial pollutant concentrations?

Certain population groups, such as children, the elderly, and people with health problems, are particularly sensitive to air pollution. Sensitive receptors are defined as land uses that are more likely to be used by these population groups and include health care facilities, retirement homes, school and playground facilities, and residential areas. As previously stated, the pipeline locations are near sensitive receptors. Residences are adjacent to and in the immediate vicinity of both pipeline locations; and two schools are within 0.15 mile of the Lyon Pipeline location.

As discussed under items 3(b) and 3(c) above, the project's construction emissions would not exceed the applicable MBARD threshold, which is designed to be protective of public health.

Traffic-congested roadways and intersections have the potential to generate high localized carbon monoxide (CO) levels (i.e., CO hotspots). In general, CO hotspots occur in areas with poor circulation or areas with heavy traffic. As discussed above, operation of the project would generate nominal new pollutant emissions, including CO emissions, because pipeline maintenance already occurs on the existing pipelines and the proposed pipelines would not require substantial additional maintenance trip beyond current conditions. Therefore, the project would not result in CO hotspots on adjacent roadways. The project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

e. Would the project create objectionable odors affecting a substantial number of people?

The Lyon Pipeline and Sequoia Avenue Pipeline would convey potable water and would not create objectionable odors during operation. The project would generate oil or diesel fuel odors during construction from equipment. The odors would be limited to the time that construction equipment is operating and would be temporary. Because the proposed project involves installation of a linear pipeline, the active construction area would be continuously moving along the length of the alignment as each segment is installed. As such, the active construction area would not typically be in the same location for more than five days. Accordingly, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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4 Biological Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	■	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	■	☐
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	■	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	■	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	■
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

The impact analysis presented in this section is based on field reconnaissance survey of the project site and review of background information including pertinent primary literature and review of natural resource occurrence databases and resource agency special status species lists. Occurrence records from the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (9-quad search area). The California Native Plant Society Inventory of Rare and Endangered Plants, and the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation were reviewed to identify sensitive species known to occur in the region.

Existing Conditions

The eastern portion of the Lyon Pipeline project is located predominantly along the urban streets of the town of Boulder Creek. The central section is located along the SR 236 in areas of residential development with associated ruderal habitat on the road shoulder and disturbed redwood woodland in which much of the typical understory has been replaced by features of residential development such as houses, garages, driveways and yards. The western-most portion of the corridor is developed residential areas that are surrounded by disturbed second growth coast redwood (*Sequoia sempervirens*) woodland with highly disturbed understory. The last several hundred feet of the western end of the corridor is within partially disturbed coast redwood woodland where the line departs from the existing paved road to connect to an existing water tank. Tree species found within the redwood woodland along the sections of this corridor outside of the town of Boulder Creek include coast redwood, California bay (*Umbellularia californica*), and bigleaf maple (*Acer macrophyllum*). The last several hundred feet on the west side of the proposed Lyon pipeline include mixed forest habitat and understory of tan oak (*Notholithocarpus densiflorus*), canary ivy (*Hedera canariensis*), western sword fern (*Polystichum munitum*), and Himalayan blackberry (*Rubus americanus*).

The Sequoia Avenue Pipeline project site is located entirely within young redwood forest habitat that includes a dense understory dominated by tan oak, poison oak (*Toxicodendron diversilobum*), English ivy (*Hedera helix*), French broom (*Genista monspessulana*), hazelnut (*Corylus cornuta*) and wood fern (*Dryopteris argute*).

Special Status Species

Special-status species are those plants and animals that are: 1) listed, proposed for listing, or candidates for listing as Threatened or Endangered by the USFWS and National Marine Fisheries Service under the federal Endangered Species Act; 2) listed or proposed for listing as Rare, Threatened, or Endangered by the CDFW under the California Endangered Species Act; 3) recognized as Species of Special Concern by the CDFW; and/or 4) occurring on lists 1 and 2 of the CDFW California Rare Plant Rank system.

The areas surrounding the Lyon Project work area and the Sequoia Project work area provides suitable habitat for a number of special status plant and wildlife species that are known to occur in the region. Through a review the resource agency occurrence databases, a total of 91 special status species (59 plants and 32 animals) were evaluated for their potential to occur in the project areas (Appendix B. Of these, 72 have been excluded based on the lack of suitable habitat or because the project areas are outside of their current geographic distribution. The remaining species were evaluated for potential impacts as a result of project development.

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Impacts to Special Status Plants

Nine special status plants were evaluated for potential impacts from project development (Appendix B). None of those species with potential to occur within the project work area are state or federal listed species. Impacts to non-listed species would only be considered significant under CEQA if those impacts were to result in an adverse effect (i.e. jeopardize the long-term viability) of a local or regional population. The proposed work activity in natural habitat areas of the Sequoia project site would be limited to minor vegetation clearing to allow for the placement of pipe along the surface of the ground. No excavations or trenching would occur and vegetation removal would be temporary, and limited to a narrow corridor on Sequoia. Vegetation removal at the Lyon project would be limited to a short stretch of natural habitat between Medrone Drive and the existing tank to allow for trenching. Vegetation would be allowed to recover following pipeline placement. As such, loss of small numbers of any non-listed rare plants that may be present in the areas proposed for clearing are not likely to represent a significant proportion of a regional or local population, and as such would not result in jeopardy of a local or regional population.

Impacts to Special Status Animals

Ten (10) special status animals have potential to occur within the project work areas. Of these, one is federally threatened (California red-legged frog) and one is a state candidate for listing as threatened (foothill yellow-legged frog) (Appendix B). The remaining nine species include two amphibians (California giant salamander [*Dicamptodon ensatus*] and Santa Cruz Black Salamander [*Aneides flavipunctatus niger*]), two birds (white-tailed kite [*Elanus leucurus*] and Cooper's hawk [*Accipiter cooperii*]) and five mammals (San Francisco dusky-footed woodrat [*Neotoma fuscipes annectens*], hoary bat [*Lasiurus cinereus*], Townsend's big-eared bat [*Corynorhinus townsendii*] and pallid bat [*Antrozous pallidus*]).

Special Status Birds

White tailed kite has a moderate potential to inhabit and nest within the proposed work areas, and Cooper's hawk has a high potential to inhabit and nest within the proposed work areas, especially the dense woodland sections of the Sequoia Avenue Pipeline alignment. Because no tree removal is proposed for this project, raptor nests, if present in or near the work area would not be damaged or destroyed; however, construction activity and noise could result in nest abandonment of these raptors, both of which would likely be highly sensitive to human activity near a nest. Nest abandonment and loss of nestlings would be considered a significant impact under CEQA, but could be mitigated to a less than significant level through implementation of mitigation measures BIO-1 and BIO-2.

Other Nesting Migratory Birds

Both projects sites have the potential to support nesting birds that are protected under the California Fish and Game Code (CFGC). Construction activity and noise that disrupts nesting behavior and damage or destruction of active nests within the work areas would be considered a violation of the CFGC. Implementation of measures BIO-1 and BIO-2 would prevent violation of the CFGC.

Special Status Bats

Hoary bat, Townsend's big-eared bat and pallid bat all have a moderate to high potential to occur on site both during foraging and for roosting. However, as no trees are proposed for removal and work would occur during daylight hours, when bats are not foraging, no impacts to special status bats would occur.

San Francisco Dusky-footed Woodrat

This species has a high potential to occur in the wooded areas of the Sequoia Avenue Pipeline alignment. If middens are present and damaged or destroyed resulting in injury or death of individual woodrats, that impact would be significant under CEQA. Implementation of measures BIO-1 and BIO-3 would reduce impacts to less than significant.

California Red-Legged Frog and Foothill Yellow-legged Frog

The project sites also occur in the vicinity of suitable breeding habitat for California red-legged frog (CRLF) and foothill yellow-legged frog (FYLF); however, the species would only be expected to occur during dispersal and would not be expected to inhabit natural areas on the project site. These species are both highly aquatic and require permanent or nearly permanent pools for larval development. These species typically require rain events for dispersal and have been found at significant distances from breeding sites during rain events. Both species have a low potential to occur on the project site during dispersal. If frogs were to be injured or killed by construction activity the impact would be significant under CEQA. Potential impacts to these species can be reduced to less than significant level with implementation of measures BIO-1 and BIO-4.

California Giant Salamander and Santa Cruz Black Salamander

Both of these species may occur in leaf litter or under rocks in moist upland habitat near suitable aquatic breeding habitat at both project sites, and both have a low potential to occur on paved roadways near aquatic breeding habitat during dispersal. These species could be injured or killed by construction activity within natural areas, especially during clearing for pipeline installation. Implementation of measures BIO-1 and BIO-4 would reduce impacts to a less than significant level.

Mitigation Measures

The following mitigation measures would reduce impacts to candidate, sensitive, and special status species to a less than significant level.

BIO-1 Worker Environmental Awareness Program

If potential impacts to special status species are identified by the BRA, prior to initiation of construction activities (including staging and mobilization), all personnel associated with project construction shall attend WEAP training, conducted by a qualified biologist, to aid workers in recognizing special status resources that may occur in the project area. The specifics of this program shall include identification of the sensitive species and habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction of the projects. All employees shall sign a form provided by the trainer documenting they have attended the WEAP and

understand the information presented to them. The form shall be submitted to SLVWD to document compliance.

BIO-2 Preconstruction Nesting Raptor and Bird Surveys and Avoidance

To avoid impacts to nesting bird species and raptors, all initial ground-disturbing activities and tree removal should be limited to the time period between September 15 and February 1. If initial ground-disturbing activities and tree removal cannot be limited to this time period, the project contractor shall complete a pre-construction survey to determine if active nests are within the project area limits, or sufficiently close to project activity to be disturbed by construction activities. Surveys shall be conducted by a qualified biologist.

Construction activity shall be scheduled so that no more than fourteen (14) days elapse between the pre-construction survey and the commencement of any activity that would potentially disturb trees or shrubs in the nesting zone. The pre-construction survey should determine if birds are breeding and/or nesting in the construction zone or within 300 feet (500 feet for raptors) of the construction zone. Pre-construction nesting bird and raptor surveys shall be conducted during the time of day when birds are active and shall be of sufficient duration to reliably conclude presence/absence of nesting birds and raptors on site and within the designated vicinity.

If no nests are found, no further action is required. If nests are found, an avoidance buffer will be established by the qualified biologist. The size of the buffer shall be based upon the species, presence of screening vegetation, the proposed work activity, ambient levels of human activity, and existing disturbances associated with land uses outside of the site to ensure the nesting activity is not disrupted. The avoidance buffer shall be demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary until the adults and young are no longer reliant on the nest site. The qualified biologist shall monitor construction activities that occur near active nest areas to ensure that no inadvertent adverse impacts affect the nest.

BIO-3 Preconstruction Surveys for Woodrat and Relocation/Avoidance

Prior to vegetation clearing within woodland areas of the project sites, a qualified biologist shall conduct a preconstruction survey for San Francisco dusky-footed woodrat middens. If no middens are found that would be damaged or destroyed by project activity, or that occur within 25 feet of proposed project activity, no further action would be required. If woodrat middens are found that would be damaged by project activity, the qualified biologist shall dismantle middens by hand allowing any occupying woodrats to escape unharmed. Middens within 25 feet of proposed project activity shall be demarcated with a 25-foot avoidance buffer to ensure the midden is not inadvertently damaged during construction activity.

BIO-4 Preconstruction Amphibian Surveys and Avoidance

The following procedures shall be implemented to ensure that impacts to listed and non-listed amphibian species are less than significant.

- Prior to start of project activities, a qualified biologist should conduct a “tailgate” education session to familiarize all personnel conducting project activities with the identification and life-history of listed and non-listed amphibian species.
- Ground disturbance would not begin until written approval is received from the USFWS and CDFW that project biologist(s) are qualified to conduct the work.

- If feasible, initial ground disturbing activities should be conducted between May 1 and October 31 during dry weather conditions to minimize the potential for encountering listed and non-listed amphibian species. Work should be restricted to daylight hours.
- A qualified biologist should conduct a survey of the project site within 48 hours of initial ground disturbing activities. The survey area should include the proposed disturbance area and all proposed ingress/egress routes, plus a 100-foot buffer. If any life stage of CRLF is found within the survey area, the USFWS should be consulted to determine the appropriate course of action. If any life stage of FYLF is found within the survey area, the CDFW should be consulted to determine the appropriate course of action.
- Biological monitoring is required under the following conditions:
    - A biological monitor shall be present for all construction activity in naturally vegetated areas no matter the time of year (applies to the naturally vegetated areas of the Sequoia and Lyon pipelines).
    - During the rainy season (November 1 through April 30), a biological monitor shall be present for all construction activity in paved areas that are located adjacent to a creek, river or drainage where there is potential for CRLF or FYLF to occur during dispersal events. This would include the following locations:
        - The portion of the Lyon Pipeline project between Hazel Avenue and the northwest end of the project alignment at the tank.
- If construction must occur between November 1 and April 30, the qualified biologist should conduct a pre-activity clearance sweep prior to start of project activities within 48 hours after any rain events of 0.1 inch or greater or if wet conditions are present on site. The clearance survey would allow any frog, if found on-site, to leave of its own volition before any construction activities would begin. No relocation of frogs would occur without written authorization of the USFWS and/or CDFW, or by any individuals not specifically authorized by the USFWS for handling of CRLF or from CDFW for handling FYLF.
- SLVWD or its contractor would cover dirt or sand piles left overnight with tarps or plastic to prevent CRLF/FYLF from sheltering in the material. All holes and trenches would be inspected each morning by a biological monitor.
- Vegetation disturbance should be the minimum necessary to achieve the goals of the project.
- In case of vegetation disturbance, project sites would be re-vegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials would be used to the extent practicable. Invasive, exotic plants would be controlled to the maximum extent practicable. This measure would be implemented in all areas disturbed by activities associated with the project, unless the USFWS and SLVWD determine that it is not practical.
- To control sedimentation during and after project implementation, SLVWD would implement best management practices outlined in any authorizations or permits issued under the authorities of the Clean Water Act that it receives for the specific project. If best management practices are ineffective, the project proponent would attempt to remedy the situation immediately, in coordination with the USFWS or CDFW as applicable.
- Unless approved by the USFWS and/or CDFW, water would not be impounded in the course of project activities in a manner that may attract CRLF or FYLF.
- If a work site is to be temporarily dewatered by pumping, intakes would be completely screened with mesh not larger than 0.2 inch to prevent CRLF/FYLF from entering the pump system. Water

would be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any diversions or barriers to flow would be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the stream bed would be minimized to the maximum extent possible; any imported material would be removed from the stream bed upon completion of the project.

- All trash should be removed from the site daily and disposed of properly to avoid attracting potential predators to the site.
- No pets should be permitted on-site during project activities.
- All vehicles should be in good working condition and free of leaks. All leaks should be contained and cleaned up immediately to reduce the potential of soil/vegetation contamination.
- All refueling, maintenance, and staging of equipment and vehicles should occur at least 100 feet from riparian habitat or water bodies and in a location from where a spill would not drain directly toward aquatic habitat (e.g., on a slope that drains away from the water).
- The number of access routes, size of staging areas, and the total area of the activity should be limited to the minimum necessary to achieve the project goals.
- To ensure that diseases are not conveyed between work sites by the qualified biologist, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force should be followed at all times.
- No herbicide should be use on-site.
- A County-approved biologist shall be present on site during initial ground disturbance. If any life stage of CRLF or FYLF is found, work shall cease within 100 feet of the CRLF or FYLF and the USFWS (for CRLF) or CDFW (for FYLF) shall be contacted immediately to determine the appropriate course of action.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The Lyon Pipeline location would cross two streams that drain into Boulder Creek from the south. However, all construction activities would occur in the roadways in these areas and would not directly alter or damage riparian habitat. Impacts to riparian habitat would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The Lyon Pipeline location would cross through two riverine features that drain from the surrounding watershed into Boulder Creek. The USFWS National Wetlands Inventory classifies both features as R4SBC, which identifies them as intermittent riverine streambed systems that are seasonally flooded. However, project activity will not directly affect federally protected wetlands. No jurisdictional water features are present in the vicinity of the Sequoia Avenue Pipeline location.

LESS THAN SIGNIFICANT IMPACT

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The project sites are located within an area mapped as an Essential Connectivity Area by CDFW (CDFW 2010). Construction would be temporary and would be occurring over no more than 1,000 LF at any given time. The Lyon Pipeline would be entirely underground and the disturbed areas would be restored to preconstruction conditions. The Sequoia Avenue Pipeline would replace an existing aboveground pipeline constructed on supports and would not result in any kind of significant barrier to wildlife movement. Therefore, once construction is complete, the Sequoia Avenue Pipeline and Lyon Pipeline would not result in permanent changes that would impair wildlife movement as compared to the existing condition. The project sites do not contain any essential fish habitat suitable for aquatic nurseries. Impacts to wildlife movement and the use of native wildlife nursery sites would be less than significant impacts.

LESS THAN SIGNIFICANT IMPACT

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No trees are proposed for removal at either the Lyon Pipeline or Sequoia Avenue Pipeline locations.

NO IMPACT

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project site is not located within the jurisdiction of an adopted Habitat Conservation Plan, Natural Community Plan, or other approved local, regional, or state habitat conservation plan (CDFW 2017). Thus, no impact would occur.

NO IMPACT

5 Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	■	☐
b. Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	☐	☐	■	☐
c. Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☐	■	☐
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	■	☐

This section is based on information provided in the Phase I cultural resources report (2018; Appendix C) prepared by Rincon. The significance of cultural and/or paleontological resources and impacts to those resources is determined by whether or not those resources can increase collective knowledge of the past. The primary determining factors are site content and degree of preservation.

a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

The project would be constructed within existing roadways and utility easements through residential, commercial, and open space areas. The Lyon Pipeline would be completely underground, and the Sequoia Avenue Pipeline would replace the existing aboveground pipeline, which includes segments of original cast iron and replacement plastic pipe, with an aboveground pipeline constructed on supports.

Cultural resources records searches of the California Historical Resources Information System were conducted at the Northwest Information Center located at Sonoma State University to identify all previously recorded cultural resources and previously recorded cultural resources studies within the project site and a 0.5-mile radius around it. The Phase I Cultural Resources Report did not identify any cultural resources within the Sequoia Avenue study area. However, one built environment property (P-44-000405) that is considered a historic property and historical resource under Section 106 of the National Historic Preservation Act and CEQA, respectively, was identified within the Lyon Pipeline's study area. P-44-000405 is composed of the full length of SR 236, extending approximately 18 miles from its northern intersection with Highway 9 at Waterman Gap to its southern intersection with Highway 9 in Boulder Creek. The highway was first recorded in its entirety in 1999 but was not evaluated for historical significance. In 2002, an approximately 200-

foot segment was again recorded and found eligible for the National Register of Historic Places under Criteria A and C for its association with Big Basin Redwoods State Park. The associated records for this resource are included in Appendix C of Phase I cultural resources report (included as part of this document). Local historic organizations were contacted, but no additional information regarding historical resources on the project site was provided.

SR 236 is historically significant for its role in facilitating early and ongoing tourism in Big Basin Redwoods State Park, California's oldest state park. Those character-defining features that are essential in this resource's ability to convey its significance relate less to its physical materials but rather to its alignment and setting. The Lyon Pipeline, which would be installed in the SR 236 ROW, would be constructed entirely underground and would not introduce any aboveground elements that would affect the features that contribute to the historical significance of SR 236. Although trenching may result in the partial removal of asphalt from the road surface, this material is not original or considered character defining, and it would be replaced in kind. The roadway and its immediate surroundings have been subject to continual improvements since its construction, and the proposed project would be consistent with this ongoing maintenance. Therefore, the proposed project would have a less than significant impact to historical resources.

LESS THAN SIGNIFICANT IMPACT

b. Would the project cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?

No archaeological resources were identified within the project APE during the records search, Native American outreach, and pedestrian survey. The project APE has been heavily disturbed by the grading and construction of the existing roadways. Although no archaeological resources have been previously identified within the project site, there is potential for unknown, buried archaeological resources to be discovered during ground disturbing activities. Section 01560 Part 1.09 of the SLVWD's construction contractor specifications require the contractor to conform to the applicable requirements of the National Historic Preservation Act of 1966 as it relates to the preservation of cultural resources. If potential archaeological resources are discovered during subsurface excavations at the construction sites, SLVWD's construction contractor specifications require that the contractor halt construction operations at the location of the find and contact a qualified archaeologist to assess the value of the potential cultural resources. In addition, measures CR-1 and CR-2 are recommended as standard best management practices to be implemented during project construction to further reduce this already less than significant impact.

Recommended Best Management Practices

The following best management practices from the Phase I Cultural Resources Report (Appendix C) are recommended in the event an unanticipated discovery of cultural resources occurs during project construction.

CR-1 Worker's Environmental Awareness Program

A qualified archaeologist shall be retained to conduct a Worker's Environmental Awareness Program training for archaeological sensitivity for all construction personnel prior to the commencement of any ground disturbing activities. Archaeological sensitivity training should include a description of the types of cultural material that may be encountered, cultural sensitivity issues, regulatory issues, and the proper protocol for treatment of the materials in the event of a find.

CR-2 Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area shall be halted and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for California Register of Historical Resources eligibility. If the discovery proves to be significant under CEQA and cannot be avoided by the project, additional work such as data recovery excavation and Native American consultation and archaeological monitoring may be warranted to mitigate any significant impacts to cultural resources.

LESS THAN SIGNIFICANT IMPACT

c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

The County of Santa Cruz has identified and mapped areas that contain hydrological, geological, and paleontological resources which stand out as rare or unique and representative in the County of Santa Cruz because of their scarcity, scientific or educational value, aesthetic quality or cultural significance. None of these resources exist on the project site; therefore, impacts to paleontological resources would be less than significant (County of Santa Cruz 2017b).

LESS THAN SIGNIFICANT IMPACT

d. Would the project disturb any human remains, including those interred outside of formal cemeteries?

While the project site is unlikely to contain human remains, the potential for the recovery of human remains is always a possibility during ground disturbing activities. However, based on the disturbed nature of the project site and the lack of any identified cultural resources within the study area, the potential to encounter human remains is considered low. Impacts to human remains would be less than significant.

Nevertheless, there always remains a possibility of identifying unanticipated human remains during ground disturbing activities. Therefore, measure CR-3 is recommended as a standard best management practice to be implemented during project construction to further reduce this already less than significant impact.

Recommended Best Management Practice

The following best management practice from the Phase I Cultural Resources Report (Appendix C) is recommended in the event an unanticipated discovery of human remains occurs during project construction.

CR-3 Unanticipated Discovery of Human Remains

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify a most likely

descendant (MLD). The MLD shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site.

LESS THAN SIGNIFICANT IMPACT

6 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Expose people or structures to potentially substantial adverse effects, including the risk of loss, injury, or death involving:				
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	■	☐
2. Strong seismic ground shaking?	☐	☐	■	☐
3. Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
4. Landslides?	☐	☐	■	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	■	☐	☐
c. Be located on a geologic unit or soil that is made unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	■	☐	☐
d. Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	■
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	■

Santa Cruz County is located in the Coast Ranges physiographic province of California, which is characterized by a series of low mountain ranges, coastal terraces, alluvial valleys, and steep foothills. The northwest-southeast structural grain of the Coast Ranges is controlled by a complex of

active faults within the San Andreas fault system (City of Santa Cruz 2011). The Santa Cruz Mountains, within which the project site is located, are between the San Andreas strike-slip fault system to the northeast and the San Gregorio-Nacimiento strike-slip fault system to the southwest (County of Santa Cruz 2017c). The three major active faults in the region are the Zayante-Vergeles Fault, the San Andreas Fault, and the San Gregorio Fault, all of which are associated with Holocene activity (movement in the last 11,000 years; City of Santa Cruz 2011). The Public Safety and Noise Element of the County of Santa Cruz GP/LCP requires a review of geologic hazards for all discretionary development projects in the Zayante fault zone (Policy 6.1.1) and a full engineering geology report by a certified engineering geologist whenever a significant potential geologic hazard is identified within a designated fault zone (Policy 6.1.3). Elevation along the Lyon Pipeline location ranges from approximately 495 to 720 feet above mean seal level (MSL). Elevation along the Sequoia Avenue Pipeline location ranges from approximately 655 to 735 feet above MSL.

Commented [A8]: District: confirm, does this apply to your projects? If not we will delete?

a.1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

a.2. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

The Sequoia Avenue Pipeline and Lyon Pipeline locations are situated north and south of the Zayante Fault, respectively. Neither pipeline location is located within an Alquist-Priolo Earthquake Fault Zone (CDOC 2015). However, the Lyon Pipeline location is within a County-designated fault zone for the Zayante Fault (County of Santa Cruz 2009a).

Although the project site is located in a seismically active area, the project would not expose people to seismically induced risk. The proposed project involves construction of an underground pipeline, an aboveground pipeline, and associated minor appurtenance structures; the project would not involve any habitable structures. A large seismic event, such as a fault rupture, seismic shaking, or ground failure, could result in breakage of the proposed pipelines, failure of joints, and/or underground leakage from the pipelines. In such an event, the pipelines would be inspected and repaired as soon as possible. Additionally, the project would be required to comply with the California Building Standards Code (CCR Title 24). The project has been designed to incorporate appropriate standard engineering practices and specifications to minimize risk of structural failure in a seismic event and reduce secondary impacts that may occur as a result. Design and construction of the project would also adhere to American Water Works Association Standards for protection from thrust and earth movement.

In summary, the proposed project would not involve development of habitable structures, is not located within an Alquist-Priolo Earthquake Fault Zone, and does not cross an active fault. Therefore, the project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault or seismic-related ground failure, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.3. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

a.4. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

The project site is located adjacent to landslide hazard areas mapped by the County of Santa Cruz (County of Santa Cruz 2009b). The Sequoia Avenue Pipeline location is not within a liquefaction hazard zone, but the County of Santa Cruz ranks liquefaction susceptibility along the eastern portion of the Lyon Pipeline location as "Moderate" (County of Santa Cruz 2009c). However, the Lyon Pipeline would be located underground and adjacent to an existing pipeline, and the Sequoia Avenue Pipeline would replace an existing aboveground pipeline and would be constructed on supports. Neither project component would destabilize the terrain in a manner that would increase the risk of liquefaction or landslides. Trenching would be limited to a maximum depth of 5.5 feet, and construction activities would include the lining and appropriate backfilling of trenches to minimize potential effects associated with subsidence. In addition, Sections 01540 and 02221 of the SLVWD's construction contractor specifications require contractors to submit and implement a detailed plan that includes sheeting, shoring, bracing, or other excavation supports to prevent caving of the trenches. Therefore, the project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, liquefaction, or landslides, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project result in substantial soil erosion or the loss of topsoil?

Both pipeline locations have steep slopes that would increase the potential for soil erosion. The Lyon Pipeline location has an average slope of approximately 4 percent with a maximum slope of approximately 33 percent, and the Sequoia Avenue Pipeline location has an average slope of 11 percent with a maximum slope of 53 percent. The pipeline locations have been previously disturbed; however, construction activities involving soil disturbance, such as excavation, stockpiling, and grading, could result in increased erosion and sediment transport by stormwater and wind to surface waters. Therefore, the proposed project's erosion impacts would be potentially significant. Implementation of Mitigation Measure GEO-1 would be required to reduce impacts to a less than significant level.

Mitigation Measure

With implementation of the following mitigation measure, the potential impacts related to soil erosion would be reduced to a less than significant level.

GEO-1 Erosion Control Plan

The project contractor shall prepare and implement an Erosion Control Plan for construction activities to minimize soil erosion. The Erosion Control Plan shall contain BMPs that include the following components:

- Excavation shall be limited to the dry season of the year (i.e., April 15 to November 1).
- Exposed soils shall be watered twice daily to prevent wind erosion.
- Silt fencing, straw bales composed of rice straw (that are certified to be free of weed seed), fiber rolls, gravel bags, mulching erosion control blankets, soil stabilizers, and storm drain filters shall

be used, in conjunction with other methods, to prevent erosion throughout the entire project site and siltation of stream channels and detention basins.

- Temporary berms and sediment basins shall be constructed to avoid unnecessary siltation into local waterways during construction activities.
- Erosion controls that protect and stabilize stockpiles and exposed soils shall be used to prevent movement of materials. Potential erosion control devices include plastic sheeting held down with rocks or sandbags over stockpiles, silt fences, or berms of hay bales.
- Temporary stockpiling of excavated material shall be minimized. However, excavated material shall be stockpiled in areas where it cannot enter the waterways along the Lyon Pipeline location. Available stockpiling sites at or near the project site shall be determined prior to the start of construction.
- Frequency of sediment removal from detention basins, location of spoil disposal, locations and types of erosion and sediment control structures, and materials that would be used on-site during construction activities shall be specified.
- Upon completion of project construction, all exposed soils present in and around the project site shall be stabilized within seven days. Exposed soils shall be mulched to prevent sediment runoff and transport. All mulches, except hydro-mulch, shall be applied in a layer not less than two inches deep. Where feasible, all mulches shall be kneaded or tracked-in with track marks parallel to the contour, and tackified as necessary to prevent excessive movement. All exposed soils and fills shall be revegetated with deep-rooted, native, drought-tolerant species to minimize slope failure and erosion potential. Geotextile binding fabrics shall be used if necessary to hold slope soils until vegetation is established.
- An adequate supply of erosion control materials (gravel, straw bales, shovels, etc.) shall be maintained on-site to facilitate a quick response to unanticipated storm events or emergencies.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project be located on a geologic unit or soil that is made unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

The proposed project involves installation of an underground pipeline primarily within public ROW and an aboveground pipeline constructed on supports. As discussed previously, although the proposed project would be located in a seismically active area, the project is not anticipated to adversely affect soil stability or increase the potential for local or regional landslides, subsidence, liquefaction, or collapse. Sections 01540 and 02221 of the SLVWD's construction contractor specifications require contractors to submit and implement a detailed plan that includes sheeting, shoring, bracing, or other excavation supports to prevent caving of the trenches. As discussed under item 6(b), implementation of Mitigation Measure GEO-1 would control erosion and stabilize on-site soils. Therefore, impacts would be less than significant with mitigation incorporated.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

d. Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

The project site located in the Coast Ranges physiographic province (City of Santa Cruz 2011). Based on the United States Department of Agriculture (USDA) Soil Survey, the project site contains three primary mapped soil units: Sur-Catelli complex soils, Ben Lomond-Catelli-Sur complex soils, and Ben Lomond sandy loam soils. These soils are well-drained and do not exhibit frequent flooding or ponding (USDA 2017). Additionally, according to the County of Santa Cruz, the project site is not underlain by expansive soils (County of Santa Cruz 2009d). Therefore, the project would not introduce risk to life or property as a result of expansive soils. No impact would occur.

NO IMPACT

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The proposed project would not include the use of septic tanks or alternative wastewater disposal systems. No impact would occur.

NO IMPACT

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7 Greenhouse Gas Emissions

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	■	☐
b. Conflict with any applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of greenhouse gases?	☐	☐	■	☐

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. The term "climate change" is often used interchangeably with the term "global warming," but "climate change" is preferred to "global warming" because it helps convey there are other changes in addition to rising temperatures. The baseline to which these changes are measured originates in historical records identifying temperature changes that have occurred in the past, such as during previous ice ages. The global climate is continuously changing, as evidenced by repeated episodes of substantial warming and cooling documented in the geologic record. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming during the past 150 years. Per the United Nations Intergovernmental Panel on Climate Change (IPCC), the understanding of anthropogenic (human caused) warming and cooling influences on climate has led to a high confidence (95 percent or greater chance) that the global average net effect of human activities has been the dominant cause of warming since the mid-twentieth century (IPCC 2007).

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), fluorinated gases such as hydrofluorocarbons (HFC) and perfluorocarbons (PFC), and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by both natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills.

Human-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases and SF_6 (California Environmental Protection Agency [CalEPA] 2006). Different

types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "carbon dioxide equivalent" (CO_2e), and is the amount of a GHG emitted multiplied by its GWP. CO_2 has a 100-year GWP of one. By contrast, CH_4 has a GWP of 25, meaning its global warming effect is 25 times greater than CO_2 on a molecule per molecule basis (IPCC 2007).

The accumulation of GHGs in the atmosphere regulates Earth's temperature. Without the natural heat-trapping effect of GHGs, Earth's surface would be about 34 degrees Celsius cooler (CalEPA 2006). However, it is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations. The primary GHGs of concern include CO_2, CH_4, N_2O, and fluorinated gases (HFCs, PFCs), and SF_6. These all contribute to climate change on a global scale and climate change affects numerous environmental resources through potential impacts related to future air temperatures and precipitation patterns.

Individual projects would generate GHG emissions through the burning of fossil fuels and/or other means, thus potentially contributing to cumulative impacts related to climate change. In response to an increase in human-made GHG concentrations over the past 150 years, California implemented Assembly Bill (AB) 32, the "California Global Warming Solutions Act of 2006." AB 32 codifies the Statewide goal of reducing emissions to 1990 levels by 2020 (essentially a 15 percent reduction below 2005 emission levels) and the adoption of regulations to require reporting and verification of statewide GHG emissions. Furthermore, on September 8, 2016, the governor signed Senate Bill (SB) 32 into law, which requires the State to further reduce GHG emissions to 40 percent below 1990 levels by 2030. SB 32 extends AB 32, directing the California Air Resources Board (CARB) to ensure that GHG emissions are reduced to 40 percent below the 1990 level by 2030.

On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally-appropriate quantitative thresholds consistent with a Statewide per capita goal of 6 metric tons (MT) of CO_2e by 2030 and 2 MT of CO_2e by 2050 (CARB 2017). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, subregional, or regional level), but not for specific individual projects because they include all emissions sectors in the State.

The majority of individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines Section 15064[h][1]).

In 2013, the County of Santa Cruz adopted a Climate Action Strategy (CAS) to establish goals and policies that incorporate sustainability and GHG reduction into its management processes. The first step in completing the CAS was to complete a GHG emissions inventory. The County of Santa Cruz's 2009 inventory amounted to 791,278 MT of CO_2e community-wide and 34,267 MT of CO_2e from municipal operations. As of 2013, the County had already achieved the State's AB 32 goal of reducing GHG emissions to below 1990 levels by 2020 because of the cessation of manufacturing at

the Davenport Cement Plant. Therefore, the County of Santa Cruz has set a goal to reduce emissions to 18 percent below 2009 levels by 2020, 30 percent below 2009 levels by 2035, and 59 percent below 2009 levels by 2050 (County of Santa Cruz 2013).

Neither the State nor the MBARD has adopted GHG emissions thresholds. The MBARD is currently in the process of developing GHG emissions thresholds for evaluating projects under CEQA. Where the MBARD is the lead agency, they have adopted a threshold of 10,000 MT of CO_2e per year for stationary source projects or compliance with an adopted GHG Reduction Plan/Climate Action Plan (MBARD 2016). However, the MBARD does not have formally adopted thresholds for projects where it is not the lead agency.

As identified in Section 15064.7(c) of the CEQA Guidelines, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence. In April 2012, the San Luis Obispo County Air Pollution Control District (SLOAPCD), whose jurisdiction is adjacent to the MBARD's jurisdiction to the south, adopted quantitative thresholds for GHG emissions for most land use projects (SLOAPCD 2012). The SLOAPCD *CEQA Handbook* includes a bright-line threshold of 1,150 MT of CO_2e, as well as an efficiency threshold of 4.9 MT of CO_2e per service population (SP) per year (service population is the total residents and employees accommodated by a project). The analysis herein uses the bright-line threshold of 1,150 MT CO_2e. Direct GHG emissions were estimated using CalEEMod version 2016.3.2.

a. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction emissions are confined to a relatively short period of time in relation to the overall life of the proposed project because the total construction period would only last approximately five months. Air districts such as the South Coast Air Quality Management District (SCAQMD) have recommended amortizing construction-related emissions over a 30-year period in conjunction with a project's operational emissions (SCAQMD 2008). In accordance with the SCAQMD's recommendation, GHG emissions from project construction were amortized over a 30-year period and added to annual operational emissions to determine the proposed project's total annual GHG emissions. As shown in Table 5, construction activities would generate approximately 50 MT of CO_2e, which amortized over 30 years is approximately 2 MT of CO_2e per year, and operational emissions from vehicle trips would generate less than 0.0001 MT of CO_2e per year. In total, the project would directly generate approximately 2 MT of CO_2e per year.

Expansion of the proposed pipelines' conveyance capacity (due to increased diameters of the proposed pipelines compared to the existing pipelines) would also result in indirect GHG emissions from increased electricity usage due to elevated pump station activity. However, SLVWD's total (direct and indirect) systemwide GHG emissions were approximately 708 MT of CO_2e in 2010, which is well below the SLOAPCD's recommended significance threshold of 1,150 MT of CO_2e per year (SLVWD 2012). Therefore, given that SLVWD's 2010 total systemwide emissions were substantially less than the significance threshold, the incremental increase in electricity usage by SLVWD as a result of increased pipeline capacity associated with the proposed project would not cause SLVWD to exceed the GHG significance threshold. Therefore, impacts related to construction and operational GHG emissions would be less than significant.

Table 5 Estimated Project GHG Emissions

Year	Emissions (CO_2e)
Total Construction Emissions	49.9 MT
Amortized Construction Emissions (over 30 years)	1.7 MT/year
Total Annual Operational Emissions	< 0.0001 MT/year
Total Annual Emissions	**1.7 MT/year**
SLOAPCD Recommended Threshold	1,150 MT/year
Exceed Threshold?	No

See Appendix A for CalEEMod results. Values are approximations and have been rounded.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The County of Santa Cruz's CAS (2013) establishes GHG reduction strategies to be incorporated at the county level. Strategy E-8 calls for a reduction of energy use for water supply through water conservation measures, including adoption of a water conservation ordinance, adoption of a water-efficient landscape ordinance, and promotion of residential greywater irrigation systems. The proposed project would upgrade existing aging infrastructure and reduce the potential for water loss due to leaking pipes, thereby supporting Strategy E-8 of the CAS. Although the proposed project would increase the existing water system's conveyance capacity, the purpose of this project is to serve existing demand, accommodate projected growth in the County of Santa Cruz, improve performance reliability, and add flexibility to utilize multiple supply sources throughout the District rather than to serve new growth. The proposed project is therefore consistent with the County of Santa Cruz's CAS. The project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, and the proposed project would have a less than significant impact.

LESS THAN SIGNIFICANT IMPACT

8 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	■	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	■	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☐	■	☐
d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	■
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	■
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	■

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	■	☐	☐
h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	■	☐	☐

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction of the proposed project would temporarily increase the transport and use of hazardous materials in the area during the use of construction vehicles and equipment. Limited quantities of miscellaneous hazardous substances, such as diesel fuel, oil, solvents, and other similar materials, would be transported to the project site, used, and stored during the construction period. These materials would be disposed of off-site in accordance with all applicable laws pertaining to the handling and disposal of hazardous waste. In addition, ground-disturbing activities could cause an accidental upset or accident condition of hazardous materials in use during construction. If such conditions cause a release of hazardous materials into the environment, potential impacts could occur. However, Section 01010 Part 1.07, Section 01060 Part 1.08, and Section 01560 Part 1.07 of the SLVWD's construction contractor specifications state that the contractor must comply with the following procedures regarding hazardous materials, which would reduce hazardous materials impacts to a less than significant level:

- Properly store all volatile and hazardous wastes in covered metal containers and remove these wastes daily in accordance with all applicable disposal regulations, local ordinances, and anti-pollution laws.
- Store hazardous materials in covered, leak-proof containers when not in use, away from storm drains and heavy traffic areas, and in areas protected from rainfall infiltration.
- Store hazardous materials on a surface that prevents spills from permeating the ground surface and in an area secure from unauthorized entry at all times.
- Collect, remove, and legally dispose of waste oil, used oil filters, other waste petroleum materials, and any other hazardous waste generated by the contractor at suitable disposal facilities off-site.

- Construct on-site temporary fuel storage facilities to comply with current regulations. Ensure that fuel storage facilities are diked to contain any fuel spills and are properly grounded.
- Provide oil drip pans to contain any oil leakage from construction vehicles.

In the unlikely event that unanticipated, existing soil or groundwater contamination is discovered during construction of the proposed project, SLVWD has set forth construction contractor specifications that require appropriate treatment, handling, and notification of unanticipated hazardous environmental conditions. Article 4 of the *General Conditions* of SLVWD's construction contractor specifications states that if the construction contractor encounters a hazardous environmental condition, the construction contractor shall immediately secure or otherwise isolate such condition, stop all work in connection with such condition and in any area affected thereby, and notify SLVWD and the District Engineer of the hazardous environmental condition. The construction contractor shall not be required to resume work in connection with such condition or in any affected area until after SLVWD has obtained any required permits related thereto and delivered written notice to the construction contractor specifying that such condition and any affected area is or has been rendered safe for the resumption of work and specifying any special conditions under which such work may be resumed safely.

Project construction activities would comply with all applicable regulations, including the enforcement of hazardous materials treatment, handling, notification, and transportation regulations and implementation of BMPs as required by SLVWD's construction contractor specifications. As such, hazardous materials impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

Boulder Creek Elementary School and Little People's School are located near the Lyon Pipeline location. Boulder Creek Elementary School is located at 400 West Lomond Street (500 feet west of the pipeline location), and Little People's School is located at 13171 Railroad Avenue (410 feet east of the pipeline location). As described under items 8(a) and 8(b), an accidental spill or release of hazardous or potentially hazardous materials such as vehicle and equipment fuels could occur during project construction. However, implementation of SLVWD's construction contractor specifications would ensure that significant impacts would be avoided. Therefore, potential impacts associated with an accidental emission or release of hazardous materials in proximity to a school would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project be located on a site included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Government Code Section 65962.5 requires the CalEPA to develop an updated Cortese List. The California Department of Toxic Substances Control (DTSC) is responsible for a portion of the information contained in the Cortese List. The analysis for this section included a review of the following resources on July 27, 2018 to provide hazardous material release information:

- State Water Resources Control Board (SWRCB) GeoTracker database
- DTSC EnviroStor database

There are no known active hazardous materials sites located within the project site. SWRCB's GeoTracker database lists a number of closed case hazardous waste cleanup sites within 0.25 mile of the project site (see Table 6). Because no hazardous materials sites are located on the project site and all nearby identified hazardous waste cleanup sites have been completed and closed, no impact would occur.

NO IMPACT

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

f. For a project near a private airstrip, would it result in a safety hazard for people residing or working in the project area?

The closest public airport to the project is the Norman Y. Mineta San Jose International Airport, located approximately 19.5 miles northeast of the project site. The closest private airstrip to the project is the Bonny Doon Airport, located approximately 3.6 miles south of the project site. Neither pipeline location is within an airport land use plan. Given the distance of the airport and airstrip from the project site, the project would not result in an impact to safety hazards for people residing or working in the project area due to proximity to an airport or airstrip.

NO IMPACT

g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The County of Santa Cruz has published a draft Operational Area Emergency Management Plan that establishes a comprehensive, all-hazards approach to incident management for activities including prevention, preparedness, response, and recovery. The Operational Area Emergency Management Plan primarily focuses on organizational structure and chain of command and does not include policies specific to the project site (County of Santa Cruz 2015); therefore, this analysis focuses on the proposed project's potential to generally interfere with emergency response activities in the project vicinity.

Construction of the proposed project may require temporary lane or road closures that could impede emergency response. The Traffic Control Plan required under Mitigation Measure T-1 (see Section 16, *Transportation/Traffic*) would implement safe and effective traffic control measures at the construction sites and would address any potential interference with emergency response and/or evacuation plans. Operation of the pipelines would not interfere with emergency response because the Lyon Pipeline would be entirely underground, and the aboveground Sequoia Avenue Pipeline would be located in an area of open space with no roadways or structures. With implementation of the Traffic Control Plan, potential impacts related to the impairment of implementation of or physical interference with an adopted emergency response plan or emergency evacuation plan would be less than significant with mitigation incorporated.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

Table 6 Hazardous Waste Cleanup Sites Located within 0.25 Mile of the Pipeline Locations

Site Name	Address	Type of Site	Contaminant of Concern	Distance from Pipeline Location (feet)	Contamination Type	Clean-up Status	Date
San Lorenzo Rockery	13215 Pine Street	LUST Cleanup Site	Gasoline	160	Groundwater contamination by benzene and petroleum hydrocarbons	Completed - Case Closed	5/18/2000
Schafir Property	13265 Big Basin Way	LUST Cleanup Site	Gasoline	75	Groundwater contamination	Completed - Case Closed	3/1/2002
Former Olympic Station	13250 Big Basin Way	LUST Cleanup Site	Benzene, gasoline	60	Soil contaminated by gasoline hydrocarbon products and groundwater contamination by petroleum hydrocarbons	Completed - Case Closed	7/23/2014
Boulder Creek Texaco	13211 Highway 9	LUST Cleanup Site	Gasoline	160	Soil contaminated by petroleum hydrocarbons and groundwater contamination by petroleum hydrocarbons, benzene, and methyl-tertiary-butyl-ether (MTBE)	Completed - Case Closed	8/23/2012
Arco Station	13057 Highway 9	LUST Cleanup Site	Not listed	180	Soil contamination	Completed - Case Closed	3/3/1993
Olympian Oil Company	13250 Highway 9	LUST Cleanup Site	Gasoline	480	Groundwater contamination	Completed - Case Closed	7/8/1991

LUST = leaking underground storage tank
Source: SWRCB 2018

h. Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

According to the California Department of Forestry and Fire Protection (CAL FIRE), the Lyon Pipeline location is within the Moderate and High Fire Hazard Severity Zones, and the Sequoia Avenue Pipeline location is within the Moderate Fire Hazard Severity Zone in the State Responsibility Area (CAL FIRE 2007). The nearest fire station, Boulder Creek Fire Department, is located on Pine Street approximately 0.1 mile east of the Lyon Pipeline location, and approximately 2.6 miles (driving distance) south of the Sequoia Avenue Pipeline location.

During construction activities, the use of spark-producing construction machinery within or adjacent to areas of moderate and high fire hazard could potentially create hazardous fire conditions and expose people to wildfire risks. However, implementation of Mitigation Measure HAZ-1 would reduce impacts related to potential risk of loss, injury, or death associated with wildland fires to less than significant levels. Operation of the project would not increase the population or introduce any project elements that would potentially increase the risk of loss, injury, or death associated with wildland fires. Therefore, this impact would be less than significant with mitigation incorporated.

Mitigation Measure

With implementation of the following mitigation measure, potential impacts related to wildland fires would be reduced to less than significant levels.

HAZ-1 Prevention of Fire Hazards

During construction of the project, staging areas, welding areas, and areas designated for construction shall be cleared of dried vegetation and other materials that could ignite. Construction equipment with spark arrestors shall be maintained in good working order. In addition, construction crews shall have a spotter during welding activities to minimize potentially dangerous situations, such as accidental sparks. Other construction equipment, including those with hot vehicle catalytic converters, shall be kept in good working order and used only within cleared construction areas. The creation and maintenance of approved fire access roads to work areas shall be required in accordance with applicable fire regulations. During construction of the project, contractors shall require vehicles and crews to have access to functional fire extinguishers.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

9 Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements?	☐	■	☐	☐
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering or the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	■
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☐	■	☐
d. Substantially alter the existing drainage pattern of the site or area, including the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	■	☐
e. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	■	☐
f. Otherwise substantially degrade water quality?	☐	■	☐	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
g. Place housing in a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map, or other flood hazard delineation map?	☐	☐	☐	■
h. Place structures in a 100-year flood hazard area that would impede or redirect flood flows?	☐	☐	☐	■
i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including that occurring as a result of the failure of a levee or dam?	☐	☐	☐	■
j. Result in inundation by seiche, tsunami, or mudflow?	☐	☐	■	☐

The federal Clean Water Act establishes the framework for regulating discharges to Waters of the U.S. in order to protect their beneficial uses. The Porter-Cologne Water Quality Act regulates water quality within California and establishes the authority of the SWRCB and the nine RWQCBs. The SWRCB requires construction projects to provide careful management and close monitoring of runoff during construction, including on-site erosion protection, sediment management, and prevention of non-storm discharges. The SWRCB and RWQCBs issue National Pollutant Discharge Elimination System (NPDES) permits to regulate specific discharges. The NPDES Construction General Permit regulates stormwater discharges from construction sites that disturb more than one acre of land.

The project site is located in the Monterey Bay Watershed (Hydrologic Unit Code 18060015). The Lyon Pipeline location runs parallel to Boulder Creek, which is an intermittent stream located approximately 200 feet from the project alignment. The Lyon Pipeline location crosses Foreman Creek, which is an intermittent stream, as well as an unnamed ephemeral stream. Both Foreman Creek and the unnamed ephemeral stream are tributaries to Boulder Creek, which feeds into the San Lorenzo River (United States Geological Survey 2018).

The project site overlies the Santa Margarita Groundwater Basin, which is bordered by the West Santa Cruz Terrace Basin and the Santa Cruz Mid-County Basin to the south and the Corralitos – Purisma Highlands Basin to the east. No groundwater basins are present to the north or west (California Department of Water Resources [DWR] 2018). Groundwater in the basin is replenished naturally, primarily by percolation from the Santa Margarita River and by infiltration of precipitation (DWR 2004). Average groundwater recharge in this area is high because of high aquifer transmissivity, high average rainfall, and sandy soils with low runoff, low evapotranspiration and high infiltration capacity. Key production aquifers of the basin include the Santa Margarita and Lompico aquifers. SLVWD maintains eight active groundwater wells between Ben Lomond and

Scotts Valley (SLVWD 2016). Maximum groundwater depth within the aquifers is 3,000 feet, and total basin storage is estimated at approximately 61,600 acre-feet (DWR 2004). Sustainable yield is estimated at 3,400 acre-feet per year (Kennedy/Jenks Consultants 2016). Due to overdraft conditions in the early 20th century, the basin was adjudicated in 1966 and has been managed under an AB 3030 Groundwater Management Plan since 1994 (DWR 2004, Santa Margarita Groundwater Agency 2018). The basin is currently managed by the Santa Margarita Groundwater Sustainability Agency.

a. Would the project violate any water quality standards or waste discharge requirements?

f. Would the project otherwise substantially degrade water quality?

Excavation, grading, and construction activities associated with construction of the proposed project would result in soil disturbance that could cause water quality violations through potential erosion and subsequent sedimentation of streams that intersect the project area. Because the proposed project would disturb less than one acre, the project would not be subject to the NPDES Construction General Permit. Section 01560 Part 1.08 of SLVWD's construction contractor specifications require contractors to implement effective wind erosion control measures and to provide effective soil cover for inactive areas and all finished slopes, open space, utility backfill, and completed areas. Contractors must also establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from the site. Furthermore, contractors must effectively manage all run-on, all runoff within the site, and all runoff that discharges off the site. Run-on from off-site must be directed away from all disturbed areas.

However, as discussed in Section 6, *Geology and Soils*, both project sites have steep slopes that would increase the potential for soil erosion. The Lyon Pipeline location has an average slope of approximately 4 percent across the entire site with a maximum slope of approximately 33 percent, and the Sequoia Avenue Pipeline location has an average slope of 11 percent with a maximum slope of 53 percent. Implementation of Mitigation Measure GEO-1 would reduce erosion-related impacts to water quality.

Construction activities could also cause water quality violations in the event of an accidental fuel or hazardous materials leak or spill. If precautions are not taken to contain contaminants, construction activities could result in contaminated stormwater runoff that could enter nearby streams. Therefore, the proposed project would result in potentially significant impacts to water quality, and implementation of Mitigation Measure HWQ-1 would be required to reduce impacts to a less than significant level.

During operation of the project, the pipelines would convey potable water that would be treated in accordance with applicable drinking water regulations set forth by the SWRCB. No impacts to water quality associated with operation would occur.

Mitigation Measure

With implementation of the following mitigation measure, potential impacts to water quality would be reduced to a less than significant level.

HWQ 1 Stormwater Pollution Prevention

- Storm water runoff and nuisance flow drainage shall be directed away from riparian habitat and into a temporary stormwater filter constructed to remove pollutants before being allowed to discharge into riparian areas.
- The collection and disposal of any and all pollutants originating from construction equipment shall be identified. During construction activities, washing of concrete, paint, or equipment shall occur only in designated areas greater than 100 feet from riparian areas where polluted water and materials can be contained for subsequent removal from the site. Washing shall not be allowed within 100 feet of riparian areas. Plastic shall be placed over any ground surface where fueling or equipment maintenance is to occur. Drip pans shall be placed under equipment parked on-site.
- Temporary storage of construction equipment shall be limited to a minimum of 100 feet away from Foreman Creek, the unnamed ephemeral stream, and Boulder Creek.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

Project construction would require trenching to approximately six feet in depth. Groundwater is not likely to be encountered at a depth of six feet and no dewatering activities would occur. Therefore, project construction would have no impact on groundwater supplies.

SLVWD currently has eight active groundwater wells that constitute a substantial portion of the District's water supply. In 2015, groundwater supplied 56 percent of the District's total water supply with 994 acre-feet of groundwater extracted. SLVWD forecasts that groundwater extraction will decrease to 906 acre-feet per year by 2035 and will constitute approximately 41 percent of the District's total water supply at this time (SLVWD 2016). As a result, although the proposed project would increase SLVWD's potable water system conveyance capacity, the project would not deplete groundwater supplies because SLVWD intends to reduce total groundwater extraction in favor of other water supply sources in the future.

Furthermore, the Lyon Pipeline would be located entirely underground adjacent to an existing pipeline, and the aboveground Sequoia Avenue Pipeline would replace an existing aboveground pipeline, which would be removed. Therefore, the project would not significantly reduce the amount of groundwater recharge that is potentially occurring on the project site. Impacts to groundwater resources would be less than significant.

NO IMPACT

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?

d. Would the project substantially alter the existing drainage pattern of the site or area, including the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

e. Would the project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

The Lyon Pipeline would consist of an underground pipeline generally located within an existing paved public ROW with the exception of a segment that would be located within an existing unpaved utility easement. Although construction activities would involve possible trenching and other pipeline installation methods that would disturb both paved roadways and unpaved land within the project site, this disturbance would be temporary. After construction, the project area would be restored to its original condition, and any drainage pattern would be the same as it was prior to project construction activities. Therefore, the project would not substantially alter the existing drainage pattern or the course of a stream or river and would therefore not result in substantial erosion or siltation on or offsite.

The Lyon Pipeline would be constructed entirely underground, and the aboveground Sequoia Avenue Pipeline would replace an existing aboveground pipeline and would be constructed on supports. Therefore, the project would not permanently alter the existing drainage pattern or increase the rate or amount of surface runoff. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

g. Would the project place housing in a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map, or other flood hazard delineation map?

The proposed project would not construct housing in a 100-year floor hazard area; therefore, no impact would occur.

NO IMPACT

h. Would the project place structures in a 100-year flood hazard area that would impede or redirect flood flows?

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps, portions of the Lyon Pipeline location are within a 100-year flood hazard area (Zone A). However, because the Lyon Pipeline would be located entirely underground, it would not impede or redirect flows, nor expose people or structures to a significant risk of loss, injury or death involving flooding. The Sequoia Avenue Pipeline project site is not located within a 100-year flood hazard area (FEMA 2012). No impact would occur.

NO IMPACT

i. Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including that occurring as a result of the failure of a levee or dam?

The Newell 23-002 Dam is located approximately three miles southeast of the project site. However, in the event of a dam failure, intervening topography would direct flows in a southerly direction away from the project site (County of Santa Cruz 2009e). The Sempervirens 1-02 Dam is located approximately 6.4 miles northwest of the project site. Given the small size of the reservoir associated with the Sempervirens 1-02 Dam and the intervening topography between the dam and the project site, failure of this dam would not result in substantial flooding of the project site. Furthermore, the project does not include development of habitable structures, and no impacts related to exposure of people or structures to a significant risk due to failure of a levee or dam would occur as a result of the project.

NO IMPACT

j. Would the project result in inundation by seiche, tsunami, or mudflow?

The project sites are not located within a Tsunami Inundation Area as mapped by the CDOC. The nearest mapped tsunami inundation areas are located approximately 8.7 miles southwest (CDOC 2009). As discussed under item 9(i), the project sites are located at least three miles from the nearest large water bodies, and intervening topography would direct any flows from a potential seiche away from the project sites. The project area is characterized by mountainous terrain with frequent changes in elevation; therefore, mudflow is a potential issue. However, the Lyon Pipeline would be located underground adjacent to an existing pipeline and the Sequoia Avenue Pipeline would replace an existing aboveground pipeline and would be constructed on supports. Neither pipeline would destabilize the terrain in a manner that would increase the risk of mudflow. Therefore, no impact related to seiche or tsunami would occur, and impacts related to mudflow would be less than significant.

LESS THAN SIGNIFICANT IMPACT

10 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	■
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	■
c. Conflict with an applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	■

a. Would the project physically divide an established community?

Project facilities would mainly consist of replacement potable water pipelines and appurtenances that would bolster system reliability and efficiency in a residential and commercial area of unincorporated Santa Cruz County in the census-designated place of Boulder Creek. Construction staging would occur adjacent to the proposed pipeline locations. The presence of construction equipment and workers would temporarily change the existing character of the project vicinity to that of a construction zone. Construction staging would maintain local access for businesses and residences near the proposed Lyon Pipeline location to the extent practicable throughout construction of the proposed project. In addition, construction would be short-term in nature, and because the proposed project involves installation of a linear pipeline, the active construction area would be continuously moving along the length of the alignment as each segment is installed. As such, the active construction area would not typically be in the same location for more than five days. Therefore, construction of the proposed project would not physically divide an established community. In addition, operation of the pipelines would not physically divide an established community because the Lyon Pipeline would be located entirely underground, and the Sequoia Avenue Pipeline would replace an existing aboveground pipeline located in an open space area. Accordingly, no impact would occur.

NO IMPACT

b. Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan,

local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The project would involve water infrastructure improvements that would result in improved maintenance access and enhanced system reliability. The project would also help realize water conservation efforts by reducing leaks, breakage, and other inefficiencies in the existing water delivery system. The County of Santa Cruz Boulder Creek Specific Plan does not include any objectives, policies, or programs related to the provision of water supplies or water infrastructure. The Parks, Recreation, and Public Facilities Element of the County of Santa Cruz GP/LCP includes the following objectives and policies related to water systems and water conservation (County of Santa Cruz 1994):

Objective 7.18a. Domestic Water Service. To ensure a dependable supply of high quality domestic water to meet the needs of communities that obtain water service from municipal water systems, County water districts and small water systems.

Objective 7.18c. Water Conservation. To maximize the County's water conservation potential through a coordinated program with water purveyors and water management agencies involving public education, financial incentives to conserve, voluntary and mandatory conservation measures, retrofit programs, run-off management and water waste regulations and enforcement.

Policy 7.18.4. Improvement of Water Systems. Support water system improvement programs for storage, treatment and distribution facilities to meet necessary water supply and fire suppression requirements.

Policy 7.18.6. Water Conservation Requirements. Utilize the best available methods for water conservation in new developments. Work with all water purveyors to implement demand management programs and water conservation measures. In areas where shortage or groundwater overdraft has been substantiated by the water purveyor, require water conservation measures for new and existing uses. Require the use of water-saving devices such as ultra low-flow fixtures and native drought-resistant planting in new development projects to promote ongoing water conservation.

Furthermore, the land use and zoning designations in which the project site is located allow for construction of potable water pipelines. Therefore, the proposed project would not conflict with an applicable land use plan, policy, or regulation and is supported by policies in the County of Santa Cruz GP/LCP. No impact would occur.

NO IMPACT

c. Would the project conflict with an applicable habitat conservation plan or natural community conservation plan?

As discussed under *Biological Resources,* the project site is not located within the jurisdiction of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan (CDFW 2017). Therefore, no impact would occur.

NO IMPACT

11 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	■
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	■

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

The Conservation and Open Space Element of County of Santa Cruz GP/LCP recognizes State classification and designation of mineral resource areas (County of Santa Cruz 1994). According to Mineral Land Classification Maps prepared by the CDOC, part of the Lyon Pipeline location is designated as Mineral Resource Zone (MRZ) 1, which indicates that no significant mineral deposits are present (CDOC 1982). The remainder of the project site is located in an area designated as MRZ 4, which indicates insufficient evidence for designation. However, the Lyon Pipeline would be constructed adjacent to an existing pipeline, and the Sequoia Avenue Pipeline would replace an existing pipeline. As such, construction and operation of the proposed project would not preclude the potential for future mineral recovery activities that may occur near the project site. In addition, the majority of land use and zoning designations in the vicinity of the project site are residential and commercial, which would not be compatible with mineral mining activities. Therefore, no impact associated with mineral resources would occur.

NO IMPACT

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12 Noise

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	■	☐	☐
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	■	☐	☐
c. A substantial permanent increase in ambient noise levels above those existing prior to implementation of the project?	☐	■	☐	☐
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	■	☐	☐
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	■
f. For a project near a private airstrip, would it expose people residing or working in the project area to excessive noise?	☐	☐	☐	■

Background

Noise is defined as unwanted sound. Noise level measurements include intensity, frequency, and duration, as well as time of occurrence. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (similar to the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

Sound pressure level is measured on a logarithmic scale with the 0 dBA level based on the lowest detectable sound pressure level that people can perceive. Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dBA. In general, a 3 dBA change in the ambient noise level is noticeable, while changes that are less than 2 dBA generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40 to 50 dBA, while areas adjacent to major streets are typically in the 50 to 60+ dBA range. Normal conversational levels are usually in the 60 to 65 dBA range and ambient noise levels greater than 65 dBA can interrupt conversations.

Noise levels from point sources, such as those from individual pieces of machinery, typically attenuate (or drop off) at a rate of 6 dBA per doubling of distance from the noise source. Noise levels may be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source can reduces noise levels by about 5 dBA, while a solid wall or berm can reduce noise levels by 5 to 10 dBA (Federal Transit Administration [FTA] 2006). The manner in which homes in California are constructed generally provides a reduction of exterior-to-interior noise levels of approximately 20 to 25 dBA with closed windows (FTA 2006).

The duration of noise is important because sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level (Leq). The Leq is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). Typically, Leq is summed over a one-hour period.

The time period in which noise occurs is also important since nighttime noise tends to disturb people more than daytime noise. Community noise is frequently measured using the Day-Night Average Level (Ldn), which is the 24-hour average noise level with a 10-dBA penalty for noise occurring during nighttime hours (10:00 p.m. to 7:00 a.m.) hours.

Some land uses are more sensitive to ambient noise levels than other uses due to the amount of noise exposure and the types of activities involved. The Public Safety and Noise Element of the County of Santa Cruz GP/LCP considers residences, hospitals, nursing homes, schools, and parks to be noise-sensitive land uses (County of Santa Cruz 1994). Noise-sensitive land uses in the vicinity of the Lyon Pipeline location include residential areas along SR 236, Boulder Creek Elementary School, and Little People's School. Noise-sensitive land uses in the vicinity of the Sequoia Avenue Pipeline location include residences.

Vibration is a unique form of noise because its energy is carried through buildings, structures, and the ground, whereas sound is simply carried through the air. Thus, vibration is generally felt rather than heard. Some vibration effects can be caused by noise (e.g., the rattling of windows from passing trucks). This phenomenon is caused by the coupling of the acoustic energy at frequencies that are close to the resonant frequency of the material being vibrated. Typically, ground-borne vibration generated by manmade activities attenuates rapidly as distance from the source of the vibration increases. The ground motion caused by vibration is measured as particle velocity in inches per second and is measured in vibration decibels (VdB).

The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources inside buildings such as the operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads.

Regulatory Setting

County of Santa Cruz General Plan Public Safety and Noise Element

The Public Safety and Noise Element of the County of Santa Cruz GP/LCP contains the following policy that pertains to construction noise:

> **Policy 6.9.7. Construction Noise.** Require mitigation of construction noise as a condition of future project approvals.

Santa Cruz County Noise Ordinance

Chapter 8.30 of the Santa Cruz County Code states that no person shall make, cause, suffer, or permit to be made any offensive noise, which can include construction noise (County of Santa Cruz 2017d). According to Section 8.30.010(C)(1)(a), noise that occurs during daytime and evening hours (8:00 a.m. to 10:00 p.m.) is considered to be offensive if one or more of the following occurs:

- Noise is clearly discernable at a distance of 150 feet from the property line of the property from which the sound is broadcast
- Noise is in excess of 75 dBA at the property line of the property from which the sound is broadcast

According to Section 8.30.010(C)(2)(b) of the Santa Cruz County Code, noise that occurs during nighttime hours (10:00 p.m. to 8:00 a.m.) is considered offensive if one or more of the following occurs:

- Noise is made within 100 feet of a building regularly used for sleeping
- Noise is clearly discernable at 100 feet from the property line of the property from which the sound is broadcast
- Noise is in excess of 60 dBA at the property line from which the sound is broadcast

However, Section 8.30.010 of the Santa Cruz County Code also states that the necessity of the noise shall be considered when determining if a violation of the noise ordinance exists and specifically lists permitted construction activities as an example of necessary noise.

Additionally, Chapter 13.10.345(A)(6) of the Santa Cruz County Code states that no use except for temporary construction operation shall be permitted which creates vibration detectable by the human senses beyond the boundaries of a site in an M-1 industrial district or beyond the boundaries of an M-2 industrial district.

a. Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

c. Would the project result in a substantial permanent increase in ambient noise levels above levels existing without the project?

d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

The proposed project would construct two water pipeline replacements that would bolster system reliability and efficiency. The project would generate temporary construction noise associated with

site preparation, grading/trenching, pipeline construction/installation, and paving. The nearest sensitive receptors to the Lyon Pipeline location are residential parcels along SR 236 and Pine Street located approximately 15 feet away. The nearest sensitive receptors to the Sequoia Avenue Pipeline location are residences along Sequoia Avenue located approximately 10 feet away.

Construction noise at nearby sensitive receptors was modeled using the Federal Highway Administration's (FHWA) Roadway Construction Noise Model (RCNM). Equipment for each phase of project construction was based on a construction equipment list provided by SLVWD. Table 7 summarizes the maximum construction noise levels at the nearest sensitive receptor for both the Lyon Pipeline and Sequoia Avenue Pipeline locations based on the combined construction equipment anticipated to be used concurrently during each phase of construction.

Table 7 Maximum Construction Noise Levels by Construction Phase

		Estimated Noise at Nearest Sensitive Receptors (dBA Leq)	
Construction Phase	**Anticipated Equipment**	**Lyon Pipeline[1]**	**Sequoia Avenue Pipeline[2]**
Site Preparation	Backhoe	84.0	87.6
Grading/Trenching	Backhoes (2), Dozer, Concrete Saw	95.0	98.5
Pipeline Construction/Installation	Crane, Forklifts (2), Backhoes (2)	96.3	99.8
Paving	Cement Mixers (4), Backhoes (2), Paver, Roller	92.8	96.3

See Appendix D for RCNM data sheets.

[1]Nearest sensitive receptors are residential properties along SR 236 and Pine Street, approximately 15 feet from project site.

[2]Nearest sensitive receptors are residential properties along Sequoia Avenue, approximately 10 feet from project site.

As shown in Table 7, construction noise could be as high as approximately 96 dBA Leq at residential property lines near the Lyon Pipeline location and 100 dBA Leq at residential property lines near the Sequoia Avenue Pipeline location. Therefore, construction noise would exceed the 75 dBA Santa Cruz County Code daytime noise standard at the nearest sensitive receptors located near the proposed project locations.

Construction noise would be temporary in nature. Because the proposed project involves installation of a linear pipeline, the active construction area would be continuously moving along the length of the alignment as each segment is installed. As such, the active construction area would not typically be in the same location for more than five days. Furthermore, construction activities would be in accordance with the Section 8.30.010 of the County's Noise Ordinance, which lists permitted construction activities as an example of necessary noise when considering whether a violation of the Noise Ordinance exists. Policy 6.9.7 of the Santa Cruz County General Plan Public Safety and Noise Element requires mitigation of construction noise as a condition of project approval; therefore, implementation of Mitigation Measure N-1 is required to reduce potential impacts related to construction noise.

During operation, the proposed project would not result in a substantial increase in ambient noise levels. The Lyon Pipeline would be located entirely underground and would not result in operational

noise. The Sequoia Avenue Pipeline would replace an existing aboveground pipeline and would not generate operational noise above that of the existing pipeline. The proposed project would require approximately 12 maintenance trips per year (or one trip per month) for each pipeline, which would represent a negligible increase in traffic on area roadways. As such, the increase in roadway noise associated with the project would be incremental, and the project would not result in a substantial permanent increase in ambient noise levels. Therefore, operational noise impacts would be less than significant.

Mitigation Measures

The following mitigation measure is required to reduce construction noise impacts to a less than significant level.

N-1 Construction Noise Mitigation

To reduce noise during construction, the contractor shall implement the following noise control measures:

- **Construction Hours Limits.** Construction shall be limited to Monday through Friday from 8:00 a.m. to 6:00 p.m., and Saturday from 9:00 a.m. to 6:00 p.m. No noise-generating work shall occur on Sundays or federal holidays.
- **Construction Staging Areas and Stationary Equipment Locations.** The contractor shall select equipment staging areas and stationary noise-generating construction equipment locations as far as practicable from sensitive receptors.
- **Equipment Maintenance**. All contractors, as a condition of contract, shall be required to maintain and tune-up all construction equipment to minimize noise emissions.
- **Idling Prohibition and Enforcement.** Unnecessary idling of internal combustion engines shall be prohibited. In practice, this would mean turning off equipment if it would not be used for five or more minutes.
- **Stationary Equipment Shielding.** Stationary equipment areas with appropriate acoustic shielding shall be designated on building and grading plans. Equipment and shielding shall be installed prior to construction and remain in designated location throughout construction activities. Pneumatic impact tools and equipment used at the construction site shall have intake and exhaust mufflers recommended by the manufacturers. Impact noise producing equipment (i.e., jackhammers and pavement breaker[s]) shall be equipped with noise attenuating shields, shrouds, or portable barriers or enclosures to reduce operating noise.
- **Mufflers.** All diesel equipment shall be operated with closed engine doors and shall be equipped with properly operating and maintained residential grade mufflers.
- **Electrically-Powered Tools and Facilities.** Whenever feasible, electrical power shall be used to run air compressors and similar power tools rather than diesel equipment.
- **Temporary Sound Barriers.** When construction is occurring within 50 feet of the nearest residential property line, temporary sound barriers shall be erected along the boundaries of the project site between active on-site construction work using heavy equipment and adjacent sensitive receptors (residential parcels). Such barriers shall be of sufficient height (approximately 6 feet) to break the line-of-sight between noise-generating equipment and the noise-sensitive receptor, and shall be continuous with no gaps or holes between panels or the ground. Temporary sound barriers may include noise curtains, sound blankets, or solid temporary barriers.

- **Pre-Construction Notification.** Prior to construction, written notification that identifies the type, duration, and frequency of construction activities shall be provided to residents within 100 feet of the Lyon and Sequoia Avenue Pipeline locations.

Installation of temporary sound attenuating barriers between construction activities and adjacent sensitive receptors typically provides up to 10 dBA attenuation. Installation of sound shielding, residential grade mufflers have been proven to reduce noise levels by at least 20 dBA at 50 feet (see Appendix D for manufacturer equipment specifications). As shown in Table 7, the highest noise level associated with construction activity would be approximately 96 dBA Leq at residential property lines near the Lyon Pipeline location and 100 dBA Leq at residential property lines near the Sequoia Avenue Pipeline location. Implementation of Mitigation Measure N-1 would reduce construction noise by approximately 30 dBA, which would result in maximum construction noise levels of approximately 66 dBA Leq at residential property lines near the Lyon Pipeline location and 70 dBA Leq at residential property lines near the Sequoia Avenue Pipeline location. This analysis conservatively assumes that a number of pieces of construction equipment would be operating simultaneously during each phase of construction, and that there would not be any obstructions to line-of-sight that would further attenuate construction noise. Staggered operation of equipment would further reduce construction related noise.

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b. Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

The County of Santa Cruz has not adopted any thresholds for construction or operational groundborne vibration impacts; therefore, the following vibration thresholds established by the Federal Transit Administration (FTA) were applied to the project.

- 72 VdB for residences and buildings where people normally sleep, including hotels
- 75 VdB for institutional land uses with primary daytime use, such as churches and schools
- 94 VdB for physical damage to fragile buildings
- 98 VdB for non-engineered timber and masonry buildings
- 102 VdB for reinforced concrete steel, or timber buildings

Certain types of construction equipment can temporarily generate high levels of groundborne vibration. Construction of the proposed project would potentially utilize a large bulldozer during grading/trenching, loaded trucks during most construction phases, and a vibratory roller during the paving phase. The Lyon Pipeline location is within approximately 15 feet of residences along SR 236 and Pine Street in Boulder Creek and within approximately 430 feet of the nearest school (Little People's School). The Sequoia Avenue Pipeline location is within approximately 40 feet of residences along Sequoia Avenue. Table 8 shows typical vibration levels associated with standard construction equipment that could be used for the project.

Table 8 Groundborne Vibration for Typical Construction Equipment

Equipment	Approximate Vibration Level (VdB) at 15 Feet[1]	Approximate Vibration Level (VdB) at 430 Feet
Vibratory Roller	101	57
Large Bulldozer	94	50
Loaded Truck	92	49

VdB: vibration decibels
[1] Distance to nearest residence.
[2] Distance to nearest school.
Source: FTA 2006

As shown in Table 8, at a distance of 15 feet (i.e., distance to the nearest residence from the Lyon Pipeline location), a vibratory roller would generate a vibration level of 101 VdB, a large bulldozer would generate a vibration level of 94 VdB, and a loaded truck would generate a vibration level of 92 VdB. Such vibration levels would exceed FTA's recommended threshold of 72 VdB for residences during normal sleep hours and 98 VdB for non-engineered timber and masonry buildings. Pursuant to Mitigation Measure N-1, construction activities would be limited to 8:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 6:00 p.m. on Saturday. Although vibration levels would exceed 72 VdB, construction activities would be limited to daytime hours and vibration impacts would not occur during normal sleep hours. In addition, as discussed under items 12(a), 12(c), and 12(d), construction vibration impacts would be temporary as the active construction site moves along the length of the pipeline alignment. Nevertheless, because vibration levels may exceed 98 VdB, construction vibration impacts to nearby residences would be potentially significant. Implementation of Mitigation Measure N-2 would be required to reduce construction-related vibration impacts to less than significant levels.

As shown in Table 8, at a distance of 430 feet (i.e., distance to the nearest school from the Lyon Pipeline location), a vibratory roller would generate a vibration level of 57 VdB, a large bulldozer would generate a vibration level of 50 VdB, and a loaded truck would generate a vibration level of 49 VdB. Such vibration levels would not exceed FTA's recommend threshold of 75 VdB for institutional land uses with primary daytime use. Therefore, construction vibration impacts to nearby schools would be less than significant.

The proposed project would construct potable water pipelines, which would not generate vibration; therefore, no operational vibration impacts would occur.

Mitigation Measures

The following mitigation measure would reduce groundborne vibration impacts to residences in proximity to the Lyon and Sequoia Avenue Pipeline locations to less than significant levels.

N-2 Use of Non-Vibratory or Pneumatic Tired Rollers

Construction activities shall use non-vibratory smooth wheel rollers or pneumatic tired rollers instead of vibratory rollers in order to reduce potentially significant groundborne vibration impacts on residences near the Lyon and Sequoia Avenue Pipeline locations.

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e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise?

As discussed under Section 8, *Hazards and Hazardous Materials,* the closest public airport to the project is the Norman Y. Mineta San Jose International Airport, located approximately 19.5 miles northeast of the project site. The closest private airstrip to the project is the Bonny Doon Airport, located approximately 3.6 miles south of the project site. The project site is not located within an airport land use plan or in the vicinity of a private airstrip. Therefore, the project would not expose people residing or working in the area to excessive noise related to air-traffic, and no impact would occur.

NO IMPACT

13 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	■
b. Displace substantial amounts of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■

a. Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The proposed project would involve replacement of existing potable water pipelines. The project does not propose construction of new homes and would therefore not directly induce population growth in the service area. Although the proposed project would expand the conveyance capacity of existing water infrastructure by increasing the diameter of the pipelines that currently serve existing customers, the purpose of this project is to serve existing demand, accommodate projected growth in Santa Cruz County, improve performance reliability, and add flexibility to utilize multiple supply sources throughout the District rather than to serve new growth. The project would not result in acquisition of additional water supplies, and the project would not expand service beyond areas presently served by existing infrastructure. Furthermore, the pipelines would be maintained by existing SLVWD employees and would not indirectly induce population growth as a result of new employment opportunities. Therefore, the project would not indirectly support population growth. No impact related to substantial population growth would occur.

NO IMPACT

b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

c. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The proposed water pipelines would primarily be constructed within existing roadways and public ROW and would not displace any existing housing or people. No impact would occur.

NO IMPACT

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14 Public Services

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
	1 Fire protection?	☐	☐	☐	■
	2 Police protection?	☐	☐	☐	■
	3 Schools?	☐	☐	☐	■
	4 Parks?	☐	☐	☐	■
	5 Other public facilities?	☐	☐	☐	■

a.1-5 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, and/or other public facilities?

As discussed in Section 13, *Population and Housing*, construction and operation of the proposed project would not result in direct or indirect population growth. In addition, the proposed project would replace existing pipelines and would not result in new permanent facilities that would generate the need for additional fire or police protection services, schools, parks, or other public facilities. No impact to public services would occur.

NO IMPACT

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15 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	■
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	■

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

As discussed in Section 13, *Population and Housing*, the proposed project would not directly or indirectly support substantial population growth. Therefore, the proposed project would not increase the need for or use of neighborhood and regional parks or other recreational facilities. No impact to recreational facilities would occur.

NO IMPACT

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16 Transportation/Traffic

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit?	☐	■	☐	☐
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	■	☐	☐
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	■
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	☐	■	☐	☐
e. Result in inadequate emergency access?	☐	■	☐	☐
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?	☐	■	☐	☐

a. Would the project conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit?

b. Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

f. Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?

The proposed project involves construction and operation of potable water pipelines that would not conflict with policies, plans, ordinances, or programs regarding the performance of the circulation system, public transit, bicycle, or pedestrian facilities. The proposed project would be constructed within roadways and public ROW located primarily in suburban residential, rural residential, and open space areas. The Lyon Pipeline would also involve construction through a commercial area of Boulder Creek. The only transit stop located near the project site is the Big Basin Way and Redwood Avenue stop along SR 236, served by the Santa Cruz Metropolitan Transit District Line 35.

Pipeline installation would occur using open trench construction methods at a rate of approximately 200 LF per day. Traffic impacts during project construction would be associated primarily with lane closures or disruptions caused by construction activity in the roadways as well as with construction-related vehicle trips by construction workers traveling to and from the project work areas, soil haul trucks, and other trucks associated with equipment and material deliveries. Road closures are not anticipated; however, single lane closures and on-street parking limitations may be necessary at some locations, including Madrone Drive, Redwood Drive, SR 236, Pine Street, and Lomond Street for the Lyon Pipeline location and Sequoia Avenue for the Sequoia Avenue Pipeline location. Lane closures could reduce roadway capacities, particularly west of central Boulder Creek along SR 236, which is a two-lane highway. Any potential closures would be temporary and phased as construction progresses along the pipeline alignments. Project construction may temporarily block access to the Big Basin Way and Redwood Avenue stop along SR 236; therefore, impacts to public transit facilities would be potentially significant. Implementation of Mitigation Measure T-1, which requires the project contractor to identify transit stops impacted by project construction in the Traffic Control Plan and relocate them, as necessary, would reduce impacts to public transit facilities to less than significant levels.

Traffic generated by construction workers would be spread out within the project area and would vary depending on which segment is under construction. Based on outputs from CalEEMod, construction of the Lyon Pipeline would generate up to 20 worker vehicle trips per day, and construction of the Sequoia Avenue Pipeline would generate up to 10 vehicle trips per day. Based on total soil import and export estimates and a 16-cubic yard (cy) truck capacity, the Lyon Pipeline would require approximately 207 total round-trip haul trips, and the Sequoia Avenue Pipeline would require approximately 25 total round-trip haul trips. Haul trips would occur throughout the construction period and would roughly equate to approximately 12 haul trips per day during the trenching and backfilling phases for the Lyon Pipeline and approximately six round-trip haul trips per day during the trenching and backfilling phases for the Sequoia Avenue Pipeline, which would be a nominal impact to traffic. Construction vehicle traffic could result in a reduction of roadway

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Commented [A10]: District: These appear to be small, one-lane roads, so we are not sure "lane closure" is the appropriate characterization. Please confirm correct.

capacities due to slower movements and larger turning radii of the trucks compared to passenger vehicles.

Soil haul trips and equipment/material delivery trips would occur throughout the day. Any construction-related traffic occurring between 7:00 a.m. and 9:00 a.m. or between 4:00 p.m. and 6:00 p.m. would coincide with peak hour traffic and could temporarily impede traffic and transit flow. Travel during these timeframes would primarily consist of workers traveling to and from the project site, because deliveries would likely occur throughout the day. Access to the construction area would vary depending on where pipeline installation is occurring.

Construction-related traffic impacts would be short-term and temporary at any one location because the active construction area would be continuously moving along the length of the alignment as each segment is installed. In addition, per the SLVWD's construction contractor specifications, contractors would be responsible for basic traffic control measures to ensure the safety of vehicle traffic and material delivery, including providing flag persons at affected roadway segments and/or intersections and traffic control signage.

Nonetheless, construction-related impacts to the transportation system would be potentially significant. As such, implementation of Mitigation Measure T-1 would be required to reduce construction-related traffic impacts to less than significant levels. Mitigation Measure T-1 requires construction contractors to prepare and implement a Traffic Control Plan that addresses and mitigates impacts associated with the temporary closures of traffic lanes, parking lanes, or other public ROW within the project area, as necessary.

Operation of the project would require approximately 12 employee vehicle trips each year to check and maintain the pipelines, which is a conservative assumption given that employee vehicle trips are currently occurring to maintain the existing pipelines. These vehicle trips would represent a negligible increase in traffic and would not impact the performance of the transportation system. In addition, operation of the proposed project would not interfere with the transportation system, including public transit, bicycle, and pedestrian facilities, because the Lyon Pipeline would be located entirely underground and the aboveground Sequoia Avenue Pipeline would be located in an open space area. Operational traffic impacts would be less than significant.

Mitigation Measures

The following mitigation measure would reduce temporary construction traffic impacts to a less than significant level.

T-1 Traffic Control Plan

Prior to construction or the issuance of applicable permits, the contractor shall submit a Traffic Control Plan to SLVWD, the County of Santa Cruz, and any other agency with jurisdiction over roadways affected by project construction for review and approval. This plan shall:

- Describe the proposed lane closures, detours, staging areas, and routes of construction vehicles, including the timing and duration of anticipated closures.
- Describe traffic control measures that will be implemented to manage traffic and reduce potential traffic impacts in accordance with stipulations of the most recent version of the California Manual of Uniform Traffic Control Devices. Traffic control measures may include, but are not limited to, flag persons, warning signs, lights, barricades and cones to provide safe passage of vehicles (including cars and buses) and bicycle and pedestrian traffic.

Commented [A11]: District: confirm if a permit from the County will be required

- Demonstrate the location of bicycle routes and transit stops and routes, including that of Santa Cruz Metropolitan Transit District Line 35, that will be temporarily impacted by construction activities. Recommend places to temporarily relocate bicycle routes and transit stops and routes, if necessary.
- Require written notification of the timing, location, and duration of construction activities, and the location of lane closures or detours (if any) to all emergency service providers (fire and police) prior to road closure. Emergency service vehicles shall be given priority for access.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

As discussed under Section 8, *Hazards and Hazardous Materials,* the project site is not located near a public or private airport/airstrip or in an area covered by an airport land use plan. The proposed project would include the replacement of existing pipelines. The Lyon Pipeline would be located entirely underground, and the Sequoia Avenue Pipeline would be located aboveground on supports. Neither pipeline would create an obstruction of air traffic patterns. As such, no impact would occur.

NO IMPACT

d. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

The proposed project may temporarily change the configuration of intersections and roadways within the project site if lane closures are required during pipeline construction. Construction of the pipeline would occur at a rate of approximately 200 LF per day, limiting lane closures to relatively small areas at any given time. Because lane closures could increase the potential for roadway hazards during project construction, impacts could be significant. However, with the implementation of the Traffic Control Plan (Mitigation Measure T-1), construction-related impacts would be reduced to less than significant levels. In addition, operation of the project would not create or substantially increase a traffic hazard due to a design feature because the Lyon Pipeline would be located entirely underground and the aboveground Sequoia Avenue Pipeline would be located in an open space area.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

e. Would the project result in inadequate emergency access?

Lane closures and other potential traffic impacts caused by construction activities associated with the proposed project could potentially impede emergency access. The Boulder Creek Fire Department Station is located approximately 300 feet from the Lyon Pipeline location. No project construction would be required in front of or adjacent to the station. Therefore, the station would not be directly affected by construction activities. The Traffic Control Plan required by Mitigation Measure T-1 would include specific traffic control measures to address emergency access routes and notify emergency service providers of road or lane closures and detours in advance. Implementation of Mitigation Measure T-1 would reduce potential construction-related impacts to emergency access to less than significant levels. In addition, operation of the project would not result in inadequate emergency access because the Lyon Pipeline would be located entirely

underground and the aboveground Sequoia Avenue Pipeline would be located in an open space area.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

f. Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?

The proposed project involves construction and operation of potable water pipelines that, once constructed, would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. The pipelines would be installed below existing roadways and public ROW. The only transit stop located near the project site is the Big Basin Way and Redwood Avenue stop along SR 236, served by the Santa Cruz Metropolitan Transit District Line 35. Project construction may temporarily block access to this bus stop; therefore, impacts to public transit facilities would be potentially significant. However, such disruption would be temporary and, pursuant to Mitigation Measure T-1, transit stops impacted by project construction would be identified in the Traffic Control Plan and relocated, as necessary. With incorporation of Mitigation Measure T-1, construction-related impacts to public transit, bicycle, and pedestrian facilities would be less than significant. In addition, operation of the project would not impact public transit, bicycle, or pedestrian facilities because the Lyon Pipeline would be located entirely underground and the aboveground Sequoia Avenue Pipeline would be located in an open space area.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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17 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	■
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Cod Section 2024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significant of the resource to a California Native American tribe.	☐	☐	☐	■

As of July 1, 2015, California Assembly Bill 52 of 2014 (AB 52) was enacted and expands CEQA by defining a new resource category, "tribal cultural resources." AB 52 establishes that "A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

PRC Sections 21074 (a)(1)(A) and (B) define tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is:

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be adopted or certified. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency. To date the District has not received any requests for notice of projects under SLVWD jurisdiction.

a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?*

b. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 2024.1?*

As noted above, to date no tribes have requested notice of projects under SLVWD jurisdiction; therefore consultation letters under AB 52 were not circulated by the District.

As part of the Phase I Cultural Resources Report (Appendix C), Rincon did contact the Native American Heritage Commission (NAHC) to request a review of the Sacred Lands File (SLF). The SLF search was returned on July 6, 2018 with negative results. As discussed in Section 5, *Cultural Resources*, Rincon reached out to the five Native American contacts provided by the NAHC to inquire about any potential cultural resources that may be impacted by the project as part of a federal consultation process under Section 106 of the National Historic Preservation Act. Two contacts responded with interest in the project; one contact indicated that she was not aware of any specific cultural resources within or near the project area.

No specific tribal cultural resources have been identified at this time. Therefore, no impact to tribal cultural resources would occur. Nonetheless, Measures CR-1 and CR-2, as described in Section 3, *Cultural Resources*, are recommended as standard best management practices to be implemented in the event of an unanticipated discovery of cultural resources, tribal or otherwise, during project construction.

NO IMPACT

18 Utilities and Service Systems

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	■
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	■
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	■
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	■
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	■
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	■	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	■	☐

a. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

b. Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

e. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The proposed project would involve replacement of two existing potable water pipelines. The proposed pipeline replacements would reduce water loss from breakage and leaks, improve access for maintenance, and enhance system reliability by minimizing pressure loss. While the proposed project would expand the conveyance capacity of the Lyon Pipeline and Sequoia Avenue Pipeline by increasing pipeline diameter, this expansion would serve existing demand, accommodate planned growth, improve performance reliability, and add flexibility to utilize multiple supply sources rather than serve new growth. The project does not involve acquisition of new water supplies and would not expand potable water service beyond areas currently served by existing infrastructure. The proposed project would not alter existing wastewater infrastructure, increase wastewater generation, or substantially alter the composition of wastewater in the service area. Accordingly, no impacts to water and wastewater facilities would occur.

NO IMPACT

c. Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The proposed project would not require or result in the construction of new stormwater drainage facilities or the expansion of existing facilities. No impact would occur.

NO IMPACT

d. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The proposed project would require the use of some water during construction for dust suppression. The source of water for dust suppression activities is anticipated to be potable water provided by SLVWD because the North Service Area of SLVWD is not currently served with reclaimed water (SLVWD 2016). Water consumption associated with dust suppression would be temporary and minimal because only disturbed areas would need to be watered.

Operation of the proposed project would not increase water consumption. The proposed pipeline replacements are intended to improve system reliability, enhance access for maintenance, and reduce water loss through inefficiencies such as breakage or leaks. The conveyance capacities of both the Lyon Pipeline and Sequoia Avenue Pipeline would be expanded to meet existing demand, reduce service interruptions due to pressure loss, and meet fire flow requirements. The project would improve potable water distribution using existing supplies, and acquisition of new water supplies is not proposed by or required for the project. Therefore, no impacts to water supplies would occur.

NO IMPACT

f. Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

g. Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Construction of the proposed project would generate solid waste in the form of soil during site preparation, excavation, and trenching activities. Soil would be re-used on-site or hauled off-site and disposed of in accordance with solid waste disposal regulations. For the Lyon Pipeline, approximately 2,019 cy of the soil would be exported off-site for disposal. For the Sequoia Avenue Pipeline, approximately 225 cy of soil would be exported off-site for disposal. Excavated soil not used on-site would be transported to the Ben Lomond Santa Cruz County Transfer Station, approximately five miles from the Lyon Pipeline location and 6.5 miles from the Sequoia Avenue Pipeline location.

The Ben Lomond Santa Cruz County Transfer Station has a maximum permitted capacity of 300 tons per day (CalRecycle 2018). Soil export from the project would be expected to total approximately 283 tons for the Lyon Pipeline, and approximately 32 tons for the Sequoia Avenue Pipeline.[1] When distributed over the course of project construction for each segment, the Lyon Pipeline would generate approximately five tons per day of waste during construction, while the Sequoia Avenue Pipeline would generate approximately two tons of waste per day. In addition, 800 LF of aging pipeline at the Sequoia Avenue location would be removed and disposed of. Waste generation would be temporary, occurring only during project construction, and would be well below the 300 tons per day permitted capacity of the Ben Lomond Santa Cruz County Transfer Station. Therefore, the project would not result in significant impacts to a local landfill.

Additional solid waste that would be generated (e.g. by-products of roadway construction including asphalt and concrete) would be disposed of in accordance with all applicable federal, State, and local statutes and regulations. Once constructed, operation and maintenance activities would not generate solid waste. For this reason, operation of the proposed project would not exceed permitted capacity at local landfills. Solid waste impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

[1] Soil mass estimated based on Ben Lomond sandy loam—the predominant soil class in the project area—and a bulk density of 1.65 g/cm3 for sandy loam soils (United States Department of Agriculture 2017).

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19 Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Does the project:				
a. Have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	■	☐
b. Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	■	☐
c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	■	☐

a. Does the project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

As noted under Section 4, *Biological Resources,* construction impacts to nesting birds and sensitive species would be less than significant. Operation of the Lyon Pipeline would not impact biological resources because it would be located entirely underground. Operation of the Sequoia Avenue Pipeline would have less than significant impacts because it would replace an existing aboveground pipeline. As a result, the project would not have the potential to substantially reduce the habitat of fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal.

The project site does not contain any known archaeological or tribal cultural resources. As discussed in Section 5, *Cultural Resources*, the Lyon Pipeline, which would be installed in the SR 236 ROW, which is considered a historical resource under CEQA. The Lyon Pipeline would be constructed entirely underground and would not introduce any above-ground elements that would affect these important features. Although trenching may result in the partial removal of asphalt from the road surface, this material is not original or considered character defining, and it would be replaced in kind. The roadway and its immediate surroundings have been subject to continual improvements since its construction, and the actions proposed under the current project are consistent with this ongoing maintenance. As a result, the proposed project would not eliminate an important example of major periods of California history or prehistory.

LESS THAN SIGNIFICANT IMPACT

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

As described in the discussion of Sections 1 through 18, with respect to all environmental issues, the proposed project would have no impact, a less than significant impact, or a less than significant impact with mitigation incorporated. Construction-related impacts to biological resources, geology and soils, hazards and hazardous materials, hydrology and water quality, and transportation/traffic would be specific to the project site and mitigation would be implemented to reduce impacts to a less than significant level; therefore, impacts to these resources areas would not contribute to any significant cumulative impacts related to these issues. In addition, the proposed project would not directly result in population growth; therefore, it would not contribute to cumulative increases in traffic or demand for utilities such as water, wastewater, and solid waste service.

The proposed project would have no adverse long-term environmental impacts and, therefore, would not contribute to cumulative environmental changes that may occur due to planned and pending development. Rather, the proposed improvements would enhance the reliability of the potable water system, improve access for system maintenance, and reduce water losses from breakage and leaks in aging infrastructure. Consequently, the proposed project would not make a considerable contribution to any significant cumulative environmental impacts.

LESS THAN SIGNIFICANT IMPACT

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

In general, impacts to human beings are associated with air quality, hazards and hazardous materials, and noise impacts. As detailed in the preceding sections, the project would not result, either directly or indirectly, in adverse hazards related to air quality. Compliance with applicable rules and regulations and implementation of Mitigation Measure HAZ-1, N-1, and N-2 would reduce potential impacts on human beings to a less than significant level.

LESS THAN SIGNIFICANT IMPACT

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List of Preparers

Rincon Consultants, Inc. prepared this IS-MND under contract to the San Lorenzo Valley Water District. Persons involved in data gathering analysis, project management, and quality control are listed below.

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Appendix A

CalEEMod Modeling Results

Appendix B

Special Status Species Evaluation Tables

Appendix C

Phase I Cultural Resources Report

Appendix D

Noise Measurement Data and Analyses

SLVWD Lyon Zone Pipeline

Santa Cruz County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.51	Acre	0.51	22,389.84	0
Other Non-Asphalt Surfaces	11.20	1000sqft	0.26	11,200.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	1.8	**Precipitation Freq (Days)**	61
Climate Zone	5			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Assumed two-foot width of excavation based on pipe length and applicant info on soil excavation amounts.

Construction Phase - Construction schedule provided by client.

Off-road Equipment - Equipment list and hours provided by client

Off-road Equipment - Equip list

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Haul truck destination is Santa Cruz County Transfer Station (5 miles from project site)

Grading -

Vehicle Trips - 12 yearly maintenance/meter trips, average 10 miles per trip.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
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tblConstructionPhase	NumDays	100.00	3.00
tblConstructionPhase	NumDays	100.00	4.00

tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	2.00
tblConstructionPhase	NumDays	100.00	4.00
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	3.00
tblConstructionPhase	NumDays	100.00	2.00
tblConstructionPhase	NumDays	100.00	3.00
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	4.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
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tblGrading	MaterialExported	0.00	75.00
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tblGrading	MaterialExported	0.00	75.00
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tblGrading	MaterialImported	0.00	51.00
tblGrading	MaterialImported	0.00	51.00
tblGrading	MaterialImported	0.00	51.00
tblGrading	MaterialImported	0.00	51.00
tblGrading	MaterialImported	0.00	51.00
tblGrading	MaterialImported	0.00	51.00

SLVWD Lyon Zone Pipeline - Santa Cruz County, Annual

tblLandUse	LandUseSquareFeet	22,215.60	22,389.84
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	75.00
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tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	75.00
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tblTripsAndVMT	HaulingTripLength	20.00	5.00
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tblTripsAndVMT	VendorTripNumber	6.00	0.00
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tblVehicleTrips	SU_TR	0.00	0.03
tblVehicleTrips	WD_TR	0.00	0.03

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0340	0.2724	0.2588	4.3000e-004	0.0128	0.0154	0.0282	5.5500e-003	0.0143	0.0199	0.0000	37.7977	37.7977	8.9800e-003	0.0000	38.0223
Maximum	**0.0340**	**0.2724**	**0.2588**	**4.3000e-004**	**0.0128**	**0.0154**	**0.0282**	**5.5500e-003**	**0.0143**	**0.0199**	**0.0000**	**37.7977**	**37.7977**	**8.9800e-003**	**0.0000**	**38.0223**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0340	0.2724	0.2588	4.3000e-004	8.6700e-003	0.0154	0.0240	3.2700e-003	0.0143	0.0176	0.0000	37.7977	37.7977	8.9800e-003	0.0000	38.0222
Maximum	**0.0340**	**0.2724**	**0.2588**	**4.3000e-004**	**8.6700e-003**	**0.0154**	**0.0240**	**3.2700e-003**	**0.0143**	**0.0176**	**0.0000**	**37.7977**	**37.7977**	**8.9800e-003**	**0.0000**	**38.0222**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**32.48**	**0.00**	**14.75**	**41.08**	**0.00**	**11.48**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-22-2020	7-21-2020	0.3111	0.3111
		Highest	0.3111	0.3111

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8900e-003	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.1000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8900e-003**	**0.0000**	**1.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.9000e-004**	**2.9000e-004**	**0.0000**	**0.0000**	**3.1000e-004**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8900e-003	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.1000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8900e-003**	**0.0000**	**1.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.9000e-004**	**2.9000e-004**	**0.0000**	**0.0000**	**3.1000e-004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Prep 1	Site Preparation	4/22/2020	4/22/2020	5	1	
2	Trenching 1	Grading	4/23/2020	4/23/2020	5	1	
3	Pipe 1 (Haul Pipe)	Building Construction	4/24/2020	4/24/2020	5	1	

4	Pipe 1	Building Construction	4/27/2020	4/28/2020	5	2
5	Site Prep 2	Site Preparation	4/29/2020	4/29/2020	5	1
6	Backfilling 1	Grading	4/29/2020	4/29/2020	5	1
7	Trenching 2	Grading	4/30/2020	4/30/2020	5	1
8	Pipe 2	Building Construction	5/1/2020	5/6/2020	5	4
9	Site Prep 3	Site Preparation	5/7/2020	5/8/2020	5	1
10	Backfilling 2	Grading	5/7/2020	5/7/2020	5	1
11	Asphalt Paving 1	Paving	5/11/2020	5/11/2020	5	1
12	Trenching 3	Grading	5/12/2020	5/12/2020	5	1
13	Pipe 3 (Haul Pipe)	Building Construction	5/13/2020	5/13/2020	5	1
14	Pipe 3	Building Construction	5/14/2020	5/18/2020	5	3
15	Site Prep 4	Site Preparation	5/19/2020	5/19/2020	5	1
16	Backfilling 3	Grading	5/19/2020	5/19/2020	5	1
17	Asphalt Paving 2	Paving	5/20/2020	5/20/2020	5	1
18	Trenching 4	Grading	5/21/2020	5/21/2020	5	1
19	Pipe 4	Building Construction	5/22/2020	5/27/2020	5	4
20	Site Prep 5	Site Preparation	5/28/2020	5/28/2020	5	1
21	Backfilling 4	Grading	5/28/2020	5/28/2020	5	1
22	Asphalt Paving 3	Paving	5/29/2020	5/29/2020	5	1
23	Trenching 5	Grading	6/1/2020	6/1/2020	5	1
24	Pipe 5 (Haul Pipe)	Building Construction	6/2/2020	6/2/2020	5	1
25	Pipe 5	Building Construction	6/3/2020	6/4/2020	5	2
26	Site Prep 6	Site Preparation	6/5/2020	6/5/2020	5	1
27	Backfilling 5	Grading	6/5/2020	6/5/2020	5	1
28	Trenching 6	Grading	6/8/2020	6/8/2020	5	1
29	Pipe 6	Building Construction	6/9/2020	6/12/2020	5	4
30	Site Prep 7	Site Preparation	6/15/2020	6/15/2020	5	1

31	Backfilling 6	Grading	6/15/2020	6/15/2020	5	1	
32	Asphalt Paving 4	Paving	6/16/2020	6/16/2020	5	1	
33	Trenching 7	Grading	6/17/2020	6/17/2020	5	1	
34	Pipe 7 (Haul Pipe)	Building Construction	6/18/2020	6/18/2020	5	1	
35	Pipe 7	Building Construction	6/19/2020	6/23/2020	5	3	
36	Site Prep 8	Site Preparation	6/24/2020	6/24/2020	5	1	
37	Backfilling 7	Grading	6/24/2020	6/24/2020	5	1	
38	Asphalt Paving 5	Paving	6/25/2020	6/25/2020	5	1	
39	Trenching 8	Grading	6/26/2020	6/26/2020	5	1	
40	Pipe 8	Building Construction	6/29/2020	7/1/2020	5	3	
41	Backfilling 8	Grading	7/2/2020	7/2/2020	5	1	
42	Asphalt Paving 6	Paving	7/3/2020	7/3/2020	5	1	
43	Abandon Site Prep 1	Site Preparation	7/6/2020	7/6/2020	5	1	
44	Abandon Trenching 1	Grading	7/7/2020	7/7/2020	5	1	
45	Cut and Cap 1	Building Construction	7/8/2020	7/8/2020	5	1	
46	Abandon Backfilling 1	Grading	7/9/2020	7/9/2020	5	1	
47	Abandon Site Prep 2	Site Preparation	7/10/2020	7/10/2020	5	1	
48	Abandon Trenching 2	Grading	7/13/2020	7/13/2020	5	1	
49	Cut and Cap 2	Building Construction	7/14/2020	7/14/2020	5	1	
50	Abandon Backfilling 2	Grading	7/15/2020	7/15/2020	5	1	
51	Abandon Paving	Paving	7/16/2020	7/16/2020	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.77

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Prep 1	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching 1	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 1	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 1	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 1 (Haul Pipe)	Cranes	1	4.00	231	0.29
Pipe 1 (Haul Pipe)	Forklifts	2	6.00	89	0.20
Pipe 1 (Haul Pipe)	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Pipe 1	Cranes	1	4.00	231	0.29
Pipe 1	Forklifts	2	6.00	89	0.20
Pipe 1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 2	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 1	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 1	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 1	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Trenching 2	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 2	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 2	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 2	Cranes	1	4.00	231	0.29
Pipe 2	Forklifts	2	6.00	89	0.20
Pipe 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 3	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 2	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 2	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 2	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Asphalt Paving 1	Cement and Mortar Mixers	4	6.00	9	0.56
Asphalt Paving 1	Pavers	1	7.00	130	0.42
Asphalt Paving 1	Rollers	1	7.00	80	0.38
Asphalt Paving 1	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Trenching 3	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 3	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 3	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 3 (Haul Pipe)	Cranes	1	4.00	231	0.29
Pipe 3 (Haul Pipe)	Forklifts	2	6.00	89	0.20
Pipe 3 (Haul Pipe)	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Pipe 3	Cranes	1	4.00	231	0.29
Pipe 3	Forklifts	2	6.00	89	0.20
Pipe 3	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 4	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 3	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 3	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 3	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Asphalt Paving 2	Cement and Mortar Mixers	4	6.00	9	0.56
Asphalt Paving 2	Pavers	1	7.00	130	0.42
Asphalt Paving 2	Rollers	1	7.00	80	0.38
Asphalt Paving 2	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Trenching 4	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 4	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 4	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 4	Cranes	1	4.00	231	0.29
Pipe 4	Forklifts	2	6.00	89	0.20
Pipe 4	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Site Prep 5	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 4	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 4	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 4	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Asphalt Paving 3	Cement and Mortar Mixers	4	6.00	9	0.56
Asphalt Paving 3	Pavers	1	7.00	130	0.42
Asphalt Paving 3	Rollers	1	7.00	80	0.38
Asphalt Paving 3	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Trenching 5	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 5	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 5	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 5 (Haul Pipe)	Cranes	1	4.00	231	0.29
Pipe 5 (Haul Pipe)	Forklifts	2	6.00	89	0.20
Pipe 5 (Haul Pipe)	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Pipe 5	Cranes	1	4.00	231	0.29
Pipe 5	Forklifts	2	6.00	89	0.20
Pipe 5	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 6	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 5	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 5	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 5	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Trenching 6	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 6	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 6	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 6	Cranes	1	4.00	231	0.29
Pipe 6	Forklifts	2	6.00	89	0.20
Pipe 6	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Site Prep 7	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 6	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 6	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 6	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Asphalt Paving 4	Cement and Mortar Mixers	4	6.00	9	0.56
Asphalt Paving 4	Pavers	1	7.00	130	0.42
Asphalt Paving 4	Rollers	1	7.00	80	0.38
Asphalt Paving 4	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Trenching 7	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 7	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 7	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 7 (Haul Pipe)	Cranes	1	4.00	231	0.29
Pipe 7 (Haul Pipe)	Forklifts	2	6.00	89	0.20
Pipe 7 (Haul Pipe)	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Pipe 7	Cranes	1	4.00	231	0.29
Pipe 7	Forklifts	2	6.00	89	0.20
Pipe 7	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 8	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 7	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 7	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 7	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Asphalt Paving 5	Cement and Mortar Mixers	4	6.00	9	0.56
Asphalt Paving 5	Pavers	1	7.00	130	0.42
Asphalt Paving 5	Rollers	1	7.00	80	0.38
Asphalt Paving 5	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Trenching 8	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 8	Rubber Tired Dozers	1	1.00	247	0.40

Trenching 8	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 8	Cranes	1	4.00	231	0.29
Pipe 8	Forklifts	2	6.00	89	0.20
Pipe 8	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Backfilling 8	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 8	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 8	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Asphalt Paving 6	Cement and Mortar Mixers	4	6.00	9	0.56
Asphalt Paving 6	Pavers	1	7.00	130	0.42
Asphalt Paving 6	Rollers	1	7.00	80	0.38
Asphalt Paving 6	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Abandon Site Prep 1	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Abandon Trenching 1	Concrete/Industrial Saws	1	8.00	81	0.73
Abandon Trenching 1	Rubber Tired Dozers	1	1.00	247	0.40
Abandon Trenching 1	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Cut and Cap 1	Cranes	1	4.00	231	0.29
Cut and Cap 1	Forklifts	2	6.00	89	0.20
Cut and Cap 1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Abandon Backfilling 1	Concrete/Industrial Saws	1	8.00	81	0.73
Abandon Backfilling 1	Rubber Tired Dozers	1	1.00	247	0.40
Abandon Backfilling 1	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Abandon Site Prep 2	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Abandon Trenching 2	Concrete/Industrial Saws	1	8.00	81	0.73
Abandon Trenching 2	Rubber Tired Dozers	1	1.00	247	0.40
Abandon Trenching 2	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Cut and Cap 2	Cranes	1	4.00	231	0.29
Cut and Cap 2	Forklifts	2	6.00	89	0.20

Cut and Cap 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Abandon Backfilling 2	Concrete/Industrial Saws	1	8.00	81	0.73
Abandon Backfilling 2	Rubber Tired Dozers	1	1.00	247	0.40
Abandon Backfilling 2	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Abandon Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Abandon Paving	Pavers	1	7.00	130	0.42
Abandon Paving	Rollers	1	7.00	80	0.38
Abandon Paving	Tractors/Loaders/Backhoes	2	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Prep 1	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 1	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 1 (Haul Pipe)	5	14.00	1.00	0.00	16.80	6.60	75.00	LD_Mix	HDT_Mix	HHDT
Pipe 1	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 2	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 1	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Trenching 2	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 2	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 3	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 2	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving 1	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 3	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 3 (Haul Pipe)	5	14.00	1.00	0.00	16.80	6.60	75.00	LD_Mix	HDT_Mix	HHDT
Pipe 3	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 4	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

Backfilling 3	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving 2	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 4	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 4	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 5	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 4	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving 3	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 5	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 5 (Haul Pipe)	5	14.00	1.00	0.00	16.80	6.60	75.00	LD_Mix	HDT_Mix	HHDT
Pipe 5	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 6	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 5	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Trenching 6	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 6	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 7	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 6	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving 4	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 7	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 7 (Haul Pipe)	5	14.00	1.00	0.00	16.80	6.60	75.00	LD_Mix	HDT_Mix	HHDT
Pipe 7	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 8	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 7	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving 5	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 8	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 8	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 8	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving 6	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

Abandon Site Prep 1	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Trenching 1	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Cut and Cap 1	5	14.00	6.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Backfilling 1	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Site Prep 2	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Trenching 2	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Cut and Cap 2	5	14.00	6.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Backfilling 2	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Paving	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Prep 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	1.0500e-003	1.1400e-003	0.0000		7.0000e-005	7.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1364	0.1364	4.0000e-005	0.0000	0.1375
Total	**1.0000e-004**	**1.0500e-003**	**1.1400e-003**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.1364**	**0.1364**	**4.0000e-005**	**0.0000**	**0.1375**

3.2 Site Prep 1 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	1.0500e-003	1.1400e-003	0.0000		7.0000e-005	7.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1364	0.1364	4.0000e-005	0.0000	0.1375
Total	**1.0000e-004**	**1.0500e-003**	**1.1400e-003**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.1364**	**0.1364**	**4.0000e-005**	**0.0000**	**0.1375**

3.2 Site Prep 1 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

3.3 Trenching 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.3 Trenching 1 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.2000e-004	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1150	0.1150	1.0000e-005	0.0000	0.1152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**5.0000e-005**	**7.5000e-004**	**4.1000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1712**	**0.1712**	**1.0000e-005**	**0.0000**	**0.1714**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.3 Trenching 1 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.2000e-004	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1150	0.1150	1.0000e-005	0.0000	0.1152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**5.0000e-005**	**7.5000e-004**	**4.1000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1712**	**0.1712**	**1.0000e-005**	**0.0000**	**0.1714**

3.4 Pipe 1 (Haul Pipe) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.3000e-004	4.4300e-003	3.6900e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5003	0.5003	1.6000e-004	0.0000	0.5044
Total	**4.3000e-004**	**4.4300e-003**	**3.6900e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5003**	**0.5003**	**1.6000e-004**	**0.0000**	**0.5044**

3.4 Pipe 1 (Haul Pipe) - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	6.0000e-005	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0120	0.0120	0.0000	0.0000	0.0120
Worker	4.0000e-005	4.0000e-005	3.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0786	0.0786	0.0000	0.0000	0.0787
Total	**4.0000e-005**	**1.0000e-004**	**3.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0906**	**0.0906**	**0.0000**	**0.0000**	**0.0907**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.3000e-004	4.4300e-003	3.6900e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5003	0.5003	1.6000e-004	0.0000	0.5044
Total	**4.3000e-004**	**4.4300e-003**	**3.6900e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5003**	**0.5003**	**1.6000e-004**	**0.0000**	**0.5044**

3.4 Pipe 1 (Haul Pipe) - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	6.0000e-005	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0120	0.0120	0.0000	0.0000	0.0120
Worker	4.0000e-005	4.0000e-005	3.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0786	0.0786	0.0000	0.0000	0.0787
Total	**4.0000e-005**	**1.0000e-004**	**3.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0906**	**0.0906**	**0.0000**	**0.0000**	**0.0907**

3.5 Pipe 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.6000e-004	8.8500e-003	7.3900e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	1.0006	1.0006	3.2000e-004	0.0000	1.0087
Total	**8.6000e-004**	**8.8500e-003**	**7.3900e-003**	**1.0000e-005**		**5.2000e-004**	**5.2000e-004**		**4.8000e-004**	**4.8000e-004**	**0.0000**	**1.0006**	**1.0006**	**3.2000e-004**	**0.0000**	**1.0087**

3.5 Pipe 1 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	9.0000e-005	7.4000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1572	0.1572	1.0000e-005	0.0000	0.1574
Total	**9.0000e-005**	**9.0000e-005**	**7.4000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1572**	**0.1572**	**1.0000e-005**	**0.0000**	**0.1574**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.6000e-004	8.8500e-003	7.3900e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	1.0006	1.0006	3.2000e-004	0.0000	1.0087
Total	**8.6000e-004**	**8.8500e-003**	**7.3900e-003**	**1.0000e-005**		**5.2000e-004**	**5.2000e-004**		**4.8000e-004**	**4.8000e-004**	**0.0000**	**1.0006**	**1.0006**	**3.2000e-004**	**0.0000**	**1.0087**

3.5 Pipe 1 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	9.0000e-005	7.4000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1572	0.1572	1.0000e-005	0.0000	0.1574
Total	**9.0000e-005**	**9.0000e-005**	**7.4000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1572**	**0.1572**	**1.0000e-005**	**0.0000**	**0.1574**

3.6 Site Prep 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	1.0500e-003	1.1400e-003	0.0000		7.0000e-005	7.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1364	0.1364	4.0000e-005	0.0000	0.1375
Total	**1.0000e-004**	**1.0500e-003**	**1.1400e-003**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.1364**	**0.1364**	**4.0000e-005**	**0.0000**	**0.1375**

3.6 Site Prep 2 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	1.0500e-003	1.1400e-003	0.0000		7.0000e-005	7.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1364	0.1364	4.0000e-005	0.0000	0.1375
Total	**1.0000e-004**	**1.0500e-003**	**1.1400e-003**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.1364**	**0.1364**	**4.0000e-005**	**0.0000**	**0.1375**

3.6 Site Prep 2 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

3.7 Backfilling 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.7 Backfilling 1 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0767	0.0767	0.0000	0.0000	0.0768
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**4.0000e-005**	**5.1000e-004**	**3.7000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1328**	**0.1328**	**0.0000**	**0.0000**	**0.1330**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.7 Backfilling 1 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0767	0.0767	0.0000	0.0000	0.0768
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**4.0000e-005**	**5.1000e-004**	**3.7000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1328**	**0.1328**	**0.0000**	**0.0000**	**0.1330**

3.8 Trenching 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.8 Trenching 2 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.2000e-004	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1150	0.1150	1.0000e-005	0.0000	0.1152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**5.0000e-005**	**7.5000e-004**	**4.1000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1712**	**0.1712**	**1.0000e-005**	**0.0000**	**0.1714**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.8 Trenching 2 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.2000e-004	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1150	0.1150	1.0000e-005	0.0000	0.1152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**5.0000e-005**	**7.5000e-004**	**4.1000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1712**	**0.1712**	**1.0000e-005**	**0.0000**	**0.1714**

3.9 Pipe 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.7200e-003	0.0177	0.0148	2.0000e-005		1.0400e-003	1.0400e-003		9.6000e-004	9.6000e-004	0.0000	2.0012	2.0012	6.5000e-004	0.0000	2.0174
Total	**1.7200e-003**	**0.0177**	**0.0148**	**2.0000e-005**		**1.0400e-003**	**1.0400e-003**		**9.6000e-004**	**9.6000e-004**	**0.0000**	**2.0012**	**2.0012**	**6.5000e-004**	**0.0000**	**2.0174**

3.9 Pipe 2 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.7000e-004	1.4900e-003	0.0000	3.4000e-004	0.0000	3.5000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3145	0.3145	1.0000e-005	0.0000	0.3148
Total	**1.8000e-004**	**1.7000e-004**	**1.4900e-003**	**0.0000**	**3.4000e-004**	**0.0000**	**3.5000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.3145**	**0.3145**	**1.0000e-005**	**0.0000**	**0.3148**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.7200e-003	0.0177	0.0148	2.0000e-005		1.0400e-003	1.0400e-003		9.6000e-004	9.6000e-004	0.0000	2.0012	2.0012	6.5000e-004	0.0000	2.0174
Total	**1.7200e-003**	**0.0177**	**0.0148**	**2.0000e-005**		**1.0400e-003**	**1.0400e-003**		**9.6000e-004**	**9.6000e-004**	**0.0000**	**2.0012**	**2.0012**	**6.5000e-004**	**0.0000**	**2.0174**

3.9 Pipe 2 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.7000e-004	1.4900e-003	0.0000	3.4000e-004	0.0000	3.5000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3145	0.3145	1.0000e-005	0.0000	0.3148
Total	**1.8000e-004**	**1.7000e-004**	**1.4900e-003**	**0.0000**	**3.4000e-004**	**0.0000**	**3.5000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.3145**	**0.3145**	**1.0000e-005**	**0.0000**	**0.3148**

3.10 Site Prep 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1000e-004	2.1100e-003	2.2800e-003	0.0000		1.3000e-004	1.3000e-004		1.2000e-004	1.2000e-004	0.0000	0.2729	0.2729	9.0000e-005	0.0000	0.2751
Total	**2.1000e-004**	**2.1100e-003**	**2.2800e-003**	**0.0000**	**0.0000**	**1.3000e-004**	**1.3000e-004**	**0.0000**	**1.2000e-004**	**1.2000e-004**	**0.0000**	**0.2729**	**0.2729**	**9.0000e-005**	**0.0000**	**0.2751**

3.10 Site Prep 3 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0337	0.0337	0.0000	0.0000	0.0337
Total	**2.0000e-005**	**2.0000e-005**	**1.6000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0337**	**0.0337**	**0.0000**	**0.0000**	**0.0337**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1000e-004	2.1100e-003	2.2800e-003	0.0000		1.3000e-004	1.3000e-004		1.2000e-004	1.2000e-004	0.0000	0.2729	0.2729	9.0000e-005	0.0000	0.2751
Total	**2.1000e-004**	**2.1100e-003**	**2.2800e-003**	**0.0000**	**0.0000**	**1.3000e-004**	**1.3000e-004**	**0.0000**	**1.2000e-004**	**1.2000e-004**	**0.0000**	**0.2729**	**0.2729**	**9.0000e-005**	**0.0000**	**0.2751**

3.10 Site Prep 3 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0337	0.0337	0.0000	0.0000	0.0337
Total	**2.0000e-005**	**2.0000e-005**	**1.6000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0337**	**0.0337**	**0.0000**	**0.0000**	**0.0337**

3.11 Backfilling 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.11 Backfilling 2 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0767	0.0767	0.0000	0.0000	0.0768
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**4.0000e-005**	**5.1000e-004**	**3.7000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1328**	**0.1328**	**0.0000**	**0.0000**	**0.1330**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.11 Backfilling 2 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0767	0.0767	0.0000	0.0000	0.0768
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**4.0000e-005**	**5.1000e-004**	**3.7000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1328**	**0.1328**	**0.0000**	**0.0000**	**0.1330**

3.12 Asphalt Paving 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5300e-003	4.5500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5890	0.5890	1.8000e-004	0.0000	0.5934
Paving	6.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.1500e-003**	**4.5300e-003**	**4.5500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5890**	**0.5890**	**1.8000e-004**	**0.0000**	**0.5934**

3.12 Asphalt Paving 1 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	6.0000e-005	5.3000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1123	0.1123	0.0000	0.0000	0.1124
Total	**6.0000e-005**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1123**	**0.1123**	**0.0000**	**0.0000**	**0.1124**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5300e-003	4.5500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5890	0.5890	1.8000e-004	0.0000	0.5934
Paving	6.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.1500e-003**	**4.5300e-003**	**4.5500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5890**	**0.5890**	**1.8000e-004**	**0.0000**	**0.5934**

3.12 Asphalt Paving 1 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	6.0000e-005	5.3000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1123	0.1123	0.0000	0.0000	0.1124
Total	**6.0000e-005**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1123**	**0.1123**	**0.0000**	**0.0000**	**0.1124**

3.13 Trenching 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.13 Trenching 3 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.2000e-004	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1150	0.1150	1.0000e-005	0.0000	0.1152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**5.0000e-005**	**7.5000e-004**	**4.1000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1712**	**0.1712**	**1.0000e-005**	**0.0000**	**0.1714**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.13 Trenching 3 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.2000e-004	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1150	0.1150	1.0000e-005	0.0000	0.1152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**5.0000e-005**	**7.5000e-004**	**4.1000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1712**	**0.1712**	**1.0000e-005**	**0.0000**	**0.1714**

3.14 Pipe 3 (Haul Pipe) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.3000e-004	4.4300e-003	3.6900e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5003	0.5003	1.6000e-004	0.0000	0.5044
Total	**4.3000e-004**	**4.4300e-003**	**3.6900e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5003**	**0.5003**	**1.6000e-004**	**0.0000**	**0.5044**

3.14 Pipe 3 (Haul Pipe) - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	6.0000e-005	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0120	0.0120	0.0000	0.0000	0.0120
Worker	4.0000e-005	4.0000e-005	3.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0786	0.0786	0.0000	0.0000	0.0787
Total	**4.0000e-005**	**1.0000e-004**	**3.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0906**	**0.0906**	**0.0000**	**0.0000**	**0.0907**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.3000e-004	4.4300e-003	3.6900e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5003	0.5003	1.6000e-004	0.0000	0.5044
Total	**4.3000e-004**	**4.4300e-003**	**3.6900e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5003**	**0.5003**	**1.6000e-004**	**0.0000**	**0.5044**

3.14 Pipe 3 (Haul Pipe) - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	6.0000e-005	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0120	0.0120	0.0000	0.0000	0.0120
Worker	4.0000e-005	4.0000e-005	3.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0786	0.0786	0.0000	0.0000	0.0787
Total	**4.0000e-005**	**1.0000e-004**	**3.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0906**	**0.0906**	**0.0000**	**0.0000**	**0.0907**

3.15 Pipe 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2900e-003	0.0133	0.0111	2.0000e-005		7.8000e-004	7.8000e-004		7.2000e-004	7.2000e-004	0.0000	1.5009	1.5009	4.9000e-004	0.0000	1.5130
Total	**1.2900e-003**	**0.0133**	**0.0111**	**2.0000e-005**		**7.8000e-004**	**7.8000e-004**		**7.2000e-004**	**7.2000e-004**	**0.0000**	**1.5009**	**1.5009**	**4.9000e-004**	**0.0000**	**1.5130**

3.15 Pipe 3 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.3000e-004	1.1200e-003	0.0000	2.6000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2358	0.2358	1.0000e-005	0.0000	0.2361
Total	**1.3000e-004**	**1.3000e-004**	**1.1200e-003**	**0.0000**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2358**	**0.2358**	**1.0000e-005**	**0.0000**	**0.2361**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2900e-003	0.0133	0.0111	2.0000e-005		7.8000e-004	7.8000e-004		7.2000e-004	7.2000e-004	0.0000	1.5009	1.5009	4.9000e-004	0.0000	1.5130
Total	**1.2900e-003**	**0.0133**	**0.0111**	**2.0000e-005**		**7.8000e-004**	**7.8000e-004**		**7.2000e-004**	**7.2000e-004**	**0.0000**	**1.5009**	**1.5009**	**4.9000e-004**	**0.0000**	**1.5130**

3.15 Pipe 3 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.3000e-004	1.1200e-003	0.0000	2.6000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2358	0.2358	1.0000e-005	0.0000	0.2361
Total	**1.3000e-004**	**1.3000e-004**	**1.1200e-003**	**0.0000**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2358**	**0.2358**	**1.0000e-005**	**0.0000**	**0.2361**

3.16 Site Prep 4 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	1.0500e-003	1.1400e-003	0.0000		7.0000e-005	7.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1364	0.1364	4.0000e-005	0.0000	0.1375
Total	**1.0000e-004**	**1.0500e-003**	**1.1400e-003**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.1364**	**0.1364**	**4.0000e-005**	**0.0000**	**0.1375**

3.16 Site Prep 4 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	1.0500e-003	1.1400e-003	0.0000		7.0000e-005	7.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1364	0.1364	4.0000e-005	0.0000	0.1375
Total	**1.0000e-004**	**1.0500e-003**	**1.1400e-003**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.1364**	**0.1364**	**4.0000e-005**	**0.0000**	**0.1375**

3.16 Site Prep 4 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

3.17 Backfilling 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.17 Backfilling 3 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0767	0.0767	0.0000	0.0000	0.0768
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**4.0000e-005**	**5.1000e-004**	**3.7000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1328**	**0.1328**	**0.0000**	**0.0000**	**0.1330**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.17 Backfilling 3 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0767	0.0767	0.0000	0.0000	0.0768
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**4.0000e-005**	**5.1000e-004**	**3.7000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1328**	**0.1328**	**0.0000**	**0.0000**	**0.1330**

3.18 Asphalt Paving 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5300e-003	4.5500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5890	0.5890	1.8000e-004	0.0000	0.5934
Paving	6.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.1500e-003**	**4.5300e-003**	**4.5500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5890**	**0.5890**	**1.8000e-004**	**0.0000**	**0.5934**

3.18 Asphalt Paving 2 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	6.0000e-005	5.3000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1123	0.1123	0.0000	0.0000	0.1124
Total	**6.0000e-005**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1123**	**0.1123**	**0.0000**	**0.0000**	**0.1124**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5300e-003	4.5500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5890	0.5890	1.8000e-004	0.0000	0.5934
Paving	6.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.1500e-003**	**4.5300e-003**	**4.5500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5890**	**0.5890**	**1.8000e-004**	**0.0000**	**0.5934**

3.18 Asphalt Paving 2 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	6.0000e-005	5.3000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1123	0.1123	0.0000	0.0000	0.1124
Total	**6.0000e-005**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1123**	**0.1123**	**0.0000**	**0.0000**	**0.1124**

3.19 Trenching 4 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.19 Trenching 4 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.2000e-004	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1150	0.1150	1.0000e-005	0.0000	0.1152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**5.0000e-005**	**7.5000e-004**	**4.1000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1712**	**0.1712**	**1.0000e-005**	**0.0000**	**0.1714**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.19 Trenching 4 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.2000e-004	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1150	0.1150	1.0000e-005	0.0000	0.1152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**5.0000e-005**	**7.5000e-004**	**4.1000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1712**	**0.1712**	**1.0000e-005**	**0.0000**	**0.1714**

3.20 Pipe 4 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.7200e-003	0.0177	0.0148	2.0000e-005		1.0400e-003	1.0400e-003		9.6000e-004	9.6000e-004	0.0000	2.0012	2.0012	6.5000e-004	0.0000	2.0174
Total	**1.7200e-003**	**0.0177**	**0.0148**	**2.0000e-005**		**1.0400e-003**	**1.0400e-003**		**9.6000e-004**	**9.6000e-004**	**0.0000**	**2.0012**	**2.0012**	**6.5000e-004**	**0.0000**	**2.0174**

3.20 Pipe 4 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.7000e-004	1.4900e-003	0.0000	3.4000e-004	0.0000	3.5000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3145	0.3145	1.0000e-005	0.0000	0.3148
Total	**1.8000e-004**	**1.7000e-004**	**1.4900e-003**	**0.0000**	**3.4000e-004**	**0.0000**	**3.5000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.3145**	**0.3145**	**1.0000e-005**	**0.0000**	**0.3148**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.7200e-003	0.0177	0.0148	2.0000e-005		1.0400e-003	1.0400e-003		9.6000e-004	9.6000e-004	0.0000	2.0012	2.0012	6.5000e-004	0.0000	2.0174
Total	**1.7200e-003**	**0.0177**	**0.0148**	**2.0000e-005**		**1.0400e-003**	**1.0400e-003**		**9.6000e-004**	**9.6000e-004**	**0.0000**	**2.0012**	**2.0012**	**6.5000e-004**	**0.0000**	**2.0174**

3.20 Pipe 4 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.7000e-004	1.4900e-003	0.0000	3.4000e-004	0.0000	3.5000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3145	0.3145	1.0000e-005	0.0000	0.3148
Total	**1.8000e-004**	**1.7000e-004**	**1.4900e-003**	**0.0000**	**3.4000e-004**	**0.0000**	**3.5000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.3145**	**0.3145**	**1.0000e-005**	**0.0000**	**0.3148**

3.21 Site Prep 5 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	1.0500e-003	1.1400e-003	0.0000		7.0000e-005	7.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1364	0.1364	4.0000e-005	0.0000	0.1375
Total	**1.0000e-004**	**1.0500e-003**	**1.1400e-003**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.1364**	**0.1364**	**4.0000e-005**	**0.0000**	**0.1375**

3.21 Site Prep 5 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	1.0500e-003	1.1400e-003	0.0000		7.0000e-005	7.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1364	0.1364	4.0000e-005	0.0000	0.1375
Total	**1.0000e-004**	**1.0500e-003**	**1.1400e-003**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.1364**	**0.1364**	**4.0000e-005**	**0.0000**	**0.1375**

3.21 Site Prep 5 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

3.22 Backfilling 4 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.22 Backfilling 4 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0767	0.0767	0.0000	0.0000	0.0768
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**4.0000e-005**	**5.1000e-004**	**3.7000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1328**	**0.1328**	**0.0000**	**0.0000**	**0.1330**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.22 Backfilling 4 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0767	0.0767	0.0000	0.0000	0.0768
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**4.0000e-005**	**5.1000e-004**	**3.7000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1328**	**0.1328**	**0.0000**	**0.0000**	**0.1330**

3.23 Asphalt Paving 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5300e-003	4.5500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5890	0.5890	1.8000e-004	0.0000	0.5934
Paving	6.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.1500e-003**	**4.5300e-003**	**4.5500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5890**	**0.5890**	**1.8000e-004**	**0.0000**	**0.5934**

3.23 Asphalt Paving 3 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	6.0000e-005	5.3000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1123	0.1123	0.0000	0.0000	0.1124
Total	**6.0000e-005**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1123**	**0.1123**	**0.0000**	**0.0000**	**0.1124**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5300e-003	4.5500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5890	0.5890	1.8000e-004	0.0000	0.5934
Paving	6.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.1500e-003**	**4.5300e-003**	**4.5500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5890**	**0.5890**	**1.8000e-004**	**0.0000**	**0.5934**

3.23 Asphalt Paving 3 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	6.0000e-005	5.3000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1123	0.1123	0.0000	0.0000	0.1124
Total	**6.0000e-005**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1123**	**0.1123**	**0.0000**	**0.0000**	**0.1124**

3.24 Trenching 5 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.24 Trenching 5 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.2000e-004	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1150	0.1150	1.0000e-005	0.0000	0.1152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**5.0000e-005**	**7.5000e-004**	**4.1000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1712**	**0.1712**	**1.0000e-005**	**0.0000**	**0.1714**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.24 Trenching 5 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.2000e-004	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1150	0.1150	1.0000e-005	0.0000	0.1152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**5.0000e-005**	**7.5000e-004**	**4.1000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1712**	**0.1712**	**1.0000e-005**	**0.0000**	**0.1714**

3.25 Pipe 5 (Haul Pipe) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.3000e-004	4.4300e-003	3.6900e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5003	0.5003	1.6000e-004	0.0000	0.5044
Total	**4.3000e-004**	**4.4300e-003**	**3.6900e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5003**	**0.5003**	**1.6000e-004**	**0.0000**	**0.5044**

3.25 Pipe 5 (Haul Pipe) - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	6.0000e-005	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0120	0.0120	0.0000	0.0000	0.0120
Worker	4.0000e-005	4.0000e-005	3.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0786	0.0786	0.0000	0.0000	0.0787
Total	**4.0000e-005**	**1.0000e-004**	**3.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0906**	**0.0906**	**0.0000**	**0.0000**	**0.0907**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.3000e-004	4.4300e-003	3.6900e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5003	0.5003	1.6000e-004	0.0000	0.5044
Total	**4.3000e-004**	**4.4300e-003**	**3.6900e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5003**	**0.5003**	**1.6000e-004**	**0.0000**	**0.5044**

3.25 Pipe 5 (Haul Pipe) - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	6.0000e-005	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0120	0.0120	0.0000	0.0000	0.0120
Worker	4.0000e-005	4.0000e-005	3.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0786	0.0786	0.0000	0.0000	0.0787
Total	**4.0000e-005**	**1.0000e-004**	**3.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0906**	**0.0906**	**0.0000**	**0.0000**	**0.0907**

3.26 Pipe 5 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.6000e-004	8.8500e-003	7.3900e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	1.0006	1.0006	3.2000e-004	0.0000	1.0087
Total	**8.6000e-004**	**8.8500e-003**	**7.3900e-003**	**1.0000e-005**		**5.2000e-004**	**5.2000e-004**		**4.8000e-004**	**4.8000e-004**	**0.0000**	**1.0006**	**1.0006**	**3.2000e-004**	**0.0000**	**1.0087**

3.26 Pipe 5 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	9.0000e-005	7.4000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1572	0.1572	1.0000e-005	0.0000	0.1574
Total	**9.0000e-005**	**9.0000e-005**	**7.4000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1572**	**0.1572**	**1.0000e-005**	**0.0000**	**0.1574**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.6000e-004	8.8500e-003	7.3900e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	1.0006	1.0006	3.2000e-004	0.0000	1.0087
Total	**8.6000e-004**	**8.8500e-003**	**7.3900e-003**	**1.0000e-005**		**5.2000e-004**	**5.2000e-004**		**4.8000e-004**	**4.8000e-004**	**0.0000**	**1.0006**	**1.0006**	**3.2000e-004**	**0.0000**	**1.0087**

3.26 Pipe 5 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	9.0000e-005	7.4000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1572	0.1572	1.0000e-005	0.0000	0.1574
Total	**9.0000e-005**	**9.0000e-005**	**7.4000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1572**	**0.1572**	**1.0000e-005**	**0.0000**	**0.1574**

3.27 Site Prep 6 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	1.0500e-003	1.1400e-003	0.0000		7.0000e-005	7.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1364	0.1364	4.0000e-005	0.0000	0.1375
Total	**1.0000e-004**	**1.0500e-003**	**1.1400e-003**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.1364**	**0.1364**	**4.0000e-005**	**0.0000**	**0.1375**

3.27 Site Prep 6 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	1.0500e-003	1.1400e-003	0.0000		7.0000e-005	7.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1364	0.1364	4.0000e-005	0.0000	0.1375
Total	**1.0000e-004**	**1.0500e-003**	**1.1400e-003**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.1364**	**0.1364**	**4.0000e-005**	**0.0000**	**0.1375**

3.27 Site Prep 6 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

3.28 Backfilling 5 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.28 Backfilling 5 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0767	0.0767	0.0000	0.0000	0.0768
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**4.0000e-005**	**5.1000e-004**	**3.7000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1328**	**0.1328**	**0.0000**	**0.0000**	**0.1330**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.28 Backfilling 5 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0767	0.0767	0.0000	0.0000	0.0768
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**4.0000e-005**	**5.1000e-004**	**3.7000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1328**	**0.1328**	**0.0000**	**0.0000**	**0.1330**

3.29 Trenching 6 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.29 Trenching 6 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.2000e-004	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1150	0.1150	1.0000e-005	0.0000	0.1152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**5.0000e-005**	**7.5000e-004**	**4.1000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1712**	**0.1712**	**1.0000e-005**	**0.0000**	**0.1714**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.29 Trenching 6 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.2000e-004	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1150	0.1150	1.0000e-005	0.0000	0.1152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**5.0000e-005**	**7.5000e-004**	**4.1000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1712**	**0.1712**	**1.0000e-005**	**0.0000**	**0.1714**

3.30 Pipe 6 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.7200e-003	0.0177	0.0148	2.0000e-005		1.0400e-003	1.0400e-003		9.6000e-004	9.6000e-004	0.0000	2.0012	2.0012	6.5000e-004	0.0000	2.0174
Total	**1.7200e-003**	**0.0177**	**0.0148**	**2.0000e-005**		**1.0400e-003**	**1.0400e-003**		**9.6000e-004**	**9.6000e-004**	**0.0000**	**2.0012**	**2.0012**	**6.5000e-004**	**0.0000**	**2.0174**

3.30 Pipe 6 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.7000e-004	1.4900e-003	0.0000	3.4000e-004	0.0000	3.5000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3145	0.3145	1.0000e-005	0.0000	0.3148
Total	**1.8000e-004**	**1.7000e-004**	**1.4900e-003**	**0.0000**	**3.4000e-004**	**0.0000**	**3.5000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.3145**	**0.3145**	**1.0000e-005**	**0.0000**	**0.3148**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.7200e-003	0.0177	0.0148	2.0000e-005		1.0400e-003	1.0400e-003		9.6000e-004	9.6000e-004	0.0000	2.0012	2.0012	6.5000e-004	0.0000	2.0174
Total	**1.7200e-003**	**0.0177**	**0.0148**	**2.0000e-005**		**1.0400e-003**	**1.0400e-003**		**9.6000e-004**	**9.6000e-004**	**0.0000**	**2.0012**	**2.0012**	**6.5000e-004**	**0.0000**	**2.0174**

3.30 Pipe 6 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.7000e-004	1.4900e-003	0.0000	3.4000e-004	0.0000	3.5000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3145	0.3145	1.0000e-005	0.0000	0.3148
Total	**1.8000e-004**	**1.7000e-004**	**1.4900e-003**	**0.0000**	**3.4000e-004**	**0.0000**	**3.5000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.3145**	**0.3145**	**1.0000e-005**	**0.0000**	**0.3148**

3.31 Site Prep 7 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	1.0500e-003	1.1400e-003	0.0000		7.0000e-005	7.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1364	0.1364	4.0000e-005	0.0000	0.1375
Total	**1.0000e-004**	**1.0500e-003**	**1.1400e-003**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.1364**	**0.1364**	**4.0000e-005**	**0.0000**	**0.1375**

3.31 Site Prep 7 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	1.0500e-003	1.1400e-003	0.0000		7.0000e-005	7.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1364	0.1364	4.0000e-005	0.0000	0.1375
Total	**1.0000e-004**	**1.0500e-003**	**1.1400e-003**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.1364**	**0.1364**	**4.0000e-005**	**0.0000**	**0.1375**

3.31 Site Prep 7 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

3.32 Backfilling 6 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.32 Backfilling 6 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0767	0.0767	0.0000	0.0000	0.0768
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**4.0000e-005**	**5.1000e-004**	**3.7000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1328**	**0.1328**	**0.0000**	**0.0000**	**0.1330**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.32 Backfilling 6 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0767	0.0767	0.0000	0.0000	0.0768
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**4.0000e-005**	**5.1000e-004**	**3.7000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1328**	**0.1328**	**0.0000**	**0.0000**	**0.1330**

3.33 Asphalt Paving 4 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5300e-003	4.5500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5890	0.5890	1.8000e-004	0.0000	0.5934
Paving	6.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.1500e-003**	**4.5300e-003**	**4.5500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5890**	**0.5890**	**1.8000e-004**	**0.0000**	**0.5934**

3.33 Asphalt Paving 4 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	6.0000e-005	5.3000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1123	0.1123	0.0000	0.0000	0.1124
Total	**6.0000e-005**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1123**	**0.1123**	**0.0000**	**0.0000**	**0.1124**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5300e-003	4.5500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5890	0.5890	1.8000e-004	0.0000	0.5934
Paving	6.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.1500e-003**	**4.5300e-003**	**4.5500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5890**	**0.5890**	**1.8000e-004**	**0.0000**	**0.5934**

3.33 Asphalt Paving 4 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	6.0000e-005	5.3000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1123	0.1123	0.0000	0.0000	0.1124
Total	**6.0000e-005**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1123**	**0.1123**	**0.0000**	**0.0000**	**0.1124**

3.34 Trenching 7 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.34 Trenching 7 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.2000e-004	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1150	0.1150	1.0000e-005	0.0000	0.1152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**5.0000e-005**	**7.5000e-004**	**4.1000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1712**	**0.1712**	**1.0000e-005**	**0.0000**	**0.1714**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.34 Trenching 7 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.2000e-004	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1150	0.1150	1.0000e-005	0.0000	0.1152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**5.0000e-005**	**7.5000e-004**	**4.1000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1712**	**0.1712**	**1.0000e-005**	**0.0000**	**0.1714**

3.35 Pipe 7 (Haul Pipe) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.3000e-004	4.4300e-003	3.6900e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5003	0.5003	1.6000e-004	0.0000	0.5044
Total	**4.3000e-004**	**4.4300e-003**	**3.6900e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5003**	**0.5003**	**1.6000e-004**	**0.0000**	**0.5044**

3.35 Pipe 7 (Haul Pipe) - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	6.0000e-005	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0120	0.0120	0.0000	0.0000	0.0120
Worker	4.0000e-005	4.0000e-005	3.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0786	0.0786	0.0000	0.0000	0.0787
Total	**4.0000e-005**	**1.0000e-004**	**3.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0906**	**0.0906**	**0.0000**	**0.0000**	**0.0907**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.3000e-004	4.4300e-003	3.6900e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5003	0.5003	1.6000e-004	0.0000	0.5044
Total	**4.3000e-004**	**4.4300e-003**	**3.6900e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5003**	**0.5003**	**1.6000e-004**	**0.0000**	**0.5044**

3.35 Pipe 7 (Haul Pipe) - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	6.0000e-005	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0120	0.0120	0.0000	0.0000	0.0120
Worker	4.0000e-005	4.0000e-005	3.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0786	0.0786	0.0000	0.0000	0.0787
Total	**4.0000e-005**	**1.0000e-004**	**3.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0906**	**0.0906**	**0.0000**	**0.0000**	**0.0907**

3.36 Pipe 7 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2900e-003	0.0133	0.0111	2.0000e-005		7.8000e-004	7.8000e-004		7.2000e-004	7.2000e-004	0.0000	1.5009	1.5009	4.9000e-004	0.0000	1.5130
Total	**1.2900e-003**	**0.0133**	**0.0111**	**2.0000e-005**		**7.8000e-004**	**7.8000e-004**		**7.2000e-004**	**7.2000e-004**	**0.0000**	**1.5009**	**1.5009**	**4.9000e-004**	**0.0000**	**1.5130**

3.36 Pipe 7 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.3000e-004	1.1200e-003	0.0000	2.6000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2358	0.2358	1.0000e-005	0.0000	0.2361
Total	**1.3000e-004**	**1.3000e-004**	**1.1200e-003**	**0.0000**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2358**	**0.2358**	**1.0000e-005**	**0.0000**	**0.2361**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2900e-003	0.0133	0.0111	2.0000e-005		7.8000e-004	7.8000e-004		7.2000e-004	7.2000e-004	0.0000	1.5009	1.5009	4.9000e-004	0.0000	1.5130
Total	**1.2900e-003**	**0.0133**	**0.0111**	**2.0000e-005**		**7.8000e-004**	**7.8000e-004**		**7.2000e-004**	**7.2000e-004**	**0.0000**	**1.5009**	**1.5009**	**4.9000e-004**	**0.0000**	**1.5130**

3.36 Pipe 7 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.3000e-004	1.1200e-003	0.0000	2.6000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2358	0.2358	1.0000e-005	0.0000	0.2361
Total	**1.3000e-004**	**1.3000e-004**	**1.1200e-003**	**0.0000**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2358**	**0.2358**	**1.0000e-005**	**0.0000**	**0.2361**

3.37 Site Prep 8 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	1.0500e-003	1.1400e-003	0.0000		7.0000e-005	7.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1364	0.1364	4.0000e-005	0.0000	0.1375
Total	**1.0000e-004**	**1.0500e-003**	**1.1400e-003**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.1364**	**0.1364**	**4.0000e-005**	**0.0000**	**0.1375**

3.37 Site Prep 8 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	1.0500e-003	1.1400e-003	0.0000		7.0000e-005	7.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1364	0.1364	4.0000e-005	0.0000	0.1375
Total	**1.0000e-004**	**1.0500e-003**	**1.1400e-003**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.1364**	**0.1364**	**4.0000e-005**	**0.0000**	**0.1375**

3.37 Site Prep 8 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

3.38 Backfilling 7 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.38 Backfilling 7 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0767	0.0767	0.0000	0.0000	0.0768
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**4.0000e-005**	**5.1000e-004**	**3.7000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1328**	**0.1328**	**0.0000**	**0.0000**	**0.1330**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.38 Backfilling 7 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0767	0.0767	0.0000	0.0000	0.0768
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**4.0000e-005**	**5.1000e-004**	**3.7000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1328**	**0.1328**	**0.0000**	**0.0000**	**0.1330**

3.39 Asphalt Paving 5 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5300e-003	4.5500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5890	0.5890	1.8000e-004	0.0000	0.5934
Paving	6.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.1500e-003**	**4.5300e-003**	**4.5500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5890**	**0.5890**	**1.8000e-004**	**0.0000**	**0.5934**

3.39 Asphalt Paving 5 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	6.0000e-005	5.3000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1123	0.1123	0.0000	0.0000	0.1124
Total	**6.0000e-005**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1123**	**0.1123**	**0.0000**	**0.0000**	**0.1124**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5300e-003	4.5500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5890	0.5890	1.8000e-004	0.0000	0.5934
Paving	6.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.1500e-003**	**4.5300e-003**	**4.5500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5890**	**0.5890**	**1.8000e-004**	**0.0000**	**0.5934**

3.39 Asphalt Paving 5 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	6.0000e-005	5.3000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1123	0.1123	0.0000	0.0000	0.1124
Total	**6.0000e-005**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1123**	**0.1123**	**0.0000**	**0.0000**	**0.1124**

3.40 Trenching 8 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.40 Trenching 8 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.2000e-004	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1150	0.1150	1.0000e-005	0.0000	0.1152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**5.0000e-005**	**7.5000e-004**	**4.1000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1712**	**0.1712**	**1.0000e-005**	**0.0000**	**0.1714**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.40 Trenching 8 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.2000e-004	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1150	0.1150	1.0000e-005	0.0000	0.1152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**5.0000e-005**	**7.5000e-004**	**4.1000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1712**	**0.1712**	**1.0000e-005**	**0.0000**	**0.1714**

3.41 Pipe 8 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2900e-003	0.0133	0.0111	2.0000e-005		7.8000e-004	7.8000e-004		7.2000e-004	7.2000e-004	0.0000	1.5009	1.5009	4.9000e-004	0.0000	1.5130
Total	**1.2900e-003**	**0.0133**	**0.0111**	**2.0000e-005**		**7.8000e-004**	**7.8000e-004**		**7.2000e-004**	**7.2000e-004**	**0.0000**	**1.5009**	**1.5009**	**4.9000e-004**	**0.0000**	**1.5130**

3.41 Pipe 8 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.3000e-004	1.1200e-003	0.0000	2.6000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2358	0.2358	1.0000e-005	0.0000	0.2361
Total	**1.3000e-004**	**1.3000e-004**	**1.1200e-003**	**0.0000**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2358**	**0.2358**	**1.0000e-005**	**0.0000**	**0.2361**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2900e-003	0.0133	0.0111	2.0000e-005		7.8000e-004	7.8000e-004		7.2000e-004	7.2000e-004	0.0000	1.5009	1.5009	4.9000e-004	0.0000	1.5130
Total	**1.2900e-003**	**0.0133**	**0.0111**	**2.0000e-005**		**7.8000e-004**	**7.8000e-004**		**7.2000e-004**	**7.2000e-004**	**0.0000**	**1.5009**	**1.5009**	**4.9000e-004**	**0.0000**	**1.5130**

3.41 Pipe 8 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.3000e-004	1.1200e-003	0.0000	2.6000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2358	0.2358	1.0000e-005	0.0000	0.2361
Total	**1.3000e-004**	**1.3000e-004**	**1.1200e-003**	**0.0000**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2358**	**0.2358**	**1.0000e-005**	**0.0000**	**0.2361**

3.42 Backfilling 8 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.42 Backfilling 8 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0767	0.0767	0.0000	0.0000	0.0768
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**4.0000e-005**	**5.1000e-004**	**3.7000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1328**	**0.1328**	**0.0000**	**0.0000**	**0.1330**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.42 Backfilling 8 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0767	0.0767	0.0000	0.0000	0.0768
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**4.0000e-005**	**5.1000e-004**	**3.7000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1328**	**0.1328**	**0.0000**	**0.0000**	**0.1330**

3.43 Asphalt Paving 6 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5300e-003	4.5500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5890	0.5890	1.8000e-004	0.0000	0.5934
Paving	6.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.1500e-003**	**4.5300e-003**	**4.5500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5890**	**0.5890**	**1.8000e-004**	**0.0000**	**0.5934**

3.43 Asphalt Paving 6 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	6.0000e-005	5.3000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1123	0.1123	0.0000	0.0000	0.1124
Total	**6.0000e-005**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1123**	**0.1123**	**0.0000**	**0.0000**	**0.1124**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5300e-003	4.5500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5890	0.5890	1.8000e-004	0.0000	0.5934
Paving	6.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.1500e-003**	**4.5300e-003**	**4.5500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5890**	**0.5890**	**1.8000e-004**	**0.0000**	**0.5934**

3.43 Asphalt Paving 6 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	6.0000e-005	5.3000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1123	0.1123	0.0000	0.0000	0.1124
Total	**6.0000e-005**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1123**	**0.1123**	**0.0000**	**0.0000**	**0.1124**

3.44 Abandon Site Prep 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	1.0500e-003	1.1400e-003	0.0000		7.0000e-005	7.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1364	0.1364	4.0000e-005	0.0000	0.1375
Total	**1.0000e-004**	**1.0500e-003**	**1.1400e-003**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.1364**	**0.1364**	**4.0000e-005**	**0.0000**	**0.1375**

3.44 Abandon Site Prep 1 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	1.0500e-003	1.1400e-003	0.0000		7.0000e-005	7.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1364	0.1364	4.0000e-005	0.0000	0.1375
Total	**1.0000e-004**	**1.0500e-003**	**1.1400e-003**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.1364**	**0.1364**	**4.0000e-005**	**0.0000**	**0.1375**

3.44 Abandon Site Prep 1 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

3.45 Abandon Trenching 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.45 Abandon Trenching 1 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**3.0000e-005**	**3.0000e-005**	**2.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0562**	**0.0562**	**0.0000**	**0.0000**	**0.0562**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.45 Abandon Trenching 1 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**3.0000e-005**	**3.0000e-005**	**2.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0562**	**0.0562**	**0.0000**	**0.0000**	**0.0562**

3.46 Cut and Cap 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.3000e-004	4.4300e-003	3.6900e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5003	0.5003	1.6000e-004	0.0000	0.5044
Total	**4.3000e-004**	**4.4300e-003**	**3.6900e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5003**	**0.5003**	**1.6000e-004**	**0.0000**	**0.5044**

3.46 Cut and Cap 1 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	3.9000e-004	1.1000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0719	0.0719	0.0000	0.0000	0.0720
Worker	4.0000e-005	4.0000e-005	3.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0786	0.0786	0.0000	0.0000	0.0787
Total	**5.0000e-005**	**4.3000e-004**	**4.8000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1506**	**0.1506**	**0.0000**	**0.0000**	**0.1507**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.3000e-004	4.4300e-003	3.6900e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5003	0.5003	1.6000e-004	0.0000	0.5044
Total	**4.3000e-004**	**4.4300e-003**	**3.6900e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5003**	**0.5003**	**1.6000e-004**	**0.0000**	**0.5044**

3.46 Cut and Cap 1 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	3.9000e-004	1.1000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0719	0.0719	0.0000	0.0000	0.0720
Worker	4.0000e-005	4.0000e-005	3.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0786	0.0786	0.0000	0.0000	0.0787
Total	**5.0000e-005**	**4.3000e-004**	**4.8000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1506**	**0.1506**	**0.0000**	**0.0000**	**0.1507**

3.47 Abandon Backfilling 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.47 Abandon Backfilling 1 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**3.0000e-005**	**3.0000e-005**	**2.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0562**	**0.0562**	**0.0000**	**0.0000**	**0.0562**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.47 Abandon Backfilling 1 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**3.0000e-005**	**3.0000e-005**	**2.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0562**	**0.0562**	**0.0000**	**0.0000**	**0.0562**

3.48 Abandon Site Prep 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	1.0500e-003	1.1400e-003	0.0000		7.0000e-005	7.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1364	0.1364	4.0000e-005	0.0000	0.1375
Total	**1.0000e-004**	**1.0500e-003**	**1.1400e-003**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.1364**	**0.1364**	**4.0000e-005**	**0.0000**	**0.1375**

3.48 Abandon Site Prep 2 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-004	1.0500e-003	1.1400e-003	0.0000		7.0000e-005	7.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1364	0.1364	4.0000e-005	0.0000	0.1375
Total	**1.0000e-004**	**1.0500e-003**	**1.1400e-003**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.1364**	**0.1364**	**4.0000e-005**	**0.0000**	**0.1375**

3.48 Abandon Site Prep 2 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0169	0.0169	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0169**	**0.0169**	**0.0000**	**0.0000**	**0.0169**

3.49 Abandon Trenching 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.49 Abandon Trenching 2 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**3.0000e-005**	**3.0000e-005**	**2.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0562**	**0.0562**	**0.0000**	**0.0000**	**0.0562**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.49 Abandon Trenching 2 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**3.0000e-005**	**3.0000e-005**	**2.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0562**	**0.0562**	**0.0000**	**0.0000**	**0.0562**

3.50 Cut and Cap 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.3000e-004	4.4300e-003	3.6900e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5003	0.5003	1.6000e-004	0.0000	0.5044
Total	**4.3000e-004**	**4.4300e-003**	**3.6900e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5003**	**0.5003**	**1.6000e-004**	**0.0000**	**0.5044**

3.50 Cut and Cap 2 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	3.9000e-004	1.1000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0719	0.0719	0.0000	0.0000	0.0720
Worker	4.0000e-005	4.0000e-005	3.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0786	0.0786	0.0000	0.0000	0.0787
Total	**5.0000e-005**	**4.3000e-004**	**4.8000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1506**	**0.1506**	**0.0000**	**0.0000**	**0.1507**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.3000e-004	4.4300e-003	3.6900e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5003	0.5003	1.6000e-004	0.0000	0.5044
Total	**4.3000e-004**	**4.4300e-003**	**3.6900e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5003**	**0.5003**	**1.6000e-004**	**0.0000**	**0.5044**

3.50 Cut and Cap 2 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	3.9000e-004	1.1000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0719	0.0719	0.0000	0.0000	0.0720
Worker	4.0000e-005	4.0000e-005	3.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0786	0.0786	0.0000	0.0000	0.0787
Total	**5.0000e-005**	**4.3000e-004**	**4.8000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1506**	**0.1506**	**0.0000**	**0.0000**	**0.1507**

3.51 Abandon Backfilling 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**3.8000e-004**	**2.3000e-004**	**6.1000e-004**	**2.1000e-004**	**2.2000e-004**	**4.3000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.51 Abandon Backfilling 2 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**3.0000e-005**	**3.0000e-005**	**2.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0562**	**0.0562**	**0.0000**	**0.0000**	**0.0562**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**	**1.7000e-004**	**2.3000e-004**	**4.0000e-004**	**9.0000e-005**	**2.2000e-004**	**3.1000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.51 Abandon Backfilling 2 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0562	0.0562	0.0000	0.0000	0.0562
Total	**3.0000e-005**	**3.0000e-005**	**2.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0562**	**0.0562**	**0.0000**	**0.0000**	**0.0562**

3.52 Abandon Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5300e-003	4.5500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5890	0.5890	1.8000e-004	0.0000	0.5934
Paving	6.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.1500e-003**	**4.5300e-003**	**4.5500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5890**	**0.5890**	**1.8000e-004**	**0.0000**	**0.5934**

3.52 Abandon Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	6.0000e-005	5.3000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1123	0.1123	0.0000	0.0000	0.1124
Total	**6.0000e-005**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1123**	**0.1123**	**0.0000**	**0.0000**	**0.1124**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5300e-003	4.5500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.5890	0.5890	1.8000e-004	0.0000	0.5934
Paving	6.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.1500e-003**	**4.5300e-003**	**4.5500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.5890**	**0.5890**	**1.8000e-004**	**0.0000**	**0.5934**

3.52 Abandon Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	6.0000e-005	5.3000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1123	0.1123	0.0000	0.0000	0.1124
Total	**6.0000e-005**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1123**	**0.1123**	**0.0000**	**0.0000**	**0.1124**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	5.00	5.00	5.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.563957	0.031105	0.207045	0.124139	0.023367	0.005278	0.020652	0.011843	0.001236	0.003001	0.006131	0.001009	0.001237
Other Non-Asphalt Surfaces	0.563957	0.031105	0.207045	0.124139	0.023367	0.005278	0.020652	0.011843	0.001236	0.003001	0.006131	0.001009	0.001237

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.8900e-003	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.1000e-004
Unmitigated	2.8900e-003	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.1000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	7.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.1000e-004
Total	**2.8800e-003**	**0.0000**	**1.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.9000e-004**	**2.9000e-004**	**0.0000**	**0.0000**	**3.1000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	7.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.1000e-004
Total	**2.8800e-003**	**0.0000**	**1.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.9000e-004**	**2.9000e-004**	**0.0000**	**0.0000**	**3.1000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
363			241			

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SLVWD Lyon Zone Pipeline

Santa Cruz County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.51	Acre	0.51	22,389.84	0
Other Non-Asphalt Surfaces	11.20	1000sqft	0.26	11,200.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	1.8	**Precipitation Freq (Days)**	61
Climate Zone	5			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Assumed two-foot width of excavation based on pipe length and applicant info on soil excavation amounts.

Construction Phase - Construction schedule provided by client.

Off-road Equipment - Equipment list and hours provided by client

Off-road Equipment - Equip list

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Haul truck destination is Santa Cruz County Transfer Station (5 miles from project site)

Grading -

Vehicle Trips - 12 yearly maintenance/meter trips, average 10 miles per trip.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	3.00
tblConstructionPhase	NumDays	100.00	4.00

tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	2.00
tblConstructionPhase	NumDays	100.00	4.00
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	3.00
tblConstructionPhase	NumDays	100.00	2.00
tblConstructionPhase	NumDays	100.00	3.00
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	4.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
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tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00

tblConstructionPhase	NumDays	2.00	1.00
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tblConstructionPhase	NumDays	5.00	1.00
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tblGrading	MaterialExported	0.00	75.00
tblGrading	MaterialExported	0.00	75.00
tblGrading	MaterialExported	0.00	75.00
tblGrading	MaterialExported	0.00	75.00
tblGrading	MaterialExported	0.00	75.00
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tblGrading	MaterialExported	0.00	75.00
tblGrading	MaterialImported	0.00	51.00
tblGrading	MaterialImported	0.00	51.00
tblGrading	MaterialImported	0.00	51.00
tblGrading	MaterialImported	0.00	51.00
tblGrading	MaterialImported	0.00	51.00
tblGrading	MaterialImported	0.00	51.00
tblGrading	MaterialImported	0.00	51.00
tblGrading	MaterialImported	0.00	51.00

tblLandUse	LandUseSquareFeet	22,215.60	22,389.84
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	75.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
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tblTripsAndVMT	HaulingTripLength	20.00	75.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
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tblTripsAndVMT	HaulingTripLength	20.00	75.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
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tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00

tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	VendorTripNumber	6.00	1.00
tblTripsAndVMT	VendorTripNumber	6.00	0.00
tblTripsAndVMT	VendorTripNumber	6.00	0.00
tblTripsAndVMT	VendorTripNumber	6.00	1.00
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tblTripsAndVMT	VendorTripNumber	6.00	0.00
tblTripsAndVMT	VendorTripNumber	6.00	1.00
tblTripsAndVMT	VendorTripNumber	6.00	1.00
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tblTripsAndVMT	VendorTripNumber	6.00	0.00
tblTripsAndVMT	VendorTripNumber	6.00	0.00
tblTripsAndVMT	VendorTripNumber	6.00	0.00
tblVehicleTrips	CC_TL	6.60	5.00
tblVehicleTrips	CNW_TL	6.60	5.00
tblVehicleTrips	CW_TL	14.70	5.00
tblVehicleTrips	ST_TR	0.00	0.03
tblVehicleTrips	SU_TR	0.00	0.03
tblVehicleTrips	WD_TR	0.00	0.03

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	2.4336	21.0798	21.4480	0.0350	1.8681	0.6044	3.0742	0.9234	0.5720	2.0648	0.0000	3,382.6529	3,382.6529	0.6520	0.0000	3,398.9529
Maximum	**2.4336**	**21.0798**	**21.4480**	**0.0350**	**1.8681**	**0.6044**	**3.0742**	**0.9234**	**0.5720**	**2.0648**	**0.0000**	**3,382.6529**	**3,382.6529**	**0.6520**	**0.0000**	**3,398.9529**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	2.4336	21.0798	21.4480	0.0350	1.0377	0.6044	2.2437	0.4679	0.5720	1.6093	0.0000	3,382.6529	3,382.6529	0.6520	0.0000	3,398.9529
Maximum	**2.4336**	**21.0798**	**21.4480**	**0.0350**	**1.0377**	**0.6044**	**2.2437**	**0.4679**	**0.5720**	**1.6093**	**0.0000**	**3,382.6529**	**3,382.6529**	**0.6520**	**0.0000**	**3,398.9529**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**44.46**	**0.00**	**27.01**	**49.33**	**0.00**	**22.06**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0159	1.0000e-005	1.2000e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5600e-003	2.5600e-003	1.0000e-005		2.7300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0159**	**1.0000e-005**	**1.2000e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.5600e-003**	**2.5600e-003**	**1.0000e-005**	**0.0000**	**2.7300e-003**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0159	1.0000e-005	1.2000e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5600e-003	2.5600e-003	1.0000e-005		2.7300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0159**	**1.0000e-005**	**1.2000e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.5600e-003**	**2.5600e-003**	**1.0000e-005**	**0.0000**	**2.7300e-003**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Prep 1	Site Preparation	4/22/2020	4/22/2020	5	1	
2	Trenching 1	Grading	4/23/2020	4/23/2020	5	1	
3	Pipe 1 (Haul Pipe)	Building Construction	4/24/2020	4/24/2020	5	1	
4	Pipe 1	Building Construction	4/27/2020	4/28/2020	5	2	
5	Site Prep 2	Site Preparation	4/29/2020	4/29/2020	5	1	
6	Backfilling 1	Grading	4/29/2020	4/29/2020	5	1	
7	Trenching 2	Grading	4/30/2020	4/30/2020	5	1	
8	Pipe 2	Building Construction	5/1/2020	5/6/2020	5	4	
9	Site Prep 3	Site Preparation	5/7/2020	5/8/2020	5	1	
10	Backfilling 2	Grading	5/7/2020	5/7/2020	5	1	
11	Asphalt Paving 1	Paving	5/11/2020	5/11/2020	5	1	
12	Trenching 3	Grading	5/12/2020	5/12/2020	5	1	
13	Pipe 3 (Haul Pipe)	Building Construction	5/13/2020	5/13/2020	5	1	
14	Pipe 3	Building Construction	5/14/2020	5/18/2020	5	3	
15	Site Prep 4	Site Preparation	5/19/2020	5/19/2020	5	1	
16	Backfilling 3	Grading	5/19/2020	5/19/2020	5	1	
17	Asphalt Paving 2	Paving	5/20/2020	5/20/2020	5	1	
18	Trenching 4	Grading	5/21/2020	5/21/2020	5	1	
19	Pipe 4	Building Construction	5/22/2020	5/27/2020	5	4	

SLVWD Lyon Zone Pipeline - Santa Cruz County, Winter

20	Site Prep 5	Site Preparation	5/28/2020	5/28/2020	5	1
21	Backfilling 4	Grading	5/28/2020	5/28/2020	5	1
22	Asphalt Paving 3	Paving	5/29/2020	5/29/2020	5	1
23	Trenching 5	Grading	6/1/2020	6/1/2020	5	1
24	Pipe 5 (Haul Pipe)	Building Construction	6/2/2020	6/2/2020	5	1
25	Pipe 5	Building Construction	6/3/2020	6/4/2020	5	2
26	Site Prep 6	Site Preparation	6/5/2020	6/5/2020	5	1
27	Backfilling 5	Grading	6/5/2020	6/5/2020	5	1
28	Trenching 6	Grading	6/8/2020	6/8/2020	5	1
29	Pipe 6	Building Construction	6/9/2020	6/12/2020	5	4
30	Site Prep 7	Site Preparation	6/15/2020	6/15/2020	5	1
31	Backfilling 6	Grading	6/15/2020	6/15/2020	5	1
32	Asphalt Paving 4	Paving	6/16/2020	6/16/2020	5	1
33	Trenching 7	Grading	6/17/2020	6/17/2020	5	1
34	Pipe 7 (Haul Pipe)	Building Construction	6/18/2020	6/18/2020	5	1
35	Pipe 7	Building Construction	6/19/2020	6/23/2020	5	3
36	Site Prep 8	Site Preparation	6/24/2020	6/24/2020	5	1
37	Backfilling 7	Grading	6/24/2020	6/24/2020	5	1
38	Asphalt Paving 5	Paving	6/25/2020	6/25/2020	5	1
39	Trenching 8	Grading	6/26/2020	6/26/2020	5	1
40	Pipe 8	Building Construction	6/29/2020	7/1/2020	5	3
41	Backfilling 8	Grading	7/2/2020	7/2/2020	5	1
42	Asphalt Paving 6	Paving	7/3/2020	7/3/2020	5	1
43	Abandon Site Prep 1	Site Preparation	7/6/2020	7/6/2020	5	1
44	Abandon Trenching 1	Grading	7/7/2020	7/7/2020	5	1
45	Cut and Cap 1	Building Construction	7/8/2020	7/8/2020	5	1
46	Abandon Backfilling 1	Grading	7/9/2020	7/9/2020	5	1

47	Abandon Site Prep 2	Site Preparation	7/10/2020	7/10/2020	5	1	
48	Abandon Trenching 2	Grading	7/13/2020	7/13/2020	5	1	
49	Cut and Cap 2	Building Construction	7/14/2020	7/14/2020	5	1	
50	Abandon Backfilling 2	Grading	7/15/2020	7/15/2020	5	1	
51	Abandon Paving	Paving	7/16/2020	7/16/2020	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.77

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Prep 1	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching 1	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 1	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 1	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 1 (Haul Pipe)	Cranes	1	4.00	231	0.29
Pipe 1 (Haul Pipe)	Forklifts	2	6.00	89	0.20
Pipe 1 (Haul Pipe)	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Pipe 1	Cranes	1	4.00	231	0.29
Pipe 1	Forklifts	2	6.00	89	0.20
Pipe 1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 2	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 1	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 1	Rubber Tired Dozers	1	1.00	247	0.40

Backfilling 1	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Trenching 2	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 2	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 2	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 2	Cranes	1	4.00	231	0.29
Pipe 2	Forklifts	2	6.00	89	0.20
Pipe 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 3	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 2	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 2	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 2	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Asphalt Paving 1	Cement and Mortar Mixers	4	6.00	9	0.56
Asphalt Paving 1	Pavers	1	7.00	130	0.42
Asphalt Paving 1	Rollers	1	7.00	80	0.38
Asphalt Paving 1	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Trenching 3	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 3	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 3	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 3 (Haul Pipe)	Cranes	1	4.00	231	0.29
Pipe 3 (Haul Pipe)	Forklifts	2	6.00	89	0.20
Pipe 3 (Haul Pipe)	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Pipe 3	Cranes	1	4.00	231	0.29
Pipe 3	Forklifts	2	6.00	89	0.20
Pipe 3	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 4	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 3	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 3	Rubber Tired Dozers	1	1.00	247	0.40

Backfilling 3	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Asphalt Paving 2	Cement and Mortar Mixers	4	6.00	9	0.56
Asphalt Paving 2	Pavers	1	7.00	130	0.42
Asphalt Paving 2	Rollers	1	7.00	80	0.38
Asphalt Paving 2	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Trenching 4	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 4	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 4	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 4	Cranes	1	4.00	231	0.29
Pipe 4	Forklifts	2	6.00	89	0.20
Pipe 4	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 5	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 4	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 4	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 4	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Asphalt Paving 3	Cement and Mortar Mixers	4	6.00	9	0.56
Asphalt Paving 3	Pavers	1	7.00	130	0.42
Asphalt Paving 3	Rollers	1	7.00	80	0.38
Asphalt Paving 3	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Trenching 5	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 5	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 5	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 5 (Haul Pipe)	Cranes	1	4.00	231	0.29
Pipe 5 (Haul Pipe)	Forklifts	2	6.00	89	0.20
Pipe 5 (Haul Pipe)	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Pipe 5	Cranes	1	4.00	231	0.29
Pipe 5	Forklifts	2	6.00	89	0.20

Pipe 5	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 6	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 5	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 5	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 5	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Trenching 6	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 6	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 6	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 6	Cranes	1	4.00	231	0.29
Pipe 6	Forklifts	2	6.00	89	0.20
Pipe 6	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 7	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 6	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 6	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 6	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Asphalt Paving 4	Cement and Mortar Mixers	4	6.00	9	0.56
Asphalt Paving 4	Pavers	1	7.00	130	0.42
Asphalt Paving 4	Rollers	1	7.00	80	0.38
Asphalt Paving 4	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Trenching 7	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 7	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 7	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 7 (Haul Pipe)	Cranes	1	4.00	231	0.29
Pipe 7 (Haul Pipe)	Forklifts	2	6.00	89	0.20
Pipe 7 (Haul Pipe)	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Pipe 7	Cranes	1	4.00	231	0.29
Pipe 7	Forklifts	2	6.00	89	0.20

Pipe 7	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 8	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 7	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 7	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 7	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Asphalt Paving 5	Cement and Mortar Mixers	4	6.00	9	0.56
Asphalt Paving 5	Pavers	1	7.00	130	0.42
Asphalt Paving 5	Rollers	1	7.00	80	0.38
Asphalt Paving 5	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Trenching 8	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 8	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 8	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 8	Cranes	1	4.00	231	0.29
Pipe 8	Forklifts	2	6.00	89	0.20
Pipe 8	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Backfilling 8	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 8	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 8	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Asphalt Paving 6	Cement and Mortar Mixers	4	6.00	9	0.56
Asphalt Paving 6	Pavers	1	7.00	130	0.42
Asphalt Paving 6	Rollers	1	7.00	80	0.38
Asphalt Paving 6	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Abandon Site Prep 1	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Abandon Trenching 1	Concrete/Industrial Saws	1	8.00	81	0.73
Abandon Trenching 1	Rubber Tired Dozers	1	1.00	247	0.40
Abandon Trenching 1	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Cut and Cap 1	Cranes	1	4.00	231	0.29

Cut and Cap 1	Forklifts	2	6.00	89	0.20
Cut and Cap 1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Abandon Backfilling 1	Concrete/Industrial Saws	1	8.00	81	0.73
Abandon Backfilling 1	Rubber Tired Dozers	1	1.00	247	0.40
Abandon Backfilling 1	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Abandon Site Prep 2	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Abandon Trenching 2	Concrete/Industrial Saws	1	8.00	81	0.73
Abandon Trenching 2	Rubber Tired Dozers	1	1.00	247	0.40
Abandon Trenching 2	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Cut and Cap 2	Cranes	1	4.00	231	0.29
Cut and Cap 2	Forklifts	2	6.00	89	0.20
Cut and Cap 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Abandon Backfilling 2	Concrete/Industrial Saws	1	8.00	81	0.73
Abandon Backfilling 2	Rubber Tired Dozers	1	1.00	247	0.40
Abandon Backfilling 2	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Abandon Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Abandon Paving	Pavers	1	7.00	130	0.42
Abandon Paving	Rollers	1	7.00	80	0.38
Abandon Paving	Tractors/Loaders/Backhoes	2	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Prep 1	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 1	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 1 (Haul Pipe)	5	14.00	1.00	0.00	16.80	6.60	75.00	LD_Mix	HDT_Mix	HHDT
Pipe 1	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

Site Prep 2	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 1	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Trenching 2	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 2	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 3	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 2	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving 1	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 3	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 3 (Haul Pipe)	5	14.00	1.00	0.00	16.80	6.60	75.00	LD_Mix	HDT_Mix	HHDT
Pipe 3	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 4	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 3	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving 2	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 4	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 4	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 5	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 4	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving 3	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 5	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 5 (Haul Pipe)	5	14.00	1.00	0.00	16.80	6.60	75.00	LD_Mix	HDT_Mix	HHDT
Pipe 5	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 6	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 5	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Trenching 6	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 6	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 7	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 6	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT

Asphalt Paving 4	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 7	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 7 (Haul Pipe)	5	14.00	1.00	0.00	16.80	6.60	75.00	LD_Mix	HDT_Mix	HHDT
Pipe 7	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 8	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 7	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving 5	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 8	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 8	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 8	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving 6	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Site Prep 1	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Trenching 1	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Cut and Cap 1	5	14.00	6.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Backfilling 1	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Site Prep 2	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Trenching 2	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Cut and Cap 2	5	14.00	6.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Backfilling 2	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Paving	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Prep 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.2 Site Prep 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.3 Trenching 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7593	0.0000	0.7593	0.4148	0.0000	0.4148			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7593**	**0.4672**	**1.2265**	**0.4148**	**0.4457**	**0.8604**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0322	1.4245	0.3151	2.3200e-003	0.0391	4.1400e-003	0.0432	0.0107	3.9600e-003	0.0147		247.5772	247.5772	0.0154		247.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.1034**	**1.4915**	**0.8664**	**3.5600e-003**	**0.1668**	**5.1700e-003**	**0.1720**	**0.0446**	**4.9100e-003**	**0.0495**		**371.2671**	**371.2671**	**0.0206**		**371.7810**

3.3 Trenching 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3417	0.0000	0.3417	0.1867	0.0000	0.1867			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3417**	**0.4672**	**0.8089**	**0.1867**	**0.4457**	**0.6323**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0322	1.4245	0.3151	2.3200e-003	0.0391	4.1400e-003	0.0432	0.0107	3.9600e-003	0.0147		247.5772	247.5772	0.0154		247.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.1034**	**1.4915**	**0.8664**	**3.5600e-003**	**0.1668**	**5.1700e-003**	**0.1720**	**0.0446**	**4.9100e-003**	**0.0495**		**371.2671**	**371.2671**	**0.0206**		**371.7810**

3.4 Pipe 1 (Haul Pipe) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3100e-003	0.1282	0.0381	2.5000e-004	6.1000e-003	7.7000e-004	6.8600e-003	1.7500e-003	7.3000e-004	2.4900e-003		26.0854	26.0854	1.1800e-003		26.1150
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.1041**	**0.2219**	**0.8100**	**1.9900e-003**	**0.1849**	**2.2200e-003**	**0.1871**	**0.0492**	**2.0700e-003**	**0.0513**		**199.2514**	**199.2514**	**8.3800e-003**		**199.4610**

3.4 Pipe 1 (Haul Pipe) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3100e-003	0.1282	0.0381	2.5000e-004	6.1000e-003	7.7000e-004	6.8600e-003	1.7500e-003	7.3000e-004	2.4900e-003		26.0854	26.0854	1.1800e-003		26.1150
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.1041**	**0.2219**	**0.8100**	**1.9900e-003**	**0.1849**	**2.2200e-003**	**0.1871**	**0.0492**	**2.0700e-003**	**0.0513**		**199.2514**	**199.2514**	**8.3800e-003**		**199.4610**

3.5 Pipe 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.0998**	**0.0937**	**0.7719**	**1.7400e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**173.1660**	**173.1660**	**7.2000e-003**		**173.3460**

3.5 Pipe 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.0998**	**0.0937**	**0.7719**	**1.7400e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**173.1660**	**173.1660**	**7.2000e-003**		**173.3460**

3.6 Site Prep 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.6 Site Prep 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.7 Backfilling 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7572	0.0000	0.7572	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7572**	**0.4672**	**1.2244**	**0.4145**	**0.4457**	**0.8601**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0215	0.9497	0.2101	1.5500e-003	0.0261	2.7600e-003	0.0288	7.1300e-003	2.6400e-003	9.7700e-003		165.0514	165.0514	0.0103		165.3083
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0927**	**1.0166**	**0.7614**	**2.7900e-003**	**0.1538**	**3.7900e-003**	**0.1576**	**0.0410**	**3.5900e-003**	**0.0446**		**288.7414**	**288.7414**	**0.0154**		**289.1269**

3.7 Backfilling 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3407	0.0000	0.3407	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3407**	**0.4672**	**0.8079**	**0.1865**	**0.4457**	**0.6322**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0215	0.9497	0.2101	1.5500e-003	0.0261	2.7600e-003	0.0288	7.1300e-003	2.6400e-003	9.7700e-003		165.0514	165.0514	0.0103		165.3083
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0927**	**1.0166**	**0.7614**	**2.7900e-003**	**0.1538**	**3.7900e-003**	**0.1576**	**0.0410**	**3.5900e-003**	**0.0446**		**288.7414**	**288.7414**	**0.0154**		**289.1269**

3.8 Trenching 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7593	0.0000	0.7593	0.4148	0.0000	0.4148			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7593**	**0.4672**	**1.2265**	**0.4148**	**0.4457**	**0.8604**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0322	1.4245	0.3151	2.3200e-003	0.0391	4.1400e-003	0.0432	0.0107	3.9600e-003	0.0147		247.5772	247.5772	0.0154		247.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.1034**	**1.4915**	**0.8664**	**3.5600e-003**	**0.1668**	**5.1700e-003**	**0.1720**	**0.0446**	**4.9100e-003**	**0.0495**		**371.2671**	**371.2671**	**0.0206**		**371.7810**

3.8 Trenching 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3417	0.0000	0.3417	0.1867	0.0000	0.1867			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3417**	**0.4672**	**0.8089**	**0.1867**	**0.4457**	**0.6323**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0322	1.4245	0.3151	2.3200e-003	0.0391	4.1400e-003	0.0432	0.0107	3.9600e-003	0.0147		247.5772	247.5772	0.0154		247.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.1034**	**1.4915**	**0.8664**	**3.5600e-003**	**0.1668**	**5.1700e-003**	**0.1720**	**0.0446**	**4.9100e-003**	**0.0495**		**371.2671**	**371.2671**	**0.0206**		**371.7810**

3.9 Pipe 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.0998**	**0.0937**	**0.7719**	**1.7400e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**173.1660**	**173.1660**	**7.2000e-003**		**173.3460**

3.9 Pipe 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.0998**	**0.0937**	**0.7719**	**1.7400e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**173.1660**	**173.1660**	**7.2000e-003**		**173.3460**

3.10 Site Prep 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.10 Site Prep 3 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.11 Backfilling 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7572	0.0000	0.7572	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7572**	**0.4672**	**1.2244**	**0.4145**	**0.4457**	**0.8601**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0215	0.9497	0.2101	1.5500e-003	0.0261	2.7600e-003	0.0288	7.1300e-003	2.6400e-003	9.7700e-003		165.0514	165.0514	0.0103		165.3083
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0927**	**1.0166**	**0.7614**	**2.7900e-003**	**0.1538**	**3.7900e-003**	**0.1576**	**0.0410**	**3.5900e-003**	**0.0446**		**288.7414**	**288.7414**	**0.0154**		**289.1269**

3.11 Backfilling 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3407	0.0000	0.3407	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3407**	**0.4672**	**0.8079**	**0.1865**	**0.4457**	**0.6322**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0215	0.9497	0.2101	1.5500e-003	0.0261	2.7600e-003	0.0288	7.1300e-003	2.6400e-003	9.7700e-003		165.0514	165.0514	0.0103		165.3083
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0927**	**1.0166**	**0.7614**	**2.7900e-003**	**0.1538**	**3.7900e-003**	**0.1576**	**0.0410**	**3.5900e-003**	**0.0446**		**288.7414**	**288.7414**	**0.0154**		**289.1269**

3.12 Asphalt Paving 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740		1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**		**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1425	0.1339	1.1027	2.4900e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		247.3800	247.3800	0.0103		247.6371
Total	**0.1425**	**0.1339**	**1.1027**	**2.4900e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**247.3800**	**247.3800**	**0.0103**		**247.6371**

3.12 Asphalt Paving 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740	0.0000	1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**	**0.0000**	**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1425	0.1339	1.1027	2.4900e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		247.3800	247.3800	0.0103		247.6371
Total	**0.1425**	**0.1339**	**1.1027**	**2.4900e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**247.3800**	**247.3800**	**0.0103**		**247.6371**

3.13 Trenching 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7593	0.0000	0.7593	0.4148	0.0000	0.4148			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7593**	**0.4672**	**1.2265**	**0.4148**	**0.4457**	**0.8604**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0322	1.4245	0.3151	2.3200e-003	0.0391	4.1400e-003	0.0432	0.0107	3.9600e-003	0.0147		247.5772	247.5772	0.0154		247.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.1034**	**1.4915**	**0.8664**	**3.5600e-003**	**0.1668**	**5.1700e-003**	**0.1720**	**0.0446**	**4.9100e-003**	**0.0495**		**371.2671**	**371.2671**	**0.0206**		**371.7810**

3.13 Trenching 3 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3417	0.0000	0.3417	0.1867	0.0000	0.1867			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3417**	**0.4672**	**0.8089**	**0.1867**	**0.4457**	**0.6323**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0322	1.4245	0.3151	2.3200e-003	0.0391	4.1400e-003	0.0432	0.0107	3.9600e-003	0.0147		247.5772	247.5772	0.0154		247.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.1034**	**1.4915**	**0.8664**	**3.5600e-003**	**0.1668**	**5.1700e-003**	**0.1720**	**0.0446**	**4.9100e-003**	**0.0495**		**371.2671**	**371.2671**	**0.0206**		**371.7810**

3.14 Pipe 3 (Haul Pipe) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3100e-003	0.1282	0.0381	2.5000e-004	6.1000e-003	7.7000e-004	6.8600e-003	1.7500e-003	7.3000e-004	2.4900e-003		26.0854	26.0854	1.1800e-003		26.1150
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.1041**	**0.2219**	**0.8100**	**1.9900e-003**	**0.1849**	**2.2200e-003**	**0.1871**	**0.0492**	**2.0700e-003**	**0.0513**		**199.2514**	**199.2514**	**8.3800e-003**		**199.4610**

3.14 Pipe 3 (Haul Pipe) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3100e-003	0.1282	0.0381	2.5000e-004	6.1000e-003	7.7000e-004	6.8600e-003	1.7500e-003	7.3000e-004	2.4900e-003		26.0854	26.0854	1.1800e-003		26.1150
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.1041**	**0.2219**	**0.8100**	**1.9900e-003**	**0.1849**	**2.2200e-003**	**0.1871**	**0.0492**	**2.0700e-003**	**0.0513**		**199.2514**	**199.2514**	**8.3800e-003**		**199.4610**

3.15 Pipe 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.0998**	**0.0937**	**0.7719**	**1.7400e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**173.1660**	**173.1660**	**7.2000e-003**		**173.3460**

3.15 Pipe 3 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.0998**	**0.0937**	**0.7719**	**1.7400e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**173.1660**	**173.1660**	**7.2000e-003**		**173.3460**

3.16 Site Prep 4 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.16 Site Prep 4 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.17 Backfilling 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7572	0.0000	0.7572	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7572**	**0.4672**	**1.2244**	**0.4145**	**0.4457**	**0.8601**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0215	0.9497	0.2101	1.5500e-003	0.0261	2.7600e-003	0.0288	7.1300e-003	2.6400e-003	9.7700e-003		165.0514	165.0514	0.0103		165.3083
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0927**	**1.0166**	**0.7614**	**2.7900e-003**	**0.1538**	**3.7900e-003**	**0.1576**	**0.0410**	**3.5900e-003**	**0.0446**		**288.7414**	**288.7414**	**0.0154**		**289.1269**

3.17 Backfilling 3 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3407	0.0000	0.3407	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3407**	**0.4672**	**0.8079**	**0.1865**	**0.4457**	**0.6322**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0215	0.9497	0.2101	1.5500e-003	0.0261	2.7600e-003	0.0288	7.1300e-003	2.6400e-003	9.7700e-003		165.0514	165.0514	0.0103		165.3083
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0927**	**1.0166**	**0.7614**	**2.7900e-003**	**0.1538**	**3.7900e-003**	**0.1576**	**0.0410**	**3.5900e-003**	**0.0446**		**288.7414**	**288.7414**	**0.0154**		**289.1269**

3.18 Asphalt Paving 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740		1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**		**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1425	0.1339	1.1027	2.4900e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		247.3800	247.3800	0.0103		247.6371
Total	**0.1425**	**0.1339**	**1.1027**	**2.4900e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**247.3800**	**247.3800**	**0.0103**		**247.6371**

3.18 Asphalt Paving 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740	0.0000	1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**	**0.0000**	**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1425	0.1339	1.1027	2.4900e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		247.3800	247.3800	0.0103		247.6371
Total	**0.1425**	**0.1339**	**1.1027**	**2.4900e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**247.3800**	**247.3800**	**0.0103**		**247.6371**

3.19 Trenching 4 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7593	0.0000	0.7593	0.4148	0.0000	0.4148			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7593**	**0.4672**	**1.2265**	**0.4148**	**0.4457**	**0.8604**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0322	1.4245	0.3151	2.3200e-003	0.0391	4.1400e-003	0.0432	0.0107	3.9600e-003	0.0147		247.5772	247.5772	0.0154		247.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.1034**	**1.4915**	**0.8664**	**3.5600e-003**	**0.1668**	**5.1700e-003**	**0.1720**	**0.0446**	**4.9100e-003**	**0.0495**		**371.2671**	**371.2671**	**0.0206**		**371.7810**

3.19 Trenching 4 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3417	0.0000	0.3417	0.1867	0.0000	0.1867			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3417**	**0.4672**	**0.8089**	**0.1867**	**0.4457**	**0.6323**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0322	1.4245	0.3151	2.3200e-003	0.0391	4.1400e-003	0.0432	0.0107	3.9600e-003	0.0147		247.5772	247.5772	0.0154		247.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.1034**	**1.4915**	**0.8664**	**3.5600e-003**	**0.1668**	**5.1700e-003**	**0.1720**	**0.0446**	**4.9100e-003**	**0.0495**		**371.2671**	**371.2671**	**0.0206**		**371.7810**

3.20 Pipe 4 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.0998**	**0.0937**	**0.7719**	**1.7400e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**173.1660**	**173.1660**	**7.2000e-003**		**173.3460**

3.20 Pipe 4 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.0998**	**0.0937**	**0.7719**	**1.7400e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**173.1660**	**173.1660**	**7.2000e-003**		**173.3460**

3.21 Site Prep 5 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.21 Site Prep 5 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.22 Backfilling 4 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7572	0.0000	0.7572	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7572**	**0.4672**	**1.2244**	**0.4145**	**0.4457**	**0.8601**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0215	0.9497	0.2101	1.5500e-003	0.0261	2.7600e-003	0.0288	7.1300e-003	2.6400e-003	9.7700e-003		165.0514	165.0514	0.0103		165.3083
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0927**	**1.0166**	**0.7614**	**2.7900e-003**	**0.1538**	**3.7900e-003**	**0.1576**	**0.0410**	**3.5900e-003**	**0.0446**		**288.7414**	**288.7414**	**0.0154**		**289.1269**

3.22 Backfilling 4 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3407	0.0000	0.3407	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3407**	**0.4672**	**0.8079**	**0.1865**	**0.4457**	**0.6322**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0215	0.9497	0.2101	1.5500e-003	0.0261	2.7600e-003	0.0288	7.1300e-003	2.6400e-003	9.7700e-003		165.0514	165.0514	0.0103		165.3083
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0927**	**1.0166**	**0.7614**	**2.7900e-003**	**0.1538**	**3.7900e-003**	**0.1576**	**0.0410**	**3.5900e-003**	**0.0446**		**288.7414**	**288.7414**	**0.0154**		**289.1269**

3.23 Asphalt Paving 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740		1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**		**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1425	0.1339	1.1027	2.4900e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		247.3800	247.3800	0.0103		247.6371
Total	**0.1425**	**0.1339**	**1.1027**	**2.4900e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**247.3800**	**247.3800**	**0.0103**		**247.6371**

3.23 Asphalt Paving 3 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740	0.0000	1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**	**0.0000**	**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1425	0.1339	1.1027	2.4900e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		247.3800	247.3800	0.0103		247.6371
Total	**0.1425**	**0.1339**	**1.1027**	**2.4900e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**247.3800**	**247.3800**	**0.0103**		**247.6371**

3.24 Trenching 5 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7593	0.0000	0.7593	0.4148	0.0000	0.4148			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7593**	**0.4672**	**1.2265**	**0.4148**	**0.4457**	**0.8604**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0322	1.4245	0.3151	2.3200e-003	0.0391	4.1400e-003	0.0432	0.0107	3.9600e-003	0.0147		247.5772	247.5772	0.0154		247.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.1034**	**1.4915**	**0.8664**	**3.5600e-003**	**0.1668**	**5.1700e-003**	**0.1720**	**0.0446**	**4.9100e-003**	**0.0495**		**371.2671**	**371.2671**	**0.0206**		**371.7810**

3.24 Trenching 5 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3417	0.0000	0.3417	0.1867	0.0000	0.1867			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3417**	**0.4672**	**0.8089**	**0.1867**	**0.4457**	**0.6323**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0322	1.4245	0.3151	2.3200e-003	0.0391	4.1400e-003	0.0432	0.0107	3.9600e-003	0.0147		247.5772	247.5772	0.0154		247.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.1034**	**1.4915**	**0.8664**	**3.5600e-003**	**0.1668**	**5.1700e-003**	**0.1720**	**0.0446**	**4.9100e-003**	**0.0495**		**371.2671**	**371.2671**	**0.0206**		**371.7810**

3.25 Pipe 5 (Haul Pipe) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3100e-003	0.1282	0.0381	2.5000e-004	6.1000e-003	7.7000e-004	6.8600e-003	1.7500e-003	7.3000e-004	2.4900e-003		26.0854	26.0854	1.1800e-003		26.1150
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.1041**	**0.2219**	**0.8100**	**1.9900e-003**	**0.1849**	**2.2200e-003**	**0.1871**	**0.0492**	**2.0700e-003**	**0.0513**		**199.2514**	**199.2514**	**8.3800e-003**		**199.4610**

3.25 Pipe 5 (Haul Pipe) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3100e-003	0.1282	0.0381	2.5000e-004	6.1000e-003	7.7000e-004	6.8600e-003	1.7500e-003	7.3000e-004	2.4900e-003		26.0854	26.0854	1.1800e-003		26.1150
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.1041**	**0.2219**	**0.8100**	**1.9900e-003**	**0.1849**	**2.2200e-003**	**0.1871**	**0.0492**	**2.0700e-003**	**0.0513**		**199.2514**	**199.2514**	**8.3800e-003**		**199.4610**

3.26 Pipe 5 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.0998**	**0.0937**	**0.7719**	**1.7400e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**173.1660**	**173.1660**	**7.2000e-003**		**173.3460**

3.26 Pipe 5 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.0998**	**0.0937**	**0.7719**	**1.7400e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**173.1660**	**173.1660**	**7.2000e-003**		**173.3460**

3.27 Site Prep 6 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.27 Site Prep 6 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.28 Backfilling 5 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7572	0.0000	0.7572	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7572**	**0.4672**	**1.2244**	**0.4145**	**0.4457**	**0.8601**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0215	0.9497	0.2101	1.5500e-003	0.0261	2.7600e-003	0.0288	7.1300e-003	2.6400e-003	9.7700e-003		165.0514	165.0514	0.0103		165.3083
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0927**	**1.0166**	**0.7614**	**2.7900e-003**	**0.1538**	**3.7900e-003**	**0.1576**	**0.0410**	**3.5900e-003**	**0.0446**		**288.7414**	**288.7414**	**0.0154**		**289.1269**

3.28 Backfilling 5 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3407	0.0000	0.3407	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3407**	**0.4672**	**0.8079**	**0.1865**	**0.4457**	**0.6322**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0215	0.9497	0.2101	1.5500e-003	0.0261	2.7600e-003	0.0288	7.1300e-003	2.6400e-003	9.7700e-003		165.0514	165.0514	0.0103		165.3083
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0927**	**1.0166**	**0.7614**	**2.7900e-003**	**0.1538**	**3.7900e-003**	**0.1576**	**0.0410**	**3.5900e-003**	**0.0446**		**288.7414**	**288.7414**	**0.0154**		**289.1269**

3.29 Trenching 6 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7593	0.0000	0.7593	0.4148	0.0000	0.4148			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7593**	**0.4672**	**1.2265**	**0.4148**	**0.4457**	**0.8604**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0322	1.4245	0.3151	2.3200e-003	0.0391	4.1400e-003	0.0432	0.0107	3.9600e-003	0.0147		247.5772	247.5772	0.0154		247.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.1034**	**1.4915**	**0.8664**	**3.5600e-003**	**0.1668**	**5.1700e-003**	**0.1720**	**0.0446**	**4.9100e-003**	**0.0495**		**371.2671**	**371.2671**	**0.0206**		**371.7810**

3.29 Trenching 6 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3417	0.0000	0.3417	0.1867	0.0000	0.1867			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3417**	**0.4672**	**0.8089**	**0.1867**	**0.4457**	**0.6323**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0322	1.4245	0.3151	2.3200e-003	0.0391	4.1400e-003	0.0432	0.0107	3.9600e-003	0.0147		247.5772	247.5772	0.0154		247.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.1034**	**1.4915**	**0.8664**	**3.5600e-003**	**0.1668**	**5.1700e-003**	**0.1720**	**0.0446**	**4.9100e-003**	**0.0495**		**371.2671**	**371.2671**	**0.0206**		**371.7810**

3.30 Pipe 6 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.0998**	**0.0937**	**0.7719**	**1.7400e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**173.1660**	**173.1660**	**7.2000e-003**		**173.3460**

3.30 Pipe 6 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.0998**	**0.0937**	**0.7719**	**1.7400e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**173.1660**	**173.1660**	**7.2000e-003**		**173.3460**

3.31 Site Prep 7 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.31 Site Prep 7 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.32 Backfilling 6 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7572	0.0000	0.7572	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7572**	**0.4672**	**1.2244**	**0.4145**	**0.4457**	**0.8601**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0215	0.9497	0.2101	1.5500e-003	0.0261	2.7600e-003	0.0288	7.1300e-003	2.6400e-003	9.7700e-003		165.0514	165.0514	0.0103		165.3083
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0927**	**1.0166**	**0.7614**	**2.7900e-003**	**0.1538**	**3.7900e-003**	**0.1576**	**0.0410**	**3.5900e-003**	**0.0446**		**288.7414**	**288.7414**	**0.0154**		**289.1269**

3.32 Backfilling 6 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3407	0.0000	0.3407	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3407**	**0.4672**	**0.8079**	**0.1865**	**0.4457**	**0.6322**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0215	0.9497	0.2101	1.5500e-003	0.0261	2.7600e-003	0.0288	7.1300e-003	2.6400e-003	9.7700e-003		165.0514	165.0514	0.0103		165.3083
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0927**	**1.0166**	**0.7614**	**2.7900e-003**	**0.1538**	**3.7900e-003**	**0.1576**	**0.0410**	**3.5900e-003**	**0.0446**		**288.7414**	**288.7414**	**0.0154**		**289.1269**

3.33 Asphalt Paving 4 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740		1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**		**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1425	0.1339	1.1027	2.4900e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		247.3800	247.3800	0.0103		247.6371
Total	**0.1425**	**0.1339**	**1.1027**	**2.4900e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**247.3800**	**247.3800**	**0.0103**		**247.6371**

3.33 Asphalt Paving 4 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740	0.0000	1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**	**0.0000**	**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1425	0.1339	1.1027	2.4900e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		247.3800	247.3800	0.0103		247.6371
Total	**0.1425**	**0.1339**	**1.1027**	**2.4900e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**247.3800**	**247.3800**	**0.0103**		**247.6371**

3.34 Trenching 7 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7593	0.0000	0.7593	0.4148	0.0000	0.4148			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7593**	**0.4672**	**1.2265**	**0.4148**	**0.4457**	**0.8604**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0322	1.4245	0.3151	2.3200e-003	0.0391	4.1400e-003	0.0432	0.0107	3.9600e-003	0.0147		247.5772	247.5772	0.0154		247.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.1034**	**1.4915**	**0.8664**	**3.5600e-003**	**0.1668**	**5.1700e-003**	**0.1720**	**0.0446**	**4.9100e-003**	**0.0495**		**371.2671**	**371.2671**	**0.0206**		**371.7810**

3.34 Trenching 7 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3417	0.0000	0.3417	0.1867	0.0000	0.1867			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3417**	**0.4672**	**0.8089**	**0.1867**	**0.4457**	**0.6323**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0322	1.4245	0.3151	2.3200e-003	0.0391	4.1400e-003	0.0432	0.0107	3.9600e-003	0.0147		247.5772	247.5772	0.0154		247.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.1034**	**1.4915**	**0.8664**	**3.5600e-003**	**0.1668**	**5.1700e-003**	**0.1720**	**0.0446**	**4.9100e-003**	**0.0495**		**371.2671**	**371.2671**	**0.0206**		**371.7810**

3.35 Pipe 7 (Haul Pipe) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3100e-003	0.1282	0.0381	2.5000e-004	6.1000e-003	7.7000e-004	6.8600e-003	1.7500e-003	7.3000e-004	2.4900e-003		26.0854	26.0854	1.1800e-003		26.1150
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.1041**	**0.2219**	**0.8100**	**1.9900e-003**	**0.1849**	**2.2200e-003**	**0.1871**	**0.0492**	**2.0700e-003**	**0.0513**		**199.2514**	**199.2514**	**8.3800e-003**		**199.4610**

3.35 Pipe 7 (Haul Pipe) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3100e-003	0.1282	0.0381	2.5000e-004	6.1000e-003	7.7000e-004	6.8600e-003	1.7500e-003	7.3000e-004	2.4900e-003		26.0854	26.0854	1.1800e-003		26.1150
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.1041**	**0.2219**	**0.8100**	**1.9900e-003**	**0.1849**	**2.2200e-003**	**0.1871**	**0.0492**	**2.0700e-003**	**0.0513**		**199.2514**	**199.2514**	**8.3800e-003**		**199.4610**

3.36 Pipe 7 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.0998**	**0.0937**	**0.7719**	**1.7400e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**173.1660**	**173.1660**	**7.2000e-003**		**173.3460**

3.36 Pipe 7 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.0998**	**0.0937**	**0.7719**	**1.7400e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**173.1660**	**173.1660**	**7.2000e-003**		**173.3460**

3.37 Site Prep 8 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.37 Site Prep 8 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.38 Backfilling 7 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7572	0.0000	0.7572	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7572**	**0.4672**	**1.2244**	**0.4145**	**0.4457**	**0.8601**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0215	0.9497	0.2101	1.5500e-003	0.0261	2.7600e-003	0.0288	7.1300e-003	2.6400e-003	9.7700e-003		165.0514	165.0514	0.0103		165.3083
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0927**	**1.0166**	**0.7614**	**2.7900e-003**	**0.1538**	**3.7900e-003**	**0.1576**	**0.0410**	**3.5900e-003**	**0.0446**		**288.7414**	**288.7414**	**0.0154**		**289.1269**

3.38 Backfilling 7 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3407	0.0000	0.3407	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3407**	**0.4672**	**0.8079**	**0.1865**	**0.4457**	**0.6322**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0215	0.9497	0.2101	1.5500e-003	0.0261	2.7600e-003	0.0288	7.1300e-003	2.6400e-003	9.7700e-003		165.0514	165.0514	0.0103		165.3083
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0927**	**1.0166**	**0.7614**	**2.7900e-003**	**0.1538**	**3.7900e-003**	**0.1576**	**0.0410**	**3.5900e-003**	**0.0446**		**288.7414**	**288.7414**	**0.0154**		**289.1269**

3.39 Asphalt Paving 5 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740		1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**		**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1425	0.1339	1.1027	2.4900e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		247.3800	247.3800	0.0103		247.6371
Total	**0.1425**	**0.1339**	**1.1027**	**2.4900e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**247.3800**	**247.3800**	**0.0103**		**247.6371**

3.39 Asphalt Paving 5 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740	0.0000	1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**	**0.0000**	**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1425	0.1339	1.1027	2.4900e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		247.3800	247.3800	0.0103		247.6371
Total	**0.1425**	**0.1339**	**1.1027**	**2.4900e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**247.3800**	**247.3800**	**0.0103**		**247.6371**

3.40 Trenching 8 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7593	0.0000	0.7593	0.4148	0.0000	0.4148			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7593**	**0.4672**	**1.2265**	**0.4148**	**0.4457**	**0.8604**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0322	1.4245	0.3151	2.3200e-003	0.0391	4.1400e-003	0.0432	0.0107	3.9600e-003	0.0147		247.5772	247.5772	0.0154		247.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.1034**	**1.4915**	**0.8664**	**3.5600e-003**	**0.1668**	**5.1700e-003**	**0.1720**	**0.0446**	**4.9100e-003**	**0.0495**		**371.2671**	**371.2671**	**0.0206**		**371.7810**

3.40 Trenching 8 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3417	0.0000	0.3417	0.1867	0.0000	0.1867			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3417**	**0.4672**	**0.8089**	**0.1867**	**0.4457**	**0.6323**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0322	1.4245	0.3151	2.3200e-003	0.0391	4.1400e-003	0.0432	0.0107	3.9600e-003	0.0147		247.5772	247.5772	0.0154		247.9625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.1034**	**1.4915**	**0.8664**	**3.5600e-003**	**0.1668**	**5.1700e-003**	**0.1720**	**0.0446**	**4.9100e-003**	**0.0495**		**371.2671**	**371.2671**	**0.0206**		**371.7810**

3.41 Pipe 8 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.0998**	**0.0937**	**0.7719**	**1.7400e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**173.1660**	**173.1660**	**7.2000e-003**		**173.3460**

3.41 Pipe 8 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.0998**	**0.0937**	**0.7719**	**1.7400e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**173.1660**	**173.1660**	**7.2000e-003**		**173.3460**

3.42 Backfilling 8 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7572	0.0000	0.7572	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7572**	**0.4672**	**1.2244**	**0.4145**	**0.4457**	**0.8601**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0215	0.9497	0.2101	1.5500e-003	0.0261	2.7600e-003	0.0288	7.1300e-003	2.6400e-003	9.7700e-003		165.0514	165.0514	0.0103		165.3083
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0927**	**1.0166**	**0.7614**	**2.7900e-003**	**0.1538**	**3.7900e-003**	**0.1576**	**0.0410**	**3.5900e-003**	**0.0446**		**288.7414**	**288.7414**	**0.0154**		**289.1269**

3.42 Backfilling 8 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3407	0.0000	0.3407	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3407**	**0.4672**	**0.8079**	**0.1865**	**0.4457**	**0.6322**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0215	0.9497	0.2101	1.5500e-003	0.0261	2.7600e-003	0.0288	7.1300e-003	2.6400e-003	9.7700e-003		165.0514	165.0514	0.0103		165.3083
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0927**	**1.0166**	**0.7614**	**2.7900e-003**	**0.1538**	**3.7900e-003**	**0.1576**	**0.0410**	**3.5900e-003**	**0.0446**		**288.7414**	**288.7414**	**0.0154**		**289.1269**

3.43 Asphalt Paving 6 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740		1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**		**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1425	0.1339	1.1027	2.4900e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		247.3800	247.3800	0.0103		247.6371
Total	**0.1425**	**0.1339**	**1.1027**	**2.4900e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**247.3800**	**247.3800**	**0.0103**		**247.6371**

3.43 Asphalt Paving 6 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740	0.0000	1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**	**0.0000**	**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1425	0.1339	1.1027	2.4900e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		247.3800	247.3800	0.0103		247.6371
Total	**0.1425**	**0.1339**	**1.1027**	**2.4900e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**247.3800**	**247.3800**	**0.0103**		**247.6371**

3.44 Abandon Site Prep 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.44 Abandon Site Prep 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.45 Abandon Trenching 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7528**	**0.4672**	**1.2200**	**0.4138**	**0.4457**	**0.8595**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0713**	**0.0670**	**0.5513**	**1.2400e-003**	**0.1277**	**1.0300e-003**	**0.1288**	**0.0339**	**9.5000e-004**	**0.0348**		**123.6900**	**123.6900**	**5.1400e-003**		**123.8186**

3.45 Abandon Trenching 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3387**	**0.4672**	**0.8059**	**0.1862**	**0.4457**	**0.6319**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0713**	**0.0670**	**0.5513**	**1.2400e-003**	**0.1277**	**1.0300e-003**	**0.1288**	**0.0339**	**9.5000e-004**	**0.0348**		**123.6900**	**123.6900**	**5.1400e-003**		**123.8186**

3.46 Cut and Cap 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0259	0.7691	0.2287	1.4800e-003	0.0366	4.6000e-003	0.0412	0.0105	4.4000e-003	0.0149		156.5124	156.5124	7.1100e-003		156.6901
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.1257**	**0.8628**	**1.0006**	**3.2200e-003**	**0.2154**	**6.0500e-003**	**0.2215**	**0.0579**	**5.7400e-003**	**0.0637**		**329.6784**	**329.6784**	**0.0143**		**330.0361**

3.46 Cut and Cap 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0259	0.7691	0.2287	1.4800e-003	0.0366	4.6000e-003	0.0412	0.0105	4.4000e-003	0.0149		156.5124	156.5124	7.1100e-003		156.6901
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.1257**	**0.8628**	**1.0006**	**3.2200e-003**	**0.2154**	**6.0500e-003**	**0.2215**	**0.0579**	**5.7400e-003**	**0.0637**		**329.6784**	**329.6784**	**0.0143**		**330.0361**

3.47 Abandon Backfilling 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7528**	**0.4672**	**1.2200**	**0.4138**	**0.4457**	**0.8595**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0713**	**0.0670**	**0.5513**	**1.2400e-003**	**0.1277**	**1.0300e-003**	**0.1288**	**0.0339**	**9.5000e-004**	**0.0348**		**123.6900**	**123.6900**	**5.1400e-003**		**123.8186**

3.47 Abandon Backfilling 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3387**	**0.4672**	**0.8059**	**0.1862**	**0.4457**	**0.6319**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0713**	**0.0670**	**0.5513**	**1.2400e-003**	**0.1277**	**1.0300e-003**	**0.1288**	**0.0339**	**9.5000e-004**	**0.0348**		**123.6900**	**123.6900**	**5.1400e-003**		**123.8186**

3.48 Abandon Site Prep 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.48 Abandon Site Prep 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0214	0.0201	0.1654	3.7000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		37.1070	37.1070	1.5400e-003		37.1456
Total	**0.0214**	**0.0201**	**0.1654**	**3.7000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**37.1070**	**37.1070**	**1.5400e-003**		**37.1456**

3.49 Abandon Trenching 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7528**	**0.4672**	**1.2200**	**0.4138**	**0.4457**	**0.8595**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0713**	**0.0670**	**0.5513**	**1.2400e-003**	**0.1277**	**1.0300e-003**	**0.1288**	**0.0339**	**9.5000e-004**	**0.0348**		**123.6900**	**123.6900**	**5.1400e-003**		**123.8186**

3.49 Abandon Trenching 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3387**	**0.4672**	**0.8059**	**0.1862**	**0.4457**	**0.6319**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0713**	**0.0670**	**0.5513**	**1.2400e-003**	**0.1277**	**1.0300e-003**	**0.1288**	**0.0339**	**9.5000e-004**	**0.0348**		**123.6900**	**123.6900**	**5.1400e-003**		**123.8186**

3.50 Cut and Cap 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0259	0.7691	0.2287	1.4800e-003	0.0366	4.6000e-003	0.0412	0.0105	4.4000e-003	0.0149		156.5124	156.5124	7.1100e-003		156.6901
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.1257**	**0.8628**	**1.0006**	**3.2200e-003**	**0.2154**	**6.0500e-003**	**0.2215**	**0.0579**	**5.7400e-003**	**0.0637**		**329.6784**	**329.6784**	**0.0143**		**330.0361**

3.50 Cut and Cap 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0259	0.7691	0.2287	1.4800e-003	0.0366	4.6000e-003	0.0412	0.0105	4.4000e-003	0.0149		156.5124	156.5124	7.1100e-003		156.6901
Worker	0.0998	0.0937	0.7719	1.7400e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		173.1660	173.1660	7.2000e-003		173.3460
Total	**0.1257**	**0.8628**	**1.0006**	**3.2200e-003**	**0.2154**	**6.0500e-003**	**0.2215**	**0.0579**	**5.7400e-003**	**0.0637**		**329.6784**	**329.6784**	**0.0143**		**330.0361**

3.51 Abandon Backfilling 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7528**	**0.4672**	**1.2200**	**0.4138**	**0.4457**	**0.8595**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0713**	**0.0670**	**0.5513**	**1.2400e-003**	**0.1277**	**1.0300e-003**	**0.1288**	**0.0339**	**9.5000e-004**	**0.0348**		**123.6900**	**123.6900**	**5.1400e-003**		**123.8186**

3.51 Abandon Backfilling 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3387**	**0.4672**	**0.8059**	**0.1862**	**0.4457**	**0.6319**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0713	0.0670	0.5513	1.2400e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		123.6900	123.6900	5.1400e-003		123.8186
Total	**0.0713**	**0.0670**	**0.5513**	**1.2400e-003**	**0.1277**	**1.0300e-003**	**0.1288**	**0.0339**	**9.5000e-004**	**0.0348**		**123.6900**	**123.6900**	**5.1400e-003**		**123.8186**

3.52 Abandon Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740		1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**		**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1425	0.1339	1.1027	2.4900e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		247.3800	247.3800	0.0103		247.6371
Total	**0.1425**	**0.1339**	**1.1027**	**2.4900e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**247.3800**	**247.3800**	**0.0103**		**247.6371**

3.52 Abandon Paving - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740	0.0000	1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**	**0.0000**	**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1425	0.1339	1.1027	2.4900e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		247.3800	247.3800	0.0103		247.6371
Total	**0.1425**	**0.1339**	**1.1027**	**2.4900e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**247.3800**	**247.3800**	**0.0103**		**247.6371**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	5.00	5.00	5.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.563957	0.031105	0.207045	0.124139	0.023367	0.005278	0.020652	0.011843	0.001236	0.003001	0.006131	0.001009	0.001237
Other Non-Asphalt Surfaces	0.563957	0.031105	0.207045	0.124139	0.023367	0.005278	0.020652	0.011843	0.001236	0.003001	0.006131	0.001009	0.001237

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0159	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5600e-003	2.5600e-003	1.0000e-005		2.7300e-003
Unmitigated	0.0159	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5600e-003	2.5600e-003	1.0000e-005		2.7300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.8400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0119					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1000e-004	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5600e-003	2.5600e-003	1.0000e-005		2.7300e-003
Total	**0.0159**	**1.0000e-005**	**1.2200e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.5600e-003**	**2.5600e-003**	**1.0000e-005**		**2.7300e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.8400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0119					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1000e-004	1.0000e-005	1.2000e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5600e-003	2.5600e-003	1.0000e-005		2.7300e-003
Total	**0.0159**	**1.0000e-005**	**1.2000e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.5600e-003**	**2.5600e-003**	**1.0000e-005**		**2.7300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SLVWD Lyon Zone Pipeline

Santa Cruz County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.51	Acre	0.51	22,389.84	0
Other Non-Asphalt Surfaces	11.20	1000sqft	0.26	11,200.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	1.8	**Precipitation Freq (Days)**	61
Climate Zone	5			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Assumed two-foot width of excavation based on pipe length and applicant info on soil excavation amounts.

Construction Phase - Construction schedule provided by client.

Off-road Equipment - Equipment list and hours provided by client

Off-road Equipment - Equip list

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Haul truck destination is Santa Cruz County Transfer Station (5 miles from project site)

Grading -

Vehicle Trips - 12 yearly maintenance/meter trips, average 10 miles per trip.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	3.00
tblConstructionPhase	NumDays	100.00	4.00

tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	2.00
tblConstructionPhase	NumDays	100.00	4.00
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	3.00
tblConstructionPhase	NumDays	100.00	2.00
tblConstructionPhase	NumDays	100.00	3.00
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	4.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
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tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00

tblConstructionPhase	NumDays	2.00	1.00
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tblConstructionPhase	NumDays	2.00	1.00
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tblConstructionPhase	NumDays	5.00	1.00
tblConstructionPhase	NumDays	5.00	1.00
tblConstructionPhase	NumDays	5.00	1.00
tblConstructionPhase	NumDays	5.00	1.00
tblGrading	MaterialExported	0.00	75.00
tblGrading	MaterialExported	0.00	75.00
tblGrading	MaterialExported	0.00	75.00
tblGrading	MaterialExported	0.00	75.00
tblGrading	MaterialExported	0.00	75.00
tblGrading	MaterialExported	0.00	75.00
tblGrading	MaterialExported	0.00	75.00
tblGrading	MaterialExported	0.00	75.00
tblGrading	MaterialImported	0.00	51.00
tblGrading	MaterialImported	0.00	51.00
tblGrading	MaterialImported	0.00	51.00
tblGrading	MaterialImported	0.00	51.00
tblGrading	MaterialImported	0.00	51.00
tblGrading	MaterialImported	0.00	51.00
tblGrading	MaterialImported	0.00	51.00
tblGrading	MaterialImported	0.00	51.00

tblLandUse	LandUseSquareFeet	22,215.60	22,389.84
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	75.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	75.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	75.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	75.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00

tblTripsAndVMT	HaulingTripLength	20.00	5.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00
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tblTripsAndVMT	VendorTripNumber	6.00	0.00
tblTripsAndVMT	VendorTripNumber	6.00	0.00
tblTripsAndVMT	VendorTripNumber	6.00	0.00
tblVehicleTrips	CC_TL	6.60	5.00
tblVehicleTrips	CNW_TL	6.60	5.00
tblVehicleTrips	CW_TL	14.70	5.00
tblVehicleTrips	ST_TR	0.00	0.03
tblVehicleTrips	SU_TR	0.00	0.03
tblVehicleTrips	WD_TR	0.00	0.03

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	2.4145	21.0515	21.4323	0.0352	1.8681	0.6042	3.0740	0.9234	0.5718	2.0646	0.0000	3,405.5929	3,405.5929	0.6517	0.0000	3,421.8865
Maximum	**2.4145**	**21.0515**	**21.4323**	**0.0352**	**1.8681**	**0.6042**	**3.0740**	**0.9234**	**0.5718**	**2.0646**	**0.0000**	**3,405.5929**	**3,405.5929**	**0.6517**	**0.0000**	**3,421.8865**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	2.4145	21.0515	21.4323	0.0352	1.0377	0.6042	2.2435	0.4679	0.5718	1.6091	0.0000	3,405.5929	3,405.5929	0.6517	0.0000	3,421.8865
Maximum	**2.4145**	**21.0515**	**21.4323**	**0.0352**	**1.0377**	**0.6042**	**2.2435**	**0.4679**	**0.5718**	**1.6091**	**0.0000**	**3,405.5929**	**3,405.5929**	**0.6517**	**0.0000**	**3,421.8865**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**44.46**	**0.00**	**27.02**	**49.33**	**0.00**	**22.06**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0159	1.0000e-005	1.2000e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5600e-003	2.5600e-003	1.0000e-005		2.7300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0159**	**1.0000e-005**	**1.2000e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.5600e-003**	**2.5600e-003**	**1.0000e-005**	**0.0000**	**2.7300e-003**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0159	1.0000e-005	1.2000e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5600e-003	2.5600e-003	1.0000e-005		2.7300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0159**	**1.0000e-005**	**1.2000e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.5600e-003**	**2.5600e-003**	**1.0000e-005**	**0.0000**	**2.7300e-003**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Prep 1	Site Preparation	4/22/2020	4/22/2020	5	1	
2	Trenching 1	Grading	4/23/2020	4/23/2020	5	1	
3	Pipe 1 (Haul Pipe)	Building Construction	4/24/2020	4/24/2020	5	1	
4	Pipe 1	Building Construction	4/27/2020	4/28/2020	5	2	
5	Site Prep 2	Site Preparation	4/29/2020	4/29/2020	5	1	
6	Backfilling 1	Grading	4/29/2020	4/29/2020	5	1	
7	Trenching 2	Grading	4/30/2020	4/30/2020	5	1	
8	Pipe 2	Building Construction	5/1/2020	5/6/2020	5	4	
9	Site Prep 3	Site Preparation	5/7/2020	5/8/2020	5	1	
10	Backfilling 2	Grading	5/7/2020	5/7/2020	5	1	
11	Asphalt Paving 1	Paving	5/11/2020	5/11/2020	5	1	
12	Trenching 3	Grading	5/12/2020	5/12/2020	5	1	
13	Pipe 3 (Haul Pipe)	Building Construction	5/13/2020	5/13/2020	5	1	
14	Pipe 3	Building Construction	5/14/2020	5/18/2020	5	3	
15	Site Prep 4	Site Preparation	5/19/2020	5/19/2020	5	1	
16	Backfilling 3	Grading	5/19/2020	5/19/2020	5	1	
17	Asphalt Paving 2	Paving	5/20/2020	5/20/2020	5	1	
18	Trenching 4	Grading	5/21/2020	5/21/2020	5	1	
19	Pipe 4	Building Construction	5/22/2020	5/27/2020	5	4	

SLVWD Lyon Zone Pipeline - Santa Cruz County, Summer

20	Site Prep 5	Site Preparation	5/28/2020	5/28/2020	5	1
21	Backfilling 4	Grading	5/28/2020	5/28/2020	5	1
22	Asphalt Paving 3	Paving	5/29/2020	5/29/2020	5	1
23	Trenching 5	Grading	6/1/2020	6/1/2020	5	1
24	Pipe 5 (Haul Pipe)	Building Construction	6/2/2020	6/2/2020	5	1
25	Pipe 5	Building Construction	6/3/2020	6/4/2020	5	2
26	Site Prep 6	Site Preparation	6/5/2020	6/5/2020	5	1
27	Backfilling 5	Grading	6/5/2020	6/5/2020	5	1
28	Trenching 6	Grading	6/8/2020	6/8/2020	5	1
29	Pipe 6	Building Construction	6/9/2020	6/12/2020	5	4
30	Site Prep 7	Site Preparation	6/15/2020	6/15/2020	5	1
31	Backfilling 6	Grading	6/15/2020	6/15/2020	5	1
32	Asphalt Paving 4	Paving	6/16/2020	6/16/2020	5	1
33	Trenching 7	Grading	6/17/2020	6/17/2020	5	1
34	Pipe 7 (Haul Pipe)	Building Construction	6/18/2020	6/18/2020	5	1
35	Pipe 7	Building Construction	6/19/2020	6/23/2020	5	3
36	Site Prep 8	Site Preparation	6/24/2020	6/24/2020	5	1
37	Backfilling 7	Grading	6/24/2020	6/24/2020	5	1
38	Asphalt Paving 5	Paving	6/25/2020	6/25/2020	5	1
39	Trenching 8	Grading	6/26/2020	6/26/2020	5	1
40	Pipe 8	Building Construction	6/29/2020	7/1/2020	5	3
41	Backfilling 8	Grading	7/2/2020	7/2/2020	5	1
42	Asphalt Paving 6	Paving	7/3/2020	7/3/2020	5	1
43	Abandon Site Prep 1	Site Preparation	7/6/2020	7/6/2020	5	1
44	Abandon Trenching 1	Grading	7/7/2020	7/7/2020	5	1
45	Cut and Cap 1	Building Construction	7/8/2020	7/8/2020	5	1
46	Abandon Backfilling 1	Grading	7/9/2020	7/9/2020	5	1

47	Abandon Site Prep 2	Site Preparation	7/10/2020	7/10/2020	5	1	
48	Abandon Trenching 2	Grading	7/13/2020	7/13/2020	5	1	
49	Cut and Cap 2	Building Construction	7/14/2020	7/14/2020	5	1	
50	Abandon Backfilling 2	Grading	7/15/2020	7/15/2020	5	1	
51	Abandon Paving	Paving	7/16/2020	7/16/2020	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.77

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Prep 1	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching 1	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 1	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 1	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 1 (Haul Pipe)	Cranes	1	4.00	231	0.29
Pipe 1 (Haul Pipe)	Forklifts	2	6.00	89	0.20
Pipe 1 (Haul Pipe)	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Pipe 1	Cranes	1	4.00	231	0.29
Pipe 1	Forklifts	2	6.00	89	0.20
Pipe 1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 2	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 1	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 1	Rubber Tired Dozers	1	1.00	247	0.40

Backfilling 1	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Trenching 2	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 2	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 2	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 2	Cranes	1	4.00	231	0.29
Pipe 2	Forklifts	2	6.00	89	0.20
Pipe 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 3	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 2	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 2	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 2	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Asphalt Paving 1	Cement and Mortar Mixers	4	6.00	9	0.56
Asphalt Paving 1	Pavers	1	7.00	130	0.42
Asphalt Paving 1	Rollers	1	7.00	80	0.38
Asphalt Paving 1	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Trenching 3	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 3	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 3	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 3 (Haul Pipe)	Cranes	1	4.00	231	0.29
Pipe 3 (Haul Pipe)	Forklifts	2	6.00	89	0.20
Pipe 3 (Haul Pipe)	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Pipe 3	Cranes	1	4.00	231	0.29
Pipe 3	Forklifts	2	6.00	89	0.20
Pipe 3	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 4	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 3	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 3	Rubber Tired Dozers	1	1.00	247	0.40

Backfilling 3	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Asphalt Paving 2	Cement and Mortar Mixers	4	6.00	9	0.56
Asphalt Paving 2	Pavers	1	7.00	130	0.42
Asphalt Paving 2	Rollers	1	7.00	80	0.38
Asphalt Paving 2	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Trenching 4	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 4	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 4	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 4	Cranes	1	4.00	231	0.29
Pipe 4	Forklifts	2	6.00	89	0.20
Pipe 4	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 5	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 4	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 4	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 4	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Asphalt Paving 3	Cement and Mortar Mixers	4	6.00	9	0.56
Asphalt Paving 3	Pavers	1	7.00	130	0.42
Asphalt Paving 3	Rollers	1	7.00	80	0.38
Asphalt Paving 3	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Trenching 5	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 5	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 5	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 5 (Haul Pipe)	Cranes	1	4.00	231	0.29
Pipe 5 (Haul Pipe)	Forklifts	2	6.00	89	0.20
Pipe 5 (Haul Pipe)	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Pipe 5	Cranes	1	4.00	231	0.29
Pipe 5	Forklifts	2	6.00	89	0.20

Pipe 5	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 6	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 5	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 5	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 5	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Trenching 6	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 6	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 6	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 6	Cranes	1	4.00	231	0.29
Pipe 6	Forklifts	2	6.00	89	0.20
Pipe 6	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 7	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 6	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 6	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 6	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Asphalt Paving 4	Cement and Mortar Mixers	4	6.00	9	0.56
Asphalt Paving 4	Pavers	1	7.00	130	0.42
Asphalt Paving 4	Rollers	1	7.00	80	0.38
Asphalt Paving 4	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Trenching 7	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 7	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 7	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 7 (Haul Pipe)	Cranes	1	4.00	231	0.29
Pipe 7 (Haul Pipe)	Forklifts	2	6.00	89	0.20
Pipe 7 (Haul Pipe)	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Pipe 7	Cranes	1	4.00	231	0.29
Pipe 7	Forklifts	2	6.00	89	0.20

Pipe 7	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 8	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 7	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 7	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 7	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Asphalt Paving 5	Cement and Mortar Mixers	4	6.00	9	0.56
Asphalt Paving 5	Pavers	1	7.00	130	0.42
Asphalt Paving 5	Rollers	1	7.00	80	0.38
Asphalt Paving 5	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Trenching 8	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 8	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 8	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 8	Cranes	1	4.00	231	0.29
Pipe 8	Forklifts	2	6.00	89	0.20
Pipe 8	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Backfilling 8	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 8	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 8	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Asphalt Paving 6	Cement and Mortar Mixers	4	6.00	9	0.56
Asphalt Paving 6	Pavers	1	7.00	130	0.42
Asphalt Paving 6	Rollers	1	7.00	80	0.38
Asphalt Paving 6	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Abandon Site Prep 1	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Abandon Trenching 1	Concrete/Industrial Saws	1	8.00	81	0.73
Abandon Trenching 1	Rubber Tired Dozers	1	1.00	247	0.40
Abandon Trenching 1	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Cut and Cap 1	Cranes	1	4.00	231	0.29

Cut and Cap 1	Forklifts	2	6.00	89	0.20
Cut and Cap 1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Abandon Backfilling 1	Concrete/Industrial Saws	1	8.00	81	0.73
Abandon Backfilling 1	Rubber Tired Dozers	1	1.00	247	0.40
Abandon Backfilling 1	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Abandon Site Prep 2	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Abandon Trenching 2	Concrete/Industrial Saws	1	8.00	81	0.73
Abandon Trenching 2	Rubber Tired Dozers	1	1.00	247	0.40
Abandon Trenching 2	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Cut and Cap 2	Cranes	1	4.00	231	0.29
Cut and Cap 2	Forklifts	2	6.00	89	0.20
Cut and Cap 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Abandon Backfilling 2	Concrete/Industrial Saws	1	8.00	81	0.73
Abandon Backfilling 2	Rubber Tired Dozers	1	1.00	247	0.40
Abandon Backfilling 2	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Abandon Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Abandon Paving	Pavers	1	7.00	130	0.42
Abandon Paving	Rollers	1	7.00	80	0.38
Abandon Paving	Tractors/Loaders/Backhoes	2	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Prep 1	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 1	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 1 (Haul Pipe)	5	14.00	1.00	0.00	16.80	6.60	75.00	LD_Mix	HDT_Mix	HHDT
Pipe 1	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

Site Prep 2	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 1	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Trenching 2	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 2	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 3	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 2	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving 1	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 3	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 3 (Haul Pipe)	5	14.00	1.00	0.00	16.80	6.60	75.00	LD_Mix	HDT_Mix	HHDT
Pipe 3	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 4	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 3	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving 2	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 4	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 4	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 5	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 4	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving 3	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 5	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 5 (Haul Pipe)	5	14.00	1.00	0.00	16.80	6.60	75.00	LD_Mix	HDT_Mix	HHDT
Pipe 5	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 6	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 5	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Trenching 6	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 6	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 7	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 6	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT

Asphalt Paving 4	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 7	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 7 (Haul Pipe)	5	14.00	1.00	0.00	16.80	6.60	75.00	LD_Mix	HDT_Mix	HHDT
Pipe 7	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 8	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 7	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving 5	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 8	4	10.00	0.00	9.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Pipe 8	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 8	4	10.00	0.00	6.00	16.80	6.60	5.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving 6	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Site Prep 1	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Trenching 1	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Cut and Cap 1	5	14.00	6.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Backfilling 1	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Site Prep 2	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Trenching 2	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Cut and Cap 2	5	14.00	6.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Backfilling 2	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Paving	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Prep 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.2 Site Prep 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.3 Trenching 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7593	0.0000	0.7593	0.4148	0.0000	0.4148			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7593**	**0.4672**	**1.2265**	**0.4148**	**0.4457**	**0.8604**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0301	1.4335	0.2680	2.4100e-003	0.0391	3.8100e-003	0.0429	0.0107	3.6500e-003	0.0143		257.9248	257.9248	0.0142		258.2805
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0918**	**1.4873**	**0.8254**	**3.7200e-003**	**0.1668**	**4.8400e-003**	**0.1717**	**0.0446**	**4.6000e-003**	**0.0492**		**387.7846**	**387.7846**	**0.0196**		**388.2740**

3.3 Trenching 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3417	0.0000	0.3417	0.1867	0.0000	0.1867			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3417**	**0.4672**	**0.8089**	**0.1867**	**0.4457**	**0.6323**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0301	1.4335	0.2680	2.4100e-003	0.0391	3.8100e-003	0.0429	0.0107	3.6500e-003	0.0143		257.9248	257.9248	0.0142		258.2805
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0918**	**1.4873**	**0.8254**	**3.7200e-003**	**0.1668**	**4.8400e-003**	**0.1717**	**0.0446**	**4.6000e-003**	**0.0492**		**387.7846**	**387.7846**	**0.0196**		**388.2740**

3.4 Pipe 1 (Haul Pipe) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.0800e-003	0.1270	0.0335	2.5000e-004	6.1000e-003	7.5000e-004	6.8400e-003	1.7500e-003	7.1000e-004	2.4700e-003		26.6865	26.6865	1.1100e-003		26.7142
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0905**	**0.2023**	**0.8138**	**2.0800e-003**	**0.1849**	**2.2000e-003**	**0.1871**	**0.0492**	**2.0500e-003**	**0.0512**		**208.4903**	**208.4903**	**8.6000e-003**		**208.7051**

3.4 Pipe 1 (Haul Pipe) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.0800e-003	0.1270	0.0335	2.5000e-004	6.1000e-003	7.5000e-004	6.8400e-003	1.7500e-003	7.1000e-004	2.4700e-003		26.6865	26.6865	1.1100e-003		26.7142
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0905**	**0.2023**	**0.8138**	**2.0800e-003**	**0.1849**	**2.2000e-003**	**0.1871**	**0.0492**	**2.0500e-003**	**0.0512**		**208.4903**	**208.4903**	**8.6000e-003**		**208.7051**

3.5 Pipe 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0864**	**0.0753**	**0.7803**	**1.8300e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**181.8038**	**181.8038**	**7.4900e-003**		**181.9909**

3.5 Pipe 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0864**	**0.0753**	**0.7803**	**1.8300e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**181.8038**	**181.8038**	**7.4900e-003**		**181.9909**

3.6 Site Prep 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.6 Site Prep 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.7 Backfilling 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7572	0.0000	0.7572	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7572**	**0.4672**	**1.2244**	**0.4145**	**0.4457**	**0.8601**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	0.9557	0.1787	1.6100e-003	0.0261	2.5400e-003	0.0286	7.1300e-003	2.4300e-003	9.5600e-003		171.9498	171.9498	9.4900e-003		172.1870
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0817**	**1.0095**	**0.7360**	**2.9200e-003**	**0.1538**	**3.5700e-003**	**0.1574**	**0.0410**	**3.3800e-003**	**0.0444**		**301.8097**	**301.8097**	**0.0148**		**302.1805**

3.7 Backfilling 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3407	0.0000	0.3407	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3407**	**0.4672**	**0.8079**	**0.1865**	**0.4457**	**0.6322**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	0.9557	0.1787	1.6100e-003	0.0261	2.5400e-003	0.0286	7.1300e-003	2.4300e-003	9.5600e-003		171.9498	171.9498	9.4900e-003		172.1870
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0817**	**1.0095**	**0.7360**	**2.9200e-003**	**0.1538**	**3.5700e-003**	**0.1574**	**0.0410**	**3.3800e-003**	**0.0444**		**301.8097**	**301.8097**	**0.0148**		**302.1805**

3.8 Trenching 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7593	0.0000	0.7593	0.4148	0.0000	0.4148			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7593**	**0.4672**	**1.2265**	**0.4148**	**0.4457**	**0.8604**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0301	1.4335	0.2680	2.4100e-003	0.0391	3.8100e-003	0.0429	0.0107	3.6500e-003	0.0143		257.9248	257.9248	0.0142		258.2805
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0918**	**1.4873**	**0.8254**	**3.7200e-003**	**0.1668**	**4.8400e-003**	**0.1717**	**0.0446**	**4.6000e-003**	**0.0492**		**387.7846**	**387.7846**	**0.0196**		**388.2740**

3.8 Trenching 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3417	0.0000	0.3417	0.1867	0.0000	0.1867			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3417**	**0.4672**	**0.8089**	**0.1867**	**0.4457**	**0.6323**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0301	1.4335	0.2680	2.4100e-003	0.0391	3.8100e-003	0.0429	0.0107	3.6500e-003	0.0143		257.9248	257.9248	0.0142		258.2805
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0918**	**1.4873**	**0.8254**	**3.7200e-003**	**0.1668**	**4.8400e-003**	**0.1717**	**0.0446**	**4.6000e-003**	**0.0492**		**387.7846**	**387.7846**	**0.0196**		**388.2740**

3.9 Pipe 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0864**	**0.0753**	**0.7803**	**1.8300e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**181.8038**	**181.8038**	**7.4900e-003**		**181.9909**

3.9 Pipe 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0864**	**0.0753**	**0.7803**	**1.8300e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**181.8038**	**181.8038**	**7.4900e-003**		**181.9909**

3.10 Site Prep 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.10 Site Prep 3 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.11 Backfilling 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7572	0.0000	0.7572	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7572**	**0.4672**	**1.2244**	**0.4145**	**0.4457**	**0.8601**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	0.9557	0.1787	1.6100e-003	0.0261	2.5400e-003	0.0286	7.1300e-003	2.4300e-003	9.5600e-003		171.9498	171.9498	9.4900e-003		172.1870
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0817**	**1.0095**	**0.7360**	**2.9200e-003**	**0.1538**	**3.5700e-003**	**0.1574**	**0.0410**	**3.3800e-003**	**0.0444**		**301.8097**	**301.8097**	**0.0148**		**302.1805**

3.11 Backfilling 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3407	0.0000	0.3407	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3407**	**0.4672**	**0.8079**	**0.1865**	**0.4457**	**0.6322**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	0.9557	0.1787	1.6100e-003	0.0261	2.5400e-003	0.0286	7.1300e-003	2.4300e-003	9.5600e-003		171.9498	171.9498	9.4900e-003		172.1870
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0817**	**1.0095**	**0.7360**	**2.9200e-003**	**0.1538**	**3.5700e-003**	**0.1574**	**0.0410**	**3.3800e-003**	**0.0444**		**301.8097**	**301.8097**	**0.0148**		**302.1805**

3.12 Asphalt Paving 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740		1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**		**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1234	0.1075	1.1147	2.6100e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		259.7197	259.7197	0.0107		259.9870
Total	**0.1234**	**0.1075**	**1.1147**	**2.6100e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**259.7197**	**259.7197**	**0.0107**		**259.9870**

3.12 Asphalt Paving 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740	0.0000	1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**	**0.0000**	**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1234	0.1075	1.1147	2.6100e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		259.7197	259.7197	0.0107		259.9870
Total	**0.1234**	**0.1075**	**1.1147**	**2.6100e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**259.7197**	**259.7197**	**0.0107**		**259.9870**

3.13 Trenching 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7593	0.0000	0.7593	0.4148	0.0000	0.4148			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7593**	**0.4672**	**1.2265**	**0.4148**	**0.4457**	**0.8604**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0301	1.4335	0.2680	2.4100e-003	0.0391	3.8100e-003	0.0429	0.0107	3.6500e-003	0.0143		257.9248	257.9248	0.0142		258.2805
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0918**	**1.4873**	**0.8254**	**3.7200e-003**	**0.1668**	**4.8400e-003**	**0.1717**	**0.0446**	**4.6000e-003**	**0.0492**		**387.7846**	**387.7846**	**0.0196**		**388.2740**

3.13 Trenching 3 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3417	0.0000	0.3417	0.1867	0.0000	0.1867			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3417**	**0.4672**	**0.8089**	**0.1867**	**0.4457**	**0.6323**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0301	1.4335	0.2680	2.4100e-003	0.0391	3.8100e-003	0.0429	0.0107	3.6500e-003	0.0143		257.9248	257.9248	0.0142		258.2805
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0918**	**1.4873**	**0.8254**	**3.7200e-003**	**0.1668**	**4.8400e-003**	**0.1717**	**0.0446**	**4.6000e-003**	**0.0492**		**387.7846**	**387.7846**	**0.0196**		**388.2740**

3.14 Pipe 3 (Haul Pipe) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.0800e-003	0.1270	0.0335	2.5000e-004	6.1000e-003	7.5000e-004	6.8400e-003	1.7500e-003	7.1000e-004	2.4700e-003		26.6865	26.6865	1.1100e-003		26.7142
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0905**	**0.2023**	**0.8138**	**2.0800e-003**	**0.1849**	**2.2000e-003**	**0.1871**	**0.0492**	**2.0500e-003**	**0.0512**		**208.4903**	**208.4903**	**8.6000e-003**		**208.7051**

3.14 Pipe 3 (Haul Pipe) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.0800e-003	0.1270	0.0335	2.5000e-004	6.1000e-003	7.5000e-004	6.8400e-003	1.7500e-003	7.1000e-004	2.4700e-003		26.6865	26.6865	1.1100e-003		26.7142
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0905**	**0.2023**	**0.8138**	**2.0800e-003**	**0.1849**	**2.2000e-003**	**0.1871**	**0.0492**	**2.0500e-003**	**0.0512**		**208.4903**	**208.4903**	**8.6000e-003**		**208.7051**

3.15 Pipe 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0864**	**0.0753**	**0.7803**	**1.8300e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**181.8038**	**181.8038**	**7.4900e-003**		**181.9909**

3.15 Pipe 3 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0864**	**0.0753**	**0.7803**	**1.8300e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**181.8038**	**181.8038**	**7.4900e-003**		**181.9909**

3.16 Site Prep 4 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.16 Site Prep 4 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.17 Backfilling 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7572	0.0000	0.7572	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7572**	**0.4672**	**1.2244**	**0.4145**	**0.4457**	**0.8601**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	0.9557	0.1787	1.6100e-003	0.0261	2.5400e-003	0.0286	7.1300e-003	2.4300e-003	9.5600e-003		171.9498	171.9498	9.4900e-003		172.1870
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0817**	**1.0095**	**0.7360**	**2.9200e-003**	**0.1538**	**3.5700e-003**	**0.1574**	**0.0410**	**3.3800e-003**	**0.0444**		**301.8097**	**301.8097**	**0.0148**		**302.1805**

3.17 Backfilling 3 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3407	0.0000	0.3407	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3407**	**0.4672**	**0.8079**	**0.1865**	**0.4457**	**0.6322**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	0.9557	0.1787	1.6100e-003	0.0261	2.5400e-003	0.0286	7.1300e-003	2.4300e-003	9.5600e-003		171.9498	171.9498	9.4900e-003		172.1870
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0817**	**1.0095**	**0.7360**	**2.9200e-003**	**0.1538**	**3.5700e-003**	**0.1574**	**0.0410**	**3.3800e-003**	**0.0444**		**301.8097**	**301.8097**	**0.0148**		**302.1805**

3.18 Asphalt Paving 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740		1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**		**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1234	0.1075	1.1147	2.6100e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		259.7197	259.7197	0.0107		259.9870
Total	**0.1234**	**0.1075**	**1.1147**	**2.6100e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**259.7197**	**259.7197**	**0.0107**		**259.9870**

3.18 Asphalt Paving 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740	0.0000	1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**	**0.0000**	**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1234	0.1075	1.1147	2.6100e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		259.7197	259.7197	0.0107		259.9870
Total	**0.1234**	**0.1075**	**1.1147**	**2.6100e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**259.7197**	**259.7197**	**0.0107**		**259.9870**

3.19 Trenching 4 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7593	0.0000	0.7593	0.4148	0.0000	0.4148			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7593**	**0.4672**	**1.2265**	**0.4148**	**0.4457**	**0.8604**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0301	1.4335	0.2680	2.4100e-003	0.0391	3.8100e-003	0.0429	0.0107	3.6500e-003	0.0143		257.9248	257.9248	0.0142		258.2805
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0918**	**1.4873**	**0.8254**	**3.7200e-003**	**0.1668**	**4.8400e-003**	**0.1717**	**0.0446**	**4.6000e-003**	**0.0492**		**387.7846**	**387.7846**	**0.0196**		**388.2740**

3.19 Trenching 4 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3417	0.0000	0.3417	0.1867	0.0000	0.1867			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3417**	**0.4672**	**0.8089**	**0.1867**	**0.4457**	**0.6323**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0301	1.4335	0.2680	2.4100e-003	0.0391	3.8100e-003	0.0429	0.0107	3.6500e-003	0.0143		257.9248	257.9248	0.0142		258.2805
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0918**	**1.4873**	**0.8254**	**3.7200e-003**	**0.1668**	**4.8400e-003**	**0.1717**	**0.0446**	**4.6000e-003**	**0.0492**		**387.7846**	**387.7846**	**0.0196**		**388.2740**

3.20 Pipe 4 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0864**	**0.0753**	**0.7803**	**1.8300e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**181.8038**	**181.8038**	**7.4900e-003**		**181.9909**

3.20 Pipe 4 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0864**	**0.0753**	**0.7803**	**1.8300e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**181.8038**	**181.8038**	**7.4900e-003**		**181.9909**

3.21 Site Prep 5 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.21 Site Prep 5 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.22 Backfilling 4 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7572	0.0000	0.7572	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7572**	**0.4672**	**1.2244**	**0.4145**	**0.4457**	**0.8601**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	0.9557	0.1787	1.6100e-003	0.0261	2.5400e-003	0.0286	7.1300e-003	2.4300e-003	9.5600e-003		171.9498	171.9498	9.4900e-003		172.1870
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0817**	**1.0095**	**0.7360**	**2.9200e-003**	**0.1538**	**3.5700e-003**	**0.1574**	**0.0410**	**3.3800e-003**	**0.0444**		**301.8097**	**301.8097**	**0.0148**		**302.1805**

3.22 Backfilling 4 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3407	0.0000	0.3407	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3407**	**0.4672**	**0.8079**	**0.1865**	**0.4457**	**0.6322**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	0.9557	0.1787	1.6100e-003	0.0261	2.5400e-003	0.0286	7.1300e-003	2.4300e-003	9.5600e-003		171.9498	171.9498	9.4900e-003		172.1870
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0817**	**1.0095**	**0.7360**	**2.9200e-003**	**0.1538**	**3.5700e-003**	**0.1574**	**0.0410**	**3.3800e-003**	**0.0444**		**301.8097**	**301.8097**	**0.0148**		**302.1805**

3.23 Asphalt Paving 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740		1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**		**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1234	0.1075	1.1147	2.6100e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		259.7197	259.7197	0.0107		259.9870
Total	**0.1234**	**0.1075**	**1.1147**	**2.6100e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**259.7197**	**259.7197**	**0.0107**		**259.9870**

3.23 Asphalt Paving 3 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740	0.0000	1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**	**0.0000**	**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1234	0.1075	1.1147	2.6100e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		259.7197	259.7197	0.0107		259.9870
Total	**0.1234**	**0.1075**	**1.1147**	**2.6100e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**259.7197**	**259.7197**	**0.0107**		**259.9870**

3.24 Trenching 5 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7593	0.0000	0.7593	0.4148	0.0000	0.4148			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7593**	**0.4672**	**1.2265**	**0.4148**	**0.4457**	**0.8604**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0301	1.4335	0.2680	2.4100e-003	0.0391	3.8100e-003	0.0429	0.0107	3.6500e-003	0.0143		257.9248	257.9248	0.0142		258.2805
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0918**	**1.4873**	**0.8254**	**3.7200e-003**	**0.1668**	**4.8400e-003**	**0.1717**	**0.0446**	**4.6000e-003**	**0.0492**		**387.7846**	**387.7846**	**0.0196**		**388.2740**

3.24 Trenching 5 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3417	0.0000	0.3417	0.1867	0.0000	0.1867			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3417**	**0.4672**	**0.8089**	**0.1867**	**0.4457**	**0.6323**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0301	1.4335	0.2680	2.4100e-003	0.0391	3.8100e-003	0.0429	0.0107	3.6500e-003	0.0143		257.9248	257.9248	0.0142		258.2805
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0918**	**1.4873**	**0.8254**	**3.7200e-003**	**0.1668**	**4.8400e-003**	**0.1717**	**0.0446**	**4.6000e-003**	**0.0492**		**387.7846**	**387.7846**	**0.0196**		**388.2740**

3.25 Pipe 5 (Haul Pipe) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.0800e-003	0.1270	0.0335	2.5000e-004	6.1000e-003	7.5000e-004	6.8400e-003	1.7500e-003	7.1000e-004	2.4700e-003		26.6865	26.6865	1.1100e-003		26.7142
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0905**	**0.2023**	**0.8138**	**2.0800e-003**	**0.1849**	**2.2000e-003**	**0.1871**	**0.0492**	**2.0500e-003**	**0.0512**		**208.4903**	**208.4903**	**8.6000e-003**		**208.7051**

3.25 Pipe 5 (Haul Pipe) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.0800e-003	0.1270	0.0335	2.5000e-004	6.1000e-003	7.5000e-004	6.8400e-003	1.7500e-003	7.1000e-004	2.4700e-003		26.6865	26.6865	1.1100e-003		26.7142
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0905**	**0.2023**	**0.8138**	**2.0800e-003**	**0.1849**	**2.2000e-003**	**0.1871**	**0.0492**	**2.0500e-003**	**0.0512**		**208.4903**	**208.4903**	**8.6000e-003**		**208.7051**

3.26 Pipe 5 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0864**	**0.0753**	**0.7803**	**1.8300e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**181.8038**	**181.8038**	**7.4900e-003**		**181.9909**

3.26 Pipe 5 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0864**	**0.0753**	**0.7803**	**1.8300e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**181.8038**	**181.8038**	**7.4900e-003**		**181.9909**

3.27 Site Prep 6 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.27 Site Prep 6 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.28 Backfilling 5 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7572	0.0000	0.7572	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7572**	**0.4672**	**1.2244**	**0.4145**	**0.4457**	**0.8601**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	0.9557	0.1787	1.6100e-003	0.0261	2.5400e-003	0.0286	7.1300e-003	2.4300e-003	9.5600e-003		171.9498	171.9498	9.4900e-003		172.1870
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0817**	**1.0095**	**0.7360**	**2.9200e-003**	**0.1538**	**3.5700e-003**	**0.1574**	**0.0410**	**3.3800e-003**	**0.0444**		**301.8097**	**301.8097**	**0.0148**		**302.1805**

3.28 Backfilling 5 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3407	0.0000	0.3407	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3407**	**0.4672**	**0.8079**	**0.1865**	**0.4457**	**0.6322**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	0.9557	0.1787	1.6100e-003	0.0261	2.5400e-003	0.0286	7.1300e-003	2.4300e-003	9.5600e-003		171.9498	171.9498	9.4900e-003		172.1870
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0817**	**1.0095**	**0.7360**	**2.9200e-003**	**0.1538**	**3.5700e-003**	**0.1574**	**0.0410**	**3.3800e-003**	**0.0444**		**301.8097**	**301.8097**	**0.0148**		**302.1805**

3.29 Trenching 6 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7593	0.0000	0.7593	0.4148	0.0000	0.4148			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7593**	**0.4672**	**1.2265**	**0.4148**	**0.4457**	**0.8604**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0301	1.4335	0.2680	2.4100e-003	0.0391	3.8100e-003	0.0429	0.0107	3.6500e-003	0.0143		257.9248	257.9248	0.0142		258.2805
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0918**	**1.4873**	**0.8254**	**3.7200e-003**	**0.1668**	**4.8400e-003**	**0.1717**	**0.0446**	**4.6000e-003**	**0.0492**		**387.7846**	**387.7846**	**0.0196**		**388.2740**

3.29 Trenching 6 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3417	0.0000	0.3417	0.1867	0.0000	0.1867			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3417**	**0.4672**	**0.8089**	**0.1867**	**0.4457**	**0.6323**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0301	1.4335	0.2680	2.4100e-003	0.0391	3.8100e-003	0.0429	0.0107	3.6500e-003	0.0143		257.9248	257.9248	0.0142		258.2805
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0918**	**1.4873**	**0.8254**	**3.7200e-003**	**0.1668**	**4.8400e-003**	**0.1717**	**0.0446**	**4.6000e-003**	**0.0492**		**387.7846**	**387.7846**	**0.0196**		**388.2740**

3.30 Pipe 6 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0864**	**0.0753**	**0.7803**	**1.8300e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**181.8038**	**181.8038**	**7.4900e-003**		**181.9909**

3.30 Pipe 6 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0864**	**0.0753**	**0.7803**	**1.8300e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**181.8038**	**181.8038**	**7.4900e-003**		**181.9909**

3.31 Site Prep 7 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.31 Site Prep 7 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.32 Backfilling 6 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7572	0.0000	0.7572	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7572**	**0.4672**	**1.2244**	**0.4145**	**0.4457**	**0.8601**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	0.9557	0.1787	1.6100e-003	0.0261	2.5400e-003	0.0286	7.1300e-003	2.4300e-003	9.5600e-003		171.9498	171.9498	9.4900e-003		172.1870
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0817**	**1.0095**	**0.7360**	**2.9200e-003**	**0.1538**	**3.5700e-003**	**0.1574**	**0.0410**	**3.3800e-003**	**0.0444**		**301.8097**	**301.8097**	**0.0148**		**302.1805**

3.32 Backfilling 6 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3407	0.0000	0.3407	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3407**	**0.4672**	**0.8079**	**0.1865**	**0.4457**	**0.6322**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	0.9557	0.1787	1.6100e-003	0.0261	2.5400e-003	0.0286	7.1300e-003	2.4300e-003	9.5600e-003		171.9498	171.9498	9.4900e-003		172.1870
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0817**	**1.0095**	**0.7360**	**2.9200e-003**	**0.1538**	**3.5700e-003**	**0.1574**	**0.0410**	**3.3800e-003**	**0.0444**		**301.8097**	**301.8097**	**0.0148**		**302.1805**

3.33 Asphalt Paving 4 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740		1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**		**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1234	0.1075	1.1147	2.6100e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		259.7197	259.7197	0.0107		259.9870
Total	**0.1234**	**0.1075**	**1.1147**	**2.6100e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**259.7197**	**259.7197**	**0.0107**		**259.9870**

3.33 Asphalt Paving 4 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740	0.0000	1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**	**0.0000**	**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1234	0.1075	1.1147	2.6100e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		259.7197	259.7197	0.0107		259.9870
Total	**0.1234**	**0.1075**	**1.1147**	**2.6100e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**259.7197**	**259.7197**	**0.0107**		**259.9870**

3.34 Trenching 7 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7593	0.0000	0.7593	0.4148	0.0000	0.4148			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7593**	**0.4672**	**1.2265**	**0.4148**	**0.4457**	**0.8604**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0301	1.4335	0.2680	2.4100e-003	0.0391	3.8100e-003	0.0429	0.0107	3.6500e-003	0.0143		257.9248	257.9248	0.0142		258.2805
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0918**	**1.4873**	**0.8254**	**3.7200e-003**	**0.1668**	**4.8400e-003**	**0.1717**	**0.0446**	**4.6000e-003**	**0.0492**		**387.7846**	**387.7846**	**0.0196**		**388.2740**

3.34 Trenching 7 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3417	0.0000	0.3417	0.1867	0.0000	0.1867			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3417**	**0.4672**	**0.8089**	**0.1867**	**0.4457**	**0.6323**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0301	1.4335	0.2680	2.4100e-003	0.0391	3.8100e-003	0.0429	0.0107	3.6500e-003	0.0143		257.9248	257.9248	0.0142		258.2805
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0918**	**1.4873**	**0.8254**	**3.7200e-003**	**0.1668**	**4.8400e-003**	**0.1717**	**0.0446**	**4.6000e-003**	**0.0492**		**387.7846**	**387.7846**	**0.0196**		**388.2740**

3.35 Pipe 7 (Haul Pipe) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.0800e-003	0.1270	0.0335	2.5000e-004	6.1000e-003	7.5000e-004	6.8400e-003	1.7500e-003	7.1000e-004	2.4700e-003		26.6865	26.6865	1.1100e-003		26.7142
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0905**	**0.2023**	**0.8138**	**2.0800e-003**	**0.1849**	**2.2000e-003**	**0.1871**	**0.0492**	**2.0500e-003**	**0.0512**		**208.4903**	**208.4903**	**8.6000e-003**		**208.7051**

3.35 Pipe 7 (Haul Pipe) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.0800e-003	0.1270	0.0335	2.5000e-004	6.1000e-003	7.5000e-004	6.8400e-003	1.7500e-003	7.1000e-004	2.4700e-003		26.6865	26.6865	1.1100e-003		26.7142
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0905**	**0.2023**	**0.8138**	**2.0800e-003**	**0.1849**	**2.2000e-003**	**0.1871**	**0.0492**	**2.0500e-003**	**0.0512**		**208.4903**	**208.4903**	**8.6000e-003**		**208.7051**

3.36 Pipe 7 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0864**	**0.0753**	**0.7803**	**1.8300e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**181.8038**	**181.8038**	**7.4900e-003**		**181.9909**

3.36 Pipe 7 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0864**	**0.0753**	**0.7803**	**1.8300e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**181.8038**	**181.8038**	**7.4900e-003**		**181.9909**

3.37 Site Prep 8 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.37 Site Prep 8 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.38 Backfilling 7 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7572	0.0000	0.7572	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7572**	**0.4672**	**1.2244**	**0.4145**	**0.4457**	**0.8601**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	0.9557	0.1787	1.6100e-003	0.0261	2.5400e-003	0.0286	7.1300e-003	2.4300e-003	9.5600e-003		171.9498	171.9498	9.4900e-003		172.1870
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0817**	**1.0095**	**0.7360**	**2.9200e-003**	**0.1538**	**3.5700e-003**	**0.1574**	**0.0410**	**3.3800e-003**	**0.0444**		**301.8097**	**301.8097**	**0.0148**		**302.1805**

3.38 Backfilling 7 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3407	0.0000	0.3407	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3407**	**0.4672**	**0.8079**	**0.1865**	**0.4457**	**0.6322**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	0.9557	0.1787	1.6100e-003	0.0261	2.5400e-003	0.0286	7.1300e-003	2.4300e-003	9.5600e-003		171.9498	171.9498	9.4900e-003		172.1870
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0817**	**1.0095**	**0.7360**	**2.9200e-003**	**0.1538**	**3.5700e-003**	**0.1574**	**0.0410**	**3.3800e-003**	**0.0444**		**301.8097**	**301.8097**	**0.0148**		**302.1805**

3.39 Asphalt Paving 5 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740		1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**		**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1234	0.1075	1.1147	2.6100e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		259.7197	259.7197	0.0107		259.9870
Total	**0.1234**	**0.1075**	**1.1147**	**2.6100e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**259.7197**	**259.7197**	**0.0107**		**259.9870**

3.39 Asphalt Paving 5 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740	0.0000	1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**	**0.0000**	**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1234	0.1075	1.1147	2.6100e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		259.7197	259.7197	0.0107		259.9870
Total	**0.1234**	**0.1075**	**1.1147**	**2.6100e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**259.7197**	**259.7197**	**0.0107**		**259.9870**

3.40 Trenching 8 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7593	0.0000	0.7593	0.4148	0.0000	0.4148			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7593**	**0.4672**	**1.2265**	**0.4148**	**0.4457**	**0.8604**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0301	1.4335	0.2680	2.4100e-003	0.0391	3.8100e-003	0.0429	0.0107	3.6500e-003	0.0143		257.9248	257.9248	0.0142		258.2805
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0918**	**1.4873**	**0.8254**	**3.7200e-003**	**0.1668**	**4.8400e-003**	**0.1717**	**0.0446**	**4.6000e-003**	**0.0492**		**387.7846**	**387.7846**	**0.0196**		**388.2740**

3.40 Trenching 8 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3417	0.0000	0.3417	0.1867	0.0000	0.1867			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3417**	**0.4672**	**0.8089**	**0.1867**	**0.4457**	**0.6323**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0301	1.4335	0.2680	2.4100e-003	0.0391	3.8100e-003	0.0429	0.0107	3.6500e-003	0.0143		257.9248	257.9248	0.0142		258.2805
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0918**	**1.4873**	**0.8254**	**3.7200e-003**	**0.1668**	**4.8400e-003**	**0.1717**	**0.0446**	**4.6000e-003**	**0.0492**		**387.7846**	**387.7846**	**0.0196**		**388.2740**

3.41 Pipe 8 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0864**	**0.0753**	**0.7803**	**1.8300e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**181.8038**	**181.8038**	**7.4900e-003**		**181.9909**

3.41 Pipe 8 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.0864**	**0.0753**	**0.7803**	**1.8300e-003**	**0.1788**	**1.4500e-003**	**0.1803**	**0.0474**	**1.3400e-003**	**0.0488**		**181.8038**	**181.8038**	**7.4900e-003**		**181.9909**

3.42 Backfilling 8 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7572	0.0000	0.7572	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7572**	**0.4672**	**1.2244**	**0.4145**	**0.4457**	**0.8601**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	0.9557	0.1787	1.6100e-003	0.0261	2.5400e-003	0.0286	7.1300e-003	2.4300e-003	9.5600e-003		171.9498	171.9498	9.4900e-003		172.1870
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0817**	**1.0095**	**0.7360**	**2.9200e-003**	**0.1538**	**3.5700e-003**	**0.1574**	**0.0410**	**3.3800e-003**	**0.0444**		**301.8097**	**301.8097**	**0.0148**		**302.1805**

3.42 Backfilling 8 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3407	0.0000	0.3407	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3407**	**0.4672**	**0.8079**	**0.1865**	**0.4457**	**0.6322**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	0.9557	0.1787	1.6100e-003	0.0261	2.5400e-003	0.0286	7.1300e-003	2.4300e-003	9.5600e-003		171.9498	171.9498	9.4900e-003		172.1870
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0817**	**1.0095**	**0.7360**	**2.9200e-003**	**0.1538**	**3.5700e-003**	**0.1574**	**0.0410**	**3.3800e-003**	**0.0444**		**301.8097**	**301.8097**	**0.0148**		**302.1805**

3.43 Asphalt Paving 6 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740		1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**		**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1234	0.1075	1.1147	2.6100e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		259.7197	259.7197	0.0107		259.9870
Total	**0.1234**	**0.1075**	**1.1147**	**2.6100e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**259.7197**	**259.7197**	**0.0107**		**259.9870**

3.43 Asphalt Paving 6 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740	0.0000	1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**	**0.0000**	**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1234	0.1075	1.1147	2.6100e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		259.7197	259.7197	0.0107		259.9870
Total	**0.1234**	**0.1075**	**1.1147**	**2.6100e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**259.7197**	**259.7197**	**0.0107**		**259.9870**

3.44 Abandon Site Prep 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.44 Abandon Site Prep 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.45 Abandon Trenching 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7528**	**0.4672**	**1.2200**	**0.4138**	**0.4457**	**0.8595**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0617**	**0.0538**	**0.5573**	**1.3100e-003**	**0.1277**	**1.0300e-003**	**0.1288**	**0.0339**	**9.5000e-004**	**0.0348**		**129.8599**	**129.8599**	**5.3500e-003**		**129.9935**

3.45 Abandon Trenching 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3387**	**0.4672**	**0.8059**	**0.1862**	**0.4457**	**0.6319**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0617**	**0.0538**	**0.5573**	**1.3100e-003**	**0.1277**	**1.0300e-003**	**0.1288**	**0.0339**	**9.5000e-004**	**0.0348**		**129.8599**	**129.8599**	**5.3500e-003**		**129.9935**

3.46 Cut and Cap 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0245	0.7622	0.2011	1.5100e-003	0.0366	4.4800e-003	0.0411	0.0105	4.2800e-003	0.0148		160.1192	160.1192	6.6400e-003		160.2853
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.1108**	**0.8375**	**0.9814**	**3.3400e-003**	**0.2154**	**5.9300e-003**	**0.2213**	**0.0579**	**5.6200e-003**	**0.0636**		**341.9230**	**341.9230**	**0.0141**		**342.2762**

3.46 Cut and Cap 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0245	0.7622	0.2011	1.5100e-003	0.0366	4.4800e-003	0.0411	0.0105	4.2800e-003	0.0148		160.1192	160.1192	6.6400e-003		160.2853
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.1108**	**0.8375**	**0.9814**	**3.3400e-003**	**0.2154**	**5.9300e-003**	**0.2213**	**0.0579**	**5.6200e-003**	**0.0636**		**341.9230**	**341.9230**	**0.0141**		**342.2762**

3.47 Abandon Backfilling 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7528**	**0.4672**	**1.2200**	**0.4138**	**0.4457**	**0.8595**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0617**	**0.0538**	**0.5573**	**1.3100e-003**	**0.1277**	**1.0300e-003**	**0.1288**	**0.0339**	**9.5000e-004**	**0.0348**		**129.8599**	**129.8599**	**5.3500e-003**		**129.9935**

3.47 Abandon Backfilling 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3387**	**0.4672**	**0.8059**	**0.1862**	**0.4457**	**0.6319**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0617**	**0.0538**	**0.5573**	**1.3100e-003**	**0.1277**	**1.0300e-003**	**0.1288**	**0.0339**	**9.5000e-004**	**0.0348**		**129.8599**	**129.8599**	**5.3500e-003**		**129.9935**

3.48 Abandon Site Prep 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.48 Abandon Site Prep 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0000**	**0.1331**	**0.1331**	**0.0000**	**0.1225**	**0.1225**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0185	0.0161	0.1672	3.9000e-004	0.0383	3.1000e-004	0.0386	0.0102	2.9000e-004	0.0105		38.9580	38.9580	1.6000e-003		38.9981
Total	**0.0185**	**0.0161**	**0.1672**	**3.9000e-004**	**0.0383**	**3.1000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**38.9580**	**38.9580**	**1.6000e-003**		**38.9981**

3.49 Abandon Trenching 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7528**	**0.4672**	**1.2200**	**0.4138**	**0.4457**	**0.8595**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0617**	**0.0538**	**0.5573**	**1.3100e-003**	**0.1277**	**1.0300e-003**	**0.1288**	**0.0339**	**9.5000e-004**	**0.0348**		**129.8599**	**129.8599**	**5.3500e-003**		**129.9935**

3.49 Abandon Trenching 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3387**	**0.4672**	**0.8059**	**0.1862**	**0.4457**	**0.6319**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0617**	**0.0538**	**0.5573**	**1.3100e-003**	**0.1277**	**1.0300e-003**	**0.1288**	**0.0339**	**9.5000e-004**	**0.0348**		**129.8599**	**129.8599**	**5.3500e-003**		**129.9935**

3.50 Cut and Cap 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0245	0.7622	0.2011	1.5100e-003	0.0366	4.4800e-003	0.0411	0.0105	4.2800e-003	0.0148		160.1192	160.1192	6.6400e-003		160.2853
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.1108**	**0.8375**	**0.9814**	**3.3400e-003**	**0.2154**	**5.9300e-003**	**0.2213**	**0.0579**	**5.6200e-003**	**0.0636**		**341.9230**	**341.9230**	**0.0141**		**342.2762**

3.50 Cut and Cap 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0245	0.7622	0.2011	1.5100e-003	0.0366	4.4800e-003	0.0411	0.0105	4.2800e-003	0.0148		160.1192	160.1192	6.6400e-003		160.2853
Worker	0.0864	0.0753	0.7803	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3400e-003	0.0488		181.8038	181.8038	7.4900e-003		181.9909
Total	**0.1108**	**0.8375**	**0.9814**	**3.3400e-003**	**0.2154**	**5.9300e-003**	**0.2213**	**0.0579**	**5.6200e-003**	**0.0636**		**341.9230**	**341.9230**	**0.0141**		**342.2762**

3.51 Abandon Backfilling 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457		1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.7528**	**0.4672**	**1.2200**	**0.4138**	**0.4457**	**0.8595**		**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0617**	**0.0538**	**0.5573**	**1.3100e-003**	**0.1277**	**1.0300e-003**	**0.1288**	**0.0339**	**9.5000e-004**	**0.0348**		**129.8599**	**129.8599**	**5.3500e-003**		**129.9935**

3.51 Abandon Backfilling 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.8674	7.8729	7.6226	0.0120		0.4672	0.4672		0.4457	0.4457	0.0000	1,147.2352	1,147.2352	0.2169		1,152.6578
Total	**0.8674**	**7.8729**	**7.6226**	**0.0120**	**0.3387**	**0.4672**	**0.8059**	**0.1862**	**0.4457**	**0.6319**	**0.0000**	**1,147.2352**	**1,147.2352**	**0.2169**		**1,152.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0617	0.0538	0.5573	1.3100e-003	0.1277	1.0300e-003	0.1288	0.0339	9.5000e-004	0.0348		129.8599	129.8599	5.3500e-003		129.9935
Total	**0.0617**	**0.0538**	**0.5573**	**1.3100e-003**	**0.1277**	**1.0300e-003**	**0.1288**	**0.0339**	**9.5000e-004**	**0.0348**		**129.8599**	**129.8599**	**5.3500e-003**		**129.9935**

3.52 Abandon Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740		1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**		**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1234	0.1075	1.1147	2.6100e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		259.7197	259.7197	0.0107		259.9870
Total	**0.1234**	**0.1075**	**1.1147**	**2.6100e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**259.7197**	**259.7197**	**0.0107**		**259.9870**

3.52 Abandon Paving - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9549	9.0686	9.1075	0.0140		0.5115	0.5115		0.4740	0.4740	0.0000	1,298.5651	1,298.5651	0.3867		1,308.2326
Paving	1.3362					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2911**	**9.0686**	**9.1075**	**0.0140**		**0.5115**	**0.5115**		**0.4740**	**0.4740**	**0.0000**	**1,298.5651**	**1,298.5651**	**0.3867**		**1,308.2326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1234	0.1075	1.1147	2.6100e-003	0.2555	2.0700e-003	0.2575	0.0678	1.9100e-003	0.0697		259.7197	259.7197	0.0107		259.9870
Total	**0.1234**	**0.1075**	**1.1147**	**2.6100e-003**	**0.2555**	**2.0700e-003**	**0.2575**	**0.0678**	**1.9100e-003**	**0.0697**		**259.7197**	**259.7197**	**0.0107**		**259.9870**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	5.00	5.00	5.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.563957	0.031105	0.207045	0.124139	0.023367	0.005278	0.020652	0.011843	0.001236	0.003001	0.006131	0.001009	0.001237
Other Non-Asphalt Surfaces	0.563957	0.031105	0.207045	0.124139	0.023367	0.005278	0.020652	0.011843	0.001236	0.003001	0.006131	0.001009	0.001237

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0159	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5600e-003	2.5600e-003	1.0000e-005		2.7300e-003
Unmitigated	0.0159	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5600e-003	2.5600e-003	1.0000e-005		2.7300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.8400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0119					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1000e-004	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5600e-003	2.5600e-003	1.0000e-005		2.7300e-003
Total	**0.0159**	**1.0000e-005**	**1.2200e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.5600e-003**	**2.5600e-003**	**1.0000e-005**		**2.7300e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.8400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0119					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1000e-004	1.0000e-005	1.2000e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5600e-003	2.5600e-003	1.0000e-005		2.7300e-003
Total	**0.0159**	**1.0000e-005**	**1.2000e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.5600e-003**	**2.5600e-003**	**1.0000e-005**		**2.7300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SLVWD Sequoia Ave Pipeline

Santa Cruz County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	1.60	1000sqft	0.04	1,600.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	1.8	**Precipitation Freq (Days)**	61
Climate Zone	5			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Assumed two-foot width of excavation based on pipe length and applicant info on soil excavation amounts.

Construction Phase - Construction schedule provided by client.

Off-road Equipment - Equipment list and hours provided by client

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - x

Off-road Equipment -

Trips and VMT - Haul truck destination is Santa Cruz County Transfer Station (6.5 miles from project site)

Grading -

Vehicle Trips - 12 yearly maintenance/meter trips, average 10 miles per trip.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	96	2015
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	2.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	2.00	1.00

tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	100.00	4.00
tblConstructionPhase	NumDays	2.00	1.00
tblGrading	MaterialExported	0.00	300.00
tblGrading	MaterialExported	0.00	300.00
tblGrading	MaterialImported	0.00	204.00
tblGrading	MaterialImported	0.00	204.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripLength	6.60	6.50
tblTripsAndVMT	VendorTripLength	6.60	75.00
tblTripsAndVMT	VendorTripLength	6.60	6.50
tblTripsAndVMT	VendorTripLength	6.60	6.50
tblTripsAndVMT	VendorTripLength	6.60	6.50
tblVehicleTrips	CC_TL	6.60	5.00
tblVehicleTrips	CNW_TL	6.60	5.00
tblVehicleTrips	CW_TL	14.70	5.00
tblVehicleTrips	ST_TR	0.00	0.04
tblVehicleTrips	SU_TR	0.00	0.04
tblVehicleTrips	WD_TR	0.00	0.04

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	6.3800e-003	0.0727	0.0606	1.3000e-004	3.5800e-003	3.2500e-003	6.8300e-003	1.6000e-003	3.0300e-003	4.6300e-003	0.0000	11.8420	11.8420	2.1800e-003	0.0000	11.8966
Maximum	**6.3800e-003**	**0.0727**	**0.0606**	**1.3000e-004**	**3.5800e-003**	**3.2500e-003**	**6.8300e-003**	**1.6000e-003**	**3.0300e-003**	**4.6300e-003**	**0.0000**	**11.8420**	**11.8420**	**2.1800e-003**	**0.0000**	**11.8966**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	6.3800e-003	0.0727	0.0606	1.3000e-004	2.3400e-003	3.2500e-003	5.5900e-003	9.2000e-004	3.0300e-003	3.9500e-003	0.0000	11.8420	11.8420	2.1800e-003	0.0000	11.8966
Maximum	**6.3800e-003**	**0.0727**	**0.0606**	**1.3000e-004**	**2.3400e-003**	**3.2500e-003**	**5.5900e-003**	**9.2000e-004**	**3.0300e-003**	**3.9500e-003**	**0.0000**	**11.8420**	**11.8420**	**2.1800e-003**	**0.0000**	**11.8966**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**34.64**	**0.00**	**18.16**	**42.50**	**0.00**	**14.69**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-8-2021	9-30-2021	0.0625	0.0625
		Highest	0.0625	0.0625

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.1000e-004	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.1000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.1000e-004	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.1000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Prep 1	Site Preparation	7/8/2021	7/8/2021	5	1	
2	Trenching 1	Grading	7/9/2021	7/9/2021	5	1	
3	Pipe 1 (Haul Pipe)	Building Construction	7/12/2021	7/12/2021	5	1	
4	Pipe 1	Building Construction	7/13/2021	7/14/2021	5	2	
5	Site Prep 2	Site Preparation	7/15/2021	7/15/2021	5	1	
6	Backfilling 1	Grading	7/16/2021	7/16/2021	5	1	
7	Trenching 2	Grading	7/19/2021	7/19/2021	5	1	
8	Pipe 2	Building Construction	7/20/2021	7/20/2021	5	1	
9	Backfilling 2	Grading	7/21/2021	7/21/2021	5	1	
10	Abandon Site Prep	Site Preparation	7/22/2021	7/22/2021	5	1	
11	Abandon Trenching	Grading	7/23/2021	7/23/2021	5	1	
12	Pipe Removal	Building Construction	7/26/2021	7/29/2021	5	4	
13	Abandon Restoration	Grading	7/30/2021	7/30/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Concrete/Industrial Saws	1	8.00	81	0.73
	Concrete/Industrial Saws	1	8.00	81	0.73
	Cranes	1	4.00	231	0.29

	Forklifts	2	6.00	89	0.20
	Rubber Tired Dozers	1	1.00	247	0.40
	Rubber Tired Dozers	1	1.00	247	0.40
	Tractors/Loaders/Backhoes	2	8.00	97	0.37
	Tractors/Loaders/Backhoes	2	6.00	97	0.37
	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Prep 1	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching 1	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 1	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 1	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 1 (Haul Pipe)	Cranes	1	4.00	231	0.29
Pipe 1 (Haul Pipe)	Forklifts	2	6.00	89	0.20
Pipe 1 (Haul Pipe)	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Pipe 1	Cranes	1	4.00	231	0.29
Pipe 1	Forklifts	2	6.00	89	0.20
Pipe 1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 2	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 1	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 1	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 1	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Trenching 2	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 2	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 2	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 2	Cranes	1	4.00	231	0.29
Pipe 2	Forklifts	2	6.00	89	0.20
Pipe 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Backfilling 2	Concrete/Industrial Saws	1	8.00	81	0.73

Backfilling 2	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 2	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Abandon Site Prep	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Abandon Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Abandon Trenching	Rubber Tired Dozers	1	1.00	247	0.40
Abandon Trenching	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe Removal	Cranes	1	4.00	231	0.29
Pipe Removal	Forklifts	2	6.00	89	0.20
Pipe Removal	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Abandon Restoration	Concrete/Industrial Saws	1	8.00	81	0.73
Abandon Restoration	Rubber Tired Dozers	1	1.00	247	0.40
Abandon Restoration	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Prep 1	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 1	4	10.00	0.00	30.00	16.80	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Pipe 1 (Haul Pipe)	5	1.00	0.00	0.00	16.80	75.00	20.00	LD_Mix	HDT_Mix	HHDT
Pipe 1	5	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 2	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 1	4	10.00	0.00	20.00	16.80	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 2	4	10.00	0.00	30.00	16.80	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Pipe 2	5	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 2	4	10.00	0.00	20.00	16.80	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Site Prep	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Trenching	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Pipe Removal	5	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Restoration	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Prep 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-005	9.5000e-004	1.1300e-003	0.0000		6.0000e-005	6.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.1365	0.1365	4.0000e-005	0.0000	0.1376
Total	**9.0000e-005**	**9.5000e-004**	**1.1300e-003**	**0.0000**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.1365**	**0.1365**	**4.0000e-005**	**0.0000**	**0.1376**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0164	0.0164	0.0000	0.0000	0.0164
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0164**	**0.0164**	**0.0000**	**0.0000**	**0.0164**

3.2 Site Prep 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-005	9.5000e-004	1.1300e-003	0.0000		6.0000e-005	6.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.1365	0.1365	4.0000e-005	0.0000	0.1376
Total	**9.0000e-005**	**9.5000e-004**	**1.1300e-003**	**0.0000**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.1365**	**0.1365**	**4.0000e-005**	**0.0000**	**0.1376**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0164	0.0164	0.0000	0.0000	0.0164
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0164**	**0.0164**	**0.0000**	**0.0000**	**0.0164**

3.3 Trenching 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0000e-004	3.6300e-003	3.7800e-003	1.0000e-005		2.0000e-004	2.0000e-004		1.9000e-004	1.9000e-004	0.0000	0.5205	0.5205	1.0000e-004	0.0000	0.5229
Total	**4.0000e-004**	**3.6300e-003**	**3.7800e-003**	**1.0000e-005**	**3.8000e-004**	**2.0000e-004**	**5.8000e-004**	**2.1000e-004**	**1.9000e-004**	**4.0000e-004**	**0.0000**	**0.5205**	**0.5205**	**1.0000e-004**	**0.0000**	**0.5229**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	4.7800e-003	1.0700e-003	1.0000e-005	2.5000e-004	2.0000e-005	2.7000e-004	7.0000e-005	2.0000e-005	9.0000e-005	0.0000	1.1657	1.1657	5.0000e-005	0.0000	1.1669
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.4000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0547	0.0547	0.0000	0.0000	0.0547
Total	**1.4000e-004**	**4.8100e-003**	**1.3100e-003**	**1.0000e-005**	**3.1000e-004**	**2.0000e-005**	**3.3000e-004**	**9.0000e-005**	**2.0000e-005**	**1.1000e-004**	**0.0000**	**1.2203**	**1.2203**	**5.0000e-005**	**0.0000**	**1.2216**

3.3 Trenching 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0000e-004	3.6300e-003	3.7800e-003	1.0000e-005		2.0000e-004	2.0000e-004		1.9000e-004	1.9000e-004	0.0000	0.5205	0.5205	1.0000e-004	0.0000	0.5229
Total	**4.0000e-004**	**3.6300e-003**	**3.7800e-003**	**1.0000e-005**	**1.7000e-004**	**2.0000e-004**	**3.7000e-004**	**9.0000e-005**	**1.9000e-004**	**2.8000e-004**	**0.0000**	**0.5205**	**0.5205**	**1.0000e-004**	**0.0000**	**0.5229**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	4.7800e-003	1.0700e-003	1.0000e-005	2.5000e-004	2.0000e-005	2.7000e-004	7.0000e-005	2.0000e-005	9.0000e-005	0.0000	1.1657	1.1657	5.0000e-005	0.0000	1.1669
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.4000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0547	0.0547	0.0000	0.0000	0.0547
Total	**1.4000e-004**	**4.8100e-003**	**1.3100e-003**	**1.0000e-005**	**3.1000e-004**	**2.0000e-005**	**3.3000e-004**	**9.0000e-005**	**2.0000e-005**	**1.1000e-004**	**0.0000**	**1.2203**	**1.2203**	**5.0000e-005**	**0.0000**	**1.2216**

3.4 Pipe 1 (Haul Pipe) - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.9000e-004	3.9900e-003	3.6300e-003	1.0000e-005		2.2000e-004	2.2000e-004		2.1000e-004	2.1000e-004	0.0000	0.5004	0.5004	1.6000e-004	0.0000	0.5045
Total	**3.9000e-004**	**3.9900e-003**	**3.6300e-003**	**1.0000e-005**		**2.2000e-004**	**2.2000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**0.5004**	**0.5004**	**1.6000e-004**	**0.0000**	**0.5045**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	5.4700e-003	5.4700e-003	0.0000	0.0000	5.4700e-003
Total	**0.0000**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**5.4700e-003**	**5.4700e-003**	**0.0000**	**0.0000**	**5.4700e-003**

3.4 Pipe 1 (Haul Pipe) - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.9000e-004	3.9900e-003	3.6300e-003	1.0000e-005		2.2000e-004	2.2000e-004		2.1000e-004	2.1000e-004	0.0000	0.5004	0.5004	1.6000e-004	0.0000	0.5045
Total	**3.9000e-004**	**3.9900e-003**	**3.6300e-003**	**1.0000e-005**		**2.2000e-004**	**2.2000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**0.5004**	**0.5004**	**1.6000e-004**	**0.0000**	**0.5045**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	5.4700e-003	5.4700e-003	0.0000	0.0000	5.4700e-003
Total	**0.0000**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**5.4700e-003**	**5.4700e-003**	**0.0000**	**0.0000**	**5.4700e-003**

3.5 Pipe 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.7000e-004	7.9800e-003	7.2600e-003	1.0000e-005		4.5000e-004	4.5000e-004		4.1000e-004	4.1000e-004	0.0000	1.0008	1.0008	3.2000e-004	0.0000	1.0089
Total	**7.7000e-004**	**7.9800e-003**	**7.2600e-003**	**1.0000e-005**		**4.5000e-004**	**4.5000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.0008**	**1.0008**	**3.2000e-004**	**0.0000**	**1.0089**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	5.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0109	0.0109	0.0000	0.0000	0.0109
Total	**1.0000e-005**	**1.0000e-005**	**5.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0109**	**0.0109**	**0.0000**	**0.0000**	**0.0109**

3.5 Pipe 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.7000e-004	7.9800e-003	7.2600e-003	1.0000e-005		4.5000e-004	4.5000e-004		4.1000e-004	4.1000e-004	0.0000	1.0008	1.0008	3.2000e-004	0.0000	1.0089
Total	**7.7000e-004**	**7.9800e-003**	**7.2600e-003**	**1.0000e-005**		**4.5000e-004**	**4.5000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.0008**	**1.0008**	**3.2000e-004**	**0.0000**	**1.0089**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	5.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0109	0.0109	0.0000	0.0000	0.0109
Total	**1.0000e-005**	**1.0000e-005**	**5.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0109**	**0.0109**	**0.0000**	**0.0000**	**0.0109**

3.6 Site Prep 2 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-005	9.5000e-004	1.1300e-003	0.0000		6.0000e-005	6.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.1365	0.1365	4.0000e-005	0.0000	0.1376
Total	**9.0000e-005**	**9.5000e-004**	**1.1300e-003**	**0.0000**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.1365**	**0.1365**	**4.0000e-005**	**0.0000**	**0.1376**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0164	0.0164	0.0000	0.0000	0.0164
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0164**	**0.0164**	**0.0000**	**0.0000**	**0.0164**

3.6 Site Prep 2 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-005	9.5000e-004	1.1300e-003	0.0000		6.0000e-005	6.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.1365	0.1365	4.0000e-005	0.0000	0.1376
Total	**9.0000e-005**	**9.5000e-004**	**1.1300e-003**	**0.0000**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.1365**	**0.1365**	**4.0000e-005**	**0.0000**	**0.1376**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0164	0.0164	0.0000	0.0000	0.0164
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0164**	**0.0164**	**0.0000**	**0.0000**	**0.0164**

3.7 Backfilling 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0000e-004	3.6300e-003	3.7800e-003	1.0000e-005		2.0000e-004	2.0000e-004		1.9000e-004	1.9000e-004	0.0000	0.5205	0.5205	1.0000e-004	0.0000	0.5229
Total	**4.0000e-004**	**3.6300e-003**	**3.7800e-003**	**1.0000e-005**	**3.8000e-004**	**2.0000e-004**	**5.8000e-004**	**2.1000e-004**	**1.9000e-004**	**4.0000e-004**	**0.0000**	**0.5205**	**0.5205**	**1.0000e-004**	**0.0000**	**0.5229**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	3.1900e-003	7.1000e-004	1.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.7771	0.7771	3.0000e-005	0.0000	0.7779
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.4000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0547	0.0547	0.0000	0.0000	0.0547
Total	**1.1000e-004**	**3.2200e-003**	**9.5000e-004**	**1.0000e-005**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**7.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**0.8318**	**0.8318**	**3.0000e-005**	**0.0000**	**0.8326**

3.7 Backfilling 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0000e-004	3.6300e-003	3.7800e-003	1.0000e-005		2.0000e-004	2.0000e-004		1.9000e-004	1.9000e-004	0.0000	0.5205	0.5205	1.0000e-004	0.0000	0.5229
Total	**4.0000e-004**	**3.6300e-003**	**3.7800e-003**	**1.0000e-005**	**1.7000e-004**	**2.0000e-004**	**3.7000e-004**	**9.0000e-005**	**1.9000e-004**	**2.8000e-004**	**0.0000**	**0.5205**	**0.5205**	**1.0000e-004**	**0.0000**	**0.5229**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	3.1900e-003	7.1000e-004	1.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.7771	0.7771	3.0000e-005	0.0000	0.7779
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.4000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0547	0.0547	0.0000	0.0000	0.0547
Total	**1.1000e-004**	**3.2200e-003**	**9.5000e-004**	**1.0000e-005**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**7.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**0.8318**	**0.8318**	**3.0000e-005**	**0.0000**	**0.8326**

3.8 Trenching 2 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0000e-004	3.6300e-003	3.7800e-003	1.0000e-005		2.0000e-004	2.0000e-004		1.9000e-004	1.9000e-004	0.0000	0.5205	0.5205	1.0000e-004	0.0000	0.5229
Total	**4.0000e-004**	**3.6300e-003**	**3.7800e-003**	**1.0000e-005**	**3.8000e-004**	**2.0000e-004**	**5.8000e-004**	**2.1000e-004**	**1.9000e-004**	**4.0000e-004**	**0.0000**	**0.5205**	**0.5205**	**1.0000e-004**	**0.0000**	**0.5229**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	4.7800e-003	1.0700e-003	1.0000e-005	2.5000e-004	2.0000e-005	2.7000e-004	7.0000e-005	2.0000e-005	9.0000e-005	0.0000	1.1657	1.1657	5.0000e-005	0.0000	1.1669
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.4000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0547	0.0547	0.0000	0.0000	0.0547
Total	**1.4000e-004**	**4.8100e-003**	**1.3100e-003**	**1.0000e-005**	**3.1000e-004**	**2.0000e-005**	**3.3000e-004**	**9.0000e-005**	**2.0000e-005**	**1.1000e-004**	**0.0000**	**1.2203**	**1.2203**	**5.0000e-005**	**0.0000**	**1.2216**

3.8 Trenching 2 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0000e-004	3.6300e-003	3.7800e-003	1.0000e-005		2.0000e-004	2.0000e-004		1.9000e-004	1.9000e-004	0.0000	0.5205	0.5205	1.0000e-004	0.0000	0.5229
Total	**4.0000e-004**	**3.6300e-003**	**3.7800e-003**	**1.0000e-005**	**1.7000e-004**	**2.0000e-004**	**3.7000e-004**	**9.0000e-005**	**1.9000e-004**	**2.8000e-004**	**0.0000**	**0.5205**	**0.5205**	**1.0000e-004**	**0.0000**	**0.5229**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	4.7800e-003	1.0700e-003	1.0000e-005	2.5000e-004	2.0000e-005	2.7000e-004	7.0000e-005	2.0000e-005	9.0000e-005	0.0000	1.1657	1.1657	5.0000e-005	0.0000	1.1669
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.4000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0547	0.0547	0.0000	0.0000	0.0547
Total	**1.4000e-004**	**4.8100e-003**	**1.3100e-003**	**1.0000e-005**	**3.1000e-004**	**2.0000e-005**	**3.3000e-004**	**9.0000e-005**	**2.0000e-005**	**1.1000e-004**	**0.0000**	**1.2203**	**1.2203**	**5.0000e-005**	**0.0000**	**1.2216**

3.9 Pipe 2 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.9000e-004	3.9900e-003	3.6300e-003	1.0000e-005		2.2000e-004	2.2000e-004		2.1000e-004	2.1000e-004	0.0000	0.5004	0.5004	1.6000e-004	0.0000	0.5045
Total	**3.9000e-004**	**3.9900e-003**	**3.6300e-003**	**1.0000e-005**		**2.2000e-004**	**2.2000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**0.5004**	**0.5004**	**1.6000e-004**	**0.0000**	**0.5045**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	5.4700e-003	5.4700e-003	0.0000	0.0000	5.4700e-003
Total	**0.0000**	**0.0000**	**2.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**5.4700e-003**	**5.4700e-003**	**0.0000**	**0.0000**	**5.4700e-003**

3.9 Pipe 2 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.9000e-004	3.9900e-003	3.6300e-003	1.0000e-005		2.2000e-004	2.2000e-004		2.1000e-004	2.1000e-004	0.0000	0.5004	0.5004	1.6000e-004	0.0000	0.5045
Total	**3.9000e-004**	**3.9900e-003**	**3.6300e-003**	**1.0000e-005**		**2.2000e-004**	**2.2000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**0.5004**	**0.5004**	**1.6000e-004**	**0.0000**	**0.5045**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	5.4700e-003	5.4700e-003	0.0000	0.0000	5.4700e-003
Total	**0.0000**	**0.0000**	**2.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**5.4700e-003**	**5.4700e-003**	**0.0000**	**0.0000**	**5.4700e-003**

3.10 Backfilling 2 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0000e-004	3.6300e-003	3.7800e-003	1.0000e-005		2.0000e-004	2.0000e-004		1.9000e-004	1.9000e-004	0.0000	0.5205	0.5205	1.0000e-004	0.0000	0.5229
Total	**4.0000e-004**	**3.6300e-003**	**3.7800e-003**	**1.0000e-005**	**3.8000e-004**	**2.0000e-004**	**5.8000e-004**	**2.1000e-004**	**1.9000e-004**	**4.0000e-004**	**0.0000**	**0.5205**	**0.5205**	**1.0000e-004**	**0.0000**	**0.5229**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	3.1900e-003	7.1000e-004	1.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.7771	0.7771	3.0000e-005	0.0000	0.7779
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.4000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0547	0.0547	0.0000	0.0000	0.0547
Total	**1.1000e-004**	**3.2200e-003**	**9.5000e-004**	**1.0000e-005**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**7.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**0.8318**	**0.8318**	**3.0000e-005**	**0.0000**	**0.8326**

3.10 Backfilling 2 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0000e-004	3.6300e-003	3.7800e-003	1.0000e-005		2.0000e-004	2.0000e-004		1.9000e-004	1.9000e-004	0.0000	0.5205	0.5205	1.0000e-004	0.0000	0.5229
Total	**4.0000e-004**	**3.6300e-003**	**3.7800e-003**	**1.0000e-005**	**1.7000e-004**	**2.0000e-004**	**3.7000e-004**	**9.0000e-005**	**1.9000e-004**	**2.8000e-004**	**0.0000**	**0.5205**	**0.5205**	**1.0000e-004**	**0.0000**	**0.5229**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	3.1900e-003	7.1000e-004	1.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.7771	0.7771	3.0000e-005	0.0000	0.7779
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.4000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0547	0.0547	0.0000	0.0000	0.0547
Total	**1.1000e-004**	**3.2200e-003**	**9.5000e-004**	**1.0000e-005**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**7.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**0.8318**	**0.8318**	**3.0000e-005**	**0.0000**	**0.8326**

3.11 Abandon Site Prep - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-005	9.5000e-004	1.1300e-003	0.0000		6.0000e-005	6.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.1365	0.1365	4.0000e-005	0.0000	0.1376
Total	**9.0000e-005**	**9.5000e-004**	**1.1300e-003**	**0.0000**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.1365**	**0.1365**	**4.0000e-005**	**0.0000**	**0.1376**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0164	0.0164	0.0000	0.0000	0.0164
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0164**	**0.0164**	**0.0000**	**0.0000**	**0.0164**

3.11 Abandon Site Prep - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-005	9.5000e-004	1.1300e-003	0.0000		6.0000e-005	6.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.1365	0.1365	4.0000e-005	0.0000	0.1376
Total	**9.0000e-005**	**9.5000e-004**	**1.1300e-003**	**0.0000**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.1365**	**0.1365**	**4.0000e-005**	**0.0000**	**0.1376**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0164	0.0164	0.0000	0.0000	0.0164
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0164**	**0.0164**	**0.0000**	**0.0000**	**0.0164**

3.12 Abandon Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0000e-004	3.6300e-003	3.7800e-003	1.0000e-005		2.0000e-004	2.0000e-004		1.9000e-004	1.9000e-004	0.0000	0.5205	0.5205	1.0000e-004	0.0000	0.5229
Total	**4.0000e-004**	**3.6300e-003**	**3.7800e-003**	**1.0000e-005**	**3.8000e-004**	**2.0000e-004**	**5.8000e-004**	**2.1000e-004**	**1.9000e-004**	**4.0000e-004**	**0.0000**	**0.5205**	**0.5205**	**1.0000e-004**	**0.0000**	**0.5229**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.4000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0547	0.0547	0.0000	0.0000	0.0547
Total	**3.0000e-005**	**3.0000e-005**	**2.4000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0547**	**0.0547**	**0.0000**	**0.0000**	**0.0547**

3.12 Abandon Trenching - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0000e-004	3.6300e-003	3.7800e-003	1.0000e-005		2.0000e-004	2.0000e-004		1.9000e-004	1.9000e-004	0.0000	0.5205	0.5205	1.0000e-004	0.0000	0.5229
Total	**4.0000e-004**	**3.6300e-003**	**3.7800e-003**	**1.0000e-005**	**1.7000e-004**	**2.0000e-004**	**3.7000e-004**	**9.0000e-005**	**1.9000e-004**	**2.8000e-004**	**0.0000**	**0.5205**	**0.5205**	**1.0000e-004**	**0.0000**	**0.5229**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.4000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0547	0.0547	0.0000	0.0000	0.0547
Total	**3.0000e-005**	**3.0000e-005**	**2.4000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0547**	**0.0547**	**0.0000**	**0.0000**	**0.0547**

3.13 Pipe Removal - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5500e-003	0.0160	0.0145	2.0000e-005		9.0000e-004	9.0000e-004		8.2000e-004	8.2000e-004	0.0000	2.0016	2.0016	6.5000e-004	0.0000	2.0178
Total	**1.5500e-003**	**0.0160**	**0.0145**	**2.0000e-005**		**9.0000e-004**	**9.0000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.0016**	**2.0016**	**6.5000e-004**	**0.0000**	**2.0178**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.0000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0219	0.0219	0.0000	0.0000	0.0219
Total	**1.0000e-005**	**1.0000e-005**	**1.0000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0219**	**0.0219**	**0.0000**	**0.0000**	**0.0219**

3.13 Pipe Removal - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5500e-003	0.0160	0.0145	2.0000e-005		9.0000e-004	9.0000e-004		8.2000e-004	8.2000e-004	0.0000	2.0016	2.0016	6.5000e-004	0.0000	2.0178
Total	**1.5500e-003**	**0.0160**	**0.0145**	**2.0000e-005**		**9.0000e-004**	**9.0000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.0016**	**2.0016**	**6.5000e-004**	**0.0000**	**2.0178**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.0000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0219	0.0219	0.0000	0.0000	0.0219
Total	**1.0000e-005**	**1.0000e-005**	**1.0000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0219**	**0.0219**	**0.0000**	**0.0000**	**0.0219**

3.14 Abandon Restoration - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0000e-004	3.6300e-003	3.7800e-003	1.0000e-005		2.0000e-004	2.0000e-004		1.9000e-004	1.9000e-004	0.0000	0.5205	0.5205	1.0000e-004	0.0000	0.5229
Total	**4.0000e-004**	**3.6300e-003**	**3.7800e-003**	**1.0000e-005**	**3.8000e-004**	**2.0000e-004**	**5.8000e-004**	**2.1000e-004**	**1.9000e-004**	**4.0000e-004**	**0.0000**	**0.5205**	**0.5205**	**1.0000e-004**	**0.0000**	**0.5229**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.4000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0547	0.0547	0.0000	0.0000	0.0547
Total	**3.0000e-005**	**3.0000e-005**	**2.4000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0547**	**0.0547**	**0.0000**	**0.0000**	**0.0547**

3.14 Abandon Restoration - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0000e-004	3.6300e-003	3.7800e-003	1.0000e-005		2.0000e-004	2.0000e-004		1.9000e-004	1.9000e-004	0.0000	0.5205	0.5205	1.0000e-004	0.0000	0.5229
Total	**4.0000e-004**	**3.6300e-003**	**3.7800e-003**	**1.0000e-005**	**1.7000e-004**	**2.0000e-004**	**3.7000e-004**	**9.0000e-005**	**1.9000e-004**	**2.8000e-004**	**0.0000**	**0.5205**	**0.5205**	**1.0000e-004**	**0.0000**	**0.5229**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.4000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0547	0.0547	0.0000	0.0000	0.0547
Total	**3.0000e-005**	**3.0000e-005**	**2.4000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0547**	**0.0547**	**0.0000**	**0.0000**	**0.0547**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	5.00	5.00	5.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.563957	0.031105	0.207045	0.124139	0.023367	0.005278	0.020652	0.011843	0.001236	0.003001	0.006131	0.001009	0.001237

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	8.1000e-004	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Unmitigated	8.1000e-004	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	7.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Total	**8.0000e-004**	**0.0000**	**2.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	7.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Total	**8.0000e-004**	**0.0000**	**2.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
661			539			

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SLVWD Sequoia Ave Pipeline

Santa Cruz County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	1.60	1000sqft	0.04	1,600.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	1.8	**Precipitation Freq (Days)**	61
Climate Zone	5			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Assumed two-foot width of excavation based on pipe length and applicant info on soil excavation amounts.

Construction Phase - Construction schedule provided by client.

Off-road Equipment - Equipment list and hours provided by client

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - x

Off-road Equipment -

Trips and VMT - Haul truck destination is Santa Cruz County Transfer Station (6.5 miles from project site)

Grading -

Vehicle Trips - 12 yearly maintenance/meter trips, average 10 miles per trip.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	96	2015
tblConstructionPhase	NumDays	100.00	4.00
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	2.00
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00

tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblGrading	MaterialExported	0.00	300.00
tblGrading	MaterialExported	0.00	300.00
tblGrading	MaterialImported	0.00	204.00
tblGrading	MaterialImported	0.00	204.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripLength	6.60	6.50
tblTripsAndVMT	VendorTripLength	6.60	75.00
tblTripsAndVMT	VendorTripLength	6.60	6.50
tblTripsAndVMT	VendorTripLength	6.60	6.50
tblTripsAndVMT	VendorTripLength	6.60	6.50
tblVehicleTrips	CC_TL	6.60	5.00
tblVehicleTrips	CNW_TL	6.60	5.00
tblVehicleTrips	CW_TL	14.70	5.00
tblVehicleTrips	ST_TR	0.00	0.04
tblVehicleTrips	SU_TR	0.00	0.04
tblVehicleTrips	WD_TR	0.00	0.04

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.0959	16.8898	10.2755	0.0370	1.4001	0.4476	1.8466	0.5897	0.4260	1.0157	0.0000	3,817.5909	3,817.5909	0.3573	0.0000	3,825.7024
Maximum	**1.0959**	**16.8898**	**10.2755**	**0.0370**	**1.4001**	**0.4476**	**1.8466**	**0.5897**	**0.4260**	**1.0157**	**0.0000**	**3,817.5909**	**3,817.5909**	**0.3573**	**0.0000**	**3,825.7024**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.0959	16.8898	10.2755	0.0370	0.9860	0.4476	1.4326	0.3621	0.4260	0.7881	0.0000	3,817.5909	3,817.5909	0.3573	0.0000	3,825.7024
Maximum	**1.0959**	**16.8898**	**10.2755**	**0.0370**	**0.9860**	**0.4476**	**1.4326**	**0.3621**	**0.4260**	**0.7881**	**0.0000**	**3,817.5909**	**3,817.5909**	**0.3573**	**0.0000**	**3,825.7024**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**29.57**	**0.00**	**22.42**	**38.60**	**0.00**	**22.41**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.4200e-003	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**4.4200e-003**	**0.0000**	**1.6000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**0.0000**	**3.7000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.4200e-003	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**4.4200e-003**	**0.0000**	**1.6000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**0.0000**	**3.7000e-004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Prep 1	Site Preparation	7/8/2021	7/8/2021	5	1	
2	Trenching 1	Grading	7/9/2021	7/9/2021	5	1	
3	Pipe 1 (Haul Pipe)	Building Construction	7/12/2021	7/12/2021	5	1	
4	Pipe 1	Building Construction	7/13/2021	7/14/2021	5	2	
5	Site Prep 2	Site Preparation	7/15/2021	7/15/2021	5	1	
6	Backfilling 1	Grading	7/16/2021	7/16/2021	5	1	
7	Trenching 2	Grading	7/19/2021	7/19/2021	5	1	
8	Pipe 2	Building Construction	7/20/2021	7/20/2021	5	1	
9	Backfilling 2	Grading	7/21/2021	7/21/2021	5	1	
10	Abandon Site Prep	Site Preparation	7/22/2021	7/22/2021	5	1	
11	Abandon Trenching	Grading	7/23/2021	7/23/2021	5	1	
12	Pipe Removal	Building Construction	7/26/2021	7/29/2021	5	4	
13	Abandon Restoration	Grading	7/30/2021	7/30/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Concrete/Industrial Saws	1	8.00	81	0.73
	Concrete/Industrial Saws	1	8.00	81	0.73
	Cranes	1	4.00	231	0.29
	Forklifts	2	6.00	89	0.20
	Rubber Tired Dozers	1	1.00	247	0.40
	Rubber Tired Dozers	1	1.00	247	0.40
	Tractors/Loaders/Backhoes	2	8.00	97	0.37
	Tractors/Loaders/Backhoes	2	6.00	97	0.37
	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Prep 1	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching 1	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 1	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 1	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 1 (Haul Pipe)	Cranes	1	4.00	231	0.29
Pipe 1 (Haul Pipe)	Forklifts	2	6.00	89	0.20
Pipe 1 (Haul Pipe)	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Pipe 1	Cranes	1	4.00	231	0.29
Pipe 1	Forklifts	2	6.00	89	0.20
Pipe 1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 2	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 1	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 1	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 1	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Trenching 2	Concrete/Industrial Saws	1	8.00	81	0.73

Trenching 2	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 2	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 2	Cranes	1	4.00	231	0.29
Pipe 2	Forklifts	2	6.00	89	0.20
Pipe 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Backfilling 2	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 2	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 2	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Abandon Site Prep	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Abandon Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Abandon Trenching	Rubber Tired Dozers	1	1.00	247	0.40
Abandon Trenching	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe Removal	Cranes	1	4.00	231	0.29
Pipe Removal	Forklifts	2	6.00	89	0.20
Pipe Removal	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Abandon Restoration	Concrete/Industrial Saws	1	8.00	81	0.73
Abandon Restoration	Rubber Tired Dozers	1	1.00	247	0.40
Abandon Restoration	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Prep 1	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 1	4	10.00	0.00	30.00	16.80	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Pipe 1 (Haul Pipe)	5	1.00	0.00	0.00	16.80	75.00	20.00	LD_Mix	HDT_Mix	HHDT
Pipe 1	5	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 2	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 1	4	10.00	0.00	20.00	16.80	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 2	4	10.00	0.00	30.00	16.80	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Pipe 2	5	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 2	4	10.00	0.00	20.00	16.80	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Site Prep	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Trenching	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Pipe Removal	5	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Restoration	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Prep 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1873	1.8958	2.2602	3.1100e-003		0.1118	0.1118		0.1028	0.1028		300.9001	300.9001	0.0973		303.3330
Total	**0.1873**	**1.8958**	**2.2602**	**3.1100e-003**	**0.0000**	**0.1118**	**0.1118**	**0.0000**	**0.1028**	**0.1028**		**300.9001**	**300.9001**	**0.0973**		**303.3330**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0199	0.0180	0.1508	3.6000e-004	0.0383	3.0000e-004	0.0386	0.0102	2.8000e-004	0.0104		36.1170	36.1170	1.3900e-003		36.1517
Total	**0.0199**	**0.0180**	**0.1508**	**3.6000e-004**	**0.0383**	**3.0000e-004**	**0.0386**	**0.0102**	**2.8000e-004**	**0.0104**		**36.1170**	**36.1170**	**1.3900e-003**		**36.1517**

3.2 Site Prep 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1873	1.8958	2.2602	3.1100e-003		0.1118	0.1118		0.1028	0.1028	0.0000	300.9001	300.9001	0.0973		303.3330
Total	**0.1873**	**1.8958**	**2.2602**	**3.1100e-003**	**0.0000**	**0.1118**	**0.1118**	**0.0000**	**0.1028**	**0.1028**	**0.0000**	**300.9001**	**300.9001**	**0.0973**		**303.3330**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0199	0.0180	0.1508	3.6000e-004	0.0383	3.0000e-004	0.0386	0.0102	2.8000e-004	0.0104		36.1170	36.1170	1.3900e-003		36.1517
Total	**0.0199**	**0.0180**	**0.1508**	**3.6000e-004**	**0.0383**	**3.0000e-004**	**0.0386**	**0.0102**	**2.8000e-004**	**0.0104**		**36.1170**	**36.1170**	**1.3900e-003**		**36.1517**

3.3 Trenching 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2329	9.5768	2.2036	0.0238	0.5196	0.0382	0.5577	0.1420	0.0365	0.1785		2,549.7673	2,549.7673	0.1060		2,552.4170
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0600	0.5028	1.2100e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		120.3899	120.3899	4.6300e-003		120.5057
Total	**0.2994**	**9.6368**	**2.7064**	**0.0250**	**0.6473**	**0.0392**	**0.6865**	**0.1759**	**0.0374**	**0.2133**		**2,670.1571**	**2,670.1571**	**0.1106**		**2,672.9227**

3.3 Trenching 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.3387**	**0.4073**	**0.7461**	**0.1862**	**0.3886**	**0.5748**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2329	9.5768	2.2036	0.0238	0.5196	0.0382	0.5577	0.1420	0.0365	0.1785		2,549.7673	2,549.7673	0.1060		2,552.4170
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0600	0.5028	1.2100e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		120.3899	120.3899	4.6300e-003		120.5057
Total	**0.2994**	**9.6368**	**2.7064**	**0.0250**	**0.6473**	**0.0392**	**0.6865**	**0.1759**	**0.0374**	**0.2133**		**2,670.1571**	**2,670.1571**	**0.1106**		**2,672.9227**

3.4 Pipe 1 (Haul Pipe) - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**		**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	6.6500e-003	6.0000e-003	0.0503	1.2000e-004	0.0350	1.0000e-004	0.0351	8.8400e-003	9.0000e-005	8.9300e-003		12.0390	12.0390	4.6000e-004		12.0506
Total	**6.6500e-003**	**6.0000e-003**	**0.0503**	**1.2000e-004**	**0.0350**	**1.0000e-004**	**0.0351**	**8.8400e-003**	**9.0000e-005**	**8.9300e-003**		**12.0390**	**12.0390**	**4.6000e-004**		**12.0506**

3.4 Pipe 1 (Haul Pipe) - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**	**0.0000**	**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	6.6500e-003	6.0000e-003	0.0503	1.2000e-004	0.0350	1.0000e-004	0.0351	8.8400e-003	9.0000e-005	8.9300e-003		12.0390	12.0390	4.6000e-004		12.0506
Total	**6.6500e-003**	**6.0000e-003**	**0.0503**	**1.2000e-004**	**0.0350**	**1.0000e-004**	**0.0351**	**8.8400e-003**	**9.0000e-005**	**8.9300e-003**		**12.0390**	**12.0390**	**4.6000e-004**		**12.0506**

3.5 Pipe 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**		**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	6.6500e-003	6.0000e-003	0.0503	1.2000e-004	0.0128	1.0000e-004	0.0129	3.3900e-003	9.0000e-005	3.4800e-003		12.0390	12.0390	4.6000e-004		12.0506
Total	**6.6500e-003**	**6.0000e-003**	**0.0503**	**1.2000e-004**	**0.0128**	**1.0000e-004**	**0.0129**	**3.3900e-003**	**9.0000e-005**	**3.4800e-003**		**12.0390**	**12.0390**	**4.6000e-004**		**12.0506**

3.5 Pipe 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**	**0.0000**	**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	6.6500e-003	6.0000e-003	0.0503	1.2000e-004	0.0128	1.0000e-004	0.0129	3.3900e-003	9.0000e-005	3.4800e-003		12.0390	12.0390	4.6000e-004		12.0506
Total	**6.6500e-003**	**6.0000e-003**	**0.0503**	**1.2000e-004**	**0.0128**	**1.0000e-004**	**0.0129**	**3.3900e-003**	**9.0000e-005**	**3.4800e-003**		**12.0390**	**12.0390**	**4.6000e-004**		**12.0506**

3.6 Site Prep 2 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1873	1.8958	2.2602	3.1100e-003		0.1118	0.1118		0.1028	0.1028		300.9001	300.9001	0.0973		303.3330
Total	**0.1873**	**1.8958**	**2.2602**	**3.1100e-003**	**0.0000**	**0.1118**	**0.1118**	**0.0000**	**0.1028**	**0.1028**		**300.9001**	**300.9001**	**0.0973**		**303.3330**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0199	0.0180	0.1508	3.6000e-004	0.0383	3.0000e-004	0.0386	0.0102	2.8000e-004	0.0104		36.1170	36.1170	1.3900e-003		36.1517
Total	**0.0199**	**0.0180**	**0.1508**	**3.6000e-004**	**0.0383**	**3.0000e-004**	**0.0386**	**0.0102**	**2.8000e-004**	**0.0104**		**36.1170**	**36.1170**	**1.3900e-003**		**36.1517**

3.6 Site Prep 2 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1873	1.8958	2.2602	3.1100e-003		0.1118	0.1118		0.1028	0.1028	0.0000	300.9001	300.9001	0.0973		303.3330
Total	**0.1873**	**1.8958**	**2.2602**	**3.1100e-003**	**0.0000**	**0.1118**	**0.1118**	**0.0000**	**0.1028**	**0.1028**	**0.0000**	**300.9001**	**300.9001**	**0.0973**		**303.3330**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0199	0.0180	0.1508	3.6000e-004	0.0383	3.0000e-004	0.0386	0.0102	2.8000e-004	0.0104		36.1170	36.1170	1.3900e-003		36.1517
Total	**0.0199**	**0.0180**	**0.1508**	**3.6000e-004**	**0.0383**	**3.0000e-004**	**0.0386**	**0.0102**	**2.8000e-004**	**0.0104**		**36.1170**	**36.1170**	**1.3900e-003**		**36.1517**

3.7 Backfilling 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1553	6.3846	1.4691	0.0159	0.3464	0.0254	0.3718	0.0947	0.0243	0.1190		1,699.8448	1,699.8448	0.0707		1,701.6113
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0600	0.5028	1.2100e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		120.3899	120.3899	4.6300e-003		120.5057
Total	**0.2217**	**6.4445**	**1.9719**	**0.0171**	**0.4741**	**0.0265**	**0.5006**	**0.1285**	**0.0253**	**0.1538**		**1,820.2347**	**1,820.2347**	**0.0753**		**1,822.1170**

3.7 Backfilling 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.3387**	**0.4073**	**0.7461**	**0.1862**	**0.3886**	**0.5748**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1553	6.3846	1.4691	0.0159	0.3464	0.0254	0.3718	0.0947	0.0243	0.1190		1,699.8448	1,699.8448	0.0707		1,701.6113
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0600	0.5028	1.2100e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		120.3899	120.3899	4.6300e-003		120.5057
Total	**0.2217**	**6.4445**	**1.9719**	**0.0171**	**0.4741**	**0.0265**	**0.5006**	**0.1285**	**0.0253**	**0.1538**		**1,820.2347**	**1,820.2347**	**0.0753**		**1,822.1170**

3.8 Trenching 2 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2329	9.5768	2.2036	0.0238	0.5196	0.0382	0.5577	0.1420	0.0365	0.1785		2,549.7673	2,549.7673	0.1060		2,552.4170
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0600	0.5028	1.2100e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		120.3899	120.3899	4.6300e-003		120.5057
Total	**0.2994**	**9.6368**	**2.7064**	**0.0250**	**0.6473**	**0.0392**	**0.6865**	**0.1759**	**0.0374**	**0.2133**		**2,670.1571**	**2,670.1571**	**0.1106**		**2,672.9227**

3.8 Trenching 2 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.3387**	**0.4073**	**0.7461**	**0.1862**	**0.3886**	**0.5748**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2329	9.5768	2.2036	0.0238	0.5196	0.0382	0.5577	0.1420	0.0365	0.1785		2,549.7673	2,549.7673	0.1060		2,552.4170
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0600	0.5028	1.2100e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		120.3899	120.3899	4.6300e-003		120.5057
Total	**0.2994**	**9.6368**	**2.7064**	**0.0250**	**0.6473**	**0.0392**	**0.6865**	**0.1759**	**0.0374**	**0.2133**		**2,670.1571**	**2,670.1571**	**0.1106**		**2,672.9227**

3.9 Pipe 2 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**		**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	6.6500e-003	6.0000e-003	0.0503	1.2000e-004	0.0128	1.0000e-004	0.0129	3.3900e-003	9.0000e-005	3.4800e-003		12.0390	12.0390	4.6000e-004		12.0506
Total	**6.6500e-003**	**6.0000e-003**	**0.0503**	**1.2000e-004**	**0.0128**	**1.0000e-004**	**0.0129**	**3.3900e-003**	**9.0000e-005**	**3.4800e-003**		**12.0390**	**12.0390**	**4.6000e-004**		**12.0506**

3.9 Pipe 2 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**	**0.0000**	**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	6.6500e-003	6.0000e-003	0.0503	1.2000e-004	0.0128	1.0000e-004	0.0129	3.3900e-003	9.0000e-005	3.4800e-003		12.0390	12.0390	4.6000e-004		12.0506
Total	**6.6500e-003**	**6.0000e-003**	**0.0503**	**1.2000e-004**	**0.0128**	**1.0000e-004**	**0.0129**	**3.3900e-003**	**9.0000e-005**	**3.4800e-003**		**12.0390**	**12.0390**	**4.6000e-004**		**12.0506**

3.10 Backfilling 2 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1553	6.3846	1.4691	0.0159	0.3464	0.0254	0.3718	0.0947	0.0243	0.1190		1,699.8448	1,699.8448	0.0707		1,701.6113
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0600	0.5028	1.2100e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		120.3899	120.3899	4.6300e-003		120.5057
Total	**0.2217**	**6.4445**	**1.9719**	**0.0171**	**0.4741**	**0.0265**	**0.5006**	**0.1285**	**0.0253**	**0.1538**		**1,820.2347**	**1,820.2347**	**0.0753**		**1,822.1170**

3.10 Backfilling 2 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.3387**	**0.4073**	**0.7461**	**0.1862**	**0.3886**	**0.5748**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1553	6.3846	1.4691	0.0159	0.3464	0.0254	0.3718	0.0947	0.0243	0.1190		1,699.8448	1,699.8448	0.0707		1,701.6113
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0600	0.5028	1.2100e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		120.3899	120.3899	4.6300e-003		120.5057
Total	**0.2217**	**6.4445**	**1.9719**	**0.0171**	**0.4741**	**0.0265**	**0.5006**	**0.1285**	**0.0253**	**0.1538**		**1,820.2347**	**1,820.2347**	**0.0753**		**1,822.1170**

3.11 Abandon Site Prep - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1873	1.8958	2.2602	3.1100e-003		0.1118	0.1118		0.1028	0.1028		300.9001	300.9001	0.0973		303.3330
Total	**0.1873**	**1.8958**	**2.2602**	**3.1100e-003**	**0.0000**	**0.1118**	**0.1118**	**0.0000**	**0.1028**	**0.1028**		**300.9001**	**300.9001**	**0.0973**		**303.3330**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0199	0.0180	0.1508	3.6000e-004	0.0383	3.0000e-004	0.0386	0.0102	2.8000e-004	0.0104		36.1170	36.1170	1.3900e-003		36.1517
Total	**0.0199**	**0.0180**	**0.1508**	**3.6000e-004**	**0.0383**	**3.0000e-004**	**0.0386**	**0.0102**	**2.8000e-004**	**0.0104**		**36.1170**	**36.1170**	**1.3900e-003**		**36.1517**

3.11 Abandon Site Prep - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1873	1.8958	2.2602	3.1100e-003		0.1118	0.1118		0.1028	0.1028	0.0000	300.9001	300.9001	0.0973		303.3330
Total	**0.1873**	**1.8958**	**2.2602**	**3.1100e-003**	**0.0000**	**0.1118**	**0.1118**	**0.0000**	**0.1028**	**0.1028**	**0.0000**	**300.9001**	**300.9001**	**0.0973**		**303.3330**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0199	0.0180	0.1508	3.6000e-004	0.0383	3.0000e-004	0.0386	0.0102	2.8000e-004	0.0104		36.1170	36.1170	1.3900e-003		36.1517
Total	**0.0199**	**0.0180**	**0.1508**	**3.6000e-004**	**0.0383**	**3.0000e-004**	**0.0386**	**0.0102**	**2.8000e-004**	**0.0104**		**36.1170**	**36.1170**	**1.3900e-003**		**36.1517**

3.12 Abandon Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0600	0.5028	1.2100e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		120.3899	120.3899	4.6300e-003		120.5057
Total	**0.0665**	**0.0600**	**0.5028**	**1.2100e-003**	**0.1277**	**1.0100e-003**	**0.1287**	**0.0339**	**9.3000e-004**	**0.0348**		**120.3899**	**120.3899**	**4.6300e-003**		**120.5057**

3.12 Abandon Trenching - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.3387**	**0.4073**	**0.7461**	**0.1862**	**0.3886**	**0.5748**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0600	0.5028	1.2100e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		120.3899	120.3899	4.6300e-003		120.5057
Total	**0.0665**	**0.0600**	**0.5028**	**1.2100e-003**	**0.1277**	**1.0100e-003**	**0.1287**	**0.0339**	**9.3000e-004**	**0.0348**		**120.3899**	**120.3899**	**4.6300e-003**		**120.5057**

3.13 Pipe Removal - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**		**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	6.6500e-003	6.0000e-003	0.0503	1.2000e-004	0.0128	1.0000e-004	0.0129	3.3900e-003	9.0000e-005	3.4800e-003		12.0390	12.0390	4.6000e-004		12.0506
Total	**6.6500e-003**	**6.0000e-003**	**0.0503**	**1.2000e-004**	**0.0128**	**1.0000e-004**	**0.0129**	**3.3900e-003**	**9.0000e-005**	**3.4800e-003**		**12.0390**	**12.0390**	**4.6000e-004**		**12.0506**

3.13 Pipe Removal - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**	**0.0000**	**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	6.6500e-003	6.0000e-003	0.0503	1.2000e-004	0.0128	1.0000e-004	0.0129	3.3900e-003	9.0000e-005	3.4800e-003		12.0390	12.0390	4.6000e-004		12.0506
Total	**6.6500e-003**	**6.0000e-003**	**0.0503**	**1.2000e-004**	**0.0128**	**1.0000e-004**	**0.0129**	**3.3900e-003**	**9.0000e-005**	**3.4800e-003**		**12.0390**	**12.0390**	**4.6000e-004**		**12.0506**

3.14 Abandon Restoration - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0600	0.5028	1.2100e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		120.3899	120.3899	4.6300e-003		120.5057
Total	**0.0665**	**0.0600**	**0.5028**	**1.2100e-003**	**0.1277**	**1.0100e-003**	**0.1287**	**0.0339**	**9.3000e-004**	**0.0348**		**120.3899**	**120.3899**	**4.6300e-003**		**120.5057**

3.14 Abandon Restoration - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.3387**	**0.4073**	**0.7461**	**0.1862**	**0.3886**	**0.5748**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0600	0.5028	1.2100e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		120.3899	120.3899	4.6300e-003		120.5057
Total	**0.0665**	**0.0600**	**0.5028**	**1.2100e-003**	**0.1277**	**1.0100e-003**	**0.1287**	**0.0339**	**9.3000e-004**	**0.0348**		**120.3899**	**120.3899**	**4.6300e-003**		**120.5057**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	5.00	5.00	5.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.563957	0.031105	0.207045	0.124139	0.023367	0.005278	0.020652	0.011843	0.001236	0.003001	0.006131	0.001009	0.001237

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.4200e-003	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
Unmitigated	4.4200e-003	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.8400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.7000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
Total	**4.4300e-003**	**0.0000**	**1.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**3.5000e-004**	**3.5000e-004**	**0.0000**		**3.7000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.8400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.7000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
Total	**4.4300e-003**	**0.0000**	**1.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**3.5000e-004**	**3.5000e-004**	**0.0000**		**3.7000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SLVWD Sequoia Ave Pipeline

Santa Cruz County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	1.60	1000sqft	0.04	1,600.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	1.8	**Precipitation Freq (Days)**	61
Climate Zone	5			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Assumed two-foot width of excavation based on pipe length and applicant info on soil excavation amounts.

Construction Phase - Construction schedule provided by client.

Off-road Equipment - Equipment list and hours provided by client

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - x

Off-road Equipment -

Trips and VMT - Haul truck destination is Santa Cruz County Transfer Station (6.5 miles from project site)

Grading -

Vehicle Trips - 12 yearly maintenance/meter trips, average 10 miles per trip.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	96	2015
tblConstructionPhase	NumDays	100.00	4.00
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	100.00	2.00
tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00

tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblGrading	MaterialExported	0.00	300.00
tblGrading	MaterialExported	0.00	300.00
tblGrading	MaterialImported	0.00	204.00
tblGrading	MaterialImported	0.00	204.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripLength	6.60	6.50
tblTripsAndVMT	VendorTripLength	6.60	75.00
tblTripsAndVMT	VendorTripLength	6.60	6.50
tblTripsAndVMT	VendorTripLength	6.60	6.50
tblTripsAndVMT	VendorTripLength	6.60	6.50
tblVehicleTrips	CC_TL	6.60	5.00
tblVehicleTrips	CNW_TL	6.60	5.00
tblVehicleTrips	CW_TL	14.70	5.00
tblVehicleTrips	ST_TR	0.00	0.04
tblVehicleTrips	SU_TR	0.00	0.04
tblVehicleTrips	WD_TR	0.00	0.04

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.0805	16.6842	10.1673	0.0374	1.4001	0.4476	1.8456	0.5897	0.4251	1.0147	0.0000	3,858.2977	3,858.2977	0.3573	0.0000	3,866.3225
Maximum	**1.0805**	**16.6842**	**10.1673**	**0.0374**	**1.4001**	**0.4476**	**1.8456**	**0.5897**	**0.4251**	**1.0147**	**0.0000**	**3,858.2977**	**3,858.2977**	**0.3573**	**0.0000**	**3,866.3225**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.0805	16.6842	10.1673	0.0374	0.9860	0.4476	1.4315	0.3621	0.4251	0.7871	0.0000	3,858.2977	3,858.2977	0.3573	0.0000	3,866.3225
Maximum	**1.0805**	**16.6842**	**10.1673**	**0.0374**	**0.9860**	**0.4476**	**1.4315**	**0.3621**	**0.4251**	**0.7871**	**0.0000**	**3,858.2977**	**3,858.2977**	**0.3573**	**0.0000**	**3,866.3225**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**29.57**	**0.00**	**22.43**	**38.60**	**0.00**	**22.43**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.4200e-003	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**4.4200e-003**	**0.0000**	**1.6000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**0.0000**	**3.7000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.4200e-003	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**4.4200e-003**	**0.0000**	**1.6000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**0.0000**	**3.7000e-004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Prep 1	Site Preparation	7/8/2021	7/8/2021	5	1	
2	Trenching 1	Grading	7/9/2021	7/9/2021	5	1	
3	Pipe 1 (Haul Pipe)	Building Construction	7/12/2021	7/12/2021	5	1	
4	Pipe 1	Building Construction	7/13/2021	7/14/2021	5	2	
5	Site Prep 2	Site Preparation	7/15/2021	7/15/2021	5	1	
6	Backfilling 1	Grading	7/16/2021	7/16/2021	5	1	
7	Trenching 2	Grading	7/19/2021	7/19/2021	5	1	
8	Pipe 2	Building Construction	7/20/2021	7/20/2021	5	1	
9	Backfilling 2	Grading	7/21/2021	7/21/2021	5	1	
10	Abandon Site Prep	Site Preparation	7/22/2021	7/22/2021	5	1	
11	Abandon Trenching	Grading	7/23/2021	7/23/2021	5	1	
12	Pipe Removal	Building Construction	7/26/2021	7/29/2021	5	4	
13	Abandon Restoration	Grading	7/30/2021	7/30/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Concrete/Industrial Saws	1	8.00	81	0.73
	Concrete/Industrial Saws	1	8.00	81	0.73
	Cranes	1	4.00	231	0.29
	Forklifts	2	6.00	89	0.20
	Rubber Tired Dozers	1	1.00	247	0.40
	Rubber Tired Dozers	1	1.00	247	0.40
	Tractors/Loaders/Backhoes	2	8.00	97	0.37
	Tractors/Loaders/Backhoes	2	6.00	97	0.37
	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Prep 1	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching 1	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching 1	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 1	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 1 (Haul Pipe)	Cranes	1	4.00	231	0.29
Pipe 1 (Haul Pipe)	Forklifts	2	6.00	89	0.20
Pipe 1 (Haul Pipe)	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Pipe 1	Cranes	1	4.00	231	0.29
Pipe 1	Forklifts	2	6.00	89	0.20
Pipe 1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Prep 2	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Backfilling 1	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 1	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 1	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Trenching 2	Concrete/Industrial Saws	1	8.00	81	0.73

Trenching 2	Rubber Tired Dozers	1	1.00	247	0.40
Trenching 2	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe 2	Cranes	1	4.00	231	0.29
Pipe 2	Forklifts	2	6.00	89	0.20
Pipe 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Backfilling 2	Concrete/Industrial Saws	1	8.00	81	0.73
Backfilling 2	Rubber Tired Dozers	1	1.00	247	0.40
Backfilling 2	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Abandon Site Prep	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Abandon Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Abandon Trenching	Rubber Tired Dozers	1	1.00	247	0.40
Abandon Trenching	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Pipe Removal	Cranes	1	4.00	231	0.29
Pipe Removal	Forklifts	2	6.00	89	0.20
Pipe Removal	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Abandon Restoration	Concrete/Industrial Saws	1	8.00	81	0.73
Abandon Restoration	Rubber Tired Dozers	1	1.00	247	0.40
Abandon Restoration	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Prep 1	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 1	4	10.00	0.00	30.00	16.80	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Pipe 1 (Haul Pipe)	5	1.00	0.00	0.00	16.80	75.00	20.00	LD_Mix	HDT_Mix	HHDT
Pipe 1	5	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep 2	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 1	4	10.00	0.00	20.00	16.80	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 2	4	10.00	0.00	30.00	16.80	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Pipe 2	5	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Backfilling 2	4	10.00	0.00	20.00	16.80	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Site Prep	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Trenching	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Pipe Removal	5	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Abandon Restoration	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Prep 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1873	1.8958	2.2602	3.1100e-003		0.1118	0.1118		0.1028	0.1028		300.9001	300.9001	0.0973		303.3330
Total	**0.1873**	**1.8958**	**2.2602**	**3.1100e-003**	**0.0000**	**0.1118**	**0.1118**	**0.0000**	**0.1028**	**0.1028**		**300.9001**	**300.9001**	**0.0973**		**303.3330**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0173	0.0145	0.1529	3.8000e-004	0.0383	3.0000e-004	0.0386	0.0102	2.8000e-004	0.0104		37.9188	37.9188	1.4500e-003		37.9551
Total	**0.0173**	**0.0145**	**0.1529**	**3.8000e-004**	**0.0383**	**3.0000e-004**	**0.0386**	**0.0102**	**2.8000e-004**	**0.0104**		**37.9188**	**37.9188**	**1.4500e-003**		**37.9551**

3.2 Site Prep 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1873	1.8958	2.2602	3.1100e-003		0.1118	0.1118		0.1028	0.1028	0.0000	300.9001	300.9001	0.0973		303.3330
Total	**0.1873**	**1.8958**	**2.2602**	**3.1100e-003**	**0.0000**	**0.1118**	**0.1118**	**0.0000**	**0.1028**	**0.1028**	**0.0000**	**300.9001**	**300.9001**	**0.0973**		**303.3330**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0173	0.0145	0.1529	3.8000e-004	0.0383	3.0000e-004	0.0386	0.0102	2.8000e-004	0.0104		37.9188	37.9188	1.4500e-003		37.9551
Total	**0.0173**	**0.0145**	**0.1529**	**3.8000e-004**	**0.0383**	**3.0000e-004**	**0.0386**	**0.0102**	**2.8000e-004**	**0.0104**		**37.9188**	**37.9188**	**1.4500e-003**		**37.9551**

3.3 Trenching 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2265	9.3830	2.0884	0.0242	0.5196	0.0372	0.5567	0.1420	0.0355	0.1775		2,584.4678	2,584.4678	0.1023		2,587.0259
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0575	0.0482	0.5097	1.2700e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		126.3961	126.3961	4.8300e-003		126.5169
Total	**0.2840**	**9.4312**	**2.5981**	**0.0254**	**0.6473**	**0.0382**	**0.6855**	**0.1759**	**0.0365**	**0.2123**		**2,710.8639**	**2,710.8639**	**0.1072**		**2,713.5428**

3.3 Trenching 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.3387**	**0.4073**	**0.7461**	**0.1862**	**0.3886**	**0.5748**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2265	9.3830	2.0884	0.0242	0.5196	0.0372	0.5567	0.1420	0.0355	0.1775		2,584.4678	2,584.4678	0.1023		2,587.0259
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0575	0.0482	0.5097	1.2700e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		126.3961	126.3961	4.8300e-003		126.5169
Total	**0.2840**	**9.4312**	**2.5981**	**0.0254**	**0.6473**	**0.0382**	**0.6855**	**0.1759**	**0.0365**	**0.2123**		**2,710.8639**	**2,710.8639**	**0.1072**		**2,713.5428**

3.4 Pipe 1 (Haul Pipe) - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**		**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.7500e-003	4.8200e-003	0.0510	1.3000e-004	0.0350	1.0000e-004	0.0351	8.8400e-003	9.0000e-005	8.9300e-003		12.6396	12.6396	4.8000e-004		12.6517
Total	**5.7500e-003**	**4.8200e-003**	**0.0510**	**1.3000e-004**	**0.0350**	**1.0000e-004**	**0.0351**	**8.8400e-003**	**9.0000e-005**	**8.9300e-003**		**12.6396**	**12.6396**	**4.8000e-004**		**12.6517**

3.4 Pipe 1 (Haul Pipe) - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**	**0.0000**	**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.7500e-003	4.8200e-003	0.0510	1.3000e-004	0.0350	1.0000e-004	0.0351	8.8400e-003	9.0000e-005	8.9300e-003		12.6396	12.6396	4.8000e-004		12.6517
Total	**5.7500e-003**	**4.8200e-003**	**0.0510**	**1.3000e-004**	**0.0350**	**1.0000e-004**	**0.0351**	**8.8400e-003**	**9.0000e-005**	**8.9300e-003**		**12.6396**	**12.6396**	**4.8000e-004**		**12.6517**

3.5 Pipe 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**		**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.7500e-003	4.8200e-003	0.0510	1.3000e-004	0.0128	1.0000e-004	0.0129	3.3900e-003	9.0000e-005	3.4800e-003		12.6396	12.6396	4.8000e-004		12.6517
Total	**5.7500e-003**	**4.8200e-003**	**0.0510**	**1.3000e-004**	**0.0128**	**1.0000e-004**	**0.0129**	**3.3900e-003**	**9.0000e-005**	**3.4800e-003**		**12.6396**	**12.6396**	**4.8000e-004**		**12.6517**

3.5 Pipe 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**	**0.0000**	**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.7500e-003	4.8200e-003	0.0510	1.3000e-004	0.0128	1.0000e-004	0.0129	3.3900e-003	9.0000e-005	3.4800e-003		12.6396	12.6396	4.8000e-004		12.6517
Total	**5.7500e-003**	**4.8200e-003**	**0.0510**	**1.3000e-004**	**0.0128**	**1.0000e-004**	**0.0129**	**3.3900e-003**	**9.0000e-005**	**3.4800e-003**		**12.6396**	**12.6396**	**4.8000e-004**		**12.6517**

3.6 Site Prep 2 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1873	1.8958	2.2602	3.1100e-003		0.1118	0.1118		0.1028	0.1028		300.9001	300.9001	0.0973		303.3330
Total	**0.1873**	**1.8958**	**2.2602**	**3.1100e-003**	**0.0000**	**0.1118**	**0.1118**	**0.0000**	**0.1028**	**0.1028**		**300.9001**	**300.9001**	**0.0973**		**303.3330**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0173	0.0145	0.1529	3.8000e-004	0.0383	3.0000e-004	0.0386	0.0102	2.8000e-004	0.0104		37.9188	37.9188	1.4500e-003		37.9551
Total	**0.0173**	**0.0145**	**0.1529**	**3.8000e-004**	**0.0383**	**3.0000e-004**	**0.0386**	**0.0102**	**2.8000e-004**	**0.0104**		**37.9188**	**37.9188**	**1.4500e-003**		**37.9551**

3.6 Site Prep 2 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1873	1.8958	2.2602	3.1100e-003		0.1118	0.1118		0.1028	0.1028	0.0000	300.9001	300.9001	0.0973		303.3330
Total	**0.1873**	**1.8958**	**2.2602**	**3.1100e-003**	**0.0000**	**0.1118**	**0.1118**	**0.0000**	**0.1028**	**0.1028**	**0.0000**	**300.9001**	**300.9001**	**0.0973**		**303.3330**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0173	0.0145	0.1529	3.8000e-004	0.0383	3.0000e-004	0.0386	0.0102	2.8000e-004	0.0104		37.9188	37.9188	1.4500e-003		37.9551
Total	**0.0173**	**0.0145**	**0.1529**	**3.8000e-004**	**0.0383**	**3.0000e-004**	**0.0386**	**0.0102**	**2.8000e-004**	**0.0104**		**37.9188**	**37.9188**	**1.4500e-003**		**37.9551**

3.7 Backfilling 1 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1510	6.2553	1.3923	0.0161	0.3464	0.0248	0.3712	0.0947	0.0237	0.1184		1,722.9786	1,722.9786	0.0682		1,724.6839
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0575	0.0482	0.5097	1.2700e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		126.3961	126.3961	4.8300e-003		126.5169
Total	**0.2085**	**6.3035**	**1.9020**	**0.0174**	**0.4741**	**0.0258**	**0.4999**	**0.1285**	**0.0246**	**0.1532**		**1,849.3747**	**1,849.3747**	**0.0730**		**1,851.2008**

3.7 Backfilling 1 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.3387**	**0.4073**	**0.7461**	**0.1862**	**0.3886**	**0.5748**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1510	6.2553	1.3923	0.0161	0.3464	0.0248	0.3712	0.0947	0.0237	0.1184		1,722.9786	1,722.9786	0.0682		1,724.6839
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0575	0.0482	0.5097	1.2700e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		126.3961	126.3961	4.8300e-003		126.5169
Total	**0.2085**	**6.3035**	**1.9020**	**0.0174**	**0.4741**	**0.0258**	**0.4999**	**0.1285**	**0.0246**	**0.1532**		**1,849.3747**	**1,849.3747**	**0.0730**		**1,851.2008**

3.8 Trenching 2 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2265	9.3830	2.0884	0.0242	0.5196	0.0372	0.5567	0.1420	0.0355	0.1775		2,584.4678	2,584.4678	0.1023		2,587.0259
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0575	0.0482	0.5097	1.2700e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		126.3961	126.3961	4.8300e-003		126.5169
Total	**0.2840**	**9.4312**	**2.5981**	**0.0254**	**0.6473**	**0.0382**	**0.6855**	**0.1759**	**0.0365**	**0.2123**		**2,710.8639**	**2,710.8639**	**0.1072**		**2,713.5428**

3.8 Trenching 2 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.3387**	**0.4073**	**0.7461**	**0.1862**	**0.3886**	**0.5748**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2265	9.3830	2.0884	0.0242	0.5196	0.0372	0.5567	0.1420	0.0355	0.1775		2,584.4678	2,584.4678	0.1023		2,587.0259
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0575	0.0482	0.5097	1.2700e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		126.3961	126.3961	4.8300e-003		126.5169
Total	**0.2840**	**9.4312**	**2.5981**	**0.0254**	**0.6473**	**0.0382**	**0.6855**	**0.1759**	**0.0365**	**0.2123**		**2,710.8639**	**2,710.8639**	**0.1072**		**2,713.5428**

3.9 Pipe 2 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**		**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.7500e-003	4.8200e-003	0.0510	1.3000e-004	0.0128	1.0000e-004	0.0129	3.3900e-003	9.0000e-005	3.4800e-003		12.6396	12.6396	4.8000e-004		12.6517
Total	**5.7500e-003**	**4.8200e-003**	**0.0510**	**1.3000e-004**	**0.0128**	**1.0000e-004**	**0.0129**	**3.3900e-003**	**9.0000e-005**	**3.4800e-003**		**12.6396**	**12.6396**	**4.8000e-004**		**12.6517**

3.9 Pipe 2 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**	**0.0000**	**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.7500e-003	4.8200e-003	0.0510	1.3000e-004	0.0128	1.0000e-004	0.0129	3.3900e-003	9.0000e-005	3.4800e-003		12.6396	12.6396	4.8000e-004		12.6517
Total	**5.7500e-003**	**4.8200e-003**	**0.0510**	**1.3000e-004**	**0.0128**	**1.0000e-004**	**0.0129**	**3.3900e-003**	**9.0000e-005**	**3.4800e-003**		**12.6396**	**12.6396**	**4.8000e-004**		**12.6517**

3.10 Backfilling 2 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1510	6.2553	1.3923	0.0161	0.3464	0.0248	0.3712	0.0947	0.0237	0.1184		1,722.9786	1,722.9786	0.0682		1,724.6839
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0575	0.0482	0.5097	1.2700e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		126.3961	126.3961	4.8300e-003		126.5169
Total	**0.2085**	**6.3035**	**1.9020**	**0.0174**	**0.4741**	**0.0258**	**0.4999**	**0.1285**	**0.0246**	**0.1532**		**1,849.3747**	**1,849.3747**	**0.0730**		**1,851.2008**

3.10 Backfilling 2 - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.3387**	**0.4073**	**0.7461**	**0.1862**	**0.3886**	**0.5748**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1510	6.2553	1.3923	0.0161	0.3464	0.0248	0.3712	0.0947	0.0237	0.1184		1,722.9786	1,722.9786	0.0682		1,724.6839
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0575	0.0482	0.5097	1.2700e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		126.3961	126.3961	4.8300e-003		126.5169
Total	**0.2085**	**6.3035**	**1.9020**	**0.0174**	**0.4741**	**0.0258**	**0.4999**	**0.1285**	**0.0246**	**0.1532**		**1,849.3747**	**1,849.3747**	**0.0730**		**1,851.2008**

3.11 Abandon Site Prep - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1873	1.8958	2.2602	3.1100e-003		0.1118	0.1118		0.1028	0.1028		300.9001	300.9001	0.0973		303.3330
Total	**0.1873**	**1.8958**	**2.2602**	**3.1100e-003**	**0.0000**	**0.1118**	**0.1118**	**0.0000**	**0.1028**	**0.1028**		**300.9001**	**300.9001**	**0.0973**		**303.3330**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0173	0.0145	0.1529	3.8000e-004	0.0383	3.0000e-004	0.0386	0.0102	2.8000e-004	0.0104		37.9188	37.9188	1.4500e-003		37.9551
Total	**0.0173**	**0.0145**	**0.1529**	**3.8000e-004**	**0.0383**	**3.0000e-004**	**0.0386**	**0.0102**	**2.8000e-004**	**0.0104**		**37.9188**	**37.9188**	**1.4500e-003**		**37.9551**

3.11 Abandon Site Prep - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1873	1.8958	2.2602	3.1100e-003		0.1118	0.1118		0.1028	0.1028	0.0000	300.9001	300.9001	0.0973		303.3330
Total	**0.1873**	**1.8958**	**2.2602**	**3.1100e-003**	**0.0000**	**0.1118**	**0.1118**	**0.0000**	**0.1028**	**0.1028**	**0.0000**	**300.9001**	**300.9001**	**0.0973**		**303.3330**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0173	0.0145	0.1529	3.8000e-004	0.0383	3.0000e-004	0.0386	0.0102	2.8000e-004	0.0104		37.9188	37.9188	1.4500e-003		37.9551
Total	**0.0173**	**0.0145**	**0.1529**	**3.8000e-004**	**0.0383**	**3.0000e-004**	**0.0386**	**0.0102**	**2.8000e-004**	**0.0104**		**37.9188**	**37.9188**	**1.4500e-003**		**37.9551**

3.12 Abandon Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0575	0.0482	0.5097	1.2700e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		126.3961	126.3961	4.8300e-003		126.5169
Total	**0.0575**	**0.0482**	**0.5097**	**1.2700e-003**	**0.1277**	**1.0100e-003**	**0.1287**	**0.0339**	**9.3000e-004**	**0.0348**		**126.3961**	**126.3961**	**4.8300e-003**		**126.5169**

3.12 Abandon Trenching - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.3387**	**0.4073**	**0.7461**	**0.1862**	**0.3886**	**0.5748**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0575	0.0482	0.5097	1.2700e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		126.3961	126.3961	4.8300e-003		126.5169
Total	**0.0575**	**0.0482**	**0.5097**	**1.2700e-003**	**0.1277**	**1.0100e-003**	**0.1287**	**0.0339**	**9.3000e-004**	**0.0348**		**126.3961**	**126.3961**	**4.8300e-003**		**126.5169**

3.13 Pipe Removal - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**		**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.7500e-003	4.8200e-003	0.0510	1.3000e-004	0.0128	1.0000e-004	0.0129	3.3900e-003	9.0000e-005	3.4800e-003		12.6396	12.6396	4.8000e-004		12.6517
Total	**5.7500e-003**	**4.8200e-003**	**0.0510**	**1.3000e-004**	**0.0128**	**1.0000e-004**	**0.0129**	**3.3900e-003**	**9.0000e-005**	**3.4800e-003**		**12.6396**	**12.6396**	**4.8000e-004**		**12.6517**

3.13 Pipe Removal - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**	**0.0000**	**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.7500e-003	4.8200e-003	0.0510	1.3000e-004	0.0128	1.0000e-004	0.0129	3.3900e-003	9.0000e-005	3.4800e-003		12.6396	12.6396	4.8000e-004		12.6517
Total	**5.7500e-003**	**4.8200e-003**	**0.0510**	**1.3000e-004**	**0.0128**	**1.0000e-004**	**0.0129**	**3.3900e-003**	**9.0000e-005**	**3.4800e-003**		**12.6396**	**12.6396**	**4.8000e-004**		**12.6517**

3.14 Abandon Restoration - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0575	0.0482	0.5097	1.2700e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		126.3961	126.3961	4.8300e-003		126.5169
Total	**0.0575**	**0.0482**	**0.5097**	**1.2700e-003**	**0.1277**	**1.0100e-003**	**0.1287**	**0.0339**	**9.3000e-004**	**0.0348**		**126.3961**	**126.3961**	**4.8300e-003**		**126.5169**

3.14 Abandon Restoration - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.3387**	**0.4073**	**0.7461**	**0.1862**	**0.3886**	**0.5748**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0575	0.0482	0.5097	1.2700e-003	0.1277	1.0100e-003	0.1287	0.0339	9.3000e-004	0.0348		126.3961	126.3961	4.8300e-003		126.5169
Total	**0.0575**	**0.0482**	**0.5097**	**1.2700e-003**	**0.1277**	**1.0100e-003**	**0.1287**	**0.0339**	**9.3000e-004**	**0.0348**		**126.3961**	**126.3961**	**4.8300e-003**		**126.5169**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	5.00	5.00	5.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.563957	0.031105	0.207045	0.124139	0.023367	0.005278	0.020652	0.011843	0.001236	0.003001	0.006131	0.001009	0.001237

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.4200e-003	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
Unmitigated	4.4200e-003	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.8400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.7000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
Total	**4.4300e-003**	**0.0000**	**1.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**3.5000e-004**	**3.5000e-004**	**0.0000**		**3.7000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.8400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.7000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
Total	**4.4300e-003**	**0.0000**	**1.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**3.5000e-004**	**3.5000e-004**	**0.0000**		**3.7000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Special Status Species in the Regional Vicinity of the Project Site

Scientific Name Common Name	Status Fed/State ESA CRPR or CDFW	Habitat Requirements	Potential to Occur	Rationale
Plants and Lichens				
Agrostis blasdalei Blasdale's bent grass	None/None 1B.2	Coastal dunes, coastal bluff scrub, coastal prairie. Sandy or gravelly soil close to rocks; often in nutrient-poor soil with sparse vegetation. 5-365 m. perennial rhizomatous herb. Blooms May-Jul	Not Expected	No suitable habitat present in project areas
Amsinckia lunaris bent-flowered fiddleneck	None/None 1B.2	Openings in cismontane woodland, valley and foothill grassland, coastal bluff scrub. Often on serpentine. 3-795 m. annual herb. Blooms Mar-Jun	Not Expected	Although potentially suitable woodland is present, it lacks appropriate openings for this species.
Arctostaphylos andersonii Anderson's manzanita	None/None 1B.2	Broadleafed upland forest, chaparral, north coast coniferous forest. Open sites, redwood forest. 60-760 m. perennial evergreen shrub. Blooms Nov-May	Moderate	The site includes redwood forest that is potentially suitable for this species.
Arctostaphylos glutinosa Schreiber's manzanita	None/None 1B.2	Closed-cone coniferous forest, chaparral. Mudstone or diatomaceous shale outcrops; often with *Pinus attenuata*. 170-680 m. perennial evergreen shrub. Blooms (Nov)Mar-Apr	Not Expected	No suitable habitat present in project areas
Arctostaphylos ohloneana Ohlone manzanita	None/None 1B.1	Coastal scrub, closed cone coniferous forests. Monterey shale. 455-520 m. evergreen shrub. Blooms Feb-Mar	Not Expected	No suitable habitat present in project areas
Arctostaphylos pajaroensis Pajaro manzanita	None/None 1B.1	Chaparral. Sandy soils. 30-155 m. perennial evergreen shrub. Blooms Dec-Mar	Not Expected	No suitable habitat present in project areas
Arctostaphylos regismontana Kings Mountain manzanita	None/None 1B.2	Edges of broadleafed upland forest, chaparral, north coast coniferous forest. Granitic or sandstone outcrops. 240-705 m. perennial evergreen shrub. Blooms Dec-Apr	Not Expected.	Although potentially suitable woodland is present, it lacks appropriate openings and edges for this species.
Arctostaphylos silvicola Bonny Doon manzanita	None/None 1B.2	Chaparral, closed-cone coniferous forest, lower montane coniferous forest. Only known from Zayante (inland marine) sands in Santa Cruz County. 150-520 m. perennial evergreen shrub. Blooms Jan-Mar	Not Expected	No suitable habitat present in project areas
Arenaria paludicola marsh sandwort	FE/ SE 1B.1	Marshes and swamps. Growing up through dense mats of Typha, Juncus, Scirpus, etc. in freshwater marsh. Sandy soil. 3-170 m. perennial stoloniferous herb. Blooms May-Aug	Not Expected	No suitable habitat present in project areas

Scientific Name Common Name	Status Fed/State ESA CRPR or CDFW	Habitat Requirements	Potential to Occur	Rationale
Astragalus pycnostachyus var. *pycnostachyus* coastal marsh milk-vetch	None/None 1B.2	Coastal dunes, marshes and swamps, coastal scrub. Mesic sites in dunes or along streams or coastal salt marshes. 0-155 m. perennial herb. Blooms (Apr)Jun-Oct	Not Expected	No suitable habitat present in project areas
Calyptridium parryi var. *hesseae* Santa Cruz Mountains pussypaws	None/None 1B.1	Chaparral, cismontane woodland. Sandy or gravelly openings. 300-1535 m. annual herb. Blooms May-Aug	Not Expected	No suitable habitat present in project areas
Campanula californica swamp harebell	None/None 1B.2	Bogs and fens, closed-cone coniferous forest, coastal prairie, meadows and seeps, freshwater marsh, north coast coniferous forest. Bogs and marshes in a variety of habitats; uncommon where it occurs. 1-405 m. perennial rhizomatous herb. Blooms Jun-Oct	Not Expected	No suitable habitat present in project areas
Carex comosa bristly sedge	None/None 2B.1	Marshes and swamps, coastal prairie, valley and foothill grassland. Lake margins, wet places; site below sea level is on a Delta island. -5-1620 m. perennial rhizomatous herb. Blooms May-Sep	Not Expected	No suitable habitat present in project areas
Carex saliniformis deceiving sedge	None/None 1B.2	Coastal prairie, coastal scrub, meadows and seeps, marshes and swamps (coastal salt). Mesic sites. 2-230 m. perennial rhizomatous herb. Blooms Jun(Jul)	Not Expected	No suitable habitat present in project areas
Chorizanthe pungens var. *hartwegiana* Ben Lomond spineflower	FE/ None 1B.1	Lower montane coniferous forest. Zayante coarse sands in maritime ponderosa pine sandhills. 105-475 m. annual herb. Blooms Apr-Jul	Not Expected	No suitable habitat present in project areas
Chorizanthe robusta var. *hartwegii* Scotts Valley spineflower	FE/ None 1B.1	Meadows, valley and foothill grassland. In grasslands with mudstone and sandstone outcrops. 105-245 m. annual herb. Blooms Apr-Jul	Not Expected	No suitable habitat present in project areas
Chorizanthe robusta var. *robusta* robust spineflower	FE/ None 1B.1	Cismontane woodland, coastal dunes, coastal scrub, chaparral. Sandy terraces and bluffs or in loose sand. 9-245 m. annual herb. Blooms Apr-Sep	Not Expected	No suitable habitat present in project areas
Cirsium andrewsii Franciscan thistle	None/None 1B.2	Coastal bluff scrub, broadleafed upland forest, coastal scrub, coastal prairie. Sometimes serpentine seeps. 0-295 m. perennial herb. Blooms Mar-Jul	Not Expected	No suitable habitat present in project areas

Scientific Name Common Name	Status Fed/State ESA CRPR or CDFW	Habitat Requirements	Potential to Occur	Rationale
Collinsia multicolor San Francisco collinsia	None/None 1B.2	Closed-cone coniferous forest, coastal scrub. On decomposed shale (mudstone) mixed with humus; sometimes on serpentine. 30-275 m. annual herb. Blooms (Feb)Mar-May	Not Expected	No suitable habitat present in project areas
Dacryophyllum falcifolium tear drop moss	None/None 1B.3	North Coast coniferous forest. Limestone substrates and rock outcrops. 50-275 m. moss.	Moderate	Potentially suitable forest habitats are present in the project areas
Dirca occidentalis western leatherwood	None/None 1B.2	Broadleafed upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, north coast coniferous forest, riparian forest, riparian woodland. On brushy slopes, mesic sites; mostly in mixed evergreen & foothill woodland communities. 25-425 m. perennial deciduous shrub. Blooms Jan-Mar(Apr)	Low	Potentially suitable forest habitats are present in the project areas; however, the site outside the known range of the species and there are no nearby herbarium records.
Eriogonum nudum var. *decurrens* Ben Lomond buckwheat	None/None 1B.1	Chaparral, cismontane woodland, lower montane coniferous forest. Ponderosa pine sandhills in Santa Cruz County. 90-235 m. perennial herb. Blooms Jun-Oct	Not Expected	Suitable sand or sandhill substrates are not present in project areas.
Eriophyllum latilobum San Mateo woolly sunflower	FE/SE 1B.1	Cismontane woodland, typically in oak woodland; coastal scrub, lower montane coniferous forest. Often on roadcuts; found on and off of serpentine. 30-610 m. perennial herb. Blooms May-Jun	Low	Potentially suitable forest habitats are present in the project areas; however, the site is south of the known range of the species and there are no nearby herbarium records.
Erysimum ammophilum sand-loving wallflower	None/None 1B.2	Chaparral (maritime), coastal dunes, coastal scrub. Sandy openings. 5-130 m. perennial herb. Blooms Feb-Jun	Not Expected	No suitable habitat present in project areas
Erysimum teretifolium Santa Cruz wallflower	FE/CE 1B.1	Lower montane coniferous forest, chaparral. Inland marine sands (Zayante coarse sand). 180-515 m. perennial herb. Blooms Mar-Jul	Not Expected	No suitable habitat present in project areas
Fissidens pauperculus minute pocket moss	None/None 1B.2	North coast coniferous forest. Moss growing on damp soil along the coast. In dry streambeds and on stream banks. 10-1024 m. moss.	Moderate	Potentially suitable moist forest habitats are present in project areas

Scientific Name Common Name	Status Fed/State ESA CRPR or CDFW	Habitat Requirements	Potential to Occur	Rationale
Fritillaria liliacea fragrant fritillary	None/None 1B.2	Coastal scrub, valley and foothill grassland, coastal prairie, cismontane woodland. Often on serpentine; various soils reported though usually on clay, in grassland. 3-400 m. perennial bulbiferous herb. Blooms Feb-Apr	Not Expected	No suitable habitat present in project areas
Grimmia torenii Toren's grimmia	None/None 1B.3	Cismontane woodland, lower montane coniferous forest, chaparral. Openings, rocky, boulder and rock walls, carbonate, volcanic. 325-1160 m. moss.	Not Expected	No suitable habitat present in project areas
Grimmia vaginulata vaginulate grimmia	None/None 1B.1	Chaparral. Openings; rocky, boulder and rock walls, carbonate. 685-1135 m. moss.	Not Expected	No suitable habitat present in project areas
Hesperevax sparsiflora var. *brevifolia* short-leaved evax	None/None 1B.2	Coastal bluff scrub, coastal dunes, coastal prairie. Sandy bluffs and flats. 0-215 m. annual herb. Blooms Mar-Jun	Not Expected	No suitable habitat present in project areas
Hesperocyparis abramsiana var. *abramsiana* Santa Cruz cypress	FT/SE 1B.2	Chaparral, closed-cone coniferous forest, lower montane coniferous forest. Restricted to the Santa Cruz Mountains, on sandstone & granitic-derived soils; often w/*Pinus attenuata*, redwoods. 300-1085 m. perennial evergreen tree.	Not Expected	Closed cone coniferous forest is not present in project areas.
Hesperocyparis abramsiana var. *butanoensis* Butano Ridge cypress	FT/SE 1B.2	Closed-cone coniferous forest, lower montane coniferous forest, chaparral. Sandstone. 400-490 m. perennial evergreen tree. Blooms Oct	Not Expected	Closed cone coniferous forest is not present in project areas.
Hoita strobilina Loma Prieta hoita	None/None 1B.1	Chaparral, cismontane woodland, riparian woodland. Serpentine; mesic sites. 60-975 m. perennial herb. Blooms May-Jul(Aug-Oct)	Not Expected	No suitable habitat present in project areas
Holocarpha macradenia Santa Cruz tarplant	FT/ SE 1B.1	Coastal prairie, coastal scrub, valley and foothill grassland. Light, sandy soil or sandy clay; often with nonnatives. 10-220 m. annual herb. Blooms Jun-Oct	Not Expected	No suitable habitat present in project areas
Horkelia cuneata var. *sericea* Kellogg's horkelia	None/None 1B.1	Closed-cone coniferous forest, coastal scrub, coastal dunes, chaparral. Old dunes, coastal sandhills; openings. Sandy or gravelly soils. 5-430 m. perennial herb. Blooms Apr-Sep	Not Expected	No suitable habitat present in project areas

Scientific Name Common Name	Status Fed/State ESA CRPR or CDFW	Habitat Requirements	Potential to Occur	Rationale
Horkelia marinensis Point Reyes horkelia	None/None 1B.2	Coastal dunes, coastal prairie, coastal scrub. Sandy flats and dunes near coast; in grassland or scrub plant communities. 2-775 m. perennial herb. Blooms May-Sep	Not Expected	No suitable habitat present in project areas
Legenere limosa legenere	None/None 1B.1	Vernal pools. In beds of vernal pools. 1-1005 m. annual herb. Blooms Apr-Jun	Not Expected	No suitable habitat present in project areas
Lessingia micradenia var. *glabrata* smooth lessingia	None/None 1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Serpentine; often on roadsides. 90-490 m. annual herb. Blooms (Apr-Jun)Jul-Nov	Not Expected	No suitable habitat present in project areas
Limnanthes douglasii ssp. *sulphurea* Point Reyes meadowfoam	None/SE 1B.2	Marshes and swamps (freshwater), vernal pools, coastal prairie, meadows and seeps. Vernally wet depressions in open rolling, coastal prairies and meadows; typically in dark clay soil. 10-125 m. annual herb. Blooms Mar-May	Not Expected	No suitable habitat present in project areas
Malacothamnus arcuatus arcuate bush-mallow	None/None 1B.2	Chaparral, cismontane woodland. Gravelly alluvium. 1-735 m. perennial evergreen shrub. Blooms Apr-Sep	Not Expected	No suitable habitat present in project areas
Malacothamnus davidsonii Davidson's bush-mallow	None/None 1B.2	Coastal scrub, riparian woodland, chaparral, cismontane woodland. Sandy washes. 150-1525 m. perennial deciduous shrub. Blooms Jun-Jan	Not Expected	No suitable habitat present in project areas
Microseris paludosa marsh microseris	None/None 1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland. 3-610 m. perennial herb. Blooms Apr-Jun(Jul)	Low	While potentially suitable woodland habitat is present, this species typically occurs in less dense conditions (i.e. with more openings) than are present in project areas.
Monardella sinuata ssp. *nigrescens* northern curly-leaved monardella	None/None 1B.2	Coastal dunes, coastal scrub, chaparral, lower montane coniferous forest (in sandhill habitats). Sandy soils. 10-245 m. annual herb. Blooms (Apr)May-Jul(Aug-Sep)	Not Expected	Suitable habitats are not present in project areas.

Scientific Name Common Name	Status Fed/State ESA CRPR or CDFW	Habitat Requirements	Potential to Occur	Rationale
Monolopia gracilens woodland woollythreads	None/None 1B.2	Chaparral, valley and foothill grassland, cismontane woodland, broadleafed upland forest, North Coast coniferous forest. Grassy sites, in openings; sandy to rocky soils. Often seen on serpentine after burns, but may have only weak affinity to serpentine. 120-975 m. annual herb. Blooms (Feb)Mar-Jul	Low	While potentially suitable woodland habitat is present, the project areas lack serpentine or disturbed/burned areas.
Orthotrichum kellmanii Kellman's bristle moss	None/None 1B.2	Chaparral, cismontane woodland. Sandstone outcrops with high calcium concentrations from eroded boulders out of non-calcareous sandstone bedrock. Rock outcrops in small openings within dense chaparral with overstory of scattered Pinus attenuata. 343-685 m. moss. Blooms Jan-Feb	Not Expected	No suitable habitat present in project areas
Pedicularis dudleyi Dudley's lousewort	None/Rare 1B.2	Chaparral, cismontane woodland, North Coast coniferous forest, valley and foothill grassland. Deep shady woods of older coast redwood forests; also in maritime chaparral. 60-330 m. perennial herb. Blooms Apr-Jun	Not Expected	No suitable habitat present in project areas
Penstemon rattanii var. *kleei* Santa Cruz Mountains beardtongue	None/None 1B.2	Chaparral, lower montane coniferous forest, redwood forest, north coast coniferous forest. Sandy shale slopes; sometimes in the transition between forest and chaparral. 455-915 m. perennial herb. Blooms May-Jun	Moderate	Potentially suitable redwood forest is present in project areas.
Pentachaeta bellidiflora white-rayed pentachaeta	FE/SE 1B.1	Valley and foothill grassland, cismontane woodland. Open dry rocky slopes and grassy areas, often on soils derived from serpentine bedrock. 35-610 m. annual herb. Blooms Mar-May	Not Expected	No suitable habitat present in project areas
Pinus radiata Monterey pine	None/None 1B.1	Closed-cone coniferous forest, cismontane woodland. Three primary stands are native to California. Dry bluffs and slopes. 60-125 m. perennial evergreen tree.	Not Expected	No suitable habitat present in project areas

Scientific Name Common Name	Status Fed/State ESA CRPR or CDFW	Habitat Requirements	Potential to Occur	Rationale
Piperia candida white-flowered rein orchid	None/None 1B.2	North Coast coniferous forest, lower montane coniferous forest, broadleafed upland forest. Sometimes on serpentine. Forest duff, mossy banks, rock outcrops, and muskeg. 45-1615 m. perennial herb. Blooms (Mar)May-Sep	Not Expected	No suitable habitat present in project areas
Plagiobothrys chorisianus var. *chorisianus* Choris' popcorn flower	None/None 1B.2	Chaparral, coastal scrub, coastal prairie. Mesic sites. 2-705 m. annual herb. Blooms Mar-Jun	Not Expected	No suitable habitat present in project areas
Plagiobothrys diffusus San Francisco popcorn flower	None/SE 1B.1	Valley and foothill grassland, coastal prairie. Historically from grassy slopes with marine influence. 45-360 m. annual herb. Blooms Mar-Jun	Not Expected	No suitable habitat present in project areas
Polygonum hickmanii Scotts Valley polygonum	FE/SE 1B.1	Valley and foothill grassland. Purisima sandstone or mudstone with a thin soil layer; vernally moist due to runoff. 210-230 m. annual herb. Blooms May-Aug	Not Expected	No suitable habitat present in project areas
Rosa pinetorum pine rose	None/None 1B.2	Closed-cone coniferous forest, cismontane woodland, usually pine-dominated. 5-1090 m. perennial shrub. Blooms May, Jul	Low	Forests in the project areas are not dominated by pine species.
Senecio aphanactis chaparral ragwort	None/None 2B.2	Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. 20-855 m. annual herb. Blooms Jan-Apr(May)	Not Expected	No suitable habitat present in project areas
Silene verecunda ssp. *verecunda* San Francisco campion	None/None 1B.2	Coastal scrub, valley and foothill grassland, coastal bluff scrub, chaparral, coastal prairie. Often on mudstone or shale; one site on serpentine. 30-645 m. perennial herb. Blooms (Feb)Mar-Jun(Aug)	Not Expected	No suitable habitat present in project areas
Stebbinsoseris decipiens Santa Cruz microseris	None/None 1B.2	Broadleafed upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland. Open areas in loose or disturbed soil, usually derived from sandstone, shale or serpentine, on seaward slopes. 90-750 m. annual herb. Blooms Apr-May	Not Expected	Suitable openings in woodland and forest habitats are not present in project areas.
Stuckenia filiformis ssp. *alpina* slender-leaved pondweed	None/None 2B.2	Marshes and swamps. Shallow, clear water of lakes and drainage channels. 300-2150 m. perennial rhizomatous herb (aquatic). Blooms May-Jul	Not Expected	No suitable habitat present in project areas

Scientific Name Common Name	Status Fed/State ESA CRPR or CDFW	Habitat Requirements	Potential to Occur	Rationale
Trifolium buckwestiorum Santa Cruz clover	None/None 1B.1	Coastal prairie, broadleafed upland forest, cismontane woodland. Moist grassland. Gravelly margins. 30-550 m. annual herb. Blooms Apr-Oct	Not Expected	No suitable habitat present in project areas
Tropidocarpum capparideum caper-fruited tropidocarpum	None/None 1B.1	Valley and foothill grassland. Alkaline clay. 0-360 m. annual herb. Blooms Mar-Apr	Not Expected	No suitable habitat present in project areas
Invertebrates				
Cicindela ohlone Ohlone tiger beetle	FE/None SA	Remnant native grasslands with California oatgrass & purple needlegrass in Santa Cruz County. Substrate is poorly-drained clay or sandy clay soil over bedrock of Santa Cruz mudstone.	Not Expected	No suitable habitat present in project areas
Danaus plexippus - pop. 1 monarch - California overwintering population	None/None SA	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Not Expected	No suitable habitat present in project areas
Euphilotes enoptes smithi Smith's blue butterfly	FE/None SA	Most commonly associated with coastal dunes & coastal sage scrub plant communities in Monterey & Santa Cruz counties. Hostplant: Eriogonum latifolium and Eriogonum parvifolium are utilized as both larval and adult food plants.	Not Expected	No suitable habitat present in project areas
Polyphylla barbata Mount Hermon (=barbate) June beetle	FE/None SA	Known only from sand hills in vicinity of Mt. Hermon, Santa Cruz County.	Not Expected	No suitable habitat present in project areas
Trimerotropis infantilis Zayante band-winged grasshopper	FE/None SA	Isolated sandstone deposits in the Santa Cruz Mountains (the Zayante Sand Hills ecosystem) Mostly on sand parkland habitat but also in areas with well-developed ground cover & in sparse chaparral with grass.	Not Expected	No suitable habitat present in project areas
Fish				
Eucyclogobius newberryi tidewater goby	FE/None SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	Not Expected	No suitable habitat present in project areas

Scientific Name Common Name	Status Fed/State ESA CRPR or CDFW	Habitat Requirements	Potential to Occur	Rationale
Oncorhynchus kisutch - pop. 4 coho salmon - central California coast ESU	FE/SE SA	Federal listing = pops between Punta Gorda & San Lorenzo River. State listing = pops south of Punta Gorda. Require beds of loose, silt-free, coarse gravel for spawning. Also need cover, cool water & sufficient dissolved oxygen.	Not Expected	No suitable habitat present in project areas
Oncorhynchus mykiss irideus - pop. 8 steelhead - central California coast DPS	FT/None SA	From Russian River, south to Soquel Creek and to, but not including, Pajaro River. Also San Francisco and San Pablo Bay basins.	Not Expected	No suitable habitat present in project areas
Amphibians				
Aneides flavipunctatus niger Santa Cruz Black Salamander	None/None SSC	Mixed deciduous and coniferous woodlands and coastal grasslands in San Mateo, Santa Cruz, and Santa Clara counties. Adults found under rocks, talus, and damp woody debris.	Low	Suitable upland dispersal habitat present on site; suitable aquatic habitat present within 1 mile
Dicamptodon ensatus California giant salamander	None/None SSC	Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County, and east to Napa County. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.	Low	Suitable upland dispersal habitat present on site; suitable aquatic habitat present within 1 mile
Rana boylii foothill yellow-legged frog	None/SCT SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	Moderate	Suitable upland habitat present on site; suitable aquatic habitat present within 1 mile
Rana draytonii California red-legged frog	FT/ None SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Moderate	Suitable upland habitat present on site; suitable aquatic habitat present within 1 mile
Reptiles				
Emys marmorata western pond turtle	None/None SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Not Expected	No suitable habitat present in project areas
Birds				

Scientific Name Common Name	Status Fed/State ESA CRPR or CDFW	Habitat Requirements	Potential to Occur	Rationale
Accipiter cooperii Cooper's hawk	None/None WL	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	High	Suitable foraging and nesting habitat present on site
Agelaius tricolor tricolored blackbird	None/ FT SSC	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	Not Expected	No suitable habitat present in project areas
Athene cunicularia burrowing owl	None/None SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Not Expected	No suitable habitat present in project areas
Brachyramphus marmoratus marbled murrelet	FT/ SE SA	Feeds near-shore; nests inland along coast from Eureka to Oregon border and from Half Moon Bay to Santa Cruz. Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas-fir.	Not Expected	No suitable habitat present in project areas
Charadrius alexandrinus nivosus western snowy plover	FT/ None SSC	Sandy beaches, salt pond levees & shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	Not Expected	No suitable habitat present in project areas
Coturnicops noveboracensis yellow rail	None/None SSC	Summer resident in eastern Sierra Nevada in Mono County. Freshwater marshlands.	Not Expected	No suitable habitat present in project areas
Cypseloides niger black swift	None/None SSC	Coastal belt of Santa Cruz and Monterey counties; central & southern Sierra Nevada; San Bernardino & San Jacinto mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf; forages widely.	Not Expected	No suitable habitat present in project areas
Elanus leucurus white-tailed kite	None/None FP	Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Moderate	Suitable foraging and nesting habitat present on site

Scientific Name Common Name	Status Fed/State ESA CRPR or CDFW	Habitat Requirements	Potential to Occur	Rationale
Falco peregrinus anatum American peregrine falcon	Delisted/ Delisted FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	Not Expected	No suitable habitat present in project areas
Geothlypis trichas sinuosa saltmarsh common yellowthroat	None/None SSC	Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	Not Expected	No suitable habitat present in project areas
Pandion haliaetus osprey	None/None WL	Ocean shore, bays, freshwater lakes, and larger streams. Large nests built in tree-tops within 15 miles of a good fish-producing body of water.	Not Expected	No suitable habitat present in project areas
Mammals				
Antrozous pallidus pallid bat	None/None SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Moderate	Suitable foraging and roosting habitat present on site
Corynorhinus townsendii Townsend's big-eared bat	None/None SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Moderate	Suitable foraging and roosting habitat present on site
Neotoma fuscipes annectens San Francisco dusky-footed woodrat	None/None SSC	Forest habitats of moderate canopy & moderate to dense understory. May prefer chaparral & redwood habitats. Constructs nests of shredded grass, leaves & other material. May be limited by availability of nest-building materials.	High Potential	The species is known to occur in similar habitat throughout its range.
Taxidea taxus American badger	None/None SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Not Expected	No suitable habitat present in project areas

FE = Federally Endangered FT = Federally Threatened FC = Federal Candidate Species FS=Federally Sensitive
SE = State Endangered ST = State Threatened SC = State Candidate SS=State Sensitive
SSC = CDFW Species of Special Concern SFP = State Fully Protected

Scientific Name Common Name	Status Fed/State ESA CRPR or CDFW	Habitat Requirements	Potential to Occur	Rationale
CRPR (CNPS California Rare Plant Rank): 1A=Presumed Extinct in California 1B=Rare, Threatened, or Endangered in California and elsewhere 2A=Plants presumed extirpated in California, but more common elsewhere 2B=Plants Rare, Threatened, or Endangered in California, but more common elsewhere CRPR Threat Code Extension: .1=Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat) .2=Fairly endangered in California (20-80% occurrences threatened) .3=Not very endangered in California (<20% of occurrences threatened)				

Five Water Pipelines Project

Phase I Cultural Resources Report

prepared for

San Lorenzo Valley Water District
13060 CA-9
Boulder Creek, California 95006

prepared by

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August 2018

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Please cite this report as follows:

Haas, Hannah, Steven Treffers, James Williams, and Christopher Duran

2018 *San Lorenzo Valley Water District Five Water Pipelines Project, California*. Rincon Consultants Project No. 18-06158. Report on file at the Northwest Information Center, Sonoma State University.

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Executive Summary

Rincon Consultants, Inc. (Rincon) was retained by Water Systems Consulting to conduct a cultural resources study of the Five Water Pipelines Project (project) on behalf of the San Lorenzo Valley Water District. The project site is generally located in the vicinity of the communities of Ben Lomond, Boulder Creek, and Felton in Santa Cruz County.

This study has been prepared in accordance with the California Environmental Quality Act (CEQA) statutes and guidelines and Section 106 of the National Historic Preservation Act (NHPA) and the National Environmental Policy Act. This cultural resources study includes a records search, Native American consultation, local interested parties consultation, an intensive pedestrian survey of the project site, and preparation of this report.

One built environment property was identified within the Area of Potential Effects (APE) that is considered a historic property and historical resource under Section 106 of the NHPA and CEQA, respectively. An approximately 0.8-mile segment of California State Route (SR) 236 is significant for its role in facilitating early and ongoing tourism in Big Basin Redwoods State Park, California's oldest state park. Those character-defining features that are essential to this resource's ability to convey its significance relate less to its physical materials but rather its alignment and setting. The proposed project would be constructed entirely underground and would not introduce any above-ground elements that would affect these important features. Although trenching may result in the partial removal of asphalt from the road surface, this material is not original or considered character defining, and it would be replaced in kind. The roadway and its immediate surroundings have been subject to continual improvements since its construction and the actions proposed under the current project are consistent with this ongoing maintenance. Because the project would not alter those characteristics of the historic property that qualify its eligibility for the National Register of Historic Places, a finding of no historic properties affected in accordance with 36 CFR § 800.4(d)(1) is recommended for the project.

No archaeological resources were identified in the project's APE as a result of the records search, Native American and historic group consultation, or pedestrian survey. Rosemary Cambra of the Muwekma Ohlone Indian Tribe of the SF Bay Area responded stating that ground disturbance should be observed by an archaeological and Native American monitor. However, no archaeological resources have been identified within or near the APE and the APE is disturbed by the construction of the existing roadways and infrastructure. Therefore, monitoring is not recommended as part of this study.

Based on the results of the cultural resources investigation, Rincon recommends a finding of no effect to historic properties under the NHPA and a less than significant impact on historical resources under CEQA for the current undertaking with the incorporation of the recommended best management practices below. Furthermore, Rincon recommends no further cultural resources work for the project based on the previous disturbance within the APE.

Worker's Environmental Awareness Program

A qualified archaeologist shall be retained to conduct a Worker's Environmental Awareness Program training for archaeological sensitivity for all construction personnel prior to the commencement of any ground disturbing activities. Archaeological sensitivity training should include a description of the types of cultural material that may be encountered, cultural sensitivity issues, regulatory issues, and the proper protocol for treatment of the materials in the event of a find.

Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA or the NHPA, additional work such as data recovery excavation may be warranted.

Unanticipated Discovery of Human Remains

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code §7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code §5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site.

1 Introduction

Rincon Consultants, Inc. (Rincon) was retained by Water Systems Consulting to conduct a cultural resources study of the Five Water Pipelines Project (project) on behalf of the San Lorenzo Valley Water District (the District). The project site is generally located in the vicinities of the communities of Ben Lomond, Boulder Creek, and Felton in the San Lorenzo Valley, Santa Cruz County, California (Figure 1 through Figure 10).

This study has been prepared in accordance with the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act (NHPA) statutes and guidelines as part of an application for funding from the United States Department of Agriculture. This cultural resources study includes a records search, Native American consultation, local interested parties consultation, an intensive pedestrian survey of the Area of Potential Effects (APE), and preparation of this report.

1.1 Project Description and Location

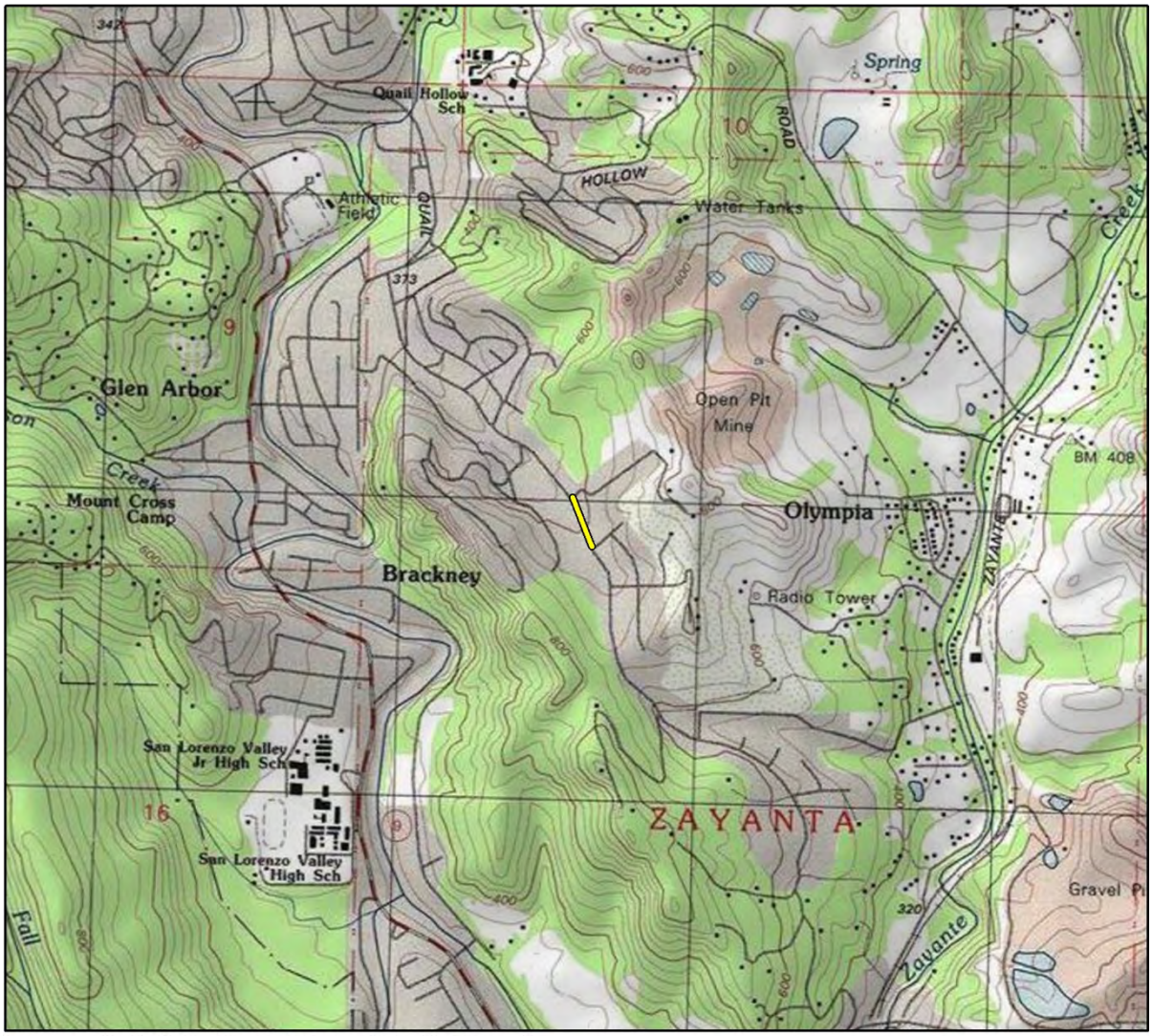
The proposed project would include installation of 10,790 linear feet (LF) of potable water pipelines as well as appurtenance structures. It also includes abandonment of 13,775 LF of existing pipeline and removal of 800 LF of existing pipeline on five sites in Santa Cruz County. The project includes five major components – the Hihn Road Pipeline, the Lyon Pipeline, the Sequoia Avenue Pipeline, the Hillside Drive Pipeline, and the California Drive Pipeline. The Lyon Pipeline, Sequoia Avenue Pipeline, and Hillside Drive Pipeline project sites are located in the census-designated place of Boulder Creek. The Hihn Road Pipeline and California Drive Pipeline project sites are located in the census-designated place of Ben Lomond.

Each of the proposed pipelines would entail conventional, open trench construction within the existing rights-of-way (ROW). Typical construction activities include traffic control, surveying the alignment, setting up stormwater pollution prevention (SWPPP) measures, sawcutting the existing pavement along the trench alignment, and excavating an open trench to a depth of five to six feet. Project construction would also include installing new pipeline (including valves, blow-offs, and hydrants), pressure testing and disinfection of the new main, tying into the existing distribution system, switching over customer services to the new pipeline, backfilling the trench and repairing the pavement, abandoning the existing pipelines in-place, removing 800 LF of aboveground pipeline, and restoring any damaged features to pre-construction condition or better.

1.1.1 Hihn Road Pipeline Project

The proposed project would install the Hihn Road Pipeline, which would consist of approximately 650 linear feet of six-inch ductile iron pipeline (DIP) and appurtenances within the Hihn Road right of way (ROW). The Hihn Road Pipeline would run in a northwest to southeast direction with an elevation gain of approximately 42 feet. At its northwestern terminus, the Hihn Road Pipeline would connect to the existing six-inch pipeline at the intersection of Ridgeview Drive and Hihn Road. At its southeastern terminus, the Hihn Road Pipeline would connect to the existing six-inch pipeline on the discharge side of the booster station on Stanford Drive.

Figure 1 Project Vicinity Map - Hihn Road



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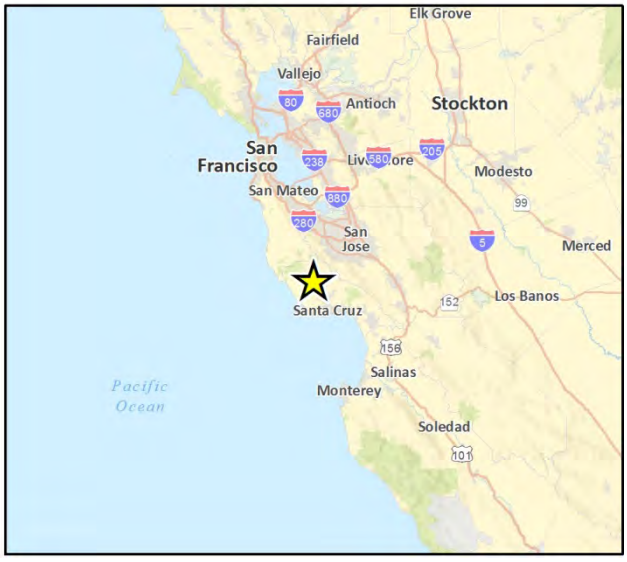
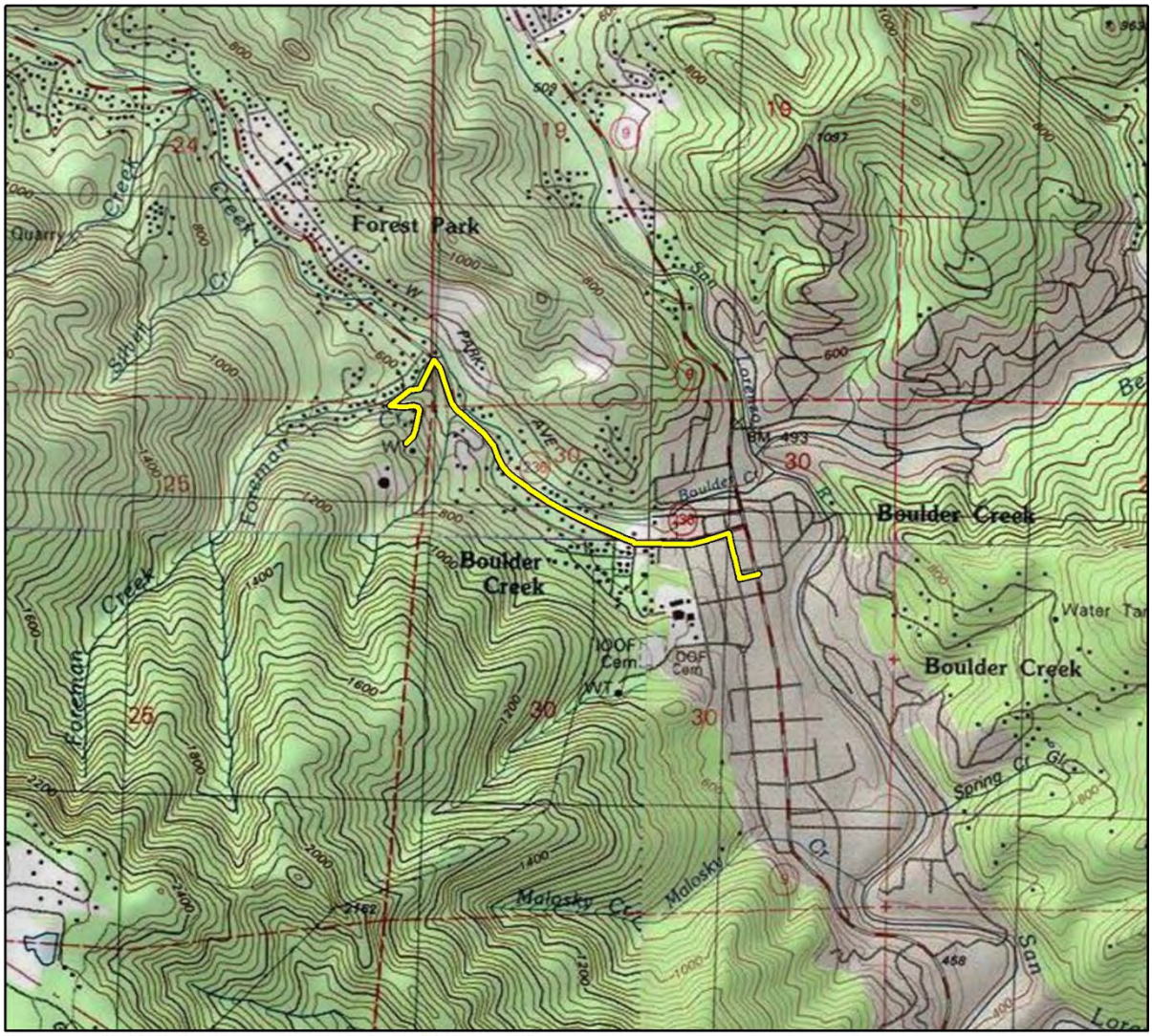


Figure 2 Project Vicinity Map - Lyon Pipeline



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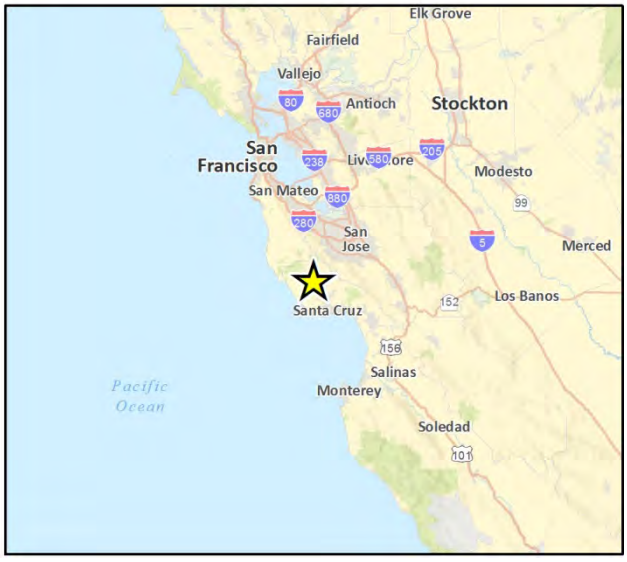
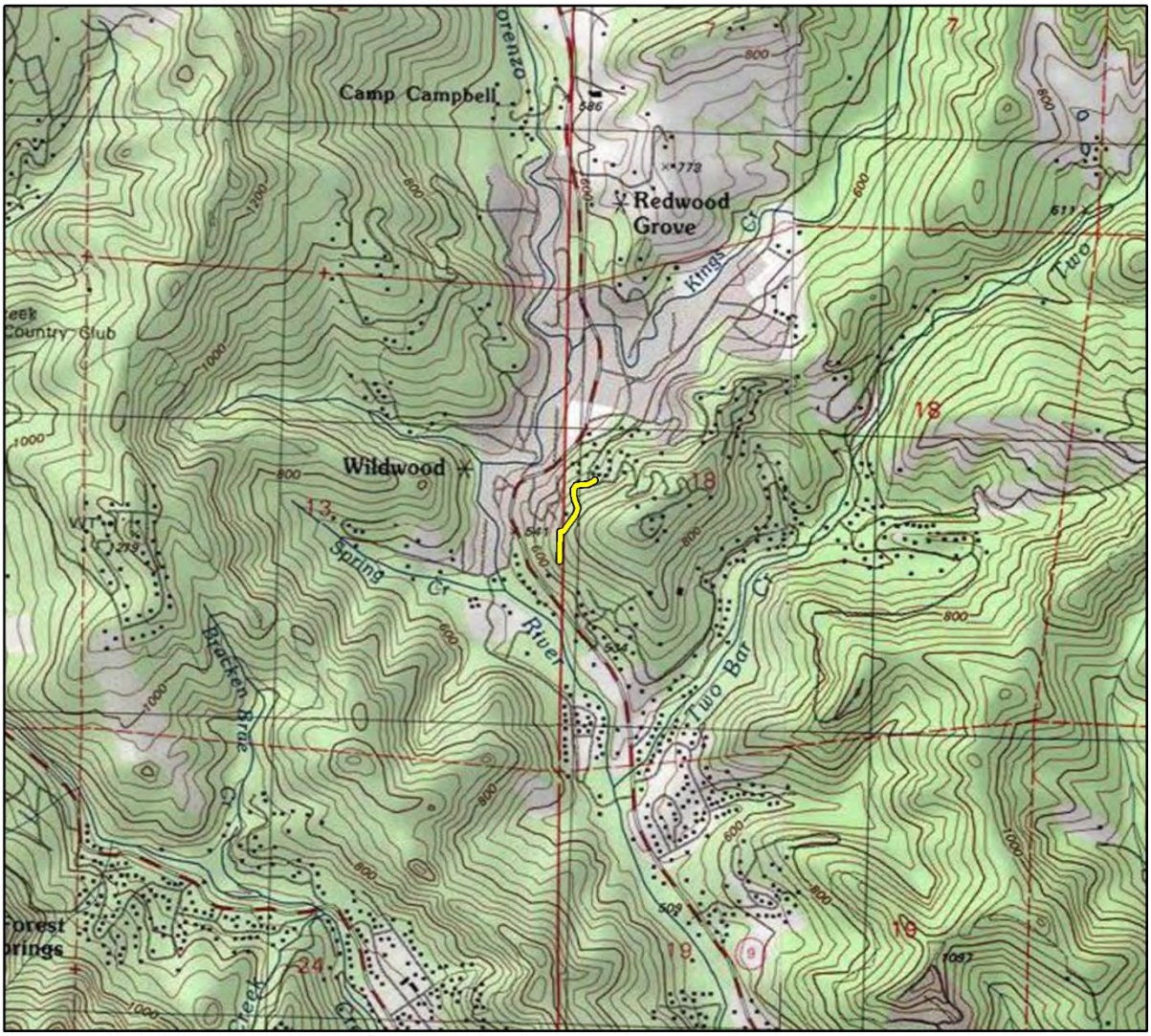


Figure 3 Project Vicinity Map - Sequoia Pipeline



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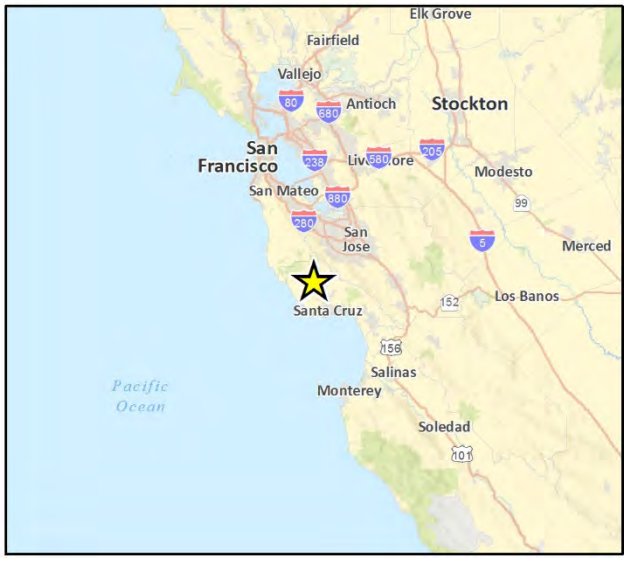
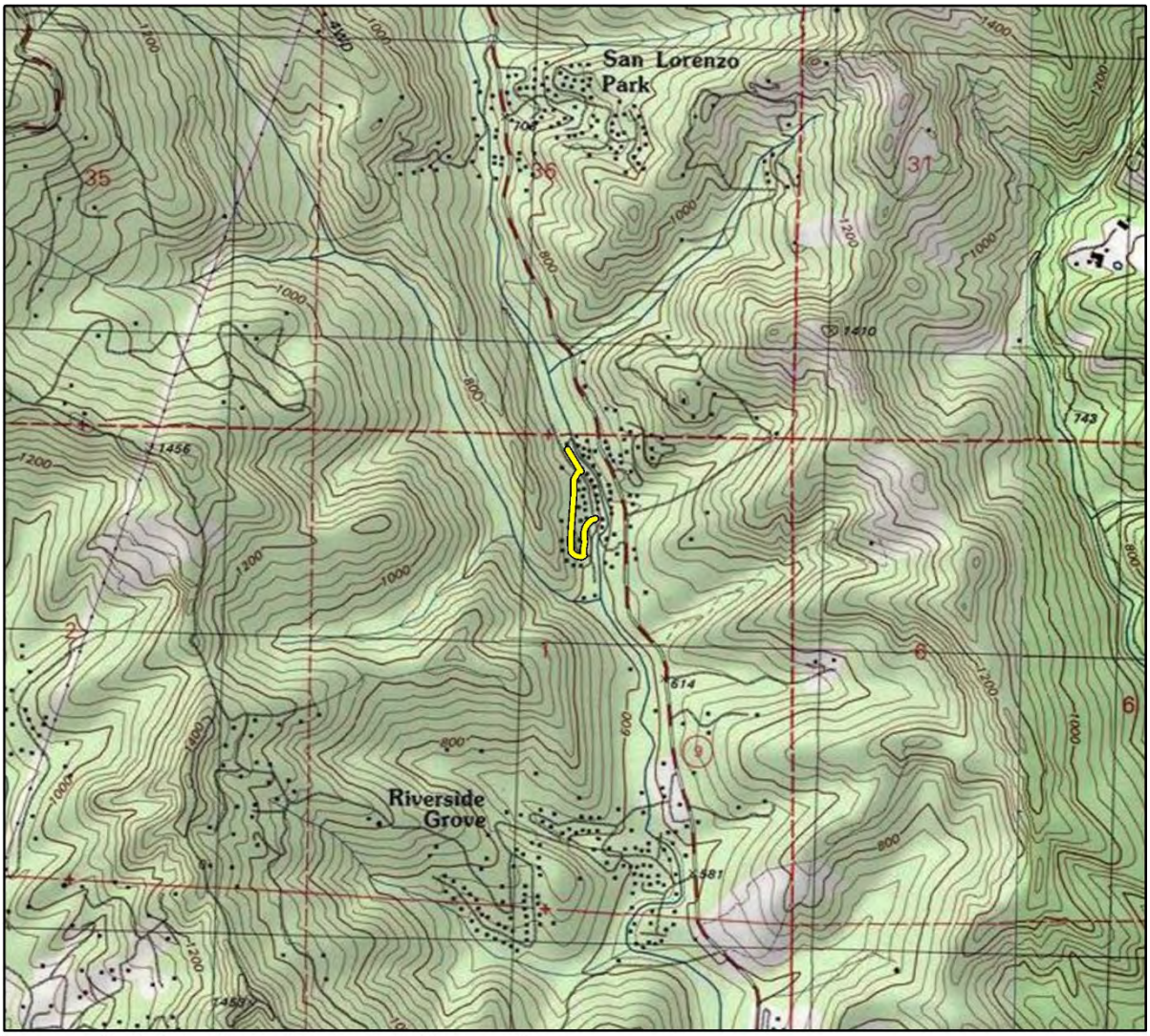


Figure 4 Project Vicinity Map - Hillside Drive Pipeline



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Project Location

0 1,000 2,000 N

Feet

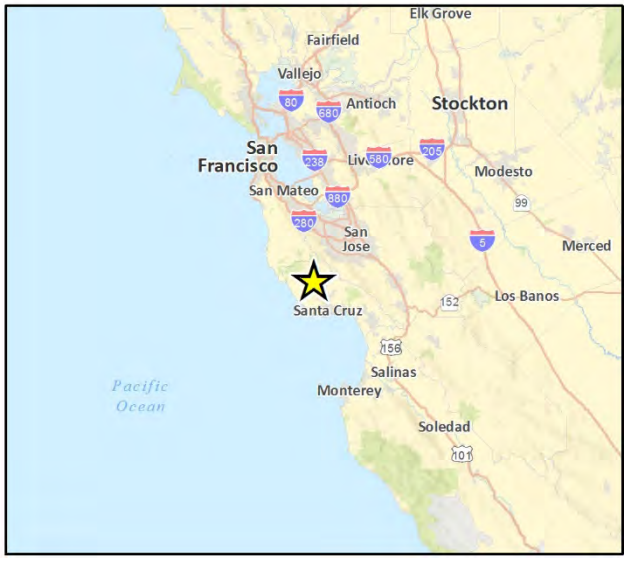
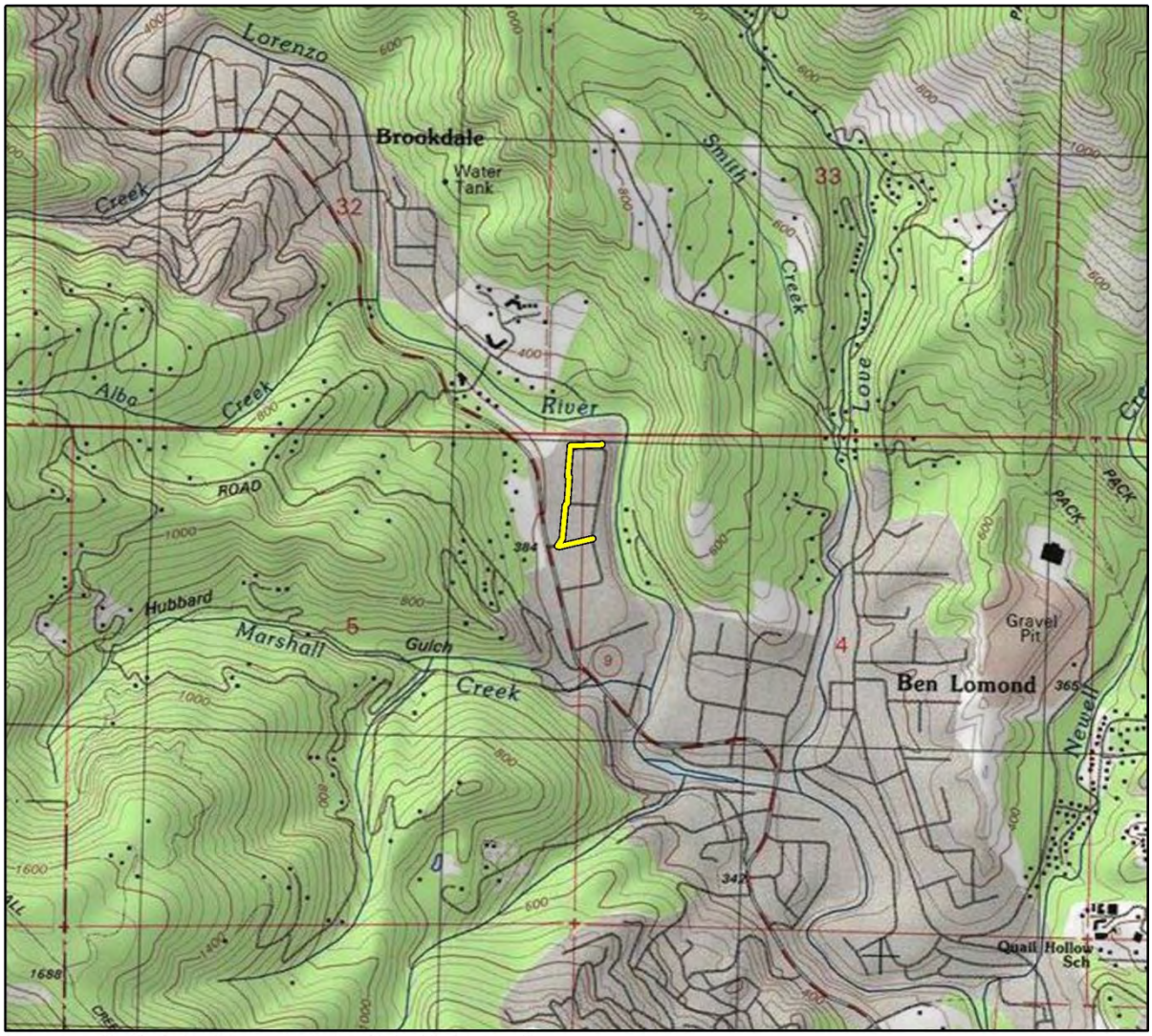


Figure 5 Project Vicinity Map - California Drive Pipeline



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Project Location

0 1,000 2,000 Feet

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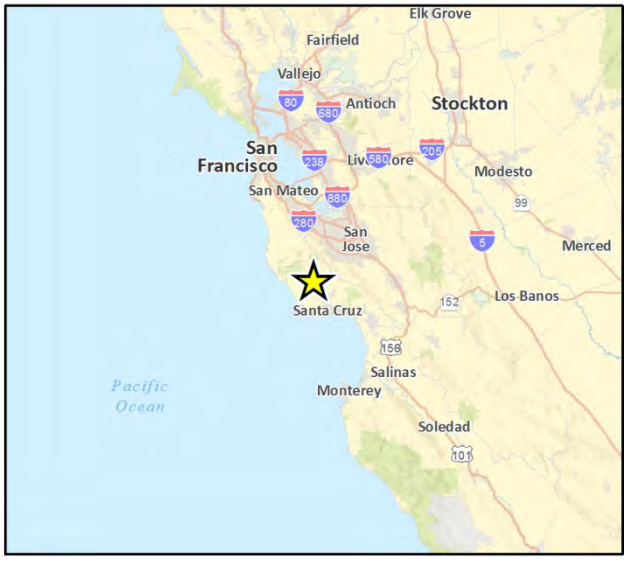


Figure 6 Area of Potential Effects- Hihn Road Pipeline

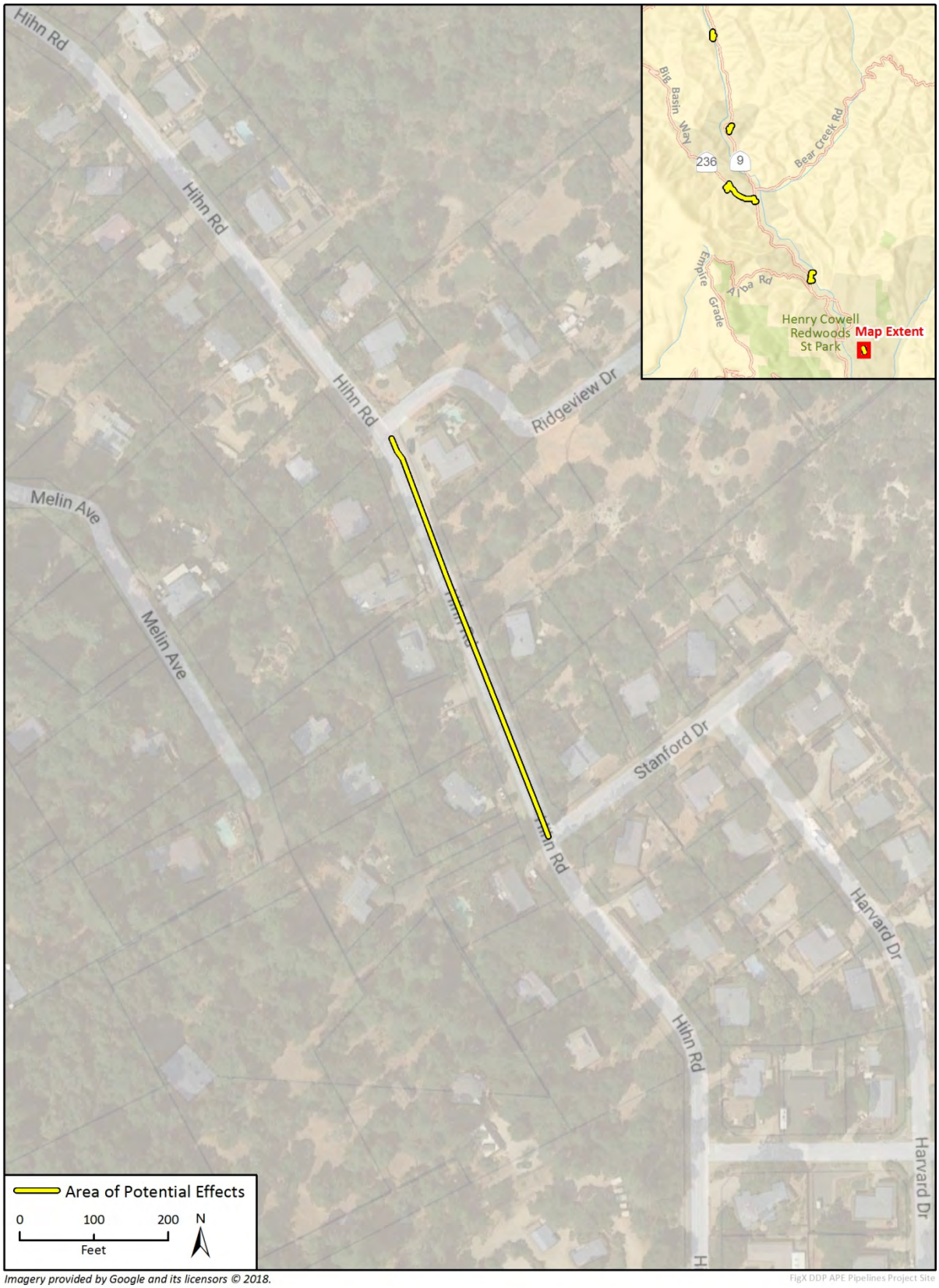


Figure 7 Area of Potential Effects - Lyon Pipeline

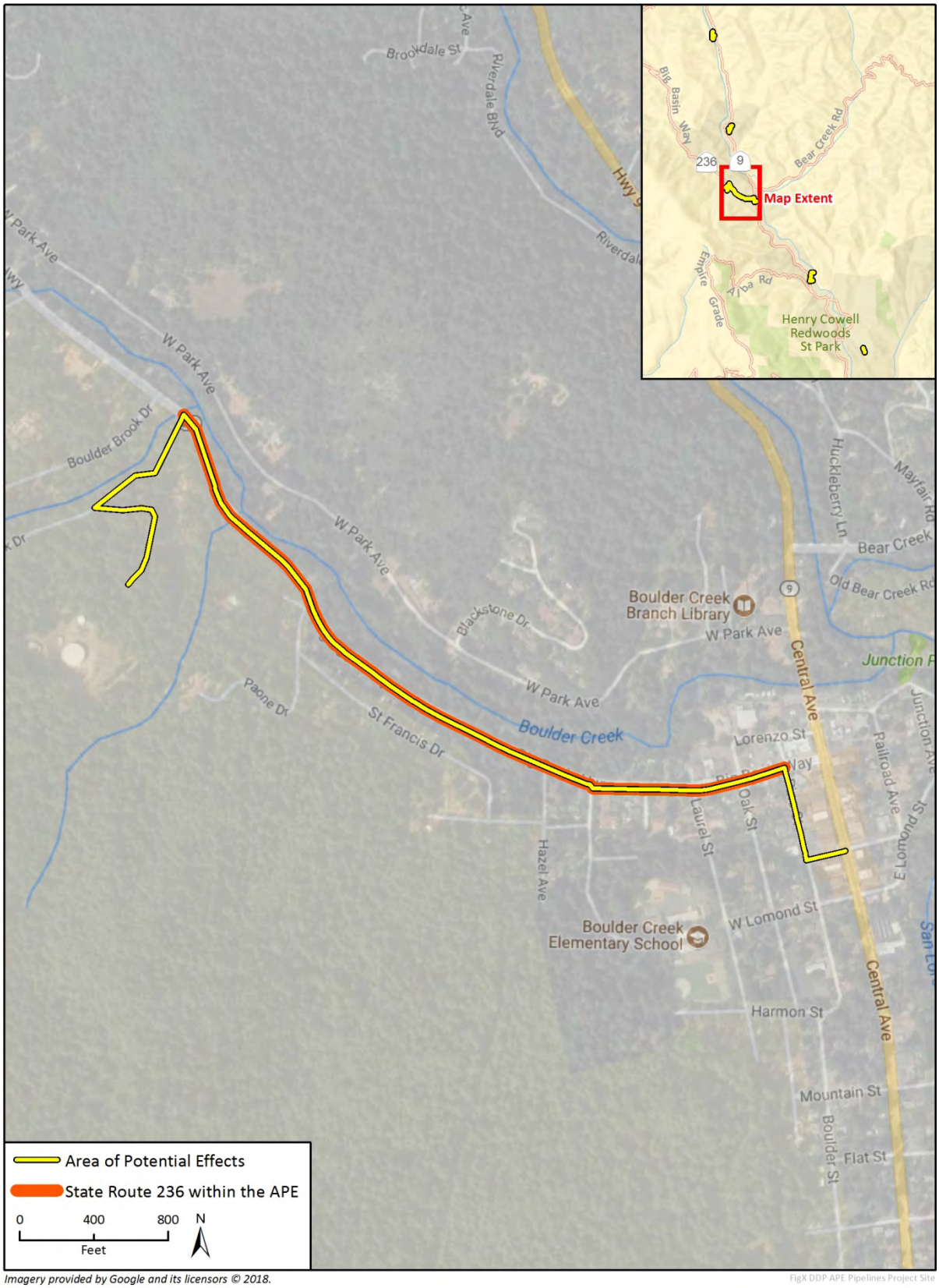
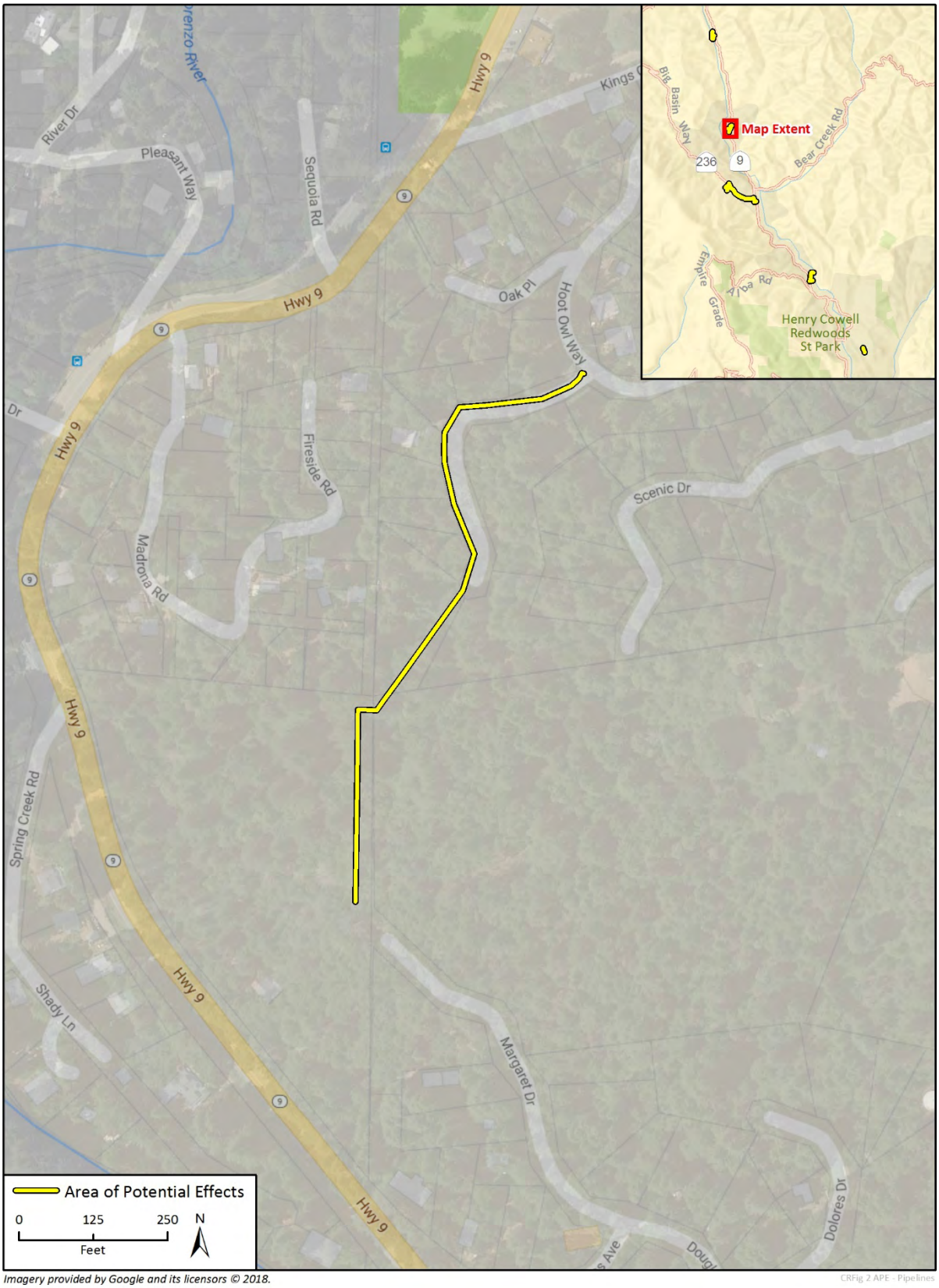


Figure 8 Area of Potential Effects - Sequoia Pipeline



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Five Water Pipelines Project

Figure 9 Area of Potential Effects - Hillside Drive Pipeline

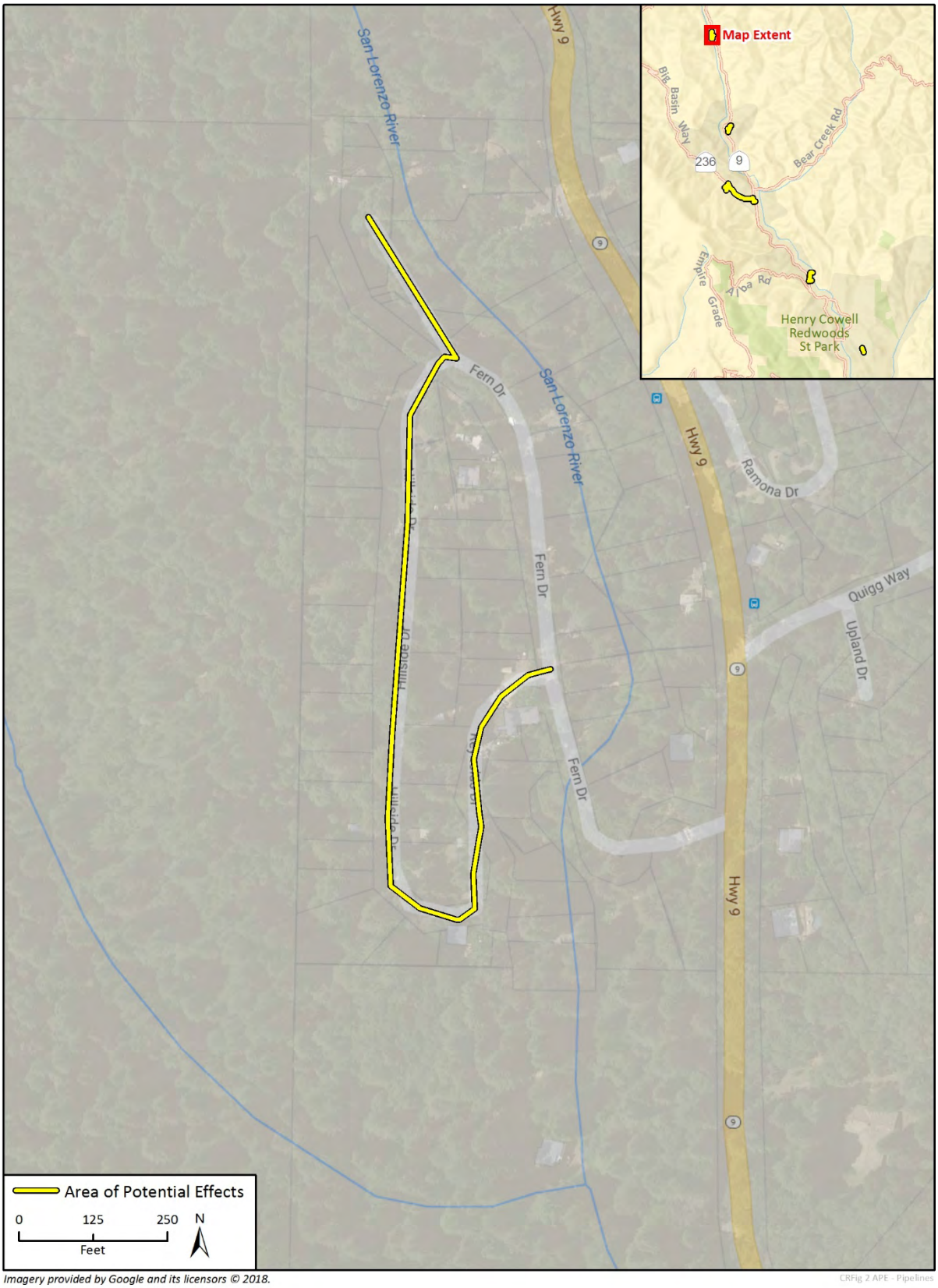
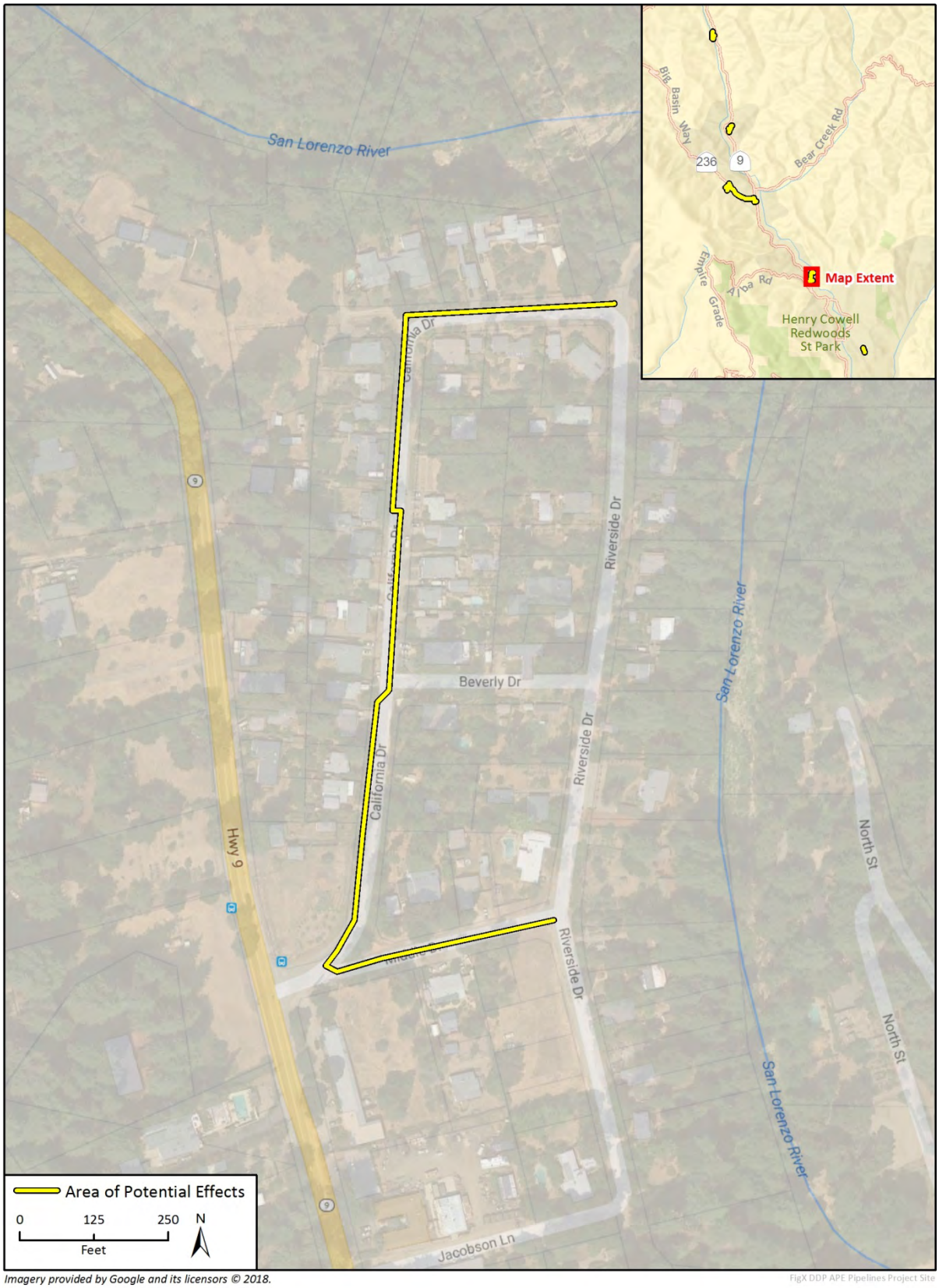


Figure 10 Area of Potential Effects - California Drive Pipeline



In conjunction with construction of the Hihn Road Pipeline, the existing Desert Line asbestos cement (AC) pipeline would be abandoned in place. The Desert Line pipeline generally runs in a northwest to southeast direction from the Quail Tanks to the intersection of Ridgeview Drive and Hihn Road. The Desert Line pipeline would be cut and capped at its northwest terminus adjacent to the Quail Tanks and at the north end of Ridgeview Drive.

1.1.2 Lyon Pipeline Project

The proposed project would construct the Lyon Pipeline, which would consist of approximately 5,600 linear feet of 12-inch DIP in Boulder Creek, California. The proposed Lyon Pipeline would parallel an existing eight-inch main line, preferably in the same easement. The northwestern terminus of the Lyon Pipeline would be located at the Big Steel, Lyon, and Little Lyon Reservoirs. The alignment would proceed east to California State Route (SR) 236, then proceed along the SR 236 ROW in a generally southeast direction. The pipeline would turn south at the intersection of SR 236 and Pine Street, proceed along Pine Street to the intersection of Pine Street and Lomond Street, turn west and proceed along Lomond Street, and end at the intersection of Central Avenue and Lomond Street. The southeastern terminus of the Lyon Pipeline would connect to the existing eight-inch AC main that runs along California SR 9.

In conjunction with construction of the Lyon Pipeline, the existing six-inch steel distribution pipeline would be abandoned in place. The existing pipeline generally runs in a northwest to southeast direction from the Little Lyon Reservoir. The existing pipeline would be cut and capped at its western terminus adjacent to the Little Lyon Reservoir and at its connection point located just north of the intersection of SR 236 and Redwood Avenue.

1.1.3 Sequoia Avenue Pipeline Project

The proposed project would construct the Sequoia Avenue Pipeline, consisting of approximately 800 linear feet of an eight-inch high density polyethylene (HDPE) water main and appurtenances along the Sequoia Avenue (an abandoned road) ROW. The project would also remove 800 feet of existing six-inch aboveground pipeline along Sequoia Avenue, which includes segments of original cast iron and replacement plastic pipe. The Sequoia Avenue Pipeline would run in a northeast to southwest direction along the Sequoia Avenue ROW with an elevation gain of approximately 72 feet. The northwestern terminus would connect at the intersection of Hoot Owl Way and Plumeria Court. The new pipeline would be constructed aboveground on supports. Construction would include connections to existing service laterals, fire hydrants as requested by the Fire Department or District standards, and other appurtenances as described by District standards.

1.1.4 Hillside Drive Pipeline Project

The proposed project would construct the Hillside Pipeline, consisting of approximately 1,900 linear feet of six-inch HDPE pipe, two pressure reducing valves (PRVs), and other appurtenances. The Hillside Pipeline replaces an existing 4-inch polyvinyl chloride pipeline and two PRVs. The Hillside Pipeline alignment would run in generally a north to south direction. The northern terminus of the Pipeline would be at the northern end of Fern Drive. The Pipeline would proceed south and east along the Fern Drive and Hillside Drive ROWs, turn north at the intersection of Hillside Drive and Reynolds Drive, and proceed along the Reynolds Drive ROW to its southern terminus at the intersection of Reynolds Drive and Fern Drive. The southern terminus of the Hillside Pipeline would connect to the existing six-inch DIP that runs along Fern Drive.

1.1.5 California Drive Pipeline Project

The proposed project would construct the California Drive Pipeline, which would consist of approximately 1,840 linear feet of six-inch DIP and appurtenances. Of this length, 1,460 feet would be installed in the California Drive ROW and 380 feet would be installed in the Middle Drive ROW. The California Drive Pipeline would be a six-inch DIP loop with two connections to the ten-inch Riverside Drive AC main – one at California Drive and one at Middle Drive. At its northern terminus, the proposed pipeline would connect to the existing ten-inch AC water main at the intersection of California Drive and Riverside Drive. The proposed pipeline would proceed west and south along the California Drive ROW, turn east at the intersection of California Drive and Middle Drive, and proceed east. At its southern terminus, the proposed pipeline would connect to the existing ten-inch AC water main at the intersection of Middle Drive and Riverside Drive.

The new pipeline would include a tap into the existing Riverside Drive ten-inch AC water main at Middle Drive, connections to existing service laterals, fire hydrants as requested by the Fire Department or District standards, and other appurtenances as described by District standards. In addition, 1,055 linear feet of the existing two-inch galvanized pipeline that runs parallel to California Drive would be abandoned in place via the cut and cap method.

1.2 Area of Potential Effects

36 Code of Federal Regulations (CFR) 800.16(d) of Section 106 defines the APE of an undertaking as the “geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist.” Additionally, the APE is a “three-dimensional (depth, length, width) space” and considers all areas directly affected by the proposed construction.

The current undertaking’s APE for archaeological and built-environment resources (or direct APE) is located within the road ROW at each project location. The proposed undertaking will not significantly change the existing setting nor diminish the historic integrity of any potential resources near the vicinity of the APE. At each project location, the road ROW will be returned to its current condition. Therefore, the APE was limited to the direct project footprint. The horizontal APE consists of the project footprint that encompasses approximately 10,790 linear feet of water pipelines. The vertical APE is a maximum depth of 5.5 feet consistent with construction needs.

1.3 Personnel

Rincon Archaeologist Hannah Haas, MA, Registered Professional Archaeologist (RPA), managed this study, conducted the Native American outreach and pedestrian survey, and served as primary author of this report. Archaeologist Sydni Kitchel conducted the cultural resources records search. Architectural Historian Steven Treffers conducted the local historical group consultation and the built environment resources components of this study, with support from Architectural Historians James Williams and Rachel Perzel. Cultural Resources Principal Investigator Christopher Duran, M.A., RPA, served as Principal Investigator for this study and coauthored this report. GIS Analyst Jonathon Montgomery prepared the figures found in this report. Rincon Principal Jennifer Haddow, PhD, reviewed this report for quality control.

2 Regulatory Setting

This section includes a discussion of the applicable federal, state, and local laws, ordinances, regulations, and standards governing cultural resources, to which the project must adhere before and during implementation. The project is subject to the environmental review requirements of Section 106 of the NHPA, National Environmental Policy Act (NEPA), and CEQA.

2.1 Federal

The definition of a federal undertaking in 36 CFR 800.16(y) includes projects requiring a federal permit, license or approval and/or projects receiving federal funding. Cultural resources are considered during federal undertakings chiefly under Section 106 of the NHPA of 1966 (as amended) through one of its implementing regulations, 36 CFR 800 (Protection of Historic Properties), and NEPA. Properties of traditional religious and cultural importance to Native Americans are considered under Section 101(d)(6)(A) of the NHPA, and CFR 800.3–800.10 Section 106 36.

Section 106 of the NHPA (16 United States Code 470f) requires federal agencies to take into account the effects of their undertakings on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register of Historic Properties (NRHP) and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings (36 CFR 800.1). Under Section 106, the significance of any adversely affected historic property is assessed and mitigation measures are proposed to reduce any impacts to an acceptable level. Historic properties are those significant cultural resources that are listed in or are eligible for listing in the NRHP per the criteria listed below (36 CFR 60.4; Advisory Council on Historic Preservation 2000).

> The quality of significance in American, state, and local history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and that:
>
> (a) Are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> (b) Are associated with the lives of persons significant in our past; or
>
> (c) Embody the distinctive characteristics of a type, period, or method of installation, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> (d) Have yielded, or may be likely to yield, information important in prehistory or history.

2.2 State

CEQA requires a lead agency to determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1). A *historical resource* is a resource listed in, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources or any object,

building, structure, site, area, place, record, or manuscript that a lead agency determines to be *historically significant* (State CEQA Guidelines, Section 15064.5[a][1-3]). A resource shall be considered *historically significant* if it:

1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
2) Is associated with the lives of persons important in our past
3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
4) Has yielded, or may be likely to yield, information important in prehistory or history

In addition, if it can be demonstrated that a project will cause damage to a *unique archaeological resource*, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC, Section 21083.2[a], [b], and [c]).

PRC, Section 21083.2(g) defines a *unique archaeological resource* as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information
2) Has a special and particular quality such as being the oldest of its type or the best available example of its type
3) Is directly associated with a scientifically recognized important prehistoric or historic event or person

2.3 County of Santa Cruz

The Conservation and Open Space Element of the Santa Cruz County General Plan includes objectives and policies to protect archaeological and historical resources. Key policies from the General Plan pertaining to cultural resources are listed below for informational purposes.

Policy 5.19.1 Evaluation of Native American Sites. Protect all archaeological resources until they can be evaluated. Prohibit any disturbance of Native American Cultural Sites without an appropriate permit. Maintain the Native American Cultural Sites ordinance.

Policy 5.19.2 Site Surveys. Require an archaeological site survey (surface reconnaissance) as part of the environmental review process for all projects with very high site potential as determined by the inventory of archaeological sites, within the Archaeological Sensitive Areas, as designated on General Plan and LCP Resources and Constraints Maps filed in the Planning Department.

Policy 5.19.3 Development Around Archaeological Resources. Protect archaeological resources from development by restricting improvements and grading activities to portions of the property not containing these resources, where feasible, or by preservation of the site through project design and/or use restrictions, such as covering the site with earthfill to a depth that ensures the site will not be disturbed by development, as determined by a professional archaeologist.

Policy 5.19.4 Archaeological Evaluations. Require the applicant for development proposals on any archaeological site to provide an evaluation, by a certified archaeologist, of the significance of the resource and what protective measures are necessary to achieve General Plan and LCP Land Use Plan objectives and policies.

Policy 5.19.5 Native American Cultural Sites. Prohibit any disturbance of Native American Cultural Sites without an archaeological permit which requires, but is not limited to, the following:

(a) A statement of the goals, methods, and techniques to be employed in the excavation and analysis of the data, and the reasons why the excavation will be of value.

(b) A plan to ensure that artifacts and records will be properly preserved for scholarly research and public education.

(c) A plan for disposing of human remains in a manner satisfactory to local Native American Indian groups.

Policy 5.20.3 Development Activities. For development activities on property containing historic resources, require protection, enhancement, and/or preservation of the historic, cultural, architectural, engineering or aesthetic values of the resources as determined by the Historic Resources Commission. Immediate or substantial hardship to a project applicant shall be considered in establishing project requirements.

Policy 5.20.4 Historic Resources Commission Review. Require that applicants for development proposals on property containing a designated Historic Resource submit plans for the protection and preservation of the historic resource values to the Historic Resources Commission for their review and approval; require an evaluation and report by a professional historian or a cultural resources consultant when required by the Commission.

Policy 5.20.5 Encourage Protection of Historic Structures. Encourage and support public and private efforts to protect and restore historic structures and continue their use as an integral part of the community.

Title 16 (Environmental and Resource Protection) of the Santa Cruz County Municipal Code outlines criteria for Native American cultural studies (Chapter 16.40), historic preservation (Chapter 16.42), and paleontological resource protection (Chapter 16.44).

Chapter 16.42 defines the significance and designation of protected historic resources on the Santa Cruz County Inventory of Historic Resources and development procedures for designated historic resources.

According to Chapter 16.42.050, structures, objects, sites and districts shall be designated as historic resources if, and only if, they meet one or more of the following criteria and have retained their architectural integrity and historic value:

1) The resource is associated with a person of local, State or national historical significance
2) The resource is associated with an historic event or thematic activity of local, State or national importance
3) The resource is representative of a distinct architectural style and/or construction method of a particular historic period or way of life, or the resource represents the work of a master builder or architect or possesses high artistic values
4) The resource has yielded, or may likely yield, information important to history

3 Environmental Setting

3.1 Natural Setting

The project APE is in the Santa Cruz Mountains in coast redwood forest. Land use in the vicinity of the APE is primarily residential. The elevation for the project site is approximately 400 to 750 meters (1,315 to 2,460 feet) above mean sea level.

3.2 Cultural Setting

The project site lies in what is generally described as the Central Coast Archaeological Region, one of eight organizational divisions of the state (Moratto 1984: Fig. 1). This region extends from the Monterey Bay area to Morro Bay, and includes all of Monterey County.

Several chronological sequences have been devised to understand cultural changes in the Central Coast Region from the Milling Stone period to contact. Jones and Ferneau (2002:213) present the following sequence: Milling Stone, Early, Early-Middle Transition, Middle, Middle-Late Transition, and Late periods. The archaeology of the Central Coast Region subsequent to the Milling Stone period is distinct from that of the Bay Area and Central Valley, although the region has more in common with the Santa Barbara Channel area during the Middle and Middle-Late Transition periods, but few similarities during the Late period (Jones and Ferneau 2002:213).

3.2.1 Prehistoric Context

Paleo-Indian Period (ca. 10,000 to 6000 BCE)

When Wallace developed the Early Man horizon in the 1950s, little evidence of human presence was known for the southern California coast prior to 6000 BCE. Archaeological work in the intervening years has identified numerous sites older than this date, including coastal and Channel Islands sites (e.g., Erlandson 1991; Johnson et al. 2002; Moratto 1984). The earliest accepted dates for occupation are from two of the Northern Channel Islands, located off the coast from Santa Barbara. On San Miguel Island, Daisy Cave clearly establishes the presence of people in this area approximately 10,000 years ago (Erlandson 1991:105). On Santa Rosa Island, human remains have been dated from the Arlington Springs site to approximately 13,000 years ago (Johnson et al. 2002).

Only a few archaeological sites in the Central Coast Region are documented prior to 6,000 years ago. It is likely that most earlier coastal sites are presently under water because it is estimated that 10,000 years ago sea levels were 15 - 20 meters lower than today (Bickel 1978:7). Estimates place the early Holocene shore in central and southern California at approximately 10 kilometers farther west than today's coastline (Breschini and Haversat 1991:126)

Recent data from Paleo-Indian sites in southern California indicate that the economy was a diverse mixture of hunting and gathering, with a major emphasis on aquatic resources in many coastal areas (e.g., Jones et al. 2002) and on Pleistocene lake shores in eastern California (Moratto 1984:90–92).

Milling Stone Period (6000 to 3000 BCE)

The Milling Stone horizon of Wallace (1955, 1978) is characterized by an ecological adaptation to collecting, and by the dominance of the principal ground stone implements generally associated with the horizontal motion of grinding small seeds; namely, milling stones (metates, slabs) and hand stones (manos, mullers), typically shaped (Wallace 1955, 1978). Milling stones occur in large numbers for the first time in the region's archaeological record and are even more numerous near the end of this period. As testified by their toolkits and shell middens in coastal sites, people during this period practiced a mixed food procurement strategy. Subsistence patterns varied somewhat as groups became better adapted to their regional or local environments.

Early Period and Early-Middle Transition Period (3500 to 600 BCE)

Although Jones and Ferneau (2002:213) have distinguished an Early-Middle Transition period, it is not well defined and is difficult to observe. Thus, the transition phase is included in the following discussion of the sites and characteristics recognized for the Early Period in the Central Coast Region.

An extensive series of shoreline midden deposits are in the Central Coast Region during the Early period, signifying an increase in occupation of the open coast (Jones and Waugh 1995, 1997). These include estuarine sites such as CA-SLO-165 in Estero Bay and open-coast sites in Monterey Bay area, including CA-MNT-73, CA-MNT-108, and CA-MNT-1228. Lithic artifact assemblages from these sites include Central Coast Stemmed Series and side-notched projectile points. Square-stemmed and side-notched points have also been found in deposits at Willow Creek in Big Sur (CA-MNT-282), and Little Pico II on the San Luis Obispo coast (CA-SLO-175; Jones and Ferneau 2002).

The material culture recovered from Early period sites in the Central Coast Region provides evidence for continued exploitation of inland plant and coastal marine resources. Artifacts include milling slabs and handstones, as well as mortars and pestles, which were used for processing a variety of plant resources. Bipointed bone gorge hooks were used for fishing. Assemblages also include a suite of *Olivella* beads, bone tools, and pendants made from talc schist. Square abalone shell (*Haliotis* spp.) beads have been found in Monterey Bay, but not yet in the Big Sur or San Luis Obispo areas (Jones and Waugh 1997:122).

Shell beads and obsidian are hallmarks of the trade and exchange networks of the central and southern California coasts. The archaeological record indicates that there was a substantial increase in the abundance of obsidian at Early period sites in the Monterey Bay and San Luis Obispo areas (Jones and Waugh 1997:124–126). Obsidian trade continued to increase during the following Middle period.

Middle Period (600 BCE to AD 1000)

A pronounced trend toward greater adaptation to regional or local resources occurred during the Middle period. For example, the remains of fish, land mammals, and sea mammals are increasingly abundant and diverse in archaeological deposits along the coast. Chipped stone tools used for hunting were more abundant and diversified, and shell fishhooks became part of the toolkit during this period. Large knives, a variety of flake scrapers, and drill-like implements are common during this period. Projectile points include large side-notched, stemmed, and lanceolate or leaf-shaped forms. Bone tools, including awls, are more numerous than in the preceding period, and the use of asphaltum adhesive became common.

Complex maritime technology also proliferated during this period. Notable introductions included circular shell fishhooks between 1000 and 500 BCE (Jones and Klar 2005:466), and the appearance of compound bone fishhooks between AD 300 and 900 (Arnold 1995; Jones and Klar 2005:466; King 1990:87–88). The introduction of shell fishhooks and plank canoes in the southern portion of the region and tule reed or balsa rafts in the north, their subsequent modifications, and the increased use of other capture devices such as nets appear to have led to a substantial focus on fishing in most coastal areas. A seasonal round settlement pattern was still followed; however, large, permanently occupied settlements, particularly in coastal areas, appear to have been the norm by the end of the period (Jones et al. 2007).

Middle-Late Transition Period (AD 1000-1250)

The Middle-Late Transition period is marked by relative instability and change, with major changes in diet, settlement patterns, and interregional exchange. The Middle period shell midden sites found along the Central Coast were abandoned by the end of the Middle-Late Transition period, so most Transition period and Late period sites were first occupied during those periods (Jones and Ferneau 2002:213, 219).

During the Middle to Late Transition period, projectile points diagnostic of both the Middle and Late periods are found in the Central Coast Region (Jones and Ferneau 2002:217). These points include large, contracting-stemmed types typical of the Middle period, as well as Late period small, leaf-shaped points, which likely reflect the introduction of the bow and arrow.

Late Period (AD 1250 to Historic Contact)

As noted above, Late period sites are marked by small, finely worked projectile points, as well as temporally diagnostic shell beads. The small projectile points are associated with bow and arrow technology. Although shell beads were typical of coastal sites, trade brought many of these maritime artifacts to inland locations, especially during the latter part of the Late period.

Unlike the large Middle period shell middens, Late period sites are more frequently single-component deposits. There are also more inland sites, with fewer and less visible sites along the Pacific shore during the Late period. The settlement pattern and dietary reconstructions indicate a lesser reliance on marine resources than observed for the Middle and Middle-Late Transition periods, as well as an increased preference for deer and rabbit (Jones et al. 2007). An increase in sites with bedrock mortars during the Late period further suggests that nuts and seeds began to take on a more significant dietary role.

3.2.2 Ethnographic Context

The project site lies in an area traditionally occupied by the Ohlone (or Costanoan) people. Ohlone territory extends from the point where the San Joaquin and Sacramento Rivers issue into the San Francisco Bay to Point Sur, with the inland boundary most likely constituted by the interior Coast Ranges (Kroeber 1925:462). The Ohlone language belongs to the Penutian family, with several distinct dialects throughout the region (Kroeber 1925: 462).

The pre-contact Ohlone were semi-sedentary, with a settlement system characterized by base camps of tule reed houses and seasonal specialized camps (Skowronek 1998). Villages were divided into small polities, each of which was governed by a chief responsible for settling disputes, acting as a war leader (general) during times of war, and supervising economic and ceremonial activities

(Skowronek 1998; Kroeber 1925:468). Social organization appeared flexible to ethnographers and any sort of social hierarchy was not apparent to mission priests (Skowronek 1998).

Ohlone subsistence was based on hunting, gathering, and fishing (Kroeber 1925: 467; Skowronek 1998). Mussels were a particularly important food resource (Kroeber 1925: 467). Sea mammals were also important; sea lions and seals were hunted and beached whales were exploited (Kroeber 1925: 467). Like the rest of California, the acorn was an important staple and was prepared by leaching acorn meal both in openwork baskets and in holes dug into the sand (Kroeber 1925: 467). The Ohlone also practiced controlled burning to facilitate plant growth (Kroeber 1925: 467; Skowronek 1998).

Seven Franciscan missions were built in Ohlone territory in the late 1700s, and all members of the Ohlone group were eventually brought in to the mission system (Kroeber 1925: 462; Skowronek 1998). After the establishment of the missions, Ohlone population dwindled from roughly 10,000 people in 1770 to 1,300 in 1814 (Skowronek 1998). In 1973, the population of people with Ohlone descent was estimated at fewer than 300 (Levy 1978:487). The descendants of the Ohlone united in 1971 and have since arranged political and cultural organizations to revitalize aspects of their culture (Skowronek 1998).

3.2.3 Historic Context

Below is a brief overview of the developmental history of the Santa Cruz Mountains region of Santa Cruz County, focusing on the area on the current SR 9 corridor, south of its junction with SR 236.

Spanish exploration of California began when Juan Rodriguez Cabrillo led the first European expedition into the region in 1542. For more than 200 years after his initial expedition, Spanish, Portuguese, British, and Russian explorers sailed the California coast and made limited inland expeditions, but they did not establish permanent settlements (Bean 1968; Rolle 2003). Europeans first reached the present Santa Cruz County in 1769, when an expedition led by Gaspar de Portolá crossed the coastal areas of the county. Spanish colonial and Church authorities identified Santa Cruz as a suitable location for a mission to be situated between the existing missions at Carmel and Santa Clara. Mission Santa Cruz was founded two years later at a site at the southern end of the San Lorenzo Valley (Kyle 2002). Because the Spanish concentrated their efforts along the coastal areas, European settlement and economic development in the Santa Cruz Mountains remained sparse into the Mexican era of California history. The pace of European settlement in the Santa Cruz Mountains accelerated during the era of Mexican rule. At least two ranchos were stablished in or near the San Lorenzo Valley, Rancho Zayante in 1834 and Rancho San Augustin in 1841 (Kyle 2002; Beck and Haase 1974).

The harvesting and milling of the county's expansive redwood forests was the first significant organized economic pursuit of European settlers in the Santa Cruz Mountains and provided major driver of regional growth. The industry had its local origins in the Mexican era, when Joseph L. Majors opened the area's first sawmill at Rancho Zayante (Kyle 2002). With the 1850s population influx that accompanied the Gold Rush and California statehood, lumber production became Santa Cruz County's most important industry. Ten sawmills operated in the county as of 1857, and by 1879, the county's milling capacity grew enough to produce 36 million board-feet of lumber per year (Lehman 2000). This boom supported the growth of several mountain settlements, including towns in and adjacent to the upper San Lorenzo Valley. Boulder Creek, for example, was founded as a timber claim camp in the 1860s. By 1870, there were about a dozen such camps in operation nearby (iHwy 2018a). The town of Ben Lomond was similarly dependent on lumber milling. It was

founded in the late 19th century as Pacific Mills, taking its name from the company that founded the settlement (iHwy 2018b). The timber boom of the late 19th century also led to transportation improvements, including the construction by the early 20th century of a Southern Pacific Railroad mountain line between Santa Cruz and San Francisco and a stagecoach line that ran between Boulder Creek and the Big Basin (Martin 1911; Kyle 2002).

By the turn of the 20th century, lumber production in Santa Cruz had begun to slow, and the need for new economic pursuits became evident. Intensive timber harvesting had run its course, effectively depleting what had once seemed to be inexhaustible swaths of redwood forests. Early conservation campaigns also played a role. Under pressure from conservationists, including the Sempervirens Club, the California State Legislature authorized the acquisition of 3,800 acres of Santa Cruz Mountains redwood forest in 1901 and established the Big Basin State Redwoods Park in 1902 (Kyle 2002). Demand for lumber following the 1906 San Francisco Earthquake and Fire provided a brief revival, but as of 1934, the timber industry was defunct in Santa Cruz County. In addition to leading to the shuttering sawmills and timber camps, the decline of the local timber industry reverberated in several other industries that required wood for raw material or fuel (Lehman 2000). Consequently, towns in and around the upper San Lorenzo Valley turned to two main economic engines, agriculture and tourism. In the early 20th century, orchardists near Boulder Creek and Ben Lomond produced apples that, according to one observer, “attained the highest perfection” (Martin 1911). Berries and pears were also in production in this area (Martin 1911; iHwy 2018c). Besides raising fruits, local businesses also capitalized on a growing regional tourist economy. Although most vacationers visited the coastline, especially the beaches of the city of Santa Cruz, a number of resorts and “summer cabins” came into use in the late 19th and early 20th centuries. These included sites in Boulder Creek, Brookdale, and Ben Lomond (iHwy 2018a, 2018b, 2018c).

Tourism provided an impetus for building and improving the State Highway System in the vicinity of the project area. At the urging of the Sempervirens Club, the State Highway Division constructed a road to Big Basin Redwoods State Park consisting of portions of the current SR 239 and SR 9. This route was completed by 1914. Segments of SR 236 were incorporated into the State Highway System by 1913. SR 9 was incorporated into the State Highway system in two segments in 1913 and 1933, respectively (Supernowicz 2002; Schachter 2002).

Towns along the SR 9 corridor did not experience expansion of the sort that marked most of California’s history during the second half of the 20th century. Historic aerial photographs of the area suggest that patterns of development from the mid-20th century to the present have remained consistent. There appears to have been only scattered development on the fringes of Boulder Creek and Ben Lomond in recent decades (NETR 2018).

4 Background Research

4.1 California Historical Resources Information System

On July 5, 2018, Rincon conducted a search of the California Historical Resources Information System, at the Northwest Information Center (NWIC) at Sonoma State University. The search identified previous cultural resources work and previously recorded cultural resources within a 0.5-mile radius of the project APE. The search included a review of the NRHP, the CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all available historic United States Geological Survey (USGS) 7.5- and 15-minute quadrangle maps. Appendix A provides a summary of the records search.

4.1.1 Previously Conducted Studies

The NWIC records search identified 32 previous studies within a 0.5-mile radius of the project APE, two of which are in a portion of the APE (Table 1). The National Archaeological Database listings for these studies are included with the records search summary in Appendix A.

Table 1 Previous Cultural Resource Studies within 0.5-Mile of the APE

Report Number	Author	Year	Title	Relationship to APE
S-003787	Edwards, R.L.	1972	*Archaeological Aspect of Environmental Impact Report on PG&E Power Line Alignment from Davenport to Mt. Hermon: Preferred and Secondary Alignments*	Within 0.5-mi of Hihn Road
S-003822	Lonnberg, A.	1973	*Archaeological Reconnaissance of the Rancho Rio Subdivision No. 5, File No.17254-1*	Within 0.5-mi of Hihn Road
S-003871	Cartier, R.	1977	*Environmental Impact Report for Parcels APN 077-051-1 & 077-051-11, Ben Lomond, Santa Cruz County, California*	Within 0.5-mi of California Drive
S-003880	Morris, J.W.	1976	*Preliminary Archaeological Reconnaissance of Quail Hollow Ranch, Santa Cruz County, California*	Within 0.5-mi of Hihn Road
S-004052	Melandry, M. and J.W. Snyder	1978	*Historic Properties Survey Report, 04-SCR-9, P.M. 9.7, Bridge Replacement, Bridge No. 36- 49, 04217 - 380971 (Formerly 04216 - 400691), Town of Ben Lomond, Santa Cruz County*	Within 0.5-mi of California Drive
S-004052a	Melandry, M.	1977	*Archaeological Survey Report on Bridge Replacement SCR-9 PM 9.7 in the Town of Ben Lomond in Santa Cruz County; 04216- 400691; Bridge 36-49*	Within 0.5-mi of California Drive
S-004052b	Snyder, J.W.	1978	*Historic Architectural Evaluations [of 3 structures]; 04-SCR-9 9.7 04216-100691*	Within 0.5-mi of California Drive

Report Number	Author	Year	Title	Relationship to APE
S-004927	Cartier, R. and C. Detlefs	1982	*Cultural Resource Evaluation for the Cody House on Highway 9 in Ben Lomond, Santa Cruz County*	Within 0.5-mi of California Drive
S-006272	Breschini, G.S. and T. Haversat	1983	*Preliminary Archaeological Reconnaissance for the San Lorenzo Valley Water District EIR, Santa Cruz County, California*	Within 0.5-mi of Hihn Road
S-009346	Kelly, M.K. and M.L. Buss	1987	*Archaeological Survey Report, Proposed Intersection Improvements at Route 9 and Alba Road, 04-SCR-9 P.M. 9.92 04336- 914541*	Within 0.5-mi of California Drive
S-012715	Dietz, S.A.	1991	*An Archaeological Reconnaissance of 2 Potential Project Sites for the Proposed Boulder Creek Post Office, Boulder Creek, Santa Cruz County, California*	Within 0.5-mi of Lyon
S-014634	Hannon, M.	1992	*Archaeological and Historical Resources Survey and Impact Assessment, Malosky Ridge Timber Harvesting Plan (California Department of Forestry)*	Within 0.5-mi of Lyon
S-017630	Cartier, R.	1995	*Cultural Resource Evaluation, Quail Hollow Ranch EIR Project, Felton, CA*	Within 0.5-mi of Hihn Road
S-017946	Pope, D.	1995	*Archaeological and Historical Resources Survey and Impact Assessment, Aalfs THP (California Department of Forestry)*	Within 0.5-mi of Sequoia Pipeline
S-022825	Wilson, K.	2000	*Negative Archaeological Survey Report, 05- SCR-9, 236, PM 9:6.2/6.5 CU 05-168, EA 05- 0E7001, Proposed Asphalt-Concrete Overlay on Portions of State Route 9*	**Within Lyon APE**
S-028236	Wheeler, T.	2002	*Archaeological Survey Report for the Proposed Safety Improvements Along State Route 9, Ben Lomond, Santa Cruz County, California, 05-SCR-09 KP 15.1/15.6 (PM 9.4/9.7) 05-465600*	Within 0.5-mi of California Drive
S-028236a	Pavlik, R.C.	2000	*Historic Architectural Survey Report - MOU Short Form*	Within 0.5-mi of California Drive
S-028236b	Wheeler, T.	2002	*An Extended Phase I Archaeological Survey Report for the Proposed Safety Improvements Along State Route 9, Ben Lomond, Santa Cruz County, California, 05- SCR-09 KP 15.1/15.6 (PM 9.4/9.7) 05- 465600*	Within 0.5-mi of California Drive
S-028593	Paul, G.	1995	*Archaeological and Historical Resources Survey and Impact Assessment, A Supplemental Report for a Timber Harvesting Plan, Schwarzbach et al THP, Project # 1-95- 332 (California Department of Forestry)*	Within 0.5-mi of California Drive
S-028809	Clark, M.R.	2004	*An Archaeological Reconnaissance of the Proposed San Lorenzo Valley Trail Alignment Alternatives, Boulder Creek-Santa Cruz, Santa Cruz County, California*	Within 0.5-mi of each project

Report Number	Author	Year	Title	Relationship to APE
S-029991	Huff, E.K.	1996	*Archaeological and Historical Resources Survey and Impact Assessment, Newman/Rivero/Lanoie THP, THP Number 1- 96-297 SCR (California Department of Forestry)*	Within 0.5-mi of Hillside Drive
S-030906	McMorris, C.	2004	*Caltrans Historic Bridge Inventory Update: Concrete Arch Bridges, Contract: 43A0089, Task Order: 01, EA: 43-984433, Volume I: Report and Figures*	Within 0.5-mi of Lyon
S-031006	Huff, E.K.	1998	*Confidential Archaeological Addendum for Timber Operations on Non-Federal Lands in California, RCP NTMP, 1-99NTMP-003 SCR*	Within 0.5-mi of Sequoia Pipeline
S-032945	Morse, A.G.	2006	*An Archaeological Survey Report for the Wilson Timber Harvesting Plan, Santa Cruz County, California, THP # 1-06-082 SCR (California Department of Forestry)*	Within 0.5-mi of Sequoia Pipeline
S-038258	Ruby, A.	2011	*PG&E Camp Evers 2105 Blitz Project (letter report)*	Within 0.5-mi of California Drive and Hihn Road
S-038430	Mikkelsen, P., L. Leach-Palm, J. Hatch, E. Kellenbach, and J. King	2001	*Cultural Resources Inventory of Caltrans District 5 Rural Highways, Santa Cruz County, California, Highways 1, 9, 17, 35, 129, 152, and 236. Volume I - Report*	Within 0.5-mi of Hillside Drive
S-039131	McGuire, J.	2012	*An Archaeological Survey Report for the BCECC NTMP, Santa Cruz and San Mateo Counties, California*	Within 0.5-mi of Lyon
S-042686	Edwards, R.L. and C.S. Smith	2013	*Archaeological Reconnaissance of a Parcel at 9733 Highway 9 in Ben Lomond, Santa Cruz County, California APN:078-162-03*	Within 0.5-mi of California Drive
S-045649	Koenig, H.	2014	*Historic Property Survey Report, Fern Drive Bridge Replacement Project, Santa Cruz County, California*	**Within Hillside Drive APE**
S-045649a	Koenig, H.	2014	*Archaeological Survey Report Fern Drive Bridge Replacement Project, Santa Cruz County, California*	Within 0.5-mi of Hillside Drive
S-045649b	Koenig, H.	2014	*Historic Resources Evaluation Report, Fern Drive Bridge Replacement Project, Santa Cruz County, California*	Within 0.5-mi of Hillside Drive
S-047860	Lehmann, S.	1995	*County of Santa Cruz, Survey of Historic Resources, Additions - 1995*	Within 0.5-mi of Hihn Road

APE: Area of Potential Effects; mi: mile

Source: NWIC, July 2018

4.1.2 Previously Recorded Resources

The NWIC records search identified 16 previously recorded cultural resources within a 0.5-mile radius of the project APE. Resource P-44-000405 is located within the Lyon Pipeline APE. Resource P-44-000401 is located adjacent to the Lyon Pipeline APE. No resources are located in the remainder of the APE (Table 2).

Table 2 Previously Recorded Resources within 0.5-Mile of the APE

Primary Number	Trinomial	Resource Type	Description	Recorder(s) and Year(s)	NRHP/ CRHR Status	Relationship to APE
P-44-000289	CA-SCR-312	Historic ranch	Quail Hollow Ranch, includes blacksmith building and two ranch houses	L. Eckert 1995	Not evaluated	Within 0.5-mi of Hihn Road APE
P-44-000401	CA-SCR-329H	Historic road	State Highway 9	J. Berg and S. Mikesell 1999	Not evaluated	**Adjacent to Lyon Pipeline APE**; Within 0.5-mi of Sequoia Ave, Hillside Drive, Hihn Road APEs
P-44-000405	CA-SCR-333H	Historic infrastructure	State Route 236 and "Dying Dozen" redwood grove	D. Supernowicz 2002	Eligible for the NRHP	**Within Lyon Pipeline APE**
P-44-000431	CA-SCR-341	Prehistoric site	Lithic scatter	T. Wheeler 2002	Not evaluated	Within 0.5-mi of California Drive APE
P-44-000441	N/A	Historic site	Stacked cobble wall	T. Wheeler and A. Ogden 2000	Not evaluated	Within 0.5-mi of California Drive APE
P-44-000463	N/A	Historic building	Queen Anne-style single-family residence	A. Engle and C. Duval 2001	Eligible for NRHP	Within 0.5-mi of Lyon Pipeline APE
P-44-000472	N/A	Historic building	Hotel Ben Lomond/Ben Lomond Hotel Clubhouse	A. Engle and C. Duval 2001	Eligible for NRHP	Within 0.5-mi of California Drive APE
P-44-000475	N/A	Historic building	White House Corner	A. Engle and C. Duval 2001	Eligible for NRHP	Within 0.5-mi of Lyon Pipeline APE
P-44-000477	N/A	Historic building	Ben Lomond Non-Denominational Church	R. Bamburg 1986; A. Engle and C. Duval 2001	Eligible for NRHP	Within 0.5-mi of California Drive APE

Primary Number	Trinomial	Resource Type	Description	Recorder(s) and Year(s)	NRHP/ CRHR Status	Relationship to APE
P-44-000482	N/A	Historic building	Ben Lomond Hotel Cottage	A. Engle and C. Duval 2001	Eligible for local listing	Within 0.5-mi of California Drive APE
P-44-000731	N/A	Historic infrastructure	Concrete spring box	J. McGuire 2007	Not evaluated	Within 0.5-mi of Lyon Pipeline APE
P-44-000856	N/A	Historic infrastructure	Retaining walls and recreational deck	H. Koenig 2014	Not eligible for NRHP	Adjacent to Hillside Drive APE
P-44-001014	N/A	Historic ranch	Rose Acres Ranch	S. Lehmann 1995	Not eligible for NRHP	Within 0.5-mi of Hihn Road APE
P-44-001015	N/A	Historic building	Alice Wilder House; single-family residence	S. Lehmann 1995	Locally listed	Within 0.5-mi of California Drive APE
P-44-001097	N/A	Historic building	Cody House	S. Lehmann 1995	Eligible for NRHP	Within 0.5-mi of California Drive APE
P-44-001098	N/A	Historic building	Howden Castle	R. Bamburg 1986	Eligible for NRHP; listed in CRHR	Within 0.5-mi of California Drive APE

NRHP: National Register of Historic Properties; CRHR: California Register of Historical Resources; APE: Area of Potential Effects; mi: mile

Source: NWIC, July 2018

4.1.3 P-44-000405

Resource P-44-000405 is the full length of SR 236, extending approximately 18 miles from its northern intersection with SR 9 at Waterman Gap to its southern intersection with SR 9 in Boulder Creek. The highway was first recorded in its entirety in 1999 but was not evaluated for historical significance. In 2002, an approximate 200-foot segment was again recorded and found eligible for NRHP under Criteria A and C for its association with Big Basin Redwoods State Park. The associated records for this resource are included in Appendix B of this report.

4.2 Archival Research

Archival research was completed in July and August 2018. Research methodology focused on the review of a variety of primary and secondary source materials relating to the history and development of the APE. Sources included, but were not limited to, historical maps, aerial photographs, and written histories of the area. The following repositories and publications were used to identify known historical land uses and the locations of research materials pertinent to the properties in APE:

- Historical aerial photographs
- Historical USGS topographic maps
- *Santa Cruz Sentinel* via Newspapers.com

- University of California, Santa Cruz Library Digital Collections
- Santa Cruz Public Library
- Other sources as noted in the references list

4.3 Native American Heritage Commission

As part of the process of identifying cultural resources in or near the project APE, Rincon contacted the Native American Heritage Commission (NAHC) to request a review of the Sacred Lands File (SLF). Rincon received the results from the NAHC on July 6, 2018, which stated that the SLF request produced negative results. The NAHC provided a list of five groups or individuals who may have additional information regarding cultural resources that may exist in the APE. Rincon prepared and mailed letters to each of the five contacts on July 6, 2018, requesting information, and made follow-up phone calls on July 25, 2018. Two calls were made when contacts did not answer.

Rincon Archaeologist Hannah Haas spoke with Irenne Zwierlein of the Amah Mutsun Tribal Band of Mission San Juan Bautista on July 25, 2018. Chairperson Zwierlein was not aware of any specific cultural resources in or near the project APE. However, she requested that any construction personnel working on the project be given sensitivity training prior to beginning work and that if any resources are found during construction that an archaeologist and local Native American tribe be contacted.

Ms. Haas spoke with Rosemary Cambra of the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area on July 25, 2018. Ms. Cambra recommended archaeological and Native American monitoring of all project ground disturbance. She disagreed with the recommendation of sensitivity training for construction personnel, stating that it does not guarantee that construction personnel will be able to identify any unanticipated finds to halt construction. Rincon understands Ms. Cambra's concerns and informed her that we would include the Tribe in this report, but as we have no evidence to suggest that archaeological resources are present in the APE, monitoring is not recommended. Ms. Cambra further requested that we include the following language in this report: "If remains are found during construction, the Muwekma Tribe shall do the removal." We have included that language here, but have not included it in the recommended management practices for this project because the NAHC is tasked with identifying the MLD for any discovered human remains under PRC §5097.98.

Voicemails were left with the remaining contacts, but as of August 6, 2018, Rincon has received no additional responses. Appendix B provides documentation of communication with the NAHC and Native American scoping.

4.4 Historic Group Consultation

Rincon initiated historic group consultation for the project on July 9, 2018 and mailed letters to the County of Santa Cruz Planning Department, the San Lorenzo Valley Museum, the Scotts Valley Historical Society, the University of California, Santa Cruz Special Collections & Archives, and the Santa Cruz Museum of Art and History Archive/Library requesting consultation for the proposed project. Follow-up consultation was conducted via telephone on July 23, 2018. Annie Murphy, a representative of the County of Santa Cruz Planning Department stated she would respond with any relevant information or concerns. Teresa Mora of the University of California, Santa Cruz Special Collections & Archives responded on July 23, 2018 and indicated that she had no knowledge of cultural resources in the APE or concerns with the project. As of August 6, 2018, Rincon has not received any responses.

5 Fieldwork

Rincon Cultural Resources Specialist Hannah Haas conducted a cultural survey of the APE on July 16, 2018. The survey consisted of driving the length of each pipeline alignment, with the exception of the Sequoia Project. The Sequoia Project APE was surveyed on foot at various locations along the alignment. Portions of the Sequoia pipeline were inaccessible due to safety concerns and poison oak. Ms. Haas examined unpaved surfaces adjacent to the roadways for evidence of any archaeological site that may extend beneath the roadways and into the project APE. Ms. Haas photographed the APE using a digital camera and recorded data on standard field forms. All field notes, photographs, and records related to the current study are on file at the Rincon Santa Cruz, California, office.

5.1 Results

5.1.1 Archaeological Resources

Ground visibility within the APE for the accessible portions of the Sequoia Pipeline was poor (less than 25%) due to vegetation and duff. Ground visibility within the APE for the remaining pipeline projects was zero due to roadway pavement (Figure 11 through Figure 15). No archaeological resources were identified during the survey of each of the five projects.

Figure 11 View of Hihn Road APE, Facing Northwest

Figure 12 View of Lyon Pipeline APE, Facing West

Figure 13 View of Sequoia Pipeline APE, Facing West

Figure 14 View of Hillside Drive APE, Facing South

Figure 15 View of California Drive APE, Facing Southwest

5.1.2 Built Environment Resources

One built environment resource, a segment of SR 236, was identified as part of the cultural resources survey and recorded on California Department Parks and Recreation 523 Series Forms, which are included in Appendix B of this report. Beginning west of its intersection with SR 9 in Boulder Creek, the segment extends approximately 0.8 mile along a general northwest-southwest alignment to a point just short its intersection with Boulder Brook Drive. The two-lane highway is approximately 25 feet wide and features a graded roadbed paved in non-original asphalt concrete and short gravel shoulders on either side (Figure 16). Portions of the roadway have cracked and been repaired with tar. Road markings include painted shoulder lines and a centerline consisting of raised reflective markings, as well as adjacent mile markers, speed limit signs, guard rails, and wood-pole utility line. The semi-rural setting includes small scale commercial properties, single-family residences, and mature redwoods.

Figure 16 California State Route 236 facing southeast.

The subject segment is part of a portion of SR 236 that appears to have been developed in 1902 to provide access to Big Basin Redwood State Park. Established in 1902, Big Basin Redwood State Park is California's oldest state park and encompasses 18,130 acres that include groves of Coast Redwood trees, the tallest trees on the planet (Avery 2010). According to a NRHP Multiple Property Documentation Form for the Historic Resources of Big Basin Redwoods State Park, early roads are significant in the context of the park as they were vital for allowing access to and within California's only state park in the early 20th century. The earliest visitors arrived by stage road, and by 1912, most visitors arrived by private automobile. As automobile travel grew, the state constructed new roads to and within the park, while existing roads were widened and improved, allowing the public

to better access their first state park. Roads built at Big Basin Redwoods were the only roads built by the state to facilitate tourism in a California state park until the 1920s (Avery 2010).

Historical USGS topographic maps reveal that the subject segment of SR 236 existed in its current alignment in 1902 and has provided the primary means of access to the southeastern entrance of the park since this time (USGS 1902, 1943). Presumably a dirt road during its earliest period, the roadway has been continually improved and appears to have been repaved within the last decades. Other changes to its immediate setting include the addition of adjacent roadside features and utilities, as well limited increases in commercial and residential development.

As discussed above, SR 236 was previously recorded in its entirety in 1999 as part of a cultural resources inventory of Caltrans District 5 Rural Highways; however, it was not evaluated for historical significance at that time (Ruby and Mikesell 1999). In 2002, a smaller segment of the highway near its northern intersection with SR 9 at Waterman Gap was recorded and evaluated by Caltrans (Supernowicz 2002). That evaluation determined that segment was eligible for listing in the NRHP under Criteria A and C for its association with Big Basin State Park.

The current evaluation finds that the subject segment is eligible for listing in the NRHP, CRHR, and local designation under NRHP Criterion A, CRHR Criterion 1, and Santa Cruz County Criterion 2. It has continually provided access to Big Basin Redwoods State Park since its establishment in 1902 and provided a critical piece of infrastructure to facilitate tourism within California's first state park. Although the physical materials of the highway have been replaced, those aspects of integrity are less critical to the resource's ability to convey its significance. Further it is expected and required that these materials would be replaced to maintain ongoing use of the highway. Those aspects of the resource that are essential in its ability to convey its significance are rather embodied in its alignment and setting, which have been largely consistent since its early development. As such, the subject segment retains sufficient integrity to be eligible for federal, state, and local designation. As a property that is eligible for federal, state, and local designation, the subject segment is considered a historic property for the purposes of Section 106 of the NHPA and a historical resource as defined by CEQA.

Archival research failed to indicate that the segment possesses direct associations with important persons to our past and it does not appear eligible under NRHP Criterion B, CRHR Criterion 2, or Santa Cruz County Criterion 1. Although other segments of SR 236 may represent unique and noteworthy examples of highway engineering, the subject segment is rather ordinary in its design and it does not appear eligible under NRHP Criterion C, CRHR Criterion 3, or Santa Cruz County Criterion 3. As confirmed by the archaeological survey, there is also no evidence to suggest that the property has potential to yield important information in history or prehistory and it does not appear eligible under NRHP Criterion D, CRHR Criterion 4, or Santa Cruz County Criterion 4.

6 Conclusions and Recommendations

One built environment property was identified within the APE that is considered a historic property and historical resource under Section 106 of the NHPA and CEQA, respectively. The SR 236 segment is significant for its role in facilitating early and ongoing tourism in Big Basin Redwoods State Park, California's oldest state park. Those character-defining features that are essential in this resource's ability to convey its significance relate less to its physical materials but rather its alignment and setting. The proposed project would be constructed entirely underground and would not introduce any above-ground elements that would affect these important features. Although trenching may result in the partial removal of asphalt from the road surface, this material is not original or considered character defining, and it would be replaced in kind. The roadway and its immediate surroundings have been subject to continual improvements since its construction and the actions proposed under the current project are consistent with this ongoing maintenance. Because the project would not alter those characteristics of the historic property that qualify its eligibility for the National Register of Historic Places, a finding of no historic properties affected in accordance with 36 CFR § 800.4(d)(1) is recommended for the project. As a result, the project would not result in an effect or significant impact and no further management practices are recommended for built environment resources.

No archaeological resources have been identified within the APE during the records search, Native American outreach, and pedestrian survey. The project APE has been heavily disturbed by the grading and construction of the existing roadways. Rosemary Cambra of the Muwekma Ohlone Indian Tribe of the SF Bay Area recommended that archaeological and Native American monitors be present for all ground disturbance. However, there are no known archaeological resources within or near the APE and the APE has been disturbed by the construction of existing infrastructure, thus it is not considered sensitive for archaeological resources.

Based on the results of this study, Rincon recommends a finding of no effect to historic properties under Section 106 of the NHPA and less than significant impact to historical resources under CEQA for the current undertaking. Furthermore, Rincon recommends no further archaeological resources work for the project based on the previous disturbance within the APE. The following best management practices are recommended in case of unanticipated discoveries.

6.1 Worker's Environmental Awareness Program

A qualified archaeologist shall be retained to conduct a Worker's Environmental Awareness Program training for archaeological sensitivity for all construction personnel prior to the commencement of any ground disturbing activities. Archaeological sensitivity training should include a description of the types of cultural material that may be encountered, cultural sensitivity issues, regulatory issues, and the proper protocol for treatment of the materials in the event of a find.

6.2 Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional

Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA or the NHPA, additional work such as data recovery excavation may be warranted.

6.3 Unanticipated Discovery of Human Remains

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify a most likely descendant (MLD). The MLD shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site.

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Appendix A

Records Search Summary

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-003787	Voided - E-41 SCR	1972	Rob L. Edwards	Archaeological Aspect of Environmental Impact Report on PG&E Power Line Alignment from Davenport to Mt. Hermon: Preferred and Secondary Alignments	Cabrillo College	44-000011, 44-000012, 44-000026, 44-000027, 44-000028, 44-000048, 44-000059, 44-000068, 44-000069, 44-000072, 44-000073, 44-000074, 44-000075, 44-000076, 44-000077, 44-000082
S-003822	Voided - E-76 SCR	1973	Allan Lonnberg	Archaeological Reconnaissance of the Rancho Rio Subdivision No. 5, File No.17254-1		
S-003871	Other - E-125 SCR	1977	Robert Cartier	Environmental Impact Report for Parcels APN 077-051-1 & 077-051-11, Ben Lomond, Santa Cruz County, California	Archaeological Resource Management	44-000162
S-003880	Voided - E-134 SCR	1976	Joseph W. Morris	Preliminary Archaeological Reconnaissance of Quail Hollow Ranch, Santa Cruz County, California		44-000289
S-003916	Voided - E-170 SCR	1977	Robert Cartier	Archeological Evaluation of the Proposed Land Division for Parcel APN 78-171-48, Santa Cruz County		
S-004052	Caltrans - EA 04217-380971; Voided - E-306 SCR	1978	Mara Melandry and John W. Snyder	Historic Properties Survey Report, 04-SCr-9, P.M. 9.7, Bridge Replacement, Bridge No. 36-49, 04217 - 380971 (Formerly 04216 - 400691), Town of Ben Lomond, Santa Cruz County	Caltrans District 4	44-001097, 44-001098
S-004052a		1977	Mara Melandry	Archaeological Survey Report on Bridge Replacement SCR-9 PM 9.7 in the Town of Ben Lomond in Santa Cruz County; 04216-400691; Bridge 36-49	Caltrans District 4	
S-004052b		1978	John W. Snyder	Historic Architectural Evaluations [of 3 structures]; 04-SCR-9 9.7 04216-100691	Caltrans District 4	
S-004927		1982	Robert Cartier and Charlene Detlefs	Cultural Resource Evaluation for the Cody House on Highway 9 in Ben Lomond, Santa Cruz County	Archaeological Resource Management	44-001097
S-006272	Submitter - Project 482	1983	Gary S. Breschini and Trudy Haversat	Preliminary Archaeological Reconnaissance for the San Lorenzo Valley Water District EIR, Santa Cruz County, California	Archaeological Consulting	
S-009346		1987	Marcia K. Kelly and Margaret L. Buss	Archaeological Survey Report, Proposed Intersection Improvements at Route 9 and Alba Road, 04-SCR-9 P.M. 9.92 04336-914541	California Department of Transportation	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-012715		1991	Stephen A. Dietz	An Archaeological Reconnaissance of 2 Potential Project Sites for the Proposed Boulder Creek Post Office, Boulder Creek, Santa Cruz County,California		
S-014634		1992	Mark Hannon	Archaeological and Historical Resources Survey and Impact Assessment, Malosky Ridge Timber Harvesting Plan (California Department of Forestry)	Redwood Empire	
S-017630		1995	Robert Cartier	Cultural Resource Evaluation, Quail Hollow Ranch EIR Project, Felton, CA	Archaeological Resource Management	44-000289
S-017946		1995	David Pope	Archaeological and Historical Resources Survey and Impact Assessment, Aalfs THP (California Department of Forestry)		
S-022825	Caltrans - EA 05-0E7001	2000	Kelda Wilson	Negative Archaeological Survey Report, 05-SCR-9, 236, PM 9:6.2/6.5 CU 05-168, EA 05-0E7001, Proposed Asphalt-Concrete Overlay on Portions of State Route 9	California Department of Transportation	44-000401
S-024645	CAL FIRE - 1-00-247-SCR	2000	James Hildreth	Confidential Archaeological Addendum for Timber Operations on Non-Federal Lands in California, Mason Creek, THP # 1-00-247 SCR (California Department of Forestry)	Webster & Associates	
S-028236	Caltrans - 05-465600; Voided - S-30187	2002	Thomas Wheeler	Archaeological Survey Report for the Proposed Safety Improvements Along State Route 9, Ben Lomond, Santa Cruz County, California, 05-SCR-09 KP 15.1/15.6 (PM 9.4/9.7) 05-465600.	Caltrans, District 5	44-000401, 44-000431, 44-000441
S-028236a		2000	Robert C. Pavlik	Historic Architectural Survey Report - MOU Short Form	California Department of Transportation	
S-028236b		2002	Thomas Wheeler	An Extended Phase I Archaeological Survey Report for the Proposed Safety Improvements Along State Route 9, Ben Lomond, Santa Cruz County, California, 05-SCR-09 KP 15.1/15.6 (PM 9.4/9.7) 05-465600.	Caltrans	
S-028593	CAL FIRE - 1-95-332-SCR	1995	Gary Paul	Archaeological and Historical Resources Survey and Impact Assessment, A Supplemental Report for a Timber Harvesting Plan, Schwarzbach et al THP, Project # 1-95-332 (California Department of Forestry)		

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-028809	Submitter - 04-XY	2004	Matthew R. Clark	An Archaeological Reconnaissance of the Proposed San Lorenzo Valley Trail Alignment Alternatives, Boulder Creek-Santa Cruz, Santa Cruz County, California	Holman & Associates	44-000116, 44-000230, 44-000401, 44-000431
S-029991	CAL FIRE - 1-96-297-SCR	1996	Eric K. Huff	Archaeological and Historical Resources Survey and Impact Assessment, Newman/Rivero/Lanoie THP, THP Number 1-96-297 SCR. (California Department of Forestry)	Big Creek Lumber Co.	
S-030906	Caltrans - Contract # 43A0089; Caltrans - EA 43-984433; Caltrans - Task Order: 01	2004	Christopher McMorris	Caltrans Historic Bridge Inventory Update: Concrete Arch Bridges, Contract: 43A0089, Task Order: 01, EA: 43-984433, Volume I: Report and Figures	JRP Historical Consulting	21-001328, 21-001329, 21-001330, 21-001331, 23-002644, 41-000633, 41-001829, 41-001830, 41-001831, 41-001832, 44-000346, 48-000068, 48-001602, 49-001173, 49-002710, 57-001229
S-031006	CAL FIRE - 1-99NTMP-003-SCR	1998	Eric K. Huff	Confidential Archaeological Addendum for Timber Operations on Non-Federal Lands in California, RCP NTMP, 1-99NTMP-003 SCR	Big Creek Lumber Company	
S-032945	CAL FIRE - 1-06-082-SCR	2006	Andrew G. Morse	An Archaeological Survey Report for the Wilson Timber Harvesting Plan, Santa Cruz County, California, THP # 1-06-082 SCR (California Department of Forestry)	Big Creek Lumber Company	
S-033801	CAL FIRE - 1-96-170-SCR	1996	Stephen G. Smith	Confidential Archaeological and Historical Resources Survey and Impact Assessment, A Supplemental Report for a Timber Harvesting Plan, Gerber THP, THP # 1-96-170 SCR		
S-038258		2011	Allika Ruby	PG&E Camp Evers 2105 Blitz Project (letter report)	Far Western Anthropological Research Group, Inc	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-038430	Caltrans - EA 009E07; Submitter - Contract No. 06A0148	2001	Patricia Mikkelsen, Laura Leach-Palm, Jennifer Hatch, Elizabeth Kellenbach, and Jerome King	Cultural Resources Inventory of Caltrans District 5 Rural Highways, Santa Cruz County, California, Highways 1, 9, 17, 35, 129, 152, and 236. Volume I - Report.	Far Western Anthropological Research Group, Inc.	41-000492, 41-000493, 41-000494, 44-000006, 44-000043, 44-000044, 44-000049, 44-000055, 44-000061, 44-000078, 44-000080, 44-000109, 44-000115, 44-000172, 44-000178, 44-000180, 44-000207, 44-000229, 44-000273, 44-000278, 44-000284, 44-000298, 44-000311, 44-000354, 44-000365, 44-000366, 44-000367, 44-000368, 44-000369, 44-000371, 44-000372, 44-000373, 44-000375, 44-000376, 44-000377, 44-000378, 44-000379, 44-000380, 44-000381, 44-000382, 44-000383, 44-000384, 44-000385, 44-000386, 44-000389, 44-000390, 44-000392, 44-000393, 44-000394, 44-000395, 44-000396, 44-000397, 44-000398, 44-000399, 44-000400, 44-000401, 44-000402, 44-000403, 44-000404, 44-000405, 44-000406, 44-000407, 44-000408, 44-000480, 44-000492
S-039131	CAL FIRE - 1-12NTMP-003-SMO/SCR	2012	Joseph McGuire	An Archaeological Survey Report for the BCCC NTMP, Santa Cruz and San Mateo Counties, California	Buena Vista Services, LLC	44-000614, 44-000615, 44-000621, 44-000730
S-042686		2013	Robert L. Edwards and Charr Simpson Smith	Archaeological Reconnaissance of a Parcel at 9733 Highway 9 in Ben Lomond, Santa Cruz County, California APN:078-162-03	Archaeological Associates of Central California	
S-045649	Agency Nbr - Federal ID# BRLO-5936(093)	2014	Heidi Koenig	Historic Property Survey Report, Fern Drive Bridge Replacement Project, Santa Cruz County, California	Environmental Science Associates	44-000856
S-045649a		2014	Heidi Koenig	Archaeological Survey Report Fern Drive Bridge Replacement Project, Santa Cruz County, California	Environmental Science Associates	
S-045649b		2014	Heidi Koenig	Historic Resources Evaluation Report, Fern Drive Bridge Replacement Project, Santa Cruz County, California	Environmental Science Associates	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-047860		1995	Susan Lehmann	County of Santa Cruz, Survey of Historic Resources, Additions - 1995		44-000980, 44-000996, 44-000997, 44-000998, 44-000999, 44-001000, 44-001001, 44-001002, 44-001003, 44-001004, 44-001005, 44-001006, 44-001007, 44-001008, 44-001009, 44-001010, 44-001011, 44-001012, 44-001013, 44-001014, 44-001015, 44-001016, 44-001017, 44-001018

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-44-000289	CA-SCR-000312H	Resource Name - Quail Hollow	Building, Structure, Site	Historic	AH04; AH11; AH15	1995 (Lynne Eckert, Archaeological Resource Management)	S-003880, S-017630, S-017858
P-44-000401	CA-SCR-000329H	Resource Name - OC-9, MC-9; Other - Highway 9 (Santa Cruz County)	Structure, Site, Other	Historic	HP37	1999 (J. Berg, S. Mikesell, FWARG, JRP)	S-004066, S-012694, S-022539, S-022825, S-027556, S-028236, S-028809, S-028812, S-029528, S-030187, S-037509, S-038430
P-44-000405	CA-SCR-000333H	Resource Name - OC-236, MC-236; Other - Waterman Gap/State Route 236; Other - "Dying Dozen" grove of redwoods; Other - Big Basin State Road; Other - Saratoga State Road; Other - Redwood State Highway; Other - State Route 42	Structure, District, Element of district	Historic	HP28; HP29; HP30; HP32; HP37	1999 (A. Ruby, S. Mikesell, FWARG, JRP); 2002 (Dana Supernowicz, Caltrans)	S-028812, S-030085, S-030630, S-038430, S-046045
P-44-000431	CA-SCR-000341	Resource Name - Tyrolean Inn Site; Other - The Tyrolean Inn Site	Site	Prehistoric	AP02	2000 (Thomas Wheeler, Caltrans); 2002 (Thomas Wheeler, Caltrans)	S-028236, S-028809, S-030187
P-44-000441		Resource Name - The Mill Street Wall Site	Structure	Historic	AH11	2000 (Thomas Wheeler, Allyson Ogden, Caltrans)	S-028236
P-44-000463		Resource Name - SCC05A; Other - 12911 Hillside Terrace	Building	Historic	HP02	2001 (A. Engle, C. Duval, Dill Design Group)	
P-44-000472		Resource Name - Ben Lomond Hotel Club House; OHP PRN - 5003-0024-0000; Other - 113; Other - SCC12R; OHP Property Number - 012879; Resource Name - Koue Summer House; Other - Ben Lommond Hotel Club House	Building	Historic	HP02	1986 ([none], The Firm of Bonnie L. Bamburg); 2001 (A. Engle, C. Duval, Dill Design Group)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-44-000475		Other - SCC16R; Other - 130; Resource Name - White House Corner; OHP PRN - 5006-0009-0000; OHP Property Number - 012901	Building	Historic	HP02; HP05	1986 ([none], The Firm of Bonnie L. Bamburg); 2001 (A. Engle, C. Duval, Dill Design Group)	
P-44-000477		Other - SCC20R; OHP PRN - 5005-0009-0000; Other - 87; Other - St. Peter & Paul / Wee Kirk; Resource Name - St. Peter and St. Paul Holy Orthodox Church Offices; Resource Name - Wee Kirk Presbytarian Church; Other - Ben Lomond Non-denominational Church; OHP Property Number - 012864	Building	Historic	HP16	1986 ([none], The Firm of Bonnie L. Bamburg); 2001 (A. Engle, C. Duval, Dill Design Group)	
P-44-000482		Other - SCC13R; Other - 114; Other - Ben Lomond Cottage; Resource Name - Ben Lomond Hotel Cottage; OHP Property Number - 012880; OHP PRN - 5005-0025- 0000	Building	Historic	HP02	1986 ([none], The Firm of Bonnie L. Bamburg); 2001 (A. Engle, C. Duval, Dill Design Group)	
P-44-000731		Resource Name - BCSR Springbox; Agency Nbr - BCSR THP 1-06-187 SCR CAA	Structure	Historic	HP21	2007 (Joe McGuire, [none])	
P-44-000856		Resource Name - ESA-FD-01	Structure	Historic	HP21; HP39	2014 (Heidi Koenig, ESA)	S-045649
P-44-001014		Resource Name - Rose Acres Ranch; OHP Property Number - 013241; OHP PRN - 1518-0001-0000	Building	Historic	HP04	1995 (Susan Lehmann, SCR County)	S-047860
P-44-001015		Resource Name - Alice Wilder House; OHP Property Number - 012883; OHP PRN - 5005-0038-0000	Building	Historic	HP02	1995 (Susan Lehmann, SCR County)	S-047860

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-44-001097		Resource Name - Cody House; OHP Property Number - 12875; OHP PRN - 5005-0020-0000; OHP PRN - 537.9-44-0007	Building	Historic	HP02	1986 ([none], Bonnie L. Bamburg firm)	S-004052, S-004927
P-44-001098		Resource Name - Weatherly Castle; Other - Ben Lomond Castle; Other - Howden Castle; OHP Property Number - 12860; OHP PRN - 5005-0005-0000	Building	Historic	HP02	1986 ([none], Bommin L. Bamburg firm)	S-004052

Appendix B

Resource Records

State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI#**
CONTINUATION SHEET **Trinomial**

Page 1 **of** 3 ***Resource Name or #:** State Route 236

***Recorded by:** Steven Treffers, Rincon Consultants ***Date:** July 24, 2018 ☐ Continuation ☒Update

The subject segment is a portion of the previously-recorded State Route (SR) 236. Beginning west of its intersection of SR 9 in Boulder Creek, the segment extends approximately 0.8 mile along a general northwest-southwest alignment to a point just short its intersection with Boulder Brook Drive. The two-lane highway is approximately 25 feet wide and features a graded roadbed paved in non-original asphalt concrete and short gravel shoulders on either side. Portions of the roadway have cracked and been repaired with tar. Road markings include painted shoulder lines and a centerline consisting of raised reflective markings, as well as adjacent mile markers, speed limit, guard rails, and wood-pole utility line. The semi-rural setting includes small scale commercial properties, single-family residences, and mature redwoods.

State Route 236, view west.

The subject segment appears to have been developed in 1902 to provide access to Big Basin Redwood State Park. Established in 1902, Big Basin Redwood State Park is California's oldest state park and encompasses 18,130 acres that include groves of Coast Redwood groves, the tallest trees on the planet (Avery 2010). According to a National Register or Historic Places Multiple Property Documentation Form for the Historic Resources of Big Basin Redwoods State Park, early roads are significant in the context of the park as they were vital for allowing access to and within California's only state park in the early twentieth century. The earliest visitors arrived by stage road, and by 1912, most visitors arrived by private auto. As auto travel grew, the state constructed new roads to and within the park, while existing roads were widened and improved, allowing the public to better access their first state park. Roads built at Big Basin Redwoods were the only roads built by the state to facilitate tourism in a California state park until the 1920s.

Historic USGS topographic maps reveal that the subject segment of SR 236 existed in its current alignment in 1902 and has provided the primary means of access to the southeastern entrance of the park since this time (USGS 1902 and 1943). Presumably a dirt road during its earliest period, the roadway has been continually improved and appears to have been repaved within the last decades. Other changes to its immediate setting include the addition of adjacent roadside features and utilities, as well limited increases in commercial and residential development.

As discussed above, SR 236 was previously recorded in its entirety in 1999 as part of a cultural resources inventory of Caltrans District 5 Rural Highways; however it was not evaluated for historical significance at that time (Ruby and Mikesell 1999). In 2002, a smaller segment of the highway near its northern intersection with SR 9 at Waterman Gap was recorded and evaluated by Caltrans (Supernowicz 2002). That evaluation determined that segment was eligible for listing in the NRHP under Criteria A and C for its association with Big Basin State Park.

(See Continuation Sheet).

State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI#**
CONTINUATION SHEET
Trinomial

Page 1 **of** 3 ***Resource Name or #:** State Route 236

***Recorded by:** Steven Treffers, Rincon Consultants ***Date:** July 24, 2018 ☐ Continuation ☒Update

The current evaluation finds that the subject segment is eligible for listing in the NRHP, California Register of Historical Resources (CRHR), and local designation under NRHP Criterion A, CRHR Criterion 1, and Santa Cruz County Criterion 2. It has continually provided access to Big Basin Redwoods State Park since its establishment in 1902 and provided a critical piece of infrastructure to facilitate tourism within California's first state park. Although the physical materials of the highway have been replaced, those aspects of integrity are less critical to the resources ability to convey its significance. Further it is expected and required that these materials would be replaced to maintain the ongoing use of the highway. Those aspects of the resource that are essential in its ability to convey its significance are rather embodied in its alignment and setting, which have been largely consistent since its early development. As such, the subject segment retains sufficient integrity to be eligible for federal, state, and local designation. As a property that is eligible for federal, state, and local designation, the subject segment is considered a historic property for the purposes of Section 106 of the NHPA and a historical resource as defined by CEQA.

Archival research failed to indicate that the segment possess as direct associations with important persons to our past and it does not appear eligible under NRHP Criterion B, CRHR Criterion 2, or Santa Cruz County Criterion 1. Although other segments of SR 236 may represent unique and noteworthy examples of highway engineering, the subject segment is rather ordinary in its design and it does not appear eligible under NRHP Criterion C, CRHR Criterion 3, or Santa Cruz County Criterion 3. As confirmed by the archaeological survey, there is also no evidence to suggest that the property has potential to yield important information in history or prehistory and it does not appear eligible under NRHP Criterion D, CRHR Criterion 4, or Santa Cruz County Criterion 4.

***B12. References**:

Avery, Christy
2014 National Register of Historic Places Multiple Property Documentation Form for the Historic Resources of Big Basin Redwoods State Park. United Department of the Interior, National Park Service, Washington D.C.

Ruby, A. and S. Mikesell
1999 California Department Parks and Recreation 523 Series Forms for State Route 236. Primary Number 44-000405, accessed at Northwest Information Center, Sonoma State University.

Supernowicz, Dana E.
2002 California Department Parks and Recreation 523 Series Forms for Waterman Gap/State Route 236. Primary Number 44-000405, accessed at Northwest Information Center, Sonoma State University.

U.S. Geological Survey (USGS)
1902 Santa Cruz [map], 1:125,000, Topographic Quadrangle Map.
1943 Ben Lomond [map], 1:62,500, Topographic Quadrangle Map.

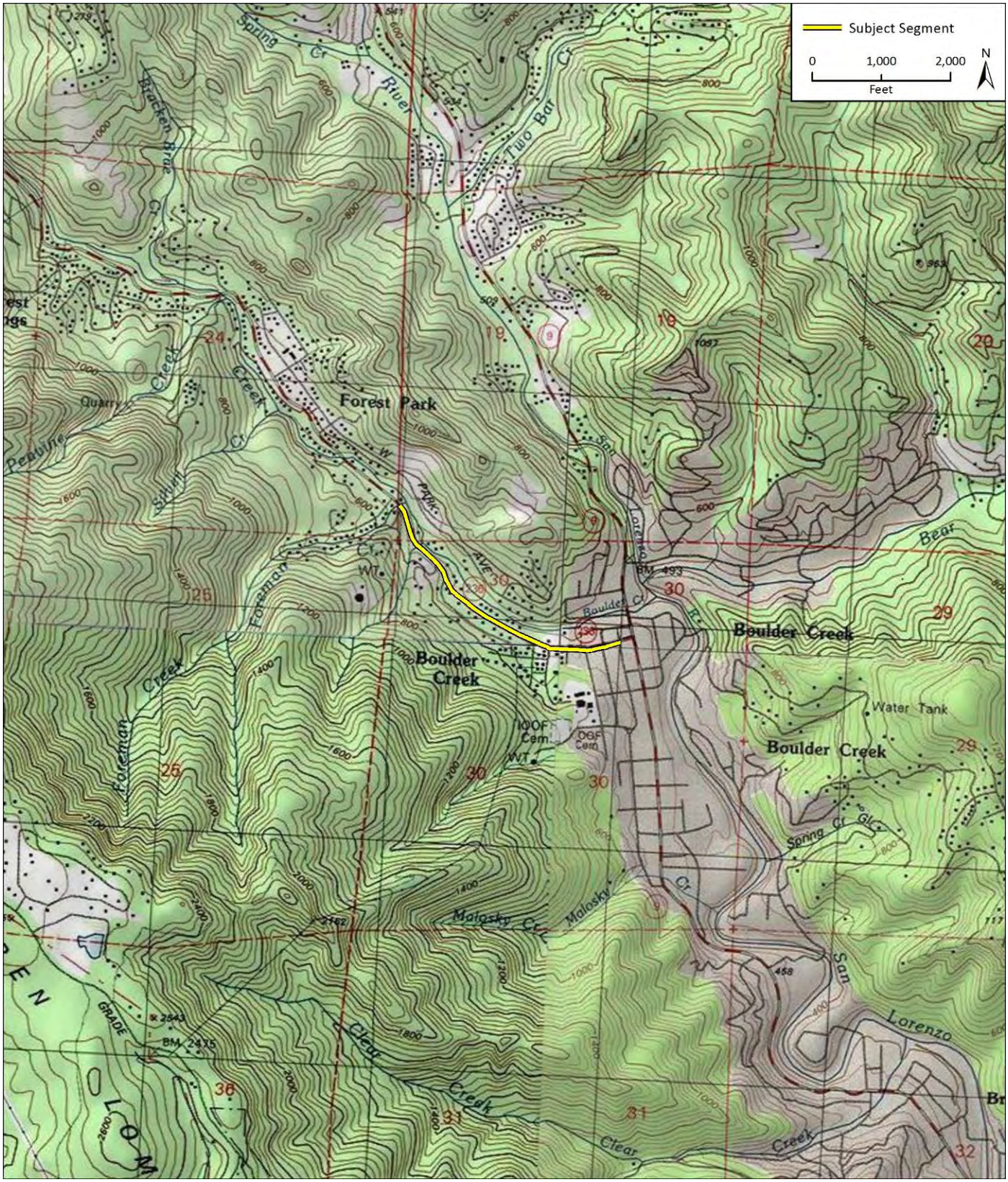
State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI#**

LOCATION MAP

Trinomial

Page 3 of 3 *Resource Name or #: State Route 236

***Map Name:** Felton Quadrangle ***Scale:** 1:24,000 ***Date of Map:** 2013



DPR 523J (1/95) ***Required information**

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #: P-44-000405
HRI#:
Trinomial CA-SCR-333H
NRHP Status Code:

Other Listings
Review Code | Reviewer | Date

 NRHP Status Code: 3

***Resource Name or #:** Waterman Gap/State Route 236

P1. Other Identifier: "Dying Dozen" grove of redwoods/Big Basin State Road/Saratoga State Road/Redwood State Highway /State Route 42/

***P2. .Location: unrestricted**

***a. County:** Santa Cruz

b. Address N/A

City NA **Zip** N/A

***c. UTM: USGS Quad:** Big Basin, CA 7.5' 1991 **d. UTM:**

***e. Other Locational Data:** The southern boundary of the property begins at the entrance to Big Basin Redwoods State Park (PM 7.72) and continues north for roughly 8 miles to its terminus at Waterman Gap PM (20.83).

***P3a. Description:** The property includes an approximate 200 foot scenic corridor along State Route (SR) 236 from the southern entrance to Big Basin Redwoods State Park north for roughly 8 miles to Waterman Gap (intersection of SR 9 and 236). The property also includes a triangular island with a mature grove of redwood trees and a native sandstone masonry water or drinking fountain, which is believed to date to the 1930s. Its design and placement within the grove of redwoods at Waterman Gap is characteristic of rustic architectural design carried out by both California State Parks and the National Park Service between 1900 and the 1940. The triangular island at Waterman Gap was formed by the intersection of State Route 9 and 236. SR 236 was one of the first designated State Highways in California designed and built solely to provide access into Big Basin Redwoods State Park. The highway meanders between groves of ancient redwood trees, retaining its non-standard shoulders and minus its centerline along most of its course through the park. Besides the above-mentioned features, there are numerous park buildings and structures adjacent to the highway, all of which exhibit rustic styles of architecture.

***P3b. Resource Attributes:** HP 28 Street Furniture; HP 29 Landscape Architecture; HP 30 Trees-Vegetation; HP 32 Rural Open Space; HP 37 Highway

***P4. Resources Present:** ☐ Building ☒ Structure ☐ Object ☐ Site ☒ District ☒ Element of District

P5. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo: Overview of Waterman Gap & SR 236 looking east.

***P6. Date Constructed/Age:** ■ Historic 1902-1940

***P7. Owner and Address:** California Department of Parks and Recreation, Sacramento, CA

***P8. Recorded by:** Dana E. Supernowicz, Architectural Historian, California Department of Transportation, 1120 N. Street, Sacramento, CA 94274-0001

***P9. Date Recorded:** May 18 & August 14, 2002

***P10. Type of Survey:** ■ Architectural

***P11. Report Citation:** Historic Resource Evaluation Report (HRER) At the Junction of State Route 9 and 236 (PM 20.83/KP 33.52) EA 05-0A7000, Santa Cruz County, California. Prepared for Valerie Levulett, District 5, San Luis Obispo, California Department of Transportation. October 2002.

***Attachments:** Building, Structure, and Object Record

b

AUG - 5 2004

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #: P-44-000405
HRI#:
Trinomial CA-SCR-333H
NRHP Status Code:

Other Listings
Review Code | Reviewer | Date

Cont. P3a. Description: SR 236 has been part of the state park system since the 1910s and remains part of a scenic corridor that was designed to preserve the approach to Big Basin as one enters from the Santa Clara Valley or from Boulder Creek (the actual state park lands corridor begins roughly at Saratoga Gap and continues south to Waterman Gap and thence through Big Basin Redwoods State Park). After its creation in 1902, and after the opening of Redwood State Park to the public around 1904, the park acquired a strip of land referred to locally as the Redwood Highway, which led from Saratoga Gap through Waterman Gap and on to Big Basin. The 200' linear meandering corridor was intended to preserve the remaining redwoods that led to the Park entrance and create a permanent road right-of-way for public use. In 1913, a portion of this corridor became part of SR 42, later renamed SR 236.
While efforts to construct an automobile road into the park began in 1904, it was through the efforts of the Sempervirens Club that by 1914 an automobile road, albeit crude, had been completed following present-day SR 9 and 236. Between 1915 and 1930, grading, curve improvements, and surfacing were carried out along the Big Basin road, although SR 236 was intentionally left as a narrow, curvilinear roadway. On February 9, 1931, the State Division of Highways issued a contract for improvements along State Route 42, which included Waterman Gap. Through the realignment of the highways at Waterman Gap in 1931, a distinct triangle, which remains to this day, was formed between the highways. It appears that highway planners, perhaps influenced by members of the Sempervirens Club and Big Basin, left as many mature redwood trees as was possible. A 1 ½" water line bisects the highway and continues east to west through the triangle. Besides providing water to the drinking fountain, the water line was used to fill water tanks atop the ridge for use in dust abatement along the highway during the summer. Inside the triangle the grove of mature redwood trees became a suitable location for automobilists to stop and admire the trees, to picnic, and then continue on to Big Basin Redwoods State Park. The triangular grove was an ideal place to locate a water fountain, since the grove lay at the top of a grade and before the descent into Big Basin. The native sandstone, mortared water fountain that lies within the grove of redwoods exhibits the skill and workmanship commensurate with CCC and/or WPA projects found in Big Basin and other California State Parks

(This space reserved for official comments.)

b

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
Primary # P-44-000405
HRI#

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 3

*Resource Name or # (Assigned by recorder) Waterman Gap/State Route 236

B1. Historic Name: Waterman Gap/ "Dying Dozen" grove of redwoods/Big Basin State Road/Saratoga State Road/ Redwood State Highway/State Route 42/State Route 236

B2. CommonName: Waterman Gap/State Route 236

B3. OriginalUse: Highway Improvements/Road or Highway to California Redwood Park/Big Basin Redwoods State Park Access Road

B4.Present Use:Same

***B5. Architectural Style:** Rustic Park Vernacular ***B6. Construction History:** (Construction date, alterations, and date of alterations) The property, which includes a a segment of State Route236 beween the southern entrance to Big Basin Redwoods State Park and Waterman Gap was developed between 1902 and 1940, although construction and maintenance of both the park and highway occurred in subsequent years. The highway remains the primary access route into the park (see Continuation Sheet).

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** _____ **Original Location:** _____

***B8. Related Features:** Hiking trails, modern highway improvements.
9a. Architect: possibly WPA hired architect b. Builder: possibly Civilian Conservation Corps

***B10.Significance:Theme:** Transportation Planning and Rural Vernacular Landscape Design/ Big Basin Redwoods State Park/Conservation Movement/Fight to Preserve California's Redwood Forests **Area** Santa Cruz County/California
Period of Significance 1902- 1940 **Property Type:** Rustic vernacular architecture/landscape design, rustic parks architecture
Applicable Criteria A & C
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The triangular piece of land at Waterman Gap as well as the approximate 200' linear corridor, which includes SR 236 through Big Basin Redwoods State Park, has been part of the state park system since the 1910s and remains part of a scenic corridor that was designed to preserve the approach to Big Basin as one enters from the Santa Clara Valley or from Boulder Creek (the actual state park lands corridor begins roughly at Saratoga Gap and continues south to Waterman Gap and thence through Big Basin Redwoods State Park (see Continuation Sheet).

B11. **Additional Resource Attributes:** (List attributes and codes) HP33 rural open space; HP30 redwood trees; HP29 landscape architecture; HP35 possible WPA/CCC property; HP28 street furniture; HP37 highway
B12. **References:** See Continuation Sheet
B13. **Remarks:** The resource is currently administered by the California Department of Parks and Recreation, but maintained by the California State Department of Transportation

B14. Evaluator: Dana E. Supernowicz, Architectural Historian, California Department of Transportation, 1120 N. Street, Sacramento, CA 942874

Date of Evaluation: 4/17/02.

(This space is reserved for official comments)

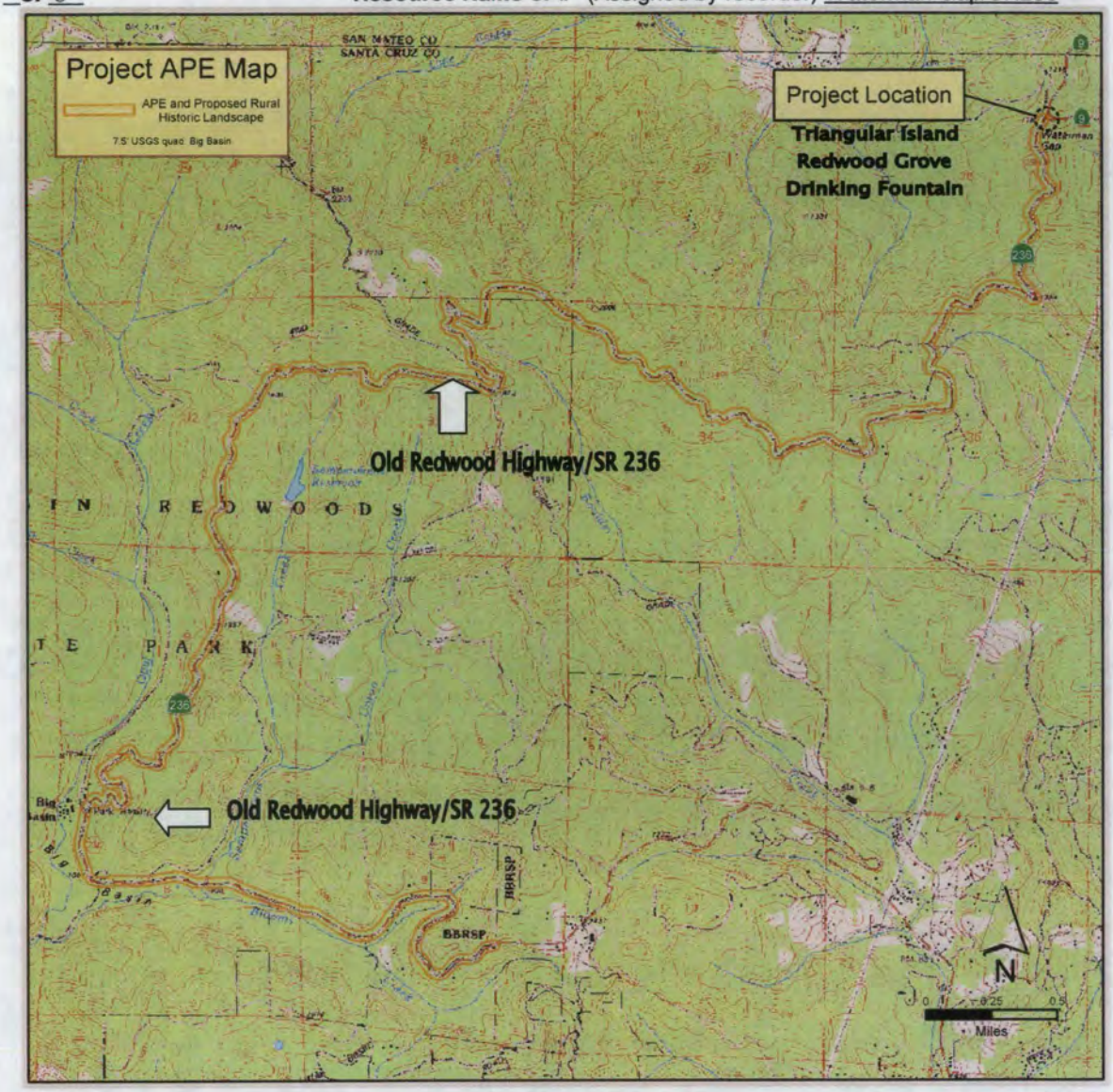
(See Page 2 for Map)

b.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-44-000405
HRI# _____

Page _of 6_ Resource Name or #* (Assigned by recorder) Waterman Gap/SR236



B6. Continued

After the opening of Redwood State Park to the public around 1904, the park acquired a strip of land referred to locally as the Redwood Highway, which led from Saratoga Gap through Waterman Gap, past the "Dying Dozen" (a grove of redwood trees at Waterman Gap that was on brink of dying during the late-1960s) and on to Big Basin (Memorandum from Bob Culbertson, California Department of Parks and Recreation, Mountain Sector Superintendent to Tom Wheeler, Caltrans, December 10, 2001). The 200' linear meandering corridor was intended to preserve the remaining redwoods that led to the Park entrance and create a permanent road right-of-way for public use. In 1913, a portion of this corridor became part of SR 42, later renamed SR 236 (Letter from Thomas Wheeler to the Santa Cruz Historical Society, December 10, 2001). By 1914, through the efforts of the Sempervirens Club, an automobile road, albeit crude, had been completed leading into the park following present-day SR 9 and

236. Between 1915 and 1930, grading, curve improvements, and surfacing were carried out along the Big Basin road, although SR 236 was intentionally left as a narrow, curvilinear roadway. On February 9, 1931, the State Division of Highways issued a contract for improvements along State Route 42, which included Waterman Gap. In 1931, clusters of redwood trees were scattered atop Waterman Gap between the road to Big Basin, Santa Cruz Lumber Company's Road, the road or highway to Boulder Creek, and the Saratoga Gap Road. Through the realignment of the highways at Waterman Gap in 1931, a distinct triangle, which remains to this day, was formed between the highways. By 1940, the major improvements to SR 236 had been

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-44-000405
HRI# _____

Page _of 6_ Resource Name or #* (Assigned by recorder) Waterman Gap/SR236

Waterman Gap water fountain looking southwest

Waterman Gap water fountain looking east

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
Primary # P-44-000405
HRI# _____

CONTINUATION SHEET

Page _of 6 Resource Name or #* (Assigned by recorder) Waterman Gap/SR236

completed, including improvements to the infrastructure of Big Basin Redwoods State Park. Today, the route has no significant realignments, although it has been resurfaced.

B10. Continued

SR 236, between Waterman Gap and the southern entrance to Big Basin Redwoods State Park, can best be characterized as a rural historic landscape associated with rustic park design and aesthetics. This designation seems particularly appropriate given the park's rural historic context, its association with the fight to save the remaining groves of redwood trees in the Santa Cruz Mountains, the parks natural and cultural aesthetics, and connections with the Civilian Conservation Corps (CCC) and the Works Project Administration (WPA). Big Basin and Waterman Gap are linked by SR 236, a narrow, curvilinear early twentieth century scenic roadway, which looks and feels much the same as it did when first built in the early 1900s. Along the curvilinear route one can still view and admire huge old growth redwood trees, sandstone bluffs, and CCC and WPA architecture scattered throughout the park. SR 236 is unique in that it was developed solely as a loop road into Big Basin Redwoods State Park. It is also one of the first routes placed in the state highway system.

A National Historic Landmarks study for the Big Basin Redwoods State Park is being carried out jointly between State Parks and the National Park Service. While the final results of that study have not been published, it appears that the entire park is being considered for designation as a rural historic landscape, its period of significance being 1902-1959 (personal communication: Paula Bogoshian, May 21, 2002). The designation will include the entire length of SR 236 through the park. The principal theme being discussed for the park is its direct relationship with the Conservation Movement in California and the United States (1900-1959). A similar study was completed by Caltrans Senior Environmental Planner Dorene Clement, for US Highway 101 through Del Norte Coast Redwoods State Park in Del Norte County (Clement, April 2001). Clement concluded that US Highway 101 through Del Norte Coast Redwoods State Park appeared to be eligible for the National Register of Historic Places as a historic landscape district under Criterion C at the state level of significance (Ibid: 17). Both the Del Norte properties and those along SR 236 share similar characteristics, particularly their design aesthetics related to landscape architecture.

The principal themes associated with the property include: transportation planning and rural vernacular landscape design 1902-1940, Big Basin Redwoods State Park, the conservation movement, and the fight to preserve California's redwood forests 1902-1940.

The property, which constitutes a rural historic landscape, includes an approximate 200 foot linear corridor along SR 236 between the southern entrance of Big Basin Redwoods State Park and Waterman Gap, together with the triangular island, grove of redwoods, and native sandstone, masonry water or drinking fountain, appears eligible for the NRHP under Criterion A and C at the state and local level, its period of significance beginning in 1902 and culminating in 1940. Caltrans has determined that the property is an historical resource for the purposes of CEQA. Big Basin is currently being considered for listing as a National Historic Landmark. The park is currently listed as a State Historic Landmark (personal communication: Paula Begoshian, May 22, 2002; Michael Crowe and Shawn Provencher, National Park Service, June 4, 2002).

***B12. References: List of**

Bogoshian, Paula (Architectural Historian). Personal Communication. Sacramento, California. May 21, 2002.

Clement, Dorene. Historic Resource Evaluation Report, Last Chance Slide: Highway 101 Through Del Norte Coast Redwoods State Park, Del Norte County, California. 01-DN-101, P.M. 15.0/15.6, 01-324700. Prepared for Deborah Harmon, Chief, Environmental Management Office, District 01, Eureka, California Department of Transportation, April 2001.

Crowe, Michael (National Park Service). Personal Communication. June 4, 2002.

Letter from Thomas Wheeler to Santa Cruz Historical Society, December 10, 2001.

Memorandum from Bob Culbertson, California Department of Transportation, Mountain Sector Superintendent to Tom Wheeler, Caltrans, December 10, 2001.

Provencher, Shawn (National Park Service). Personal communication. June 4, 2002.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-44-000405
HRI# _____

Page _of 6_ Resource Name or #* (Assigned by recorder) Waterman Gap/SR236

Redwood grove and water fountain at Waterman Gap looking east

Segment of SR 236 near Big Basin Redwoods Park Headquarters

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-44-000405
HRI #
Trinomial CA-SCR-333H
NRHP Status Code
Other Listings
Review Code Reviewer Date

 Resource Name or # : OC-236, MC-236

P1. Other Identifier: Highway 236 (Big Basin #4082; Castle Rock #4081) (Davenport #4083; Felton #4084)

***P2. Location:** ☒ Not for publication ☐ Unrestricted ***a. County:** Santa Cruz

***b. USGS 7.5' Quad:** Big Basin (1955, photorevised 1968)Mt. Diablo meridian

c. Address: Highway 236, post mile 0.0 to 18.0 (569130mE/4113860mN;573700mE/4113920mN)

d. UTM: Zone 10 574942m E/ 4118512m N: northern end, intersection of Hwy 9 and 236.
574642m E/ 4111896m N: southern end (577700mE/4109900mN)

e. Other Locational Data: Highway 236 has its beginning and end points along Highway 9 in Santa Cruz County. At the northern intersection with Highway 9 at Waterman Gap, just south of the San Mateo/ Santa Cruz County line, Highway 236 makes a loop heading southwest and coming back southeast through Big Basin Redwoods State Park and rejoins Highway 9 in the town of Boulder Creek.

***P3a. Description:**

For this survey (Caltrans District 5 TEA [Transportation Enhancement Activity] Survey) Highway 236 was only recorded in Santa Cruz County. Included in this primary form is the old highway alignment(s) (OC-236) and the modern alignment (MC-236) within Santa Cruz County. Segments of the old highway, with associated features, are detailed on the attached linear forms, as are the historic features found along the modern alignment. Segments and features are organized by increasing post miles. See Continuation Sheet for the Primary Record for a description of Highway 236.

***P3b. Resource Attributes:** HP37. Highway

***P4. Resources Present:** ☐ Building ☐ Structure ☐ Object ☒ Site ☐ District ☐ Element of District ☐ Other

P5b. Description of photo: Roll AR-3, Frame 5; Overview of Highway 236 at Segment 2; facing 160 degress, north end marked by log. South end marked by flagging. Highway in foreground.

***P6. Date Constructed/Age:**
☐ Prehistoric ☒ Historic
☐ Both

***P7. Owner and Address:**
Caltrans District 5, 50 Higuera Street San Luis Obispo, CA 93401-5415

***P8. Recorded by:**
A. Ruby (FW), S. Mikesell (JRP), Far Western Anthropological Research Group, Inc., P.O. Box 413, Davis, CA 95617; JRP Historical Consulting Services, 1490 Drew Ave, Suite 110, Davis, CA 95616

P11. Report Citation: Mikkelsen, P., et al., 2000, Cultural Resources Inventory of Caltrans District 5 Rural Highways, Santa Cruz County, California: Highways 1, 9, 17, 35, 129, 152, and 236

***Attachments:** ☐ None ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☒ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

JUN 20 2000

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

CONTINUATION SHEET

Primary # P-44-000405
HRI #
Trinomial CA-SCR-333H

 Resource Name or # : OC-236, MC-236

***Recorded by:** A. Ruby (FW), S. Mikesell (JRP)

***Date:** 11/4/99
☒ Continuation ☐ Update

CONTINUATION SHEET FOR THE PRIMARY RECORD

*P3a. Description (continued):
Route 236 is a very old state highway. The northern half – between post miles 10 and 18 – was adopted in 1913, while the southern half (post mile 0.0 to about 10) was adopted in 1917. These early adoptions, along with the early section of Route 9, were probably designed to provide access to Big Basin, which was the first unit of the State Park system. (The Park was created in 1902).

Six old roadway elements were identified along Highway 236. These roadway elements are very difficult to identify, for two reasons. First, the existing road has not been realigned to a substantial degree; any abandoned roadway elements are very short stretches. Second, this area was heavily logged for many years before the first State Park was established; there are probably dozens of old roadways that relate to these logging activities rather than highway construction.

The identified old roads exists at post mile 5.93, 6.19, 6.26, 10.7, 13.48, and 14.4. The lower segments are south of Big Basin Park, the middle segments within the park, and the northern segments north of the park boundaries. Unfortunately, only a handful of As-Built Plans were located for work on Highway 236, most of these being bridge plans with only minimal roadway elements included in them. General highway alignment maps show no substantial realignments. It is concluded that, given currently available information, it is impossible to distinguish, in the archival record, between roadway elements that were part of the early Highway 236 and roadway elements built for other purposes, including logging roads and park roadways within the park.

The three segments at post miles 10.7, 13.48, and 14.4 have been identified as segments of the highway, although they represent only minor realignments. The rest (post miles 5.93, 6.19, and 6.26) have been identified as three segments of an old logging road and are listed under the site number SC-12H.

GPS coordinates were collected along old segments of the highway and at features found along the modern alignment. For old segments, at least one point was taken at the intersection with the right-of-way fence, at the intersection of the modern alignment, and at any feature recorded along the segment.

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LINEAR FEATURE RECORD

Primary # P-44-00405
HRI #
Trinomial CA-SCR-333H

 Resource Name or # : OC-236, MC-236

L1. Historic and/or Common Name: Highway 236

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:** Modern Alignment, Highway 236

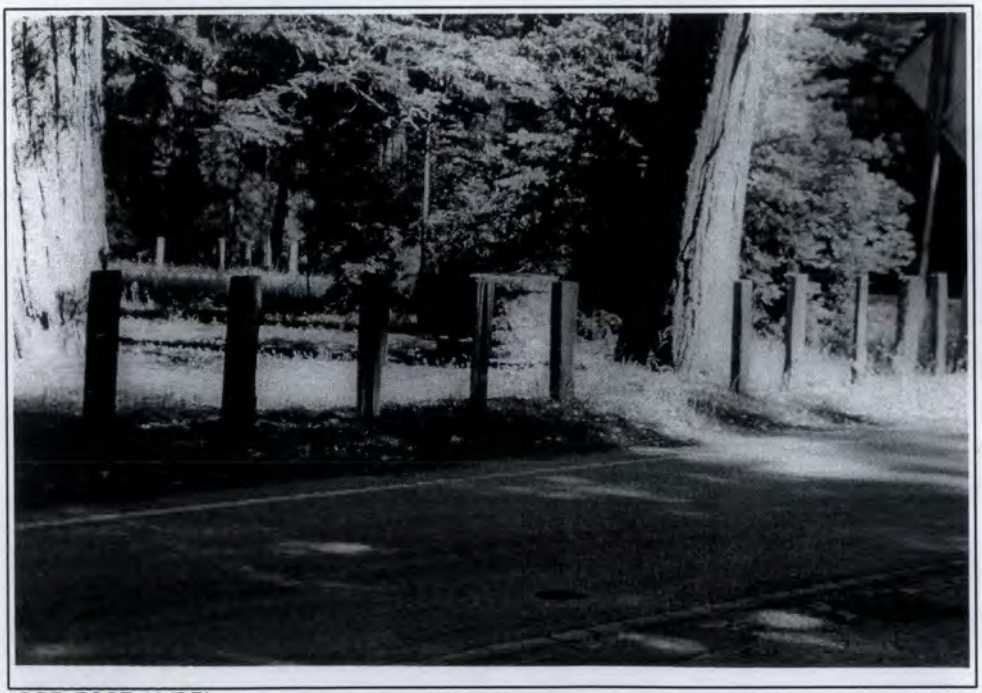
b. Location of Point or Segment:
See the Primary Record, P2e.

L3. Description:
See the Continuation Sheet for the Primary Record for Highway 236 under *P3a. Description.

L5. Associated Resources:
FEATURE A: Santa Cruz County, Big Basin 7.5' USGS quad (1955, photorevised 1968); T 9S, R 3W, NW 1/4 of the NE 1/4 of Section 14. Highway 236, post mile 3.4, both sides. UTM coordinates: 574521m E / 4112214m N. From the southern intersection of Highways 9 and 236, travel northwest on Highway 236 to post mile 3.4. This feature is a poured concrete culvert imprinted with the date "1926". It is 8 ft (h) x 18 ft (w). Its opening is 6 ft (h) x 8 ft (w). These dimensions are for the culvert on the left side of the highway. It's mate (on the right side) is similar in dimensions.
FEATURE C: Santa Cruz County, Big Basin 7.5' USGS quad (1955, photorevised 1968); T 9S, R 3W, SW 1/4 of the NE 1/4 of Section 8. Highway 236, post mile 8.5, both sides. UTM coordinates: 569919m E / 4113649m N. From the southern intersection of Highways 9 and 236, travel northwest on Highway 236 to post mile 8.5. The feature is a culvert of poured concrete over Sempervirens Creek. Both sides of the culvert are imprinted "1942". They are 13 ft (h) x 14 ft (l).
FEATURE ZZ: Santa Cruz County, Big Basin 7.5' USGS quad (1955, photorevised 1968); T8S, R3W, SW 1/4 of the NE 1/4 of Section 26. Located at the intersection of Highways 236 and 9. UTM coordinates: 574940m E/ 4118485m N. The feature consists of a mortared sandstone water fountain measuring 36.6'' tall by 33.5'' wide, located within a triangular island formed by the intersection of Highways 236 and 9, forested with Sequoia trees.

L6. Setting:

L7. Integrity Considerations:



L8b. Description of Photo, Map or Drawing: Feature ZZ, water fountain.

L9. Remarks:

L10. Form prepared by:
Far Western Anthropological Research Group, Inc.

L11. Date
11/2/99

a.

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LINEAR FEATURE RECORD

Primary # ~~P-44-000405~~
HRI #
Trinomial CA-SCR-333H

 Resource Name or # : OC-236, MC-236

L1. Historic and/or Common Name: Big Basin Road
L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:** Segment 1
b. Location of Point or Segment:
Santa Cruz County, Big Basin 7.5' USGS quad (1955, photorevised 1968); T 9S, R 3W, NW 1/4 of the NE 1/4 of Section 5 (irregularly shaped section). Highway 236, post mile 10.7 to 10.78, right (east) side. UTM coordinates: 569985m E / 4115431m N. From the southern intersection of Highways 9 and 236, travel northwest on Highway 236 to post mile 10.7.

L3. Description:
Segment 1 consists of an eroding asphalt-covered road approximately 100 meters in length. It intersects the modern Highway 236 at both ends. It measures approximately 12 feet in width and has fairly dense vegetation.

L4. Dimensions:
a. Top Width: 12 ft
b. Bottom Width:
c. Height or Depth:
d. Length of Segment:

L5. Associated Resources:
None noted.

L4e. Sketch of Cross-Section **Facing:**

L6. Setting:

L7. Integrity Considerations:

L8b. Description of Photo, Map or Drawing:
Segment 1; facing 228 degrees, Segment 1 to left of frame, highway to right.

L9. Remarks:

L10. Form prepared by:
Far Western Anthropological Research Group, Inc.

L11. Date
11/4/99

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LINEAR FEATURE RECORD

Primary # P-44-000405
HRI #
Trinomial ~~CA-SCR-333H~~

 Resource Name or # : OC-236, MC-236

L1. Historic and/or Common Name: Big Basin Road

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:** Segment 2

b. Location of Point or Segment:
Santa Cruz County, Big Basin 7.5' USGS quad (1955, photorevised 1968); T 8S, R 3W, NW 1/4 of the NE 1/4 of Section 33. Highway 236, post mile 13.48, right (east) side. UTM coordinates: 571548m E / 4117182m N. From the southern intersection of Highways 9 and 236, travel northwest on Highway 236 to post mile 13.48.

L3. Description:
A portion of old road alignment. Road is a dirt cut, with the east side cut into a hillslope. The west side has not been cut. The road is banked inward to the east at a slope of approximately 10°. The segment is very short, and re-intersects the highway. Dense leaf fall, grass, and soil cover the surface of this road remnant. If this segment was ever paved, there is no visual trace.

L4. Dimensions:
a. Top Width: 12 ft
b. Bottom Width:
c. Height or Depth:
d. Length of Segment: 132 ft

L5. Associated Resources:
None noted.

L4e. Sketch of Cross-Section **Facing:**

L6. Setting:

L7. Integrity Considerations:

L8b. Description of Photo, Map or Drawing:
Segment 2, facing 160 degress, north end marked by log. South end marked by flagging. Highway in foreground.

L9. Remarks:

L10. Form prepared by:
Far Western Anthropological Research Group, Inc.

L11. Date
11/5/99

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LINEAR FEATURE RECORD

Primary # P-44-000405
HRI #
Trinomial CA-SCR-333H

 Resource Name or # : OC-236, MC-236

L1. Historic and/or Common Name: Big Basin Road

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:** Segment 3

b. Location of Point or Segment:
Santa Cruz County, Big Basin 7.5' USGS quad (1955, photorevised 1968); T 8S, R 3W, SE 1/4 of the NW 1/4 of Section 34. Highway 236, post mile 14.37 to 14.4, right (south) side. UTM coordinates: 572667m E/ 4116847m N. Segment is located just south and east of the entrance to the park as indicated on topo map. From the southern intersection of Highways 9 and 236, travel northwest on Highway 236 to post mile 14.37.

L3. Description:
Portion of old road alignment. Road is dirt; no asphalt was noted. Surface of road is densely covered with tanoak and redwood leaves. Small redwood saplings grow on segment. Road is flat, with a slight slope to the south (3°). Upslope is cut into hillside - about 102 foot difference in elevation. Highway 236 was constructed ca. 1925 to 1930, although whether this segment pre-dates this period or was built at this time had not been determined. Road segment is short and intersects Highway 236 at both ends entirely within the right-of-way.

L4. Dimensions:
a. Top Width: 23 ft
b. Bottom Width:
c. Height or Depth:
d. Length of Segment: 410 ft

L5. Associated Resources:
None noted, however, large cut stumps are adjacent.

L4e. Sketch of Cross-Section **Facing:**

L6. Setting:
Within redwood/ madrone/ oak forest with tanoaks.

L7. Integrity Considerations:
Fairly good shape - thick leaf cover, a few saplings.

L8b. Description of Photo, Map or Drawing:
Segment 3, facing 310 degrees, surveyor standing on segment. Redwoods to right, Tan oak to left of frame.

L9. Remarks:
Were not able to collect GPS coordinates due to dense tree cover.

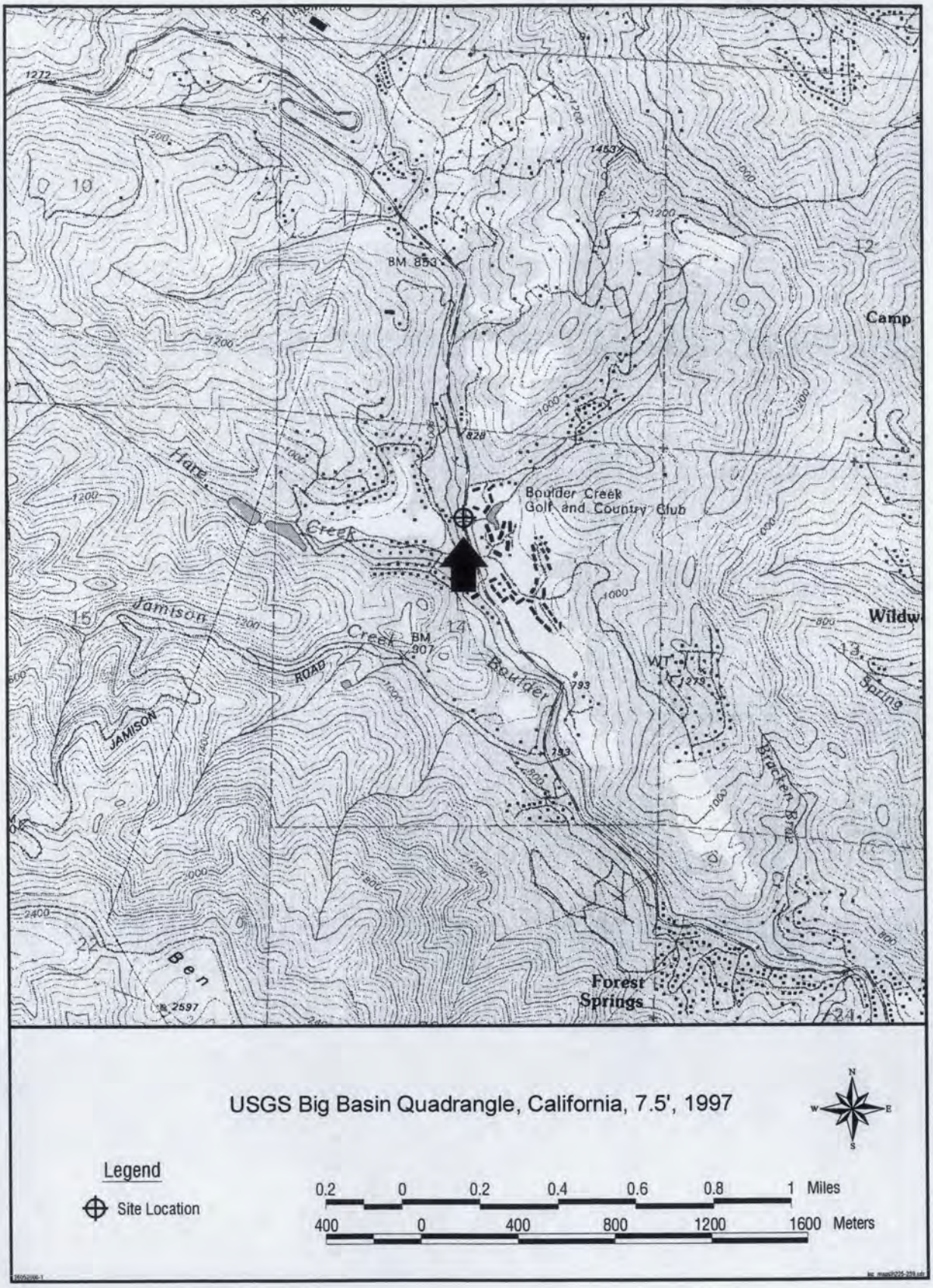
L10. Form prepared by:
Far Western Anthropological Research Group, Inc.

L11. Date
11/6/99

P-44-000405
CA-SCR-333H

State Number:
Agency Number:
Temporary Number: **MC-236 FEAT A**

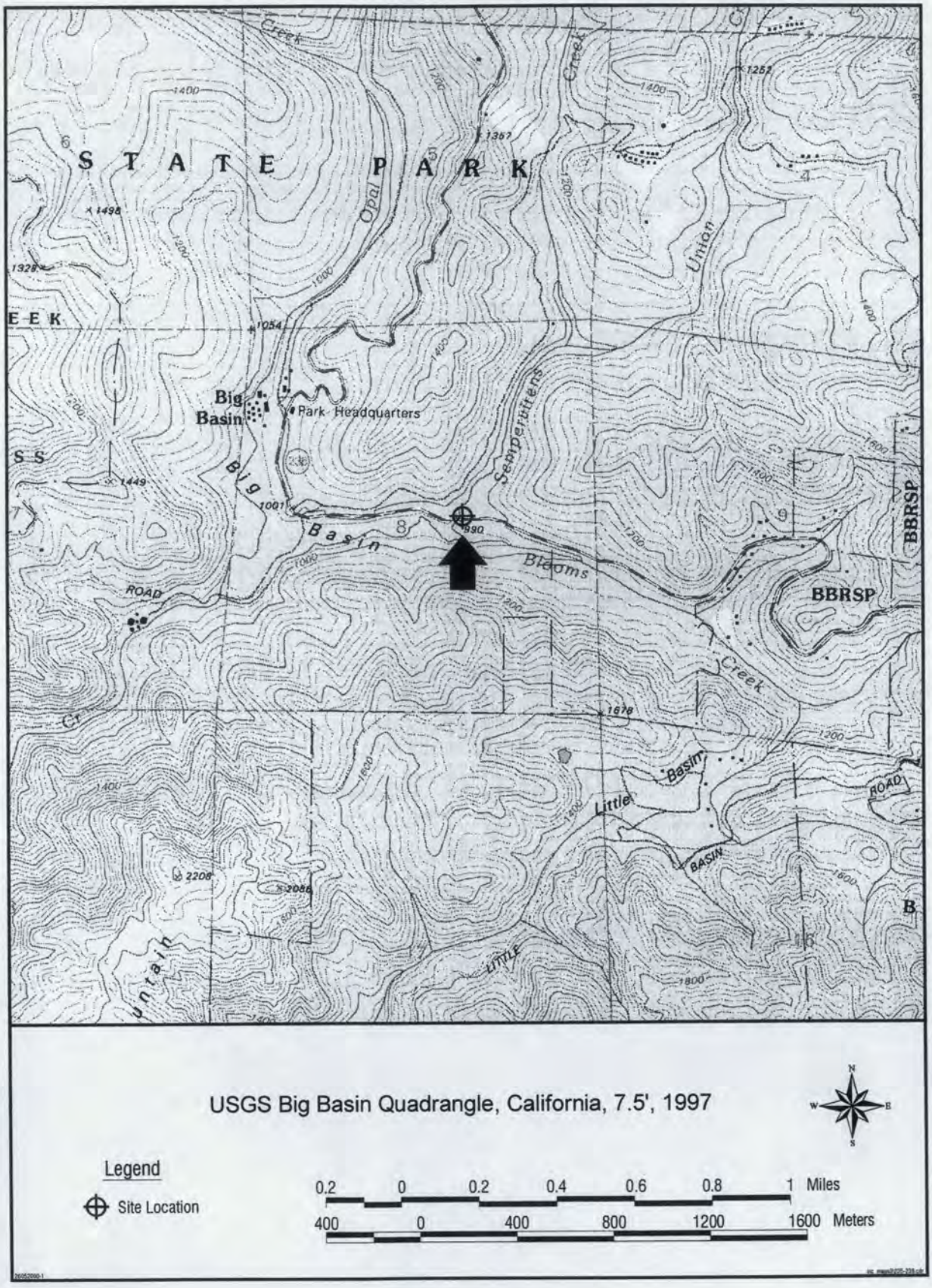
Pg 7 of 11



P-44-000405

State Number: CA-SCR-333H
Agency Number:
Temporary Number: MC-236 FEAT C

Pg 8 of 11



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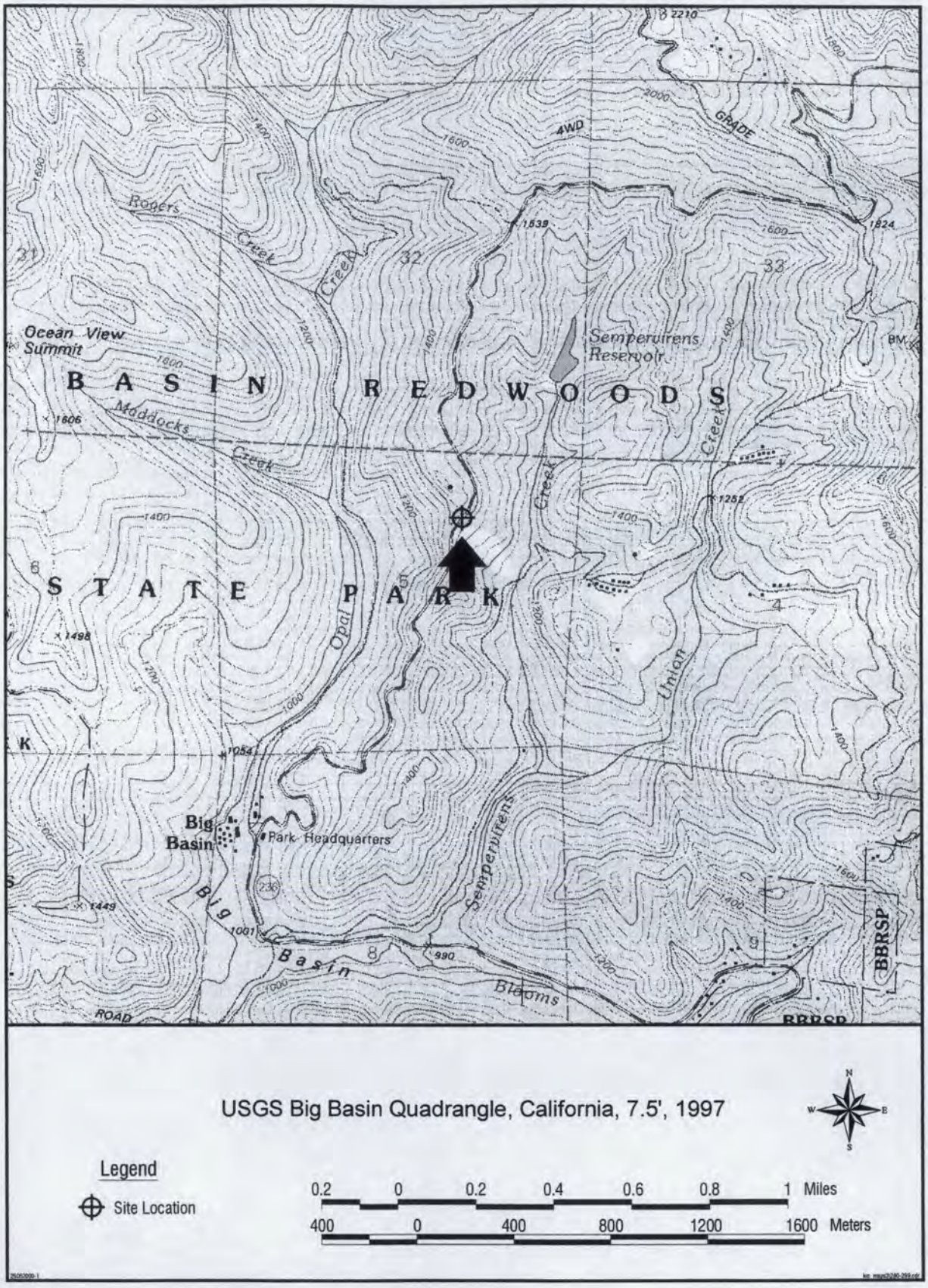
P-44-000405

State Number: CA-SCR-333H
Agency Number:
Temporary Number: OC-236 SEG 1

Pg 9 of 11



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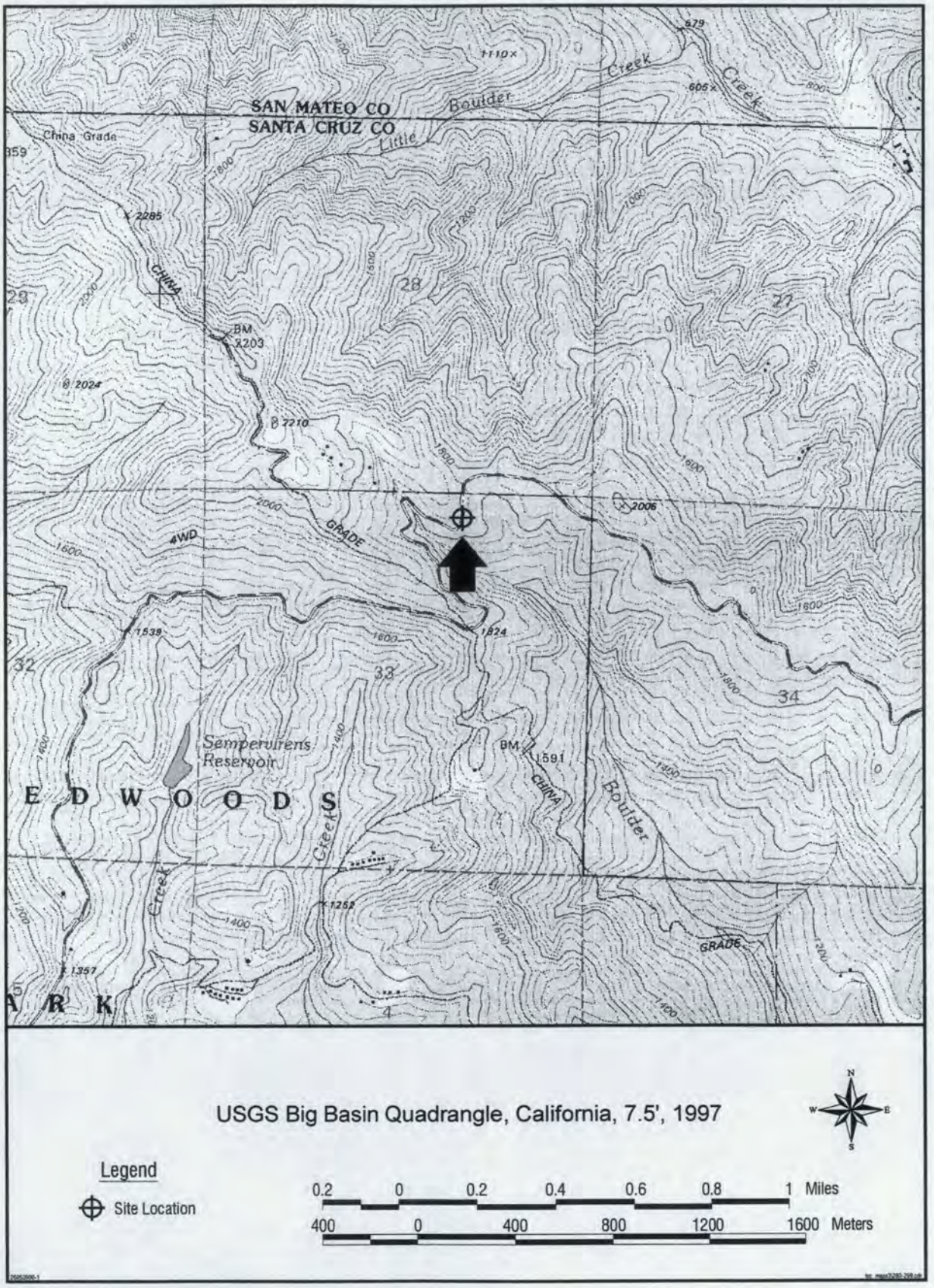
Pg 10 of 11

State Number: P-44-000405
Agency Number: CA-SCR-333H
Temporary Number: OC-236 SEG 2



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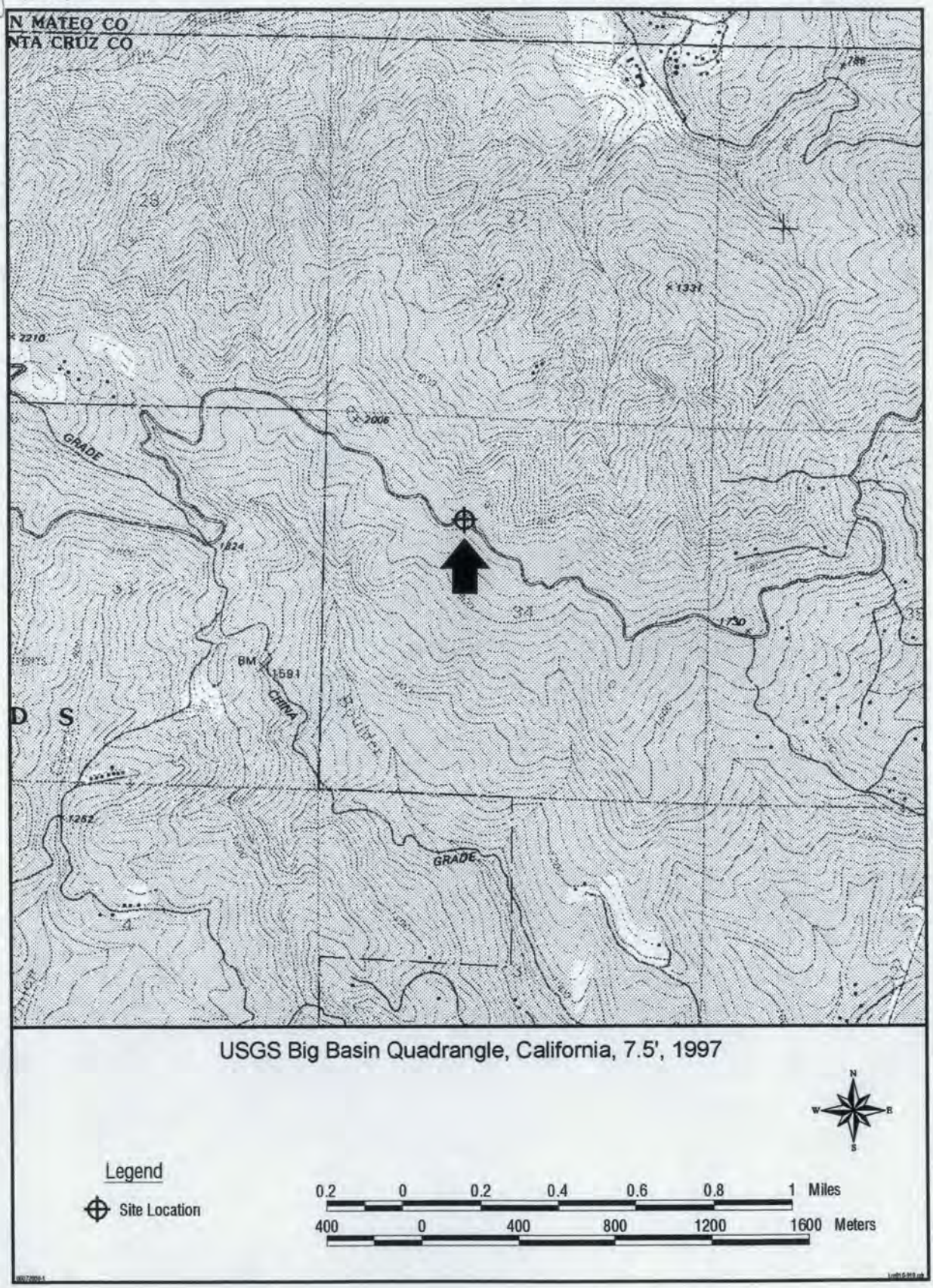
P-44-000405
CA-SCR-333H

State Number:
Agency Number:
Temporary Number: **OC-236 SEG 3**

Pg 11 of 11



Appendix C

Section 106 Consultation

STATE OF CALIFORNIA — Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471

July 6, 2018

Hannah Haas

Rincon COnsultants

Sent by Email: hhaas@rinconconsultants.com

Re: Pipelines Project, Swim Tanks Project, Santa Cruz County

Dear Ms. Haas,

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not preclude the presence of cultural resources in any project area. Other sources for cultural resources should also be contacted for information regarding known and/or recorded sites.

Enclosed is a list of Native Americans tribes who may have knowledge of cultural resources in the project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these tribes, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at 916-573-1033 or frank.lienert@nahc.ca.gov.

Sincerely,

Frank Lienert
Associate Governmental Program Analyst

Native American Heritage Commission
Native American Contacts
7/6/2018

Amah Mutsun Tribal Band
Valentin Lopez, Chairperson
P.O. Box 5272 Ohlone/Costanoan
Galt , CA 95632 Northern Valley Yokuts
vlopez@amahmutsun.org
(916) 743-5833

Muwekma Ohlone Indian Tribe of the SF Bay Area
Rosemary Cambra, Chairperson
P.O. Box 360791 Ohlone / Costanoan
Milpitas , CA 95036
muwekma@muwekma.org
(408) 314-1898

(510) 581-5194

Amah MutsunTribal Band of Mission San Juan Bautista
Irenne Zwierlein, Chairperson
789 Canada Road Ohlone/Costanoan
Woodside , CA 94062
amahmutsuntribal@gmail.com
(650) 851-7489 Cell
(650) 851-7747 Office
(650) 332-1526 Fax

Costanoan Ohlone Rumsen-Mutsen Tribe
Patrick Orozco, Chairman
644 Peartree Drive Ohlone/Costanoan
Watsonville , CA 95076
vanapvoic97@gmail.com
(831) 728-8471

Muwekma Ohlone Indian Tribe of the SF Bay Area
Rosemary Cambra, Chairperson
P.O. Box 360791 Ohlone / Costanoan
Milpitas , CA 95036
muwekma@muwekma.org
(408) 314-1898

(510) 581-5194

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28 Ohlone/Costanoan
Hollister , CA 95024
ams@indiancanyon.org
(831) 637-4238

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes with regard to cultural resources assessments for the proposed Pipelines Project, Swim Tanks Project, Santa Cruz County.

Native Americans Consulted

Local Group/Government Contact	Rincon Coordination Efforts	Response to Coordination Efforts
Amah Mutsun Tribal Band Valentin Lopez, Chairperson P.O. Box 5272 Galt, CA 95632 916-743-5833	Letter 7/6/2018 Call 7/25/2018	Left voicemail (VM)
Amah Mutsun Tribal Band of Mission San Juan Bautista Irenne Zwierlein, Chairperson 789 Canada Road Woodside, CA 94062 650-851-7489	Letter 7/6/2018 Call 7/25/2018	Ensure that construction crews have sensitivity training and that an arch and NAM are called if anything is found
Coastanoan Ohlone Rumsen-Mutsen Tribe Patrick Orozco, Chairman 644 Peartree Drive Watsonville, CA 95076 831-728-8471	Letter 7/6/2018 Call 7/25/2018	Left VM
Muwekma Ohlone Indian Tribe of the SF Bay Area Rosemary Cambra, Chairperson Milpitas, CA 95036 408-314-1898 510-581-5194	Letter 7/6/2018 Call 7/25/2018	510 number not in service Left VM at 408 number Call back on 7/25/2018- Chairperson Cambra recommended archaeological and Native American monitoring and disagreed that a sensitivity training is appropriate for any project as it does not guarantee that construction personnel will be able to identify an unanticipated find. She requested that we include the following language: "If remains are found during construction, the Muwekma Tribe shall do the removal."
Indian Canyon Mutsun Band of Costanoan Ann Marie Sayers, Chairperson P.O. Box 28 Hollister, CA 95024 831-637-4238	Letter 7/6/2018 Call 7/25/2018	Voice mailbox full

Rincon Consultants, Inc.

200 Washington Street
Suite 207
Santa Cruz, California 95060

831 440 3899 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

July 6, 2018

Amah Mutsun Tribal Band
Valentin Lopez, Chairperson
P.O. Box 5272
Galt, CA 95632

Subject: Cultural Resources Study for the Pipelines Project, Santa Cruz County, California

Dear Chairperson Lopez:

Rincon Consultants, Inc. (Rincon) has been retained to conduct a cultural resources study for the Pipelines Project (project) in Santa Cruz County, California. Rincon understands that the San Lorenzo Valley Water District (SLVWD) proposes the replacement of five lengths of pipeline: (1) Hihn Road, (2) Lyon Zone, (3) Sequoia Avenue, (4) Hillside Drive, and (5) California Drive.

The Hihn Road Pipeline component consists of the capping and abandonment of an existing pipeline and trenching and installation of approximately 650 linear feet of new pipeline and appurtenances within the Hihn Road right-of-way (ROW).

The Lyon Zone Water Distribution System component of the project includes the capping and abandonment of an existing pipeline and trenching and installation of approximately 5,600 linear feet of new pipeline within the road ROW.

The Sequoia Avenue Pipeline component of the project includes the removal of an existing pipeline located above ground and supported by aging redwood timbers and the installation of 800 feet of new pipeline and appurtenances above ground within the Sequoia Avenue ROW along an abandoned section of road.

The Hillside Drive Water Distribution System component will include the removal and replacement of an existing pipeline within the same ROW along Hillside Drive.

The California Drive Water Distribution System component includes the capping and abandonment of an existing pipeline and the installation of 1,840 linear feet of new pipeline and appurtenances within the California Drive and Middle Drive ROW.

This letter serves to initiate the Section 106 consultation process and to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site, but a response has not yet been received. We anticipate a “negative results” finding based on previous requests in the area; however, we are aware that the results of this search do not negate the possibility of cultural resources existing within the project site. A record search map depicting the project area is enclosed with this letter for your reference.

If you have knowledge of cultural resources that may exist within or near the project site, please contact me at (916) 706-1374 x230 or hhaas@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

Hannah Haas, M.A., RPA
Archaeologist & Project Manager

Enclosed: Project Location Map

Rincon Consultants, Inc.

200 Washington Street
Suite 207
Santa Cruz, California 95060

831 440 3899 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

July 6, 2018

Amah Mutsun Tribal Band of Mission San Juan Bautista
Irenne Zwierlein, Chairperson
789 Canada Road
Woodside, CA 94062

Subject: Cultural Resources Study for the Pipelines Project, Santa Cruz County, California

Dear Chairperson Zwierlein:

Rincon Consultants, Inc. (Rincon) has been retained to conduct a cultural resources study for the Pipelines Project (project) in Santa Cruz County, California. Rincon understands that the San Lorenzo Valley Water District (SLVWD) proposes the replacement of five lengths of pipeline: (1) Hihn Road, (2) Lyon Zone, (3) Sequoia Avenue, (4) Hillside Drive, and (5) California Drive.

The Hihn Road Pipeline component consists of the capping and abandonment of an existing pipeline and trenching and installation of approximately 650 linear feet of new pipeline and appurtenances within the Hihn Road right-of-way (ROW).

The Lyon Zone Water Distribution System component of the project includes the capping and abandonment of an existing pipeline and trenching and installation of approximately 5,600 linear feet of new pipeline within the road ROW.

The Sequoia Avenue Pipeline component of the project includes the removal of an existing pipeline located above ground and supported by aging redwood timbers and the installation of 800 feet of new pipeline and appurtenances above ground within the Sequoia Avenue ROW along an abandoned section of road.

The Hillside Drive Water Distribution System component will include the removal and replacement of an existing pipeline within the same ROW along Hillside Drive.

The California Drive Water Distribution System component includes the capping and abandonment of an existing pipeline and the installation of 1,840 linear feet of new pipeline and appurtenances within the California Drive and Middle Drive ROW.

This letter serves to initiate the Section 106 consultation process and to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site, but a response has not yet been received. We anticipate a “negative results” finding based on previous requests in the area; however, we are aware that the results of this search do not negate the possibility of cultural resources existing within the project site. A record search map depicting the project area is enclosed with this letter for your reference.

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Sincerely,
Rincon Consultants, Inc.

Hannah Haas, M.A., RPA
Archaeologist & Project Manager

Enclosed: Project Location Map

Rincon Consultants, Inc.

200 Washington Street
Suite 207
Santa Cruz, California 95060

831 440 3899 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

July 6, 2018

Costanoan Ohlone Rumsen-Mutsen Tribe
Patrick Orozco, Chairman
644 Peartree Drive
Watsonville, CA 95076

Subject: Cultural Resources Study for the Pipelines Project, Santa Cruz County, California

Dear Chairman Orozco:

Rincon Consultants, Inc. (Rincon) has been retained to conduct a cultural resources study for the Pipelines Project (project) in Santa Cruz County, California. Rincon understands that the San Lorenzo Valley Water District (SLVWD) proposes the replacement of five lengths of pipeline: (1) Hihn Road, (2) Lyon Zone, (3) Sequoia Avenue, (4) Hillside Drive, and (5) California Drive.

The Hihn Road Pipeline component consists of the capping and abandonment of an existing pipeline and trenching and installation of approximately 650 linear feet of new pipeline and appurtenances within the Hihn Road right-of-way (ROW).

The Lyon Zone Water Distribution System component of the project includes the capping and abandonment of an existing pipeline and trenching and installation of approximately 5,600 linear feet of new pipeline within the road ROW.

The Sequoia Avenue Pipeline component of the project includes the removal of an existing pipeline located above ground and supported by aging redwood timbers and the installation of 800 feet of new pipeline and appurtenances above ground within the Sequoia Avenue ROW along an abandoned section of road.

The Hillside Drive Water Distribution System component will include the removal and replacement of an existing pipeline within the same ROW along Hillside Drive.

The California Drive Water Distribution System component includes the capping and abandonment of an existing pipeline and the installation of 1,840 linear feet of new pipeline and appurtenances within the California Drive and Middle Drive ROW.

This letter serves to initiate the Section 106 consultation process and to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site, but a response has not yet been received. We anticipate a “negative results” finding based on previous requests in the area; however, we are aware that the results of this search do not negate the possibility of cultural resources existing within the project site. A record search map depicting the project area is enclosed with this letter for your reference.

If you have knowledge of cultural resources that may exist within or near the project site, please contact me at (916) 706-1374 x230 or hhaas@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

Hannah Haas, M.A., RPA
Archaeologist & Project Manager

Enclosed: Project Location Map

Rincon Consultants, Inc.

200 Washington Street
Suite 207
Santa Cruz, California 95060

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www.rinconconsultants.com

July 6, 2018

Muwekma Ohlone Indian Tribe of the SF Bay Area
Rosemary Cambra, Chairperson
P.O. Box 360791
Milpitas, CA 95036

Subject: Cultural Resources Study for the Pipelines Project, Santa Cruz County, California

Dear Chairperson Cambra:

Rincon Consultants, Inc. (Rincon) has been retained to conduct a cultural resources study for the Pipelines Project (project) in Santa Cruz County, California. Rincon understands that the San Lorenzo Valley Water District (SLVWD) proposes the replacement of five lengths of pipeline: (1) Hihn Road, (2) Lyon Zone, (3) Sequoia Avenue, (4) Hillside Drive, and (5) California Drive.

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Sincerely,
Rincon Consultants, Inc.

Hannah Haas, M.A., RPA
Archaeologist & Project Manager

Enclosed: Project Location Map

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Suite 207
Santa Cruz, California 95060

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July 6, 2018

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, CA 95024

Subject: Cultural Resources Study for the Pipelines Project, Santa Cruz County, California

Dear Chairperson Sayers:

Rincon Consultants, Inc. (Rincon) has been retained to conduct a cultural resources study for the Pipelines Project (project) in Santa Cruz County, California. Rincon understands that the San Lorenzo Valley Water District (SLVWD) proposes the replacement of five lengths of pipeline: (1) Hihn Road, (2) Lyon Zone, (3) Sequoia Avenue, (4) Hillside Drive, and (5) California Drive.

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Sincerely,
Rincon Consultants, Inc.

Hannah Haas, M.A., RPA
Archaeologist & Project Manager

Enclosed: Project Location Map

Historic Groups Consulted

Local Group/Government Contact	Rincon Coordination Efforts	Response to Coordination Efforts
County of Santa Cruz Planning Department Annie Murphy, Planner 701 Ocean Street Santa Cruz, CA 95060 (831) 454-3201 Annie.murphy@santacruzcounty.us	Sec. 106 consultation letters mailed, 7/9/2018. Contacted A. Murphy. She said she'd look into the matter and contact us.	
San Lorenzo Valley Museum Lisa Robinson, President 12547 Highway 9 Boulder Creek, CA 95006 (831) 338-8382 slvhm@cruzio.com	Sec. 106 consultation letters mailed, 7/9/2018. Left follow-up voicemail, 7/23/18.	
Scotts Valley Historical Society Robb Detlefs 1 Civic Center Drive Scotts Valley, CA 95066 (831) 438-6506 [disconnected] robb.detlefs@gmail.com	Sec. 106 consultation letters mailed, 7/9/2018. Phone number disconnected; sent an email, 7/23/18.	
Santa Cruz Museum of Art and History Archive/Library Marla Novo, Archives and Collections 705 Front Street Santa Cruz, CA 95060 (831) 429-1964 ext.7019 marla@santacruzmah.org	Sec. 106 consultation letters mailed, 7/9/2018. Left follow-up voicemail, 7/23/18.	
University of California, Santa Cruz, Special Collections & Archives Teresa Mora, Head of Special Collections and Archives and University Archivist University Library, 1156 High Street Santa Cruz, CA 95064 (831) 459-4425 tmora1@ucsc.edu	Sec. 106 consultation letters mailed, 7/9/2018. Left follow-up voicemail, 7/23/18.	Ms. Mora called S. Treffers to inform him that she had no comments or concerns regarding the project, 7/23/2018

Rincon Consultants, Inc.

200 Washington Street
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July 9, 2018

Lisa Robinson, President
San Lorenzo Valley Museum
12547 Highway 9
Boulder Creek, CA 95006

Subject: Cultural Resources Study for the Pipelines Project, Santa Cruz County, California

Dear Lisa Robinson:

Rincon Consultants, Inc. (Rincon) has been retained to conduct a cultural resources study for the Pipelines Project (project) in Santa Cruz County, California. Rincon understands that the San Lorenzo Valley Water District (SLVWD) proposes the replacement of five lengths of pipeline: (1) Hihn Road, (2) Lyon Zone, (3) Sequoia Avenue, (4) Hillside Drive, and (5) California Drive.

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This letter serves to initiate the Section 106 consultation process and to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. As part of this effort, Rincon is completing a records search of the California Historical Resources Information System and an intensive-level survey of the project site. A record search map depicting the project area is enclosed with this letter for your reference.

If you have knowledge of cultural resources that may exist within or near the project site, please contact me at (831) 440-3899 ext. 9984 or streffers@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

Steven Treffers, M.H.P.
Senior Archictectural Historian & Project Manager

Enclosed: Project Location Map

Rincon Consultants, Inc.

200 Washington Street
Suite 207
Santa Cruz, California 95060

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www.rinconconsultants.com

July 9, 2018

Annie Murphy, Planner
County of Santa Cruz Planning Department
701 Ocean Street
Santa Cruz, CA 95060

Subject: Cultural Resources Study for the Pipelines Project, Santa Cruz County, California

Dear Annie Murphy:

Rincon Consultants, Inc. (Rincon) has been retained to conduct a cultural resources study for the Pipelines Project (project) in Santa Cruz County, California. Rincon understands that the San Lorenzo Valley Water District (SLVWD) proposes the replacement of five lengths of pipeline: (1) Hihn Road, (2) Lyon Zone, (3) Sequoia Avenue, (4) Hillside Drive, and (5) California Drive.

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Sincerely,
Rincon Consultants, Inc.

Steven Treffers, M.H.P.
Senior Archictectural Historian & Project Manager

Enclosed: Project Location Map

Rincon Consultants, Inc.

200 Washington Street
Suite 207
Santa Cruz, California 95060

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July 9, 2018

Marla Novo, Archives and Collections
Santa Cruz Museum of Art and History Archive/Library
705 Front Street
Santa Cruz, CA 95060

Subject: Cultural Resources Study for the Pipelines Project, Santa Cruz County, California

Dear Marla Novo:

Rincon Consultants, Inc. (Rincon) has been retained to conduct a cultural resources study for the Pipelines Project (project) in Santa Cruz County, California. Rincon understands that the San Lorenzo Valley Water District (SLVWD) proposes the replacement of five lengths of pipeline: (1) Hihn Road, (2) Lyon Zone, (3) Sequoia Avenue, (4) Hillside Drive, and (5) California Drive.

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Rincon Consultants, Inc.

Steven Treffers, M.H.P.
Senior Archictectural Historian & Project Manager

Enclosed: Project Location Map

Rincon Consultants, Inc.

200 Washington Street
Suite 207
Santa Cruz, California 95060

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info@rinconconsultants.com
www.rinconconsultants.com

July 9, 2018

Robb Detlefs
Scotts Valley Historical Society
1 Civic Center Drive
Scotts Valley, CA 95066

Subject: Cultural Resources Study for the Pipelines Project, Santa Cruz County, California

Dear Robb Detlefs:

Rincon Consultants, Inc. (Rincon) has been retained to conduct a cultural resources study for the Pipelines Project (project) in Santa Cruz County, California. Rincon understands that the San Lorenzo Valley Water District (SLVWD) proposes the replacement of five lengths of pipeline: (1) Hihn Road, (2) Lyon Zone, (3) Sequoia Avenue, (4) Hillside Drive, and (5) California Drive.

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Sincerely,
Rincon Consultants, Inc.

Steven Treffers, M.H.P.
Senior Archictectural Historian & Project Manager

Enclosed: Project Location Map

Rincon Consultants, Inc.

200 Washington Street
Suite 207
Santa Cruz, California 95060

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July 9, 2018

Teresa Mora, Head of Special Collections and Archives and University Archivist
University of California, Santa Cruz, Special Collections & Archives
University Library, 1156 High Street
Santa Cruz, CA 95064

Subject: Cultural Resources Study for the Pipelines Project, Santa Cruz County, California

Dear Teresa Mora:

Rincon Consultants, Inc. (Rincon) has been retained to conduct a cultural resources study for the Pipelines Project (project) in Santa Cruz County, California. Rincon understands that the San Lorenzo Valley Water District (SLVWD) proposes the replacement of five lengths of pipeline: (1) Hihn Road, (2) Lyon Zone, (3) Sequoia Avenue, (4) Hillside Drive, and (5) California Drive.

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Rincon Consultants, Inc.

Steven Treffers, M.H.P.
Senior Archictectural Historian & Project Manager

Enclosed: Project Location Map

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/26/2018
Case Description: Site Prep - Lyons WDS

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residences Along Pine Street	Residential	65.0	65.0	45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Backhoe	No	40	77.6	15.0	0.0	

Results

	Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night		Noise Limit Exceedance (dBA) Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Backhoe	88.0	84.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	88.0	84.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/26/2018
Case Description: Grading/Trenching

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residences Along Pine Street	Residential	65.0	65.0	45.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	15.0	0.0
Backhoe	No	40		77.6	15.0	0.0
Backhoe	No	40		77.6	15.0	0.0
Concrete Saw	No	20		89.6	15.0	0.0

Results

Equipment	Calculated (dBA) Lmax	Calculated (dBA) Leq	Noise Limits (dBA) Day Lmax	Noise Limits (dBA) Day Leq	Noise Limits (dBA) Evening Lmax	Noise Limits (dBA) Evening Leq	Noise Limits (dBA) Night Lmax	Noise Limits (dBA) Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Noise Limit Exceedance (dBA) Day Leq	Noise Limit Exceedance (dBA) Evening Lmax	Noise Limit Exceedance (dBA) Evening Leq	Noise Limit Exceedance (dBA) Night Lmax	Noise Limit Exceedance (dBA) Night Leq
Dozer	92.1	88.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	88.0	84.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	88.0	84.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Saw	100.0	93.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	100.0	95.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/26/2018
Case Description: Building Construction - Lyons

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residences Along Pine Street	Residential	65.0	65.0	45.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	15.0	0.0
Backhoe	No	40		77.6	15.0	0.0
Crane	No	16		80.6	15.0	0.0
All Other Equipment > 5 HP	No	50	85.0		15.0	0.0
All Other Equipment > 5 HP	No	50	85.0		15.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Backhoe	88.0	84.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	88.0	84.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	91.0	83.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	95.5	92.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	95.5	92.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	95.5	96.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/26/2018
Case Description: Asphalt Paving - Lyons

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences Along Pine Street	Residential	65.0	65.0	45.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Vibratory Concrete Mixer	No	20		80.0	15.0	0.0
Vibratory Concrete Mixer	No	20		80.0	15.0	0.0
Vibratory Concrete Mixer	No	20		80.0	15.0	0.0
Vibratory Concrete Mixer	No	20		80.0	15.0	0.0
Paver	No	50		77.2	15.0	0.0
Backhoe	No	40		77.6	15.0	0.0
Backhoe	No	40		77.6	15.0	0.0
Roller	No	20		80.0	15.0	0.0

Results

Equipment	Calculated (dBA) Lmax	Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Vibratory Concrete Mixer	90.5	83.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vibratory Concrete Mixer	90.5	83.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vibratory Concrete Mixer	90.5	83.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vibratory Concrete Mixer	90.5	83.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	87.7	84.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	88.0	84.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	88.0	84.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	90.5	83.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	90.5	92.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/27/2018
Case Description: Site Preparation - Sequoia Avenue

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences Along Plumeria Court	Residential	65.0	65.0	45.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40	77.6	10.0	0.0	

Results

Equipment	Calculated (dBA) Lmax	Leq	Noise Limits (dBA) Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Noise Limit Exceedance (dBA) Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Backhoe	91.5	87.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	91.5	87.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/27/2018
Case Description: Grading/Trenching - Sequoia Avenue

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences Along Plumeria Court	Residential	65.0	65.0	45.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	10.0	0.0
Backhoe	No	40		77.6	10.0	0.0
Dozer	No	40		81.7	10.0	0.0
Concrete Saw	No	20		89.6	10.0	0.0

Results

Equipment	Calculated (dBA) Lmax	Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Backhoe	91.5	87.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	91.5	87.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	95.6	91.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Saw	103.6	96.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	103.6	98.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/27/2018
Case Description: Building Construction - Sequoia Avenue

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences Along Plumeria Court	Residential	65.0	65.0	45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Crane	No	16	80.6	10.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	10.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	10.0	0.0	
Backhoe	No	40	77.6	10.0	0.0	
Backhoe	No	40	77.6	10.0	0.0	

Results

Equipment	Calculated (dBA) Lmax	Leq	Noise Limits (dBA) Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Noise Limit Exceedance (dBA) Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Crane	94.5	86.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	99.0	96.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	99.0	96.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	91.5	87.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	91.5	87.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	99.0	99.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/27/2018
Case Description: Asphalt Paving - Sequoia Avenue

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences Along Plumeria Court	Residential	65.0	65.0	45.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Vibratory Concrete Mixer	No	20	80.0	10.0		0.0
Vibratory Concrete Mixer	No	20	80.0	10.0		0.0
Vibratory Concrete Mixer	No	20	80.0	10.0		0.0
Vibratory Concrete Mixer	No	20	80.0	10.0		0.0
Paver	No	50	77.2	10.0		0.0
Backhoe	No	40	77.6	10.0		0.0
Backhoe	No	40	77.6	10.0		0.0
Roller	No	20	80.0	10.0		0.0

Results

Equipment	Calculated (dBA) Lmax	Leq	Noise Limits (dBA) Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Noise Limit Exceedance (dBA) Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Vibratory Concrete Mixer	94.0	87.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vibratory Concrete Mixer	94.0	87.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vibratory Concrete Mixer	94.0	87.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vibratory Concrete Mixer	94.0	87.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	91.2	88.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	91.5	87.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	91.5	87.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	94.0	87.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	94.0	96.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/27/2018
Case Description: Architectural Coating - Sequoia Avenue

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences Along Plumeria Court	Residential	65.0	65.0	45.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	10.0	0.0

Results

Equipment	Calculated (dBA) Lmax	Leq	Noise Limits (dBA) Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Noise Limit Exceedance (dBA) Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Compressor (air)	91.6	87.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	91.6	87.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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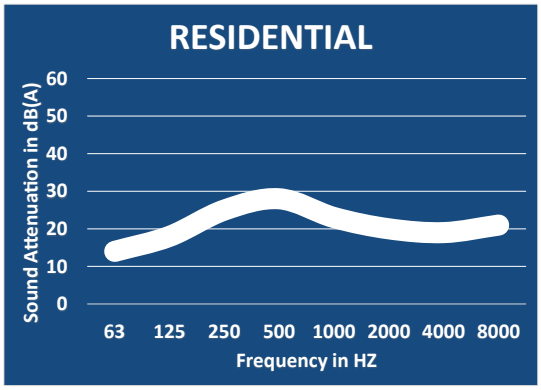
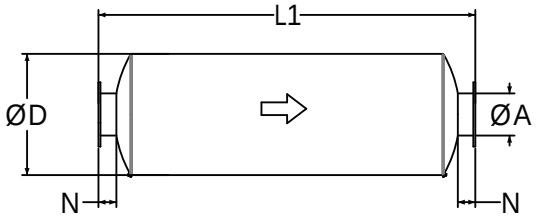
Residential Grade Silencers

Model NTRS-C (Cylindrical), 20-25 dBA

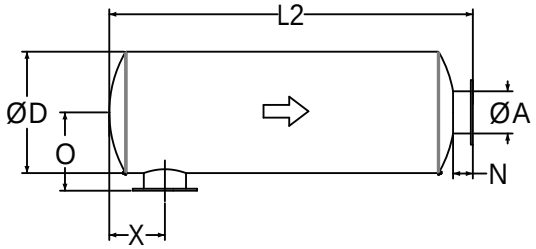
TYPICAL ATTENUATION CURVE



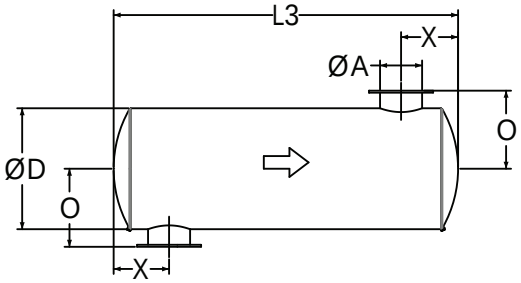
TYPICAL CONFIGURATIONS



END IN END OUT (EI-EO)



SIDE IN END OUT (SI-EO)



SIDE IN SIDE OUT (SI-SO)

Nett Technologies' Residential Grade Silencers are designed to achieve maximum performance with the least amount of backpressure. The silencers are Reactive Silencers and are typically used for reciprocating or positive displacement engines where noise level regulations are medium-low.

FEATURES & BENEFITS

- Over 25 years of excellence in manufacturing noise and emission control solutions
- Compact modular designs providing ease of installations, less weight and less foot-print
- Responsive lead time for both standard and custom designs to meet your needs
- Customized engineered systems solutions to meet challenging integration and engine requirements

Contact Nett Technologies with your projects design requirements and specifications for optimized noise control solutions.

OPTIONS

- Versatile connections including ANSI pattern flanges, NPT, slip-on, engine flange, schedule 40 and others
- Aluminized Steel, Stainless Steel 304 or 316 construction
- Horizontal or vertical mounting brackets and lifting lugs

ACCESSORIES

- Hardware Kits
- Flexible connectors and expansion joints
- Elbows
- Thimbles
- Raincaps
- Thermal insulation: integrated or with thermal insulation blankets
- Please see our accessories catalog for a complete listing

PRODUCT DIMENSIONS (in)

Model*	A	D	L1	L2	L3	X**	X	N	O
	Outlet	Dia	EI-EO	SI-EO	SI-SO	Min	Max	Nipple	O
NTRS-C1	1	4	20	18	16	3	10	2	4
NTRS-C1.5	1.5	6	28	26	24	3	12	2	5
NTRS-C2	2	6	28	25	22	4	12	3	6
NTRS-C2.5	2.5	6	32	29	26	4	14	3	6
NTRS-C3	3	6	34	31	28	5	15	3	6
NTRS-C3.5	3.5	9	36	33	30	5	16	3	8
NTRS-C4	4	10	40	37	34	5	17	3	8
NTRS-C5	5	12	42	39	36	6	18	3	9
NTRS-C6	6	14	44	40	36	7	19	4	11
NTRS-C8	8	16	56	52	48	9	24	4	12
NTRS-C10	10	20	58	54	50	11	24	4	14
NTRS-C12	12	24	70	66	62	13	31	4	16
NTRS-C14	14	30	80	75	70	17	35	5	20
NTRS-C16	16	36	90	85	80	17	40	5	23
NTRS-C18	18	40	102	97	92	18	47	5	25
NTRS-C20	20	42	108	103	98	21	50	5	26
NTRS-C22	22	48	116	111	106	23	54	5	29
NTRS-C24	24	48	130	125	120	26	61	5	29

* Other models and custom designs are available upon request. Dimensions subject to change without notice. All silencers are equipped with drain ports on inlet side. The silencer is all welded construction and coated with high heat black paint for maximum durability.

** Standard inlet/outlet position.

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Echo Barrier™

The Industry's First Reusable, Indoor/ Outdoor Noise Barrier/Absorber

- Superior acoustic performance
- Industrial durability
- Simple and quick installation system
- Lightweight for easy handling
- Unique roll-up design for compact storage and transportation
- Double or triple up for noise 'hot spots'
- Ability to add branding or messages
- Range of accessories available
- Weatherproof – absorbs sound but not water
- Fire retardant
- 1 person can do the job of 2 or 3 people

Why is it all too often we see construction sites with fencing but no regard for sound issues created from the construction that is taking place? This is due to the fact that there has not been an efficient means of treating this type of noise that was cost effective ***until now.***

Echo Barrier temporary fencing is a reusable, outdoor noise barrier. Designed to fit on all types of temporary fencing. Echo Barrier absorbs sound while remaining quick to install, light to carry and tough to last.

BENEFITS: Echo Barrier can help reduce noise complaints, enhance your company reputation, extend site operating hours, reduce project timescales & costs, and improve working conditions.

APPLICATIONS: Echo Barrier works great for construction & demolition sites; rail maintenance & replacement; music, sports and other public events; road construction; utility/maintenance sites; loading and unloading areas; outdoor gun ranges.

DIMENSIONS: 6.56' × 4.49'.

WEIGHT: 13 lbs.

ACOUSTIC PERFORMANCE: 10-20dB noise reduction (greater if barrier is doubled up).

INSTALLATION: The Echo Barrier is easily installed using our quick hook system and specially designed elastic ties.

Echo Barrier Transmission Loss Field Data							
	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	8KHz
Single Layer	6	12	16	23	28	30	30
Double Layer	7	19	24	28	32	31	32

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Vibration Analysis - Lyon and Sequoia Avenue Pipelines (Residences)

PPV (in/sec) = PPV {ref} * (25/D)^1.5
Where PPV = Peak Particle Velocity
{ref} = PPV at the reference distance of 25 feet
D = distance to the receptor

Equipment = Large Dozer

PPV{ref} =	0.089	in/sec
D =	15	feet
PPV at receptor =	***0.191***	***in/sec***

PPV is 1.7x to 6x larger than RMS velocity
Assume typical conversion factor of 4 PPV:RMS

Therefore estimated RMS velocity = 0.048 in/sec
Residential Receptor Lv = 94 VdB

Equipment = Loaded truck

PPV{ref} =	0.076	in/sec
D =	15	feet
PPV at receptor =	***0.164***	***in/sec***

PPV is 1.7x to 6x larger than RMS velocity
Assume typical conversion factor of 4 PPV:RMS

Therefore estimated RMS velocity = 0.041 in/sec
Residential Receptor Lv = 92 VdB

Equipment = Vibratory Roller

PPV{ref} =	0.21	in/sec
D =	15	feet
PPV at receptor =	***0.452***	***in/sec***

PPV is 1.7x to 6x larger than RMS velocity
Assume typical conversion factor of 4 PPV:RMS

Therefore estimated RMS velocity = 0.113 in/sec
Residential Receptor Lv = 101 VdB

Source: Chapter 12 Noise and Vibration During Construction in
Transit Noise and Vibration Assessment, April 1995
Harris Miller Miller & Hanson, Inc.
Prepared For: USDOT Federal Transit Administration

* RMS Velocity in decibels VdB with Vref of 1E-6 in/sec and PPV:RMS of ~4

Criterion

US Bureau of Mines, 1971	
PPV, in/sec	Degree of Damage
<2	Safe
2 - 4	Plaster Cracking
4 - 7	Minor Damage
>7	Major Damage

Canmet, Bauer, and Calder, 1977		
Equipment	PPV Threshold, in/sec	Type of Damage
Rigid Mercury Switches	0.5	Trip Out
House	2	Cracked Plaster
Concrete Block	8	Crack in Block
Cased Drill Holes	15	Horizontol Offset
Pumps, Compressors	40	Shaft Misalignment

Human Response Criteria

Level, Lv in VdB	Equivalent Noise Level, dBA		Human Response
	Low freq (30Hz)	Hi Freq (60 Hz)	
65	25	40	Approximate threshold of perception, low-freq inaudible, but mid-freq excessive for sleeping
75	35	50	Approx. dividing line between barely perceptible and clearly perceptible. Annoying vibration for most people. Low-freq acceptable for sleeping areas.
85	45	60	Vibration acceptable only if no more than 2 events/day for residential uses. Low-freq annoying in sleeping areas; mid-freq unacceptable for sensitive uses, including schools and churches.
90	50	65	Difficulty with tasks such as reading computer screens. Generally annoying for commercial uses.

Impact Criteria

Land Use	Lv in VdB		
	Frequent Events (70+/day)	Occasional Events (30-70)	Infrequent (<30 events/day)
Category 1: Vibration Sensitive	65	65	65
Concert Halls	65	65	65
TV Studios	65	65	65
Recording Studios	65	65	65
Category 2: Residences, hotels, sleeping areas	72	75	80
Auditoriums	72	80	80
Theaters	72	80	80
Category 3: Institutional with primarily daytime use only	75	78	83

Vibration Source Levels For Construction Equipment

Equipment		PPV at 25 ft (in/sec)	Approximate Lv at 25 feet *
Impact Pile Driver	upper range	1.518	112
	typical	0.644	104
Sonic Pile Driver	upper range	0.734	105
	typical	0.17	93
Clam shovel drop (slurry wall construction)		0.202	94
	in soil	0.008	66
Hydromill (slurry wall construction)	in rock	0.017	75
Vibratory Roller		0.21	94
Hoe Ram		0.089	87
	large	0.089	87
Bulldozer	small	0.003	58
Caisson drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79

Vibration Analysis - Lyon and Sequoia Avenue Pipelines (Boulder Creek Elementary School)

PPV (in/sec) = PPV {ref} * (25/D)^1.5
Where PPV = Peak Particle Velocity
{ref} = PPV at the reference distance of 25 feet
D = distance to the receptor

Equipment = Large Dozer

PPV{ref} =	0.089	in/sec
D =	430	feet
PPV at receptor =	***0.001***	***in/sec***

PPV is 1.7x to 6x larger than RMS velocity
Assume typical conversion factor of 4 PPV:RMS

Therefore estimated RMS velocity =	***0.000***	***in/sec***
Residential Receptor Lv =	***50***	***VdB***

Equipment = Loaded truck

PPV{ref} =	0.076	in/sec
D =	430	feet
PPV at receptor =	***0.001***	***in/sec***

PPV is 1.7x to 6x larger than RMS velocity
Assume typical conversion factor of 4 PPV:RMS

Therefore estimated RMS velocity =	***0.000***	***in/sec***
Residential Receptor Lv =	***49***	***VdB***

Equipment = Vibratory Roller

PPV{ref} =	0.21	in/sec
D =	430	feet
PPV at receptor =	***0.003***	***in/sec***

PPV is 1.7x to 6x larger than RMS velocity
Assume typical conversion factor of 4 PPV:RMS

Therefore estimated RMS velocity =	***0.001***	***in/sec***
Residential Receptor Lv =	***57***	***VdB***

Source: Chapter 12 Noise and Vibration During Construction in *Transit Noise and Vibration Assessment, April 1995*
Harris Miller Miller & Hanson, Inc.
Prepared For: USDOT Federal Transit Administration

* RMS Velocity in decibels VdB with Vref of 1E-6 in/sec and PPV:RMS of ~4

Criterion

US Bureau of Mines, 1971	
PPV, in/sec	Degree of Damage
<2	Safe
2 - 4	Plaster Cracking
4 - 7	Minor Damage
>7	Major Damage

Canmet, Bauer, and Calder, 1977		
Equipment	PPV Threshold, in/sec	Type of Damage
Rigid Mercury Switches	0.5	Trip Out
House	2	Cracked Plaster
Concrete Block	8	Crack in Block
Cased Drill Holes	15	Horizontol Offset
Pumps, Compressors	40	Shaft Misalignment

Human Response Criteria

Level, Lv in VdB	Equivalent Noise Level, dBA		Human Response
	Low freq (30Hz)	Hi Freq (60 Hz)	
65	25	40	Approximate threshold of perception, low-freq inaudible, but mid-freq excessive for sleeping
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90	50	65	Difficulty with tasks such as reading computer screens. Generally annoying for commercial uses.

Impact Criteria

Land Use	Lv in VdB		
	Frequent Events (70+/day)	Occasional Events (30-70)	Infrequent (<30 events/day)
Category 1: Vibration Sensitive	65	65	65
Concert Halls	65	65	65
TV Studios	65	65	65
Recording Studios	65	65	65
Category 2: Residences, hotels, sleeping areas	72	75	80
Auditoriums	72	80	80
Theaters	72	80	80
Category 3: Institutional with primarily daytime use only	75	78	83

Vibration Source Levels For Construction Equipment

Equipment		PPV at 25 ft (in/sec)	Approximate Lv at 25 feet *
Impact Pile Driver	upper range	1.518	112
	typical	0.644	104
Sonic Pile Driver	upper range	0.734	105
	typical	0.17	93
Clam shovel drop (slurry wall construction)		0.202	94
	in soil	0.008	66
Hydromill (slurry wall construction)	in rock	0.017	75
Vibratory Roller		0.21	94
Hoe Ram		0.089	87
	large	0.089	87
Bulldozer	small	0.003	58
Caisson drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79

MEMO

TO: Board of Directors

FROM: District Manager

SUBJECT: Policy to ban the use of glyphosate by the District until an Integrated Pest Management Plan can be adopted.

DATE: January 17, 2018

BACKGROUND

The District owns over 2000 acres of land, which is managed for water supply. The vast majority of that land is redwood forest upon which no herbicide is used for any reason. One parcel owned by the District contains 40 acres of critical habitat for six (6) endangered species confirmed on site, several species of special concern and a large number of endemic species, which occur in only in sandhills habitat. Due to historic human activities such as mining, development, and invasive species introduction, the vast majority of sandhills habitat, which was once wide-spread in the San Lorenzo Valley, has been lost or degraded.

There is a total of 57 acres of sand parkland (the classification for the highest quality sandhills habitat) left in the world. The San Lorenzo Valley Water District owns 14 acres (24.7%) of that 57 acres (McGraw, 2004). In 2017 your Board adopted a plan to manage invasive species, which are threatening to degrade the sand parkland habitat on the site.

For the past 2 years the District has worked to manage the invasive species to protect the sensitive habitat and biodiversity. The District has conducted cut stump treatment on a total of 16 acres with varying densities of French Broom and Portuguese Broom, prioritizing the highest quality habitat and adjacent areas to prevent further spread of invasive species into sensitive areas. The second priority was to remove brooms that are outliers to prevent new dense patches of broom from taking hold and spreading around the property. A total of 16 oz. (2 cups) of non-Monsanto brand glyphosate, approximately 1 ounce per acre was used and the cost for the labor and materials was $13,310 for both years.

Monitoring efforts following the treatments have shown that the cut stump treatments have been 100% effective with no re-sprouting from the treated stumps. The removal of the broom has resulted in the return of rare and endangered flora such as Ben Lomond Spine Flower to areas where dense broom patches were removed. Brooms have a seed bank that can last up to 50 years. Ongoing maintenance will be critical for those areas already treated or they will germinate and begin dropping seed within 3 years.

The City of Santa Cruz has hired a consultant to prepare an Integrated Pest Management Plan. The City is still in the scoping phase as this memo was prepared. The budget to prepare the document is $50,000 and the date for completion has not been set. Initial scope includes necessary extensive community engagement to ensure and acceptable IPM policy is adopted.

RECOMMENDATION

It is recommended that the Board discuss this memo and consider a ban on the use of glyphosate on District Property by motion of the Board, until an Integrated Pest Management Policy can be adopted.

BOARD OF DIRECTORS
SAN LORENZO VALLEY WATER DISTRICT
Minutes
January 3, 2019

MISSION STATEMENT: Our Mission is to provide our customers and future generations with reliable, safe and high quality water at an equitable price; to create and maintain outstanding service and community relations; to manage and protect the environmental health of the aquifers and watersheds; and to ensure the fiscal vitality of the San Lorenzo Valley Water District.

Thursday, January 3, 2019 at 5:00 p.m., SLVWD, 13057 Highway 9, Boulder Creek, CA 95006 and by teleconference at 2017 American Dr., Lago Vista, TX 78645.

1. Convene Meeting 5:01
   Roll Call: Dir. Smallman, Dir. Fultz, Pres. Henry present
   Dir. Swan (by phone)
   Staff: R. Rogers-District Manager, G. Nicholls-District Counsel (by phone),
   H. Hossack-District Secretary

2. Additions and Deletions to Closed Session Agenda: None

3. Oral Communications Regarding Items in Closed Session: None

4. Adjournment to Closed Session 5:02

   a. CONFERENCE WITH LEGAL COUNSEL- EXISTING LITIGATION
   Government Code Section 54956.9(d)(1)
   Vierra v. San Lorenzo Valley Water District, et al.
   (Santa Cruz Superior Court Case No. 18CV00890)

   b. CONFERENCE WITH LEGAL COUNSEL- EXISTING LITIGATION
   Government Code Section 54956.9(d)(1)
   Holloway v. Showcase Realty Agents, Inc. et al.
   (Santa Cruz Superior Court Case No. CV180394; 6th District Court of Appeal Case Nos. H043704, H043492).

   c. CONFERENCE WITH LEGAL COUNSEL- ANTICIPATED LITIGATION
   Government Code Section 54956.9 (d)(2)
   One case

5. Reconvene to Open Session at 6:05 p.m.
   Roll Call: Dir. Smallman, Dir. Fultz, Dir. Bruce, President Henry present
   Dir. Swan (by phone)

Staff: S. Hill-Director of Finance & Business Services, J. Michelsen-Environmental Programs Manager, R. Rogers, J. Furtado-Director of Operations, H. Hossack
G. Nicholls (by phone)

6. Report of Actions Taken in Closed Session: None

7. Additions and Deletions to Open Session Agenda: None

8. Oral Communications: None

9. Unfinished Business:
   a. BLUE TANK FOUNDATION AWARD OF BID
   Dist. Mgr. Rogers introduced this item.
   Discussion by the Board and staff regarding the Award of Bid for the Blue Tank Foundation project.
   T. Norton-Felton, V. Champlin-Brookdale, J. Gomez-Felton and C. Baughman-Boulder Creek addressed the Board.
   Discussion by staff and Board.
   A motion was made and seconded to adopt Resolution No. 24 (18-19). All members voted in favor of the motion. Motion passed.

   b. VEHICLE PURCHASE AWARD OF BID
   Dist. Mgr. Rogers introduced this item.
   Discussion by the Board and staff regarding the Award of Bid for vehicle purchase.
   T. Norton addressed the Board.
   Discussion by Board and staff.
   A motion was made and seconded to adopt Resolution No. 25 (18-19). All members voted in favor of the motion. Motion passed.

   c. BOARD POLICY MANUAL WORKSHOP
   Pres. Henry introduced this item.
   Discussion by the Board, staff and public regarding the Board Policy Manual.
   T. Norton addressed the Board.
   Discussion by the Board and staff.
   R. Moran-Ben Lomond, J. Gomez, V. Champlin, and C. Baughman addressed the Board.
   Discussion by the Board and staff.
   C. Baughman addressed the Board.
   Discussion by Board and staff.

10. New Business:
   a. BOARD, COMMITTEE & STAFF TRAINING
   DM Rogers introduced this item.

Discussion by the Board and staff regarding training for the Board members, Committee members and staff.
V. Champlin addressed the Board.
Discussion by the Board.

11. Consent Agenda:
The Consent Agenda contains items which are considered to be routine in nature and will be adopted by one (1) motion without discussion. Any item on the consent agenda will be moved to the regular agenda upon request from individual Directors or a member of the public.

a. MINUTES FROM SPECIAL BOARD OF DIRECTORS MEETING DECEMBER 13, 2018
Consideration and possible action by the Board to approve minutes from the December 13, 2018 Special BoD meeting.
Pres. Henry asked to pull the Consent Agenda.
Discussion by Board and staff.
C. Baughman addressed the Board.
Discussion by the Board and staff.

12. Written Communication:
- Note from D. Zanville

13. Informational Material: None

14. Adjournment 9:17

MEMO

To: Board of Directors

From: District Manager

Subject: December 2018 Administration Department Monthly Report

Date January 17, 2019

Recommendation

It is recommended that the Board of Directors review and file the Administration Department Monthly Report for December 2018.

PROBATION TANK REPLACEMENT

The Probation Tank Construction project is continuing. During the reporting period the contractor is still submitting material submittals and has moved equipment on site. Construction activities at the site started the week of December 10, 2018. Project completion date is September 27, 2019.

LOMPICO ASSESSMENT DISTRICT PROJECT

Staff has been working with engineering consultants on the design of the water storage tanks and PRV replacement projects. Six redwood tanks and six PRV's are being replaced as part of the consolidation assessment district. Water consumption data was submitted to the design engineers for pressure zone water storage analysis with the engineering report due the week before Christmas.

Further review was necessary to insure the concrete vaults were sized for existing conditions in the field. Field staff checked vault measurements and made adjustments as needed. An amendment to the bid specifications will be provided. The replacement of the six PRV stations is out to bid.

BLUE TANK FOUNDATION UPGRADE

At the January 3, 2019 Board of Directors meeting the board awarded foundation construction bid to Don Chapin Company and is moving forward with construction. During routine inspection it was discovered that the District's Blue

Tank in Manana Woods has experienced extensive corrosion to the upper ring of staves, roof and internal roof structure system. In addition to corrosion the tank experienced buckling damage from the 1989 Loma Prieta Earthquake. The combined condition of the corrosion and earthquake damage tank warrants immediate replacement. As part of the replacement the existing concrete foundation was evaluated to meet today's structural standards. The project consists of 8 new concrete piers to strengthen an existing concrete slab on grade water tank foundation. This includes excavation for new concrete piers, securing rebar dowels to existing slab on grade foundation with epoxy, installing pier reinforcement and pouring concrete.

BEAR CREEK WASTEWATER

Staff is moving forward with a Request for Proposal for a Capital Improvement Study and will have for customers and board review in February 2019. Staff is working with the County of Santa Cruz with an application to the Regional Water Quality Board for a Technical Assistance Grant in the amount of $900,000 dollars for design/construction regarding modifications to the Bear Creek Estates Wastewater Facility.

The District may be eligible for the small community wastewater program which is funded through Prop 1 and could also potentially help with implementation. We will need to do an income survey to get those funds, which would be less competitive. There is funding in Prop 1 that can pay for the income survey, as well as technical assistance of various types. The first step is to submit an application and it has just been submitted by the County.

BOARD OF DIRECTORS MEETING SUBJECT CALENDAR

Staff is moving forward with a Board of Directors meeting agenda schedule. The calendar will have a schedule of board and committee meeting dates and topics that will assist staff and the Board in planning and work in conjunction with the Strategic Plan.

M E M O

TO: Board of Directors

FROM: District Manager

PREPARED BY: Director of Finance & Business Services

SUBJECT: FINANCE & BUSINESS SERVICES STATUS REPORT

DATE: January 17, 2019

RECOMMENDATION:

It is recommended that the Board of Directors review and file the Finance & Business Services Department Status Report.

BACKGROUND:

BUDGET
The next Budget & Finance Committee meeting we will go over the FY1718 Budget vs. Actual results. This will also be part of the Financial review for the full Board at the first meeting in March 2019.

Part of the Budget vs. Actual review helps prepare for the next FY budget as well. We are also compiling the Q2 results, which give us a 6 month look at the current year to also assist in budgeting.

BEAR CREEK ESTATES
The new BCEWW rates went into effect for the bills received in January. Aside from that, there has been some positive/interesting interactions with other agencies. The County is trying to attain some grant funding that they asked to include the BCEWW in and then LAFCO plans to look into some options for BCEWW as well. A letter will be going out to the BCEWW customers in the near future for further discussion on the progress.

LOANS – FEMA, USDA & OTHER LOANS
Prior to the government shut-down, the District did receive the draft approval for the letter of conditions. This should be finalized once the government shut-down is over. Main takeaway is that this locked us in at the 4% interest rate, which would have gone up to 4.25% if the draft approval had occurred after 12/31.

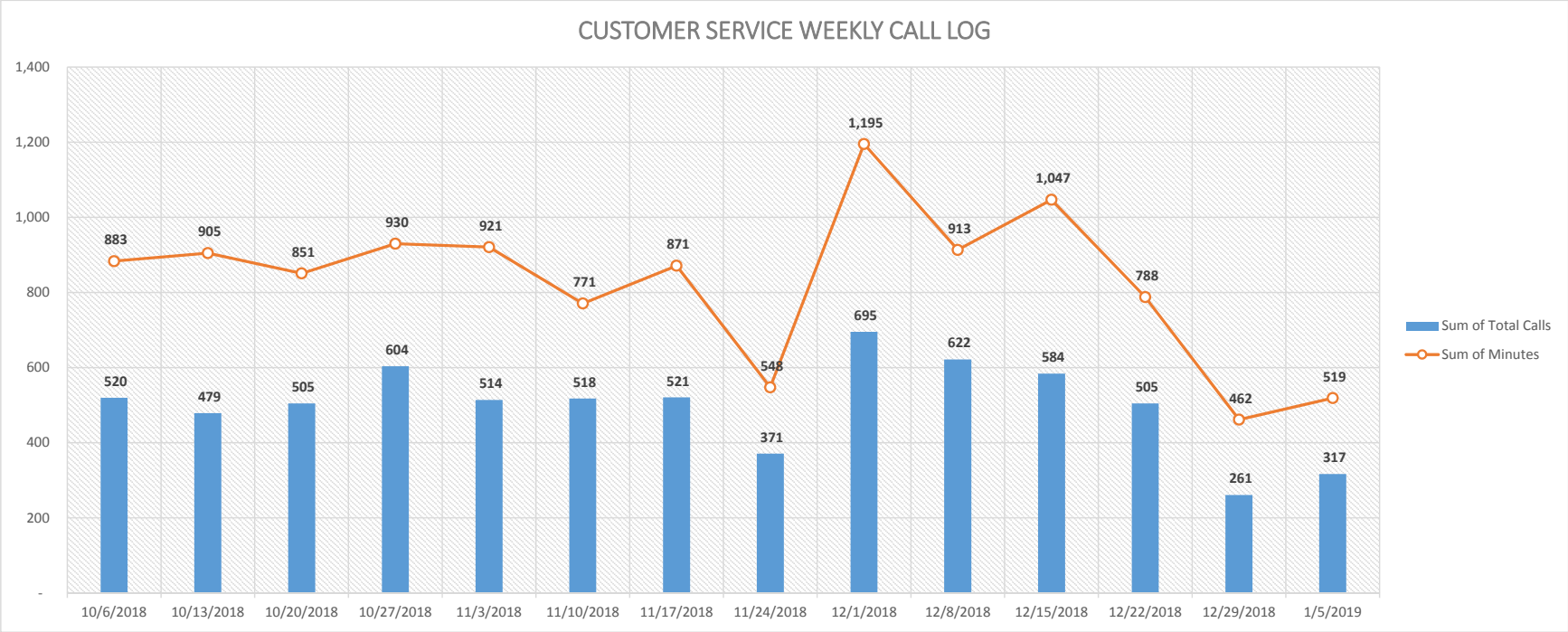
CUSTOMER SERVICE SUPPORT
Customer Service stats and information is included in this status report for review.

BILL LIST
The Bill List is included in this status report for review.

FINANCIAL SUMMARY
The November 2018 results are herein.

In summary, revenue is tracking slightly higher than budget. Thus far customers have not made significant reductions in consumption with the shift of consumption charges. Expenses are tracking slightly better than budget.

REVENUE STABILIZATION RATE ANALYSIS
This packet contains the current consumption as compared to the prior 3 year averages for the revenue rate stabilization. As of November, 2018 consumption, the cumulative consumption is 2% above the baseline. There are no triggers identified per the revenue stabilization rate policy.



	Incoming Calls		Outgoing Calls		Total Calls	
Week Ending	# Calls	Minutes	# Calls	Minutes	# Calls	Minutes
10/6/2018	309	711	211	172	520	883
10/13/2018	307	675	172	230	479	905
10/20/2018	303	675	202	176	505	851
10/27/2018	348	774	256	156	604	930
11/3/2018	329	731	185	190	514	921
11/10/2018	312	639	206	131	518	771
11/17/2018	305	654	216	217	521	871
11/24/2018	232	437	139	111	371	548
12/1/2018	401	889	294	306	695	1,195
12/8/2018	330	618	292	295	622	913
12/15/2018	350	757	234	289	584	1,047
12/22/2018	288	580	217	208	505	788
12/29/2018	202	411	59	51	261	462
1/5/2019	240	449	77	70	317	519

Weekly Notes
Turn offs, Main Break: 18674 HWY 9 & Sylvan, Igo Way
Main Breaks: 10065 East Zayante Rd, 150 Pike dr, Lost Acre Dr,
Tags, Main Breaks:10820 Westwood Rd, 14070 West Park Ave, 313 Madrone Ave,Whispering Pines, 10820 Westwood, 9795 Central Ave,190 Willowbrook, Bar King Rd,Kings Creek Rd,
Turn Offs, Main Breaks:260 Riverside Park Dr, 13515 West Park Ave, 560 River Dr, 15840 Kings Creek Rd,615 Wente St, Love Creek and Sunnyside, End of Balch Wy, Old County Rd,
Tags, Main Breaks: 8050 Hermosa, 200 Buena Vista,
Turn offs, Main Breaks: 305 Mira Flores
Main Breaks: 300 Capelli Drive, 182 Russell St - CDF Station, Ridge Dr - twice
Tags, Main Breaks: 822 Applewood Dr, 409 Hillside, 610 Redwood Dr, 273 Ada Ave, 1463 Two Bar Rd, 184 Madrona Rd, Kessler Dr, 214 Circle Dr, 220 Estates Dr, 219 Bean Ave
Turn offs & Tags, Main Break: Blue Ridge Road, 335 Vista Terrace, 381 Middleton Dr, 1463 Two Bar #5, 9095 Glen Arbor Rd.
Turn offs, Main Breaks: hwy 9 & Graham Hill Rd., 6630 Hwy 9, 6706 hwy 9, 11247 hwy 9, Lorenzo Ln & Hwy 9, 15610 Hwy 9, 10990 Riverside Rd., California Dr. East Creek Bridge, 261 Main St., 730 Sugar Pine Rd., Sunnyside & Main St., 10405 Lake Blvd.,
Tags, Main Break: 6 Ridgewood Dr.
Turn offs, Main Breaks: 9460 Sunnyside, 305 Reynolds Dr., Across the St. from 10825 Lake Blvd.
15965 Kings Creek Rd., 200 Caledonium Ave., 11101 Sequoia Ave., 8937 Glen Arbor Rd. *(closed 2 days)*
Tags, Main Breaks: 10926 Sequoia Ave. *(closed 2 days)*

CUSTOMER SERVICE DEPT SUMMARY

Monthly Stats:	**18-Dec**	**Nov-18**	**Oct-18**	**Sep-18**	**Aug-18** **	**Jul-18**	**Jun-18**	**May-18**	**Apr-18** *	**Mar-18** **	**Feb-18**	**Jan-18**
Cut In/Outs	34	63	66	59	77	86	59	68	58	30	42	61
Final Bills	32	64	74	64	115	40	66	71	42	34	58	57
Tags	157	191	158	206	275	176	121	232	72	312	198	194
Turn-offs	25	26	42	32	36	22	23	25	29	24	32	26

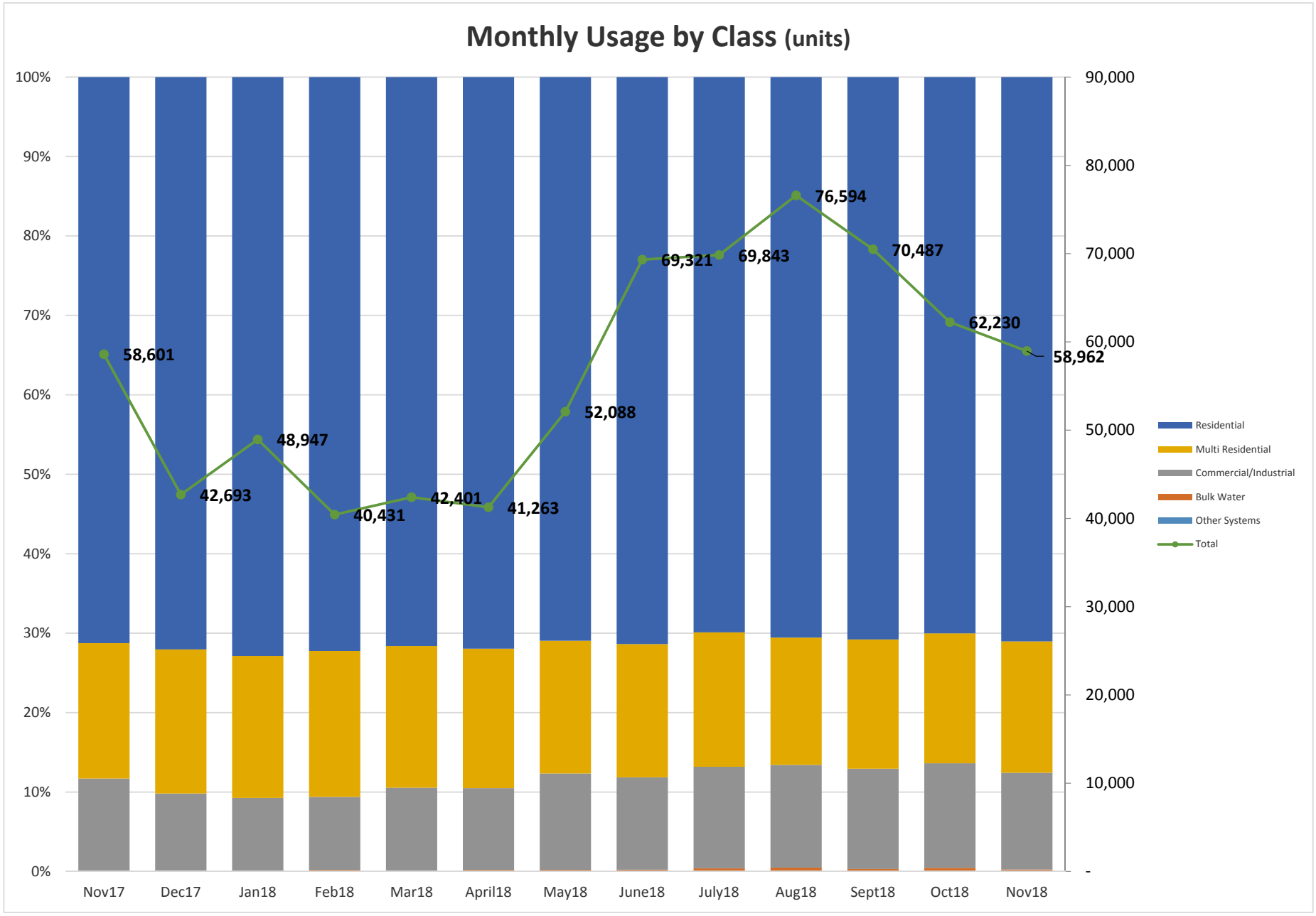
Online / Going Green

As of 01/03/2019

Online Sign-ups	4,033	3,980	3,938	3,883	3,839	3,779	3,726	3,680	3,636	3,599	3,543	3,499
E-Bills	1,326	1,302	1,284	1,260	1,238	1,210	1,193	1,174	1,157	1,145	1,120	1,092
Auto Pay	2,673	2,638	2,603	2,553	2,509	2,492	2,463	2,445	2,427	2,386	2,350	2,316

* Due to timing, only had 1 tag/turn off cycle

** Due to timing, had 3 tag/turn off cycle


Monthly Usage by Class (units)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
-
58,601
42,693
48,947
40,431
42,401
41,263
52,088
69,321
69,843
76,594
70,487
62,230
58,962
Nov17
Dec17
Jan18
Feb18
Mar18
April18
May18
June18
July18
Aug18
Sept18
Oct18
Nov18
Residential
Multi Residential
Commercial/Industrial
Bulk Water
Other Systems
Total

Accounts Payable

Outstanding Invoices

User: KendraNegro
Printed: 1/8/2019 - 10:46 AM
Date Type: JE Date
Date Range: 12/04/2018 to 01/08/2019

13060 Highway 9
Boulder Creek, CA 95006-9119
(831) 338-2153 phone
(831) 338-7986 fax

Vendor / Account Number	JE Date	Invoice Date	Invoice No	Journal Entry	Amount	Description
00001 - ROYAL WHOLESALE ELECTRIC						
01-800-5300	12/19/2018	11/2/2018	7719-637012	00150-06-2019	2,090.95	GENERATOR PLUGS
01-800-5300	12/19/2018	12/11/2018	7719-638338	00150-06-2019	-2,779.50	GENERATOR PLUGS CREDIT
Total for Vendor 00001 - ROYAL WHOLESALE ELECTRIC:					-688.55	
00057 - AFSCME COUNCIL 57						
01-000-2205	12/27/2018	12/19/2018	122018_57	00248-06-2019	998.66	UNION DUES_DEC 2018
Total for Vendor 00057 - AFSCME COUNCIL 57:					998.66	
00350 - HOWARD OLIPHANT						
01-800-5630	12/27/2018	12/27/2018	122718_350	00248-06-2019	15.00	EMPLOYEE REIMBURSEMENT_MEALS
Total for Vendor 00350 - HOWARD OLIPHANT:					15.00	
00722 - SWRCB - ELAP						
01-800-5320	12/6/2018	11/13/2018	EA0219-2117	00045-06-2019	2,741.00	LYON PLANT LAB_PERMIT_CERTIFICATION
Total for Vendor 00722 - SWRCB - ELAP:					2,741.00	
10130 - SANTA CRUZ COUNTY PARKS,OPEN SPACE & CULTURAL SVCS						
01-100-5631	12/6/2018	12/3/2018	120318_10130	00045-06-2019	195.50	COUNTY PARKS PARCEL TAX_2014 MEASURE F
Total for Vendor 10130 - SANTA CRUZ COUNTY PARKS,OPEN SPACE & CULTURAL SVCS:					195.50	
UB*00252 - Amalia Laugesen						
01-000-2100	12/27/2018	3/15/2017		00248-06-2019	15.81	Refund Check
Task Label:		Type:	PO Number:			
01-000-2100	12/27/2018	3/15/2017		00248-06-2019	22.85	Refund Check
Task Label:		Type:	PO Number:			

Vendor / Account Number	JE Date	Invoice Date	Invoice No	Journal Entry	Amount	Description
Total for Vendor UB*00252 - Amalia Laugesen:					38.66	
UB*00300 - GARY GARRICK						
01-000-2100	12/27/2018	7/12/2017		00248-06-2019	48.43	Refund Check
Task Label:		Type:	PO Number:			
Total for Vendor UB*00300 - GARY GARRICK:					48.43	
UB*00533 - Marcie & Frank Eryavec						
01-000-2100	12/27/2018	1/4/2019		00247-06-2019	40.09	Refund Check
Task Label:		Type:	PO Number:			
Total for Vendor UB*00533 - Marcie & Frank Eryavec:					40.09	
UB*00534 - SHELBY SCHEWE						
01-000-2100	12/27/2018	1/4/2019		00247-06-2019	9.18	Refund Check
Task Label:		Type:	PO Number:			
01-000-2100	12/27/2018	1/4/2019		00247-06-2019	10.39	Refund Check
Task Label:		Type:	PO Number:			
Total for Vendor UB*00534 - SHELBY SCHEWE:					19.57	
UB*00535 - DIANA RODROW						
01-000-2100	12/27/2018	1/4/2019		00247-06-2019	6.31	Refund Check
Task Label:		Type:	PO Number:			
Total for Vendor UB*00535 - DIANA RODROW:					6.31	
UB*00536 - MIKE SCHULTS						
01-000-2100	12/27/2018	1/4/2019		00247-06-2019	19.29	Refund Check
Task Label:		Type:	PO Number:			
01-000-2100	12/27/2018	1/4/2019		00247-06-2019	8.98	Refund Check
Task Label:		Type:	PO Number:			
Total for Vendor UB*00536 - MIKE SCHULTS:					28.27	
UB*00537 - MICHAEL BROACH						
01-000-2100	12/27/2018	1/4/2019		00247-06-2019	51.90	Refund Check
Task Label:		Type:	PO Number:			
Total for Vendor UB*00537 - MICHAEL BROACH:					51.90	
UB*00538 - COLLETTA GRUCZELAK						

Vendor / Account Number	JE Date	Invoice Date	Invoice No	Journal Entry	Amount	Description
UB*00538 - COLLETTA GRUCZELAK						
01-000-2100	1/7/2019	1/7/2019		00026-07-2019	364.48	Refund Check
Task Label:		Type:	PO Number:			
01-000-2100	1/7/2019	1/7/2019		00026-07-2019	191.45	Refund Check
Task Label:		Type:	PO Number:			
Total for Vendor UB*00538 - COLLETTA GRUCZELAK:					555.93	
Report Total:					4,050.77	

Accounts Payable

Checks by Date - Detail by Check Number

User: KendraNegro
Printed: 1/8/2019 10:51 AM

13060 Highway 9
Boulder Creek, CA 95006-9119
(831) 338-2153 phone
(831) 338-7986 fax

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
ACH	00178	CALPERS	01/03/2019		
	JAN 2019.1	HEALTH INSURANCE			2,367.94
	JAN 2019.2	HEALTH INSURANCE			13,756.51
	JAN 2019.3	HEALTH INSURANCE			768.25
	JAN 2019.4	HEALTH INSURANCE			17,450.26
	JAN 2019.5	HEALTH INSURANCE			2,765.70
	JAN 2019.6	HEALTH INSURANCE			750.00
	JAN 2019.7	HEALTH INSURANCE			10,044.63
	JAN 2019.8	HEALTH INSURANCE			122.47
	JAN 2019.9	HEALTH INSURANCE			1,821.70
			Total for this ACH Check for Vendor 00178:	0.00	49,847.46
ACH	00054	PACIFIC GAS AND ELECTRIC	12/20/2018		
	NOV_3658024062A	UTILITES_ADMIN			600.17
	NOV_3658024062B	UTILITES_OPS			8,649.04
	NOV_3658024062C	UTILITES_WTP			24,617.33
	NOV_3658024062D	UTILITES_BCE WASTEWATER			232.79
			Total for this ACH Check for Vendor 00054:	0.00	34,099.33
16263	00055	AT&T	12/06/2018		
	1118_8313355273	PHONE_FELTON ACRES_WTP			141.45
			Total for Check Number 16263:	0.00	141.45
16264	10241	AT&T GLOBAL SERVICES	12/06/2018		
	SB102391	PROGRAM LUNCH OPTION ON PHONES			446.25
			Total for Check Number 16264:	0.00	446.25
16265	00309	AT&T IP SERVICES	12/06/2018		
	2168694400	IP SERVICES_195 KIRBY STREET			273.34
			Total for Check Number 16265:	0.00	273.34
16266	00309	AT&T IP SERVICES	12/06/2018		
	7495894402A	IP SERVICES_ADMIN			393.81
	7495894402B	IP SERVICES_OPS			393.81
	7495894402C	IP SERVICES_WTP			393.81
			Total for Check Number 16266:	0.00	1,181.43
16267	00687	AT&T U-VERSE	12/06/2018		
	1118_132338293	UVERSE_GRAHAM HILL			75.00
			Total for Check Number 16267:	0.00	75.00
16268	00687	AT&T U-VERSE	12/06/2018		
	5233954404A	IP SERVICES_ADMIN			250.49
	5233954404B	IP SERVICES_OPS			250.49

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
	5233954404C	IP SERVICES_WTP			250.50
			Total for Check Number 16268:	0.00	751.48
16269	00687	AT&T U-VERSE	12/06/2018		
	NOV18_132166881	INTERNET_MANANA WOODS			94.25
			Total for Check Number 16269:	0.00	94.25
16270	00342	BRASS KEY LOCKSMITH	12/06/2018		
	949886	ADMIN BLDG_FRONT DOOR			167.11
			Total for Check Number 16270:	0.00	167.11
16271	00099	JOEL BUSA	12/06/2018		
	DEC2018_99	RETIRED EMPLOYEE MEDICAL_DEC 2018			125.00
			Total for Check Number 16271:	0.00	125.00
16272	00566	C S S C	12/06/2018		
	18110059101	ANSWERING SERVICE_SERVICE PERIOD 1			314.43
			Total for Check Number 16272:	0.00	314.43
16273	00415	CA BANK & TRUST/GOV SVC DEPT_1(	12/06/2018		
	DEC2018_415	1976 SAFE DRINKING WATER BOND_DEC2			15,581.43
			Total for Check Number 16273:	0.00	15,581.43
16274	10239	CDTFA	12/06/2018		
	WRSTF094-018330	WATER RIGHTS FEE_PERIOD 07/01/18-06/3(			232.45
	WRSTF094-018331	WATER RIGHTS FEE_PERIOD 07/01/18-06/3(			232.45
	WRSTF094-018346	WATER RIGHTS FEE_PERIOD 07/01/18-06/3(			301.58
	WRSTF094-018348	WATER RIGHTS FEE_PERIOD 07/01/18-06/3(			261.79
	WRSTF094-018349	WATER RIGHTS FEE_PERIOD 07/01/18-06/3(			246.47
	WRSTF094-018350	WATER RIGHTS FEE_PERIOD 07/01/18-06/3(			245.51
	WRSTF094-020224	WATER RIGHTS FEE_PERIOD 07/01/18-06/3(			1,000.00
	WRSTF094-023893	WATER RIGHTS FEE_PERIOD 07/01/18-06/3(			226.23
			Total for Check Number 16274:	0.00	2,746.48
16275	00363	CINCINNATI LIFE INSURANCE CO	12/06/2018		
	NOV2018_363	201 LIFE INSURANCE_NOV2018			28.00
			Total for Check Number 16275:	0.00	28.00
16276	00788	COMCAST	12/06/2018		
	111518_1236074	INTERNET_200 ANNIES WAY			174.82
			Total for Check Number 16276:	0.00	174.82
16277	00788	COMCAST	12/06/2018		
	111618_1018662	INTERNET_264 ORCHARD ROAD			148.29
			Total for Check Number 16277:	0.00	148.29
16278	00788	COMCAST	12/06/2018		
	111918_1028380	INTERNET_7400 HIGHWAY 9			153.29
			Total for Check Number 16278:	0.00	153.29
16279	00076	ERNIE'S AUTO CENTER	12/06/2018		
	760291	TAIL LIGHTS_OPS			28.84

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
			Total for Check Number 16279:	0.00	28.84
16280	10117	MELISSA JUNE ESTRADA	12/06/2018		
	2335	HOLIDAY WINDOWS			246.00
			Total for Check Number 16280:	0.00	246.00
16281	UB*00516	DBA FOCHA-SMART	12/06/2018		
		Refund Check			69.79
		Refund Check			41.19
			Total for Check Number 16281:	0.00	110.98
16282	00058	IHWY, INC.	12/06/2018		
	NOV2018_58	BUSINESS HOSTING_NOV 2018			25.00
			Total for Check Number 16282:	0.00	25.00
16283	00208	LEONARD KUHNLEIN	12/06/2018		
	DEC2018_208	RETIRED EMPLOYEE MEDICAL_DEC 2018			125.00
			Total for Check Number 16283:	0.00	125.00
16284	00336	LAND TRUST OF SANTA CRUZ COUNT	12/06/2018		
	10-2018	OLYMPIA PATROL SERVICE			650.40
			Total for Check Number 16284:	0.00	650.40
16285	00313	MET LIFE	12/06/2018		
	120118_313A	DEC 2018_ADMIN DENTAL			-3.61
	120118_313B	DEC 2018_ADMIN DISABILITY			30.04
	120118_313C	DEC 2018_ADMIN LIFE INSURANCE			16.65
	120118_313D	DEC 2018_FINANCE DENTAL			1,425.60
	120118_313E	DEC 2018_FINANCE DISABILITY			284.18
	120118_313F	DEC 2018_FINANCE LIFE INSURANCE			138.19
	120118_313G	DEC 2018_ENGINEERING DENTAL			62.57
	120118_313H	DEC 2018_ENGINEERING DISABILITY			41.45
	120118_313I	DEC 2018_ENGINEERING LIFE INSURANCI			16.65
	120118_313J	DEC 2018_OPS DENTAL			1,778.27
	120118_313K	DEC 2018_OPS DISABILITY			310.11
	120118_313L	DEC 2018_OPS LIFE INSURANCE			176.49
	120118_313M	DEC 2018_ENVIRONMENTAL DENTAL			984.37
	120118_313N	DEC 2018_ENVIRONMENTAL DISABILITY			78.38
	120118_313O	DEC 2018_ENVIRONMENTAL LIFE INSURA			33.30
	120118_313P	DEC 2018_WTP DENTAL			1,176.97
	120118_313Q	DEC 2018_WTP DISABILITY			298.36
	120118_313R	DEC 2018_WTP LIFE INSURANCE			139.86
			Total for Check Number 16285:	0.00	6,987.83
16286	10017	JEN MICHELSEN	12/06/2018		
	111718_10017	EMPLOYEE REIMBURSEMENT_MEETINGS			19.00
			Total for Check Number 16286:	0.00	19.00
16287	00082	MID VALLEY SUPPLY	12/06/2018		
	232134	PAPER TOWELS_TISSUE_ADMIN			184.16
			Total for Check Number 16287:	0.00	184.16
16288	00662	JAMES A. MUELLER	12/06/2018		

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
	DEC 2018_662	RETIRED EMPLOYEE MEDICAL_DEC 2018			50.00
			Total for Check Number 16288:	0.00	50.00
16289	10139	NATIONAL METER & AUTOMATION	12/06/2018		
	S1107825.001	METER 5/8" X 3/4" BADGER MODEL 25 CO!			4,856.89
			Total for Check Number 16289:	0.00	4,856.89
16290	10158	NOSSAMAN, LLP	12/06/2018		
	488531	PROFESSIONAL SERVICES THROUGH 10/3			22,737.31
			Total for Check Number 16290:	0.00	22,737.31
16291	UB*00515	CAROL NYE-WILSON	12/06/2018		
		Refund Check			11.26
			Total for Check Number 16291:	0.00	11.26
16292	00350	HOWARD OLIPHANT	12/06/2018		
	112618_350	EMPLOYEE REIMBURSEMENT_OT MEALS			11.24
			Total for Check Number 16292:	0.00	11.24
16293	00074	PAUL FUELING	12/06/2018		
	180833	ADMIN DOOR HOURS CHANGE			184.05
			Total for Check Number 16293:	0.00	184.05
16294	UB*00514	Kelsey & Jaremy Phillips	12/06/2018		
		Refund Check			77.57
		Refund Check			30.24
			Total for Check Number 16294:	0.00	107.81
16295	00428	RCD OF SANTA CRUZ COUNTY	12/06/2018		
	18FLP04	FALL CREEK DEBRIS REMOVAL_WO#280			5,843.87
			Total for Check Number 16295:	0.00	5,843.87
16296	00711	ROBERTS & BRUNE CO.	12/06/2018		
	S1780809.007	THREADING COMPOUND RECTOR SEAL			180.41
	S1789501.002A	TEE GALV 2"			109.99
	S1789501.002B	NIPPLE BRASS 1" X 0"			30.78
	S1789501.002C	4 HYMAX FLEX CPLG 4.25-5.63			958.93
	S1789501.002D	6 HYMAX FLEX CPLG 6.42-7.68			507.99
	S1789501.002E	TRACER WIRE 12 GUAGE COATED			154.96
	S1789501.003A	MTR VLV COPR-MTR ANG 3/4X5/8"			819.83
	S1789501.003B	MTR VLV COPR-MTR STRT 3/4X5/8"			838.93
	S1789501.003C	MTR CPLG CORP-COPR 3PT 3/4"			160.51
	S1789501.003D	COPR-PIPE MALE 1"			345.04
	S1789501.003E	CORP PIPE-PIPE IP 1"			275.79
	S1789501.003F	CORP PIPE-COPPER IP 1"			442.65
	S1789501.003G	BLUE PAINT WATERBASE #3620			107.73
	S1789501.003H	WHITE PAINT WATERBASE #3901			101.39
	S1795936.001	6X16 HYDRANT BURY MJ			529.46
	S1797252.001	SADDLE DS 2.35-2.56 x 1"			49.52
	S1797252.002	6 HYMAX FLEX CPLG 6.42-7.68			507.99
	S1797252.003A	GATE VALVE MJ X FLG 6"A2360-16			557.68
	S1797252.003B	METER BOX B16			746.26
	S1797252.003C	MTR BOX LID B9 CONCRETE			219.22
	S1797252.003D	CAP GALV 3/4"			10.06

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
	S1797252.003E	NIPPLE GALV 3/4" X 0"			6.31
	S1797252.003F	NIPPLE GALV 2" X 0"			23.34
	S1797252.003G	NIPPLE GALV 2" X 6"			44.75
	S1797252.003H	FULL CIRCLE 3.96-4.25 7.50"			76.01
	S1797252.004	FULL CIRCLE 2.35-2.63 7.50"			301.44
	S1798457.001	PIPE DUCTILE IRON 6"(18')CL350			616.00
			Total for Check Number 16296:	0.00	8,722.97
16297	UB*00513	WARREN RUNNEALS	12/06/2018		
		Refund Check			20.74
			Total for Check Number 16297:	0.00	20.74
16298	00168	SCOTTS VALLEY SPRINKLER	12/06/2018		
	152435	KIRBY PLANT CL2 LINE			163.22
			Total for Check Number 16298:	0.00	163.22
16299	00266	TERMINIX PROCESSING CENTER	12/06/2018		
	380823716	PEST CONTROL_13060 HWY 9 BC			144.00
			Total for Check Number 16299:	0.00	144.00
16300	00369	CAROLE TRIANTAFILLOS	12/06/2018		
	DEC2018_369	RETIREE MEDICAL_DEC 2018			125.00
			Total for Check Number 16300:	0.00	125.00
16301	00721	UNITED SITE SVCS.,INC	12/06/2018		
	114-7613037	PORTABLE RESTROOM SERVICE_WO#814			179.47
	114-7625713	QUAIL 5 TOILET SERVICE AND CLEANING			187.12
			Total for Check Number 16301:	0.00	366.59
16302	00011	VERIZON WIRELESS	12/06/2018		
	9818381693A	TABLET/PHONE CHARGES_ENV			95.22
	9818381693B	TABLET/PHONE CHARGES_OPS			322.17
	9818381693C	TABLET/PHONE CHARGES_WTP			95.22
			Total for Check Number 16302:	0.00	512.61
16303	00011	VERIZON WIRELESS	12/06/2018		
	9818381692A	CELL PHONE_ADMIN			100.14
	9818381692B	CELL PHONE_OPS			643.05
	9818381692C	CELL PHONE_WTP			410.08
			Total for Check Number 16303:	0.00	1,153.27
16304	00399	VISION SERVICE PLAN - (CA)	12/06/2018		
	DEC2018_399A	DEC VISION_ADMIN			28.44
	DEC2018_399B	DEC VISION_FIN			156.50
	DEC2018_399C	DEC VISION_ENG			11.14
	DEC2018_399D	DEC VISION_OPS			333.74
	DEC2018_399E	DEC VISION_ENVIR			38.58
	DEC2018_399F	DEC VISION_WTP			153.04
			Total for Check Number 16304:	0.00	721.44
16305	10072	WATER SYSTEMS CONSULTING, INC	12/06/2018		
	3486A	TROUT FARM INN FIRE SERVICE			6,475.00
	3486B	LOMPICO PRVS_WO#843			12,926.25

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
	3486C	LYON TANK ACCESS ROAD_WO#549			450.00
			Total for Check Number 16305:	0.00	19,851.25
16306	00398	WATSONVILLE METAL CO.,INC	12/06/2018		
	8425163	OLY DUMPSTER HAUL-OUT			600.00
			Total for Check Number 16306:	0.00	600.00
16307	00268	WATTS ON	12/06/2018		
	12254	ANNUAL GENERATOR SERVICE_MITCHEL			390.81
	12255	ANNUAL GENERATOR SERVICE_FELTON A			686.21
	12256	ANNUAL GENERATOR SERVICE_BCE WAS			590.82
			Total for Check Number 16307:	0.00	1,667.84
16308	00686	AT&T LONG DISTANCE	12/07/2018		
	1118_834287386A	LONG DISTANCE_ADMIN			379.62
	1118_834287386B	LONG DISTANCE_OPS			153.75
	1118_834287386C	LONG DISTANCE_ENV			540.71
			Total for Check Number 16308:	0.00	1,074.08
16309	00342	BRASS KEY LOCKSMITH	12/07/2018		
	949954	KIRBY PLANT FRONT DOOR LOCK_BATTE			121.79
			Total for Check Number 16309:	0.00	121.79
16310	00788	COMCAST	12/07/2018		
	1118_0987198	INTERNET_195 KIRBY ST			163.29
			Total for Check Number 16310:	0.00	163.29
16311	00265	COMMUNITY TELEVISION	12/07/2018		
	2586	BOD MEETINGS_OCTOBER 18TH			231.00
			Total for Check Number 16311:	0.00	231.00
16312	00450	EUROFINS	12/07/2018		
	L0417115	WATER ANALYSIS_PEAVINE			1,475.00
	L0417116	WATER ANALYSIS_CLEAR CREEK			1,475.00
	L0417117	WATER ANALYSIS_FOREMAN			1,475.00
			Total for Check Number 16312:	0.00	4,425.00
16313	00164	FIRST ALARM	12/07/2018		
	434715	ALARM SERVICES_195 KIRBY			258.75
			Total for Check Number 16313:	0.00	258.75
16314	00329	GRAINGER	12/07/2018		
	9944051037	BENCH VISE_VE-249_WO#113_REFER TO P			409.69
			Total for Check Number 16314:	0.00	409.69
16315	00080	GRANITE CONSTRUCTION CO	12/07/2018		
	1503111	QUAIL 5 BINS			551.89
	1504984	BASE ROCK			192.04
	1505030	BASE ROCK			223.66
			Total for Check Number 16315:	0.00	967.59
16316	00550	HACH COMPANY	12/07/2018		

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
	11223298	LAB SUPPLIES_WTP			274.52
	11226502	LAB SUPPLIES_WTP			237.08
			Total for Check Number 16316:	0.00	511.60
16317	10005	ICMA RETIREMENT C/O M & T RETIRI	12/07/2018		
	69080	RETIREMENT WITHHOLDING_PP ENDING			3,859.52
			Total for Check Number 16317:	0.00	3,859.52
16318	00608	LLOYD'S TIRE SERVICE, INC	12/07/2018		
	343853	TIRES_VE-280_WO#116			971.79
			Total for Check Number 16318:	0.00	971.79
16319	00074	PAUL FUELING	12/07/2018		
	180779	NINA GATE SIGN			98.10
			Total for Check Number 16319:	0.00	98.10
16320	10214	MIKE PODLECH	12/07/2018		
	2065	PROFESSIONAL SERVICES_WATER AVAILA			1,485.00
	2072	WATER AVAILABILITY FOR CONJUNCTIVE			1,215.00
			Total for Check Number 16320:	0.00	2,700.00
16321	00264	RAIN FOR RENT	12/07/2018		
	1281653	PASO WELL #8 DISCHARGE PIPING_WO#8			3,041.12
			Total for Check Number 16321:	0.00	3,041.12
16322	00125	SCARBOROUGH LUMBER	12/07/2018		
	325008	REPLACEMENT IMPACT DRIVER			206.86
	325098	MULTI METER			113.64
	325382	SPRAY TANK			45.10
	325444	SAW BLADES			50.89
	325449	TEFLON TAPE			7.69
	578349	CONCRETE LEAK REPAIR			7.95
	578537	WASHERS FOR SADDLE			1.50
	578547	POST HOLE DIGGER/CONCRETE_OPS			49.62
	578586	TARP-BIN COVER			39.99
	578620	FORKLIFT PROPANE			30.08
	578740	CAULKING SEALANT			38.63
			Total for Check Number 16322:	0.00	591.95
16323	00168	SCOTTS VALLEY SPRINKLER	12/07/2018		
	152479	CHLORINE LINE REPAIR_LYON			33.51
			Total for Check Number 16323:	0.00	33.51
16324	00171	SCOTTS VALLEY WATER DISTRICT	12/07/2018		
	2018-277946	SLV PORTION OF HOME & GARDEN AD_04			88.70
			Total for Check Number 16324:	0.00	88.70
16325	10231	TIAA COMMERCIAL FINANCE, INC.	12/07/2018		
	5749924	5 YR LEASE NEW COPIER_NOVEMBER 201			252.28
			Total for Check Number 16325:	0.00	252.28
16326	00768	USA BLUEBOOK_HD SUPPLY	12/07/2018		

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
	718696	HIGH PSI CHLORINE PUMPS			2,303.41
	718698	CHLORINE PUMPS			1,068.59
			Total for Check Number 16326:	0.00	3,372.00
16327	UB*00517	ABIGAIL & ADAM ABDOOL	12/13/2018		
		Refund Check			18.60
			Total for Check Number 16327:	0.00	18.60
16328	00362	ACCELA, INC #774375	12/13/2018		
	ACC42979A	WEB PAYMENTS_TRANSACTION FEE			2,686.00
	ACC42979B	WEB PAYMENTS_ONLINE BILLS			185.00
			Total for Check Number 16328:	0.00	2,871.00
16329	00384	DON ALLEY	12/13/2018		
	1118-01	STREAM MONITORING PROGRAM_10/25/1			1,496.92
			Total for Check Number 16329:	0.00	1,496.92
16330	00729	ALPHA ANALYTICAL LABS	12/13/2018		
	8112557	LAB FEES-ANALYTICAL SERVICES			1,032.00
			Total for Check Number 16330:	0.00	1,032.00
16331	00055	AT&T	12/13/2018		
	DEC_9607360489A	PHONE_ADMIN			209.16
	DEC_9607360489B	PHONE_OPS			4,002.19
	DEC_9607360489C	PHONE_WTP			2,217.47
	DEC_9607360489D	PHONE_BCE WASTEWATER			385.17
			Total for Check Number 16331:	0.00	6,813.99
16332	10173	CARLY BLANCHARD	12/13/2018		
	120518_10173	EMPLOYEE REIMBURSEMENT_MILEAGE			14.85
			Total for Check Number 16332:	0.00	14.85
16333	00146	BLUEPRINT EXPRESS	12/13/2018		
	241502	LYON SLIDE FEMA_WO#549			11.95
			Total for Check Number 16333:	0.00	11.95
16334	00234	CITY OF SCOTTS VALLEY	12/13/2018		
	71033330001_324	MANANA SEWER_WTP			79.00
			Total for Check Number 16334:	0.00	79.00
16335	UB*00509	CRAIG COKER	12/13/2018		
		Refund Check			28.27
			Total for Check Number 16335:	0.00	28.27
16336	00788	COMCAST	12/13/2018		
	1218_0302438	INTERNET_1075 WHISPERING PINES DR			193.38
			Total for Check Number 16336:	0.00	193.38
16337	00788	COMCAST	12/13/2018		
	1218_0956185	INTERNET_545 FALL CREEK DR			173.50

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
			Total for Check Number 16337:	0.00	173.50
16338	00788	COMCAST	12/13/2018		
	1218_1236033	INTERNET_215 BLACKSTONE DR			174.82
			Total for Check Number 16338:	0.00	174.82
16339	00788	COMCAST	12/13/2018		
	1218_1236124	INTERNET_15819 FOREST HILL ROAD			174.82
			Total for Check Number 16339:	0.00	174.82
16340	00788	COMCAST	12/13/2018		
	1218_1236165	INTERNET_280 BLUE RIDGE DRIVE			174.82
			Total for Check Number 16340:	0.00	174.82
16341	00703	DATAFLOW BUSINESS SYSTEMS, INC	12/13/2018		
	252958	CONTRACT SERVICES FOR PRINTERS/COF			427.86
			Total for Check Number 16341:	0.00	427.86
16342	UB*00523	KATHY DAVIDSON	12/13/2018		
		Refund Check			75.00
			Total for Check Number 16342:	0.00	75.00
16343	UB*00530	DAVID DEMING	12/13/2018		
		Refund Check			62.60
			Total for Check Number 16343:	0.00	62.60
16344	00037	CO. OF SANTA CRUZ DEPT OF PUBLIC	12/13/2018		
	02-00868332	PALLETS			24.48
			Total for Check Number 16344:	0.00	24.48
16345	UB*00528	ROXANNE DOUPE	12/13/2018		
		Refund Check			60.72
			Total for Check Number 16345:	0.00	60.72
16346	UB*00519	JAMES DOYLE	12/13/2018		
		Refund Check			11.31
			Total for Check Number 16346:	0.00	11.31
16347	UB*00524	BRUCE DUNN	12/13/2018		
		Refund Check			15.12
			Total for Check Number 16347:	0.00	15.12
16348	UB*00521	T NUNEZ & T EDGERTON	12/13/2018		
		Refund Check			28.27
		Refund Check			50.60
			Total for Check Number 16348:	0.00	78.87
16349	00076	ERNIE'S AUTO CENTER	12/13/2018		
	761360	TIE DOWNS_JUMPER CABLES_WTP			80.79
	761574	SAFETY LED FLARES_OPS			42.28
	761745	FORK LIFT BATTERY_OPS			75.21

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
	762176	HEADLIGHT BULB_VE-264_WO#115			18.54
	762290	SOLAR BATTERY CHARGER_OPS			38.79
			Total for Check Number 16349:	0.00	255.61
16350	00343	ERNIE'S SERVICE CENTER	12/13/2018		
	72598	OIL_SERVICE_VE-309			203.14
	72731	ANNUAL SMOG_VE-325_WO#117			628.74
	72777	ANNUAL SMOG SERVICE_VE-264_WO#115			1,225.92
	73001	BRAKES_AXLE SEALS_VE-280_WO#116			1,711.29
			Total for Check Number 16350:	0.00	3,769.09
16351	00450	EUROFINS	12/13/2018		
	L0424175	WATER ANALYSIS_PASO			20.00
	L0424665	WATER ANALYSIS_LYON WTP			100.00
	L0426013	WATER ANALYSIS_7301 HWY 9_150 VIEW (			400.00
	L0426015	WATER ANALYSIS_5 LOCATIONS			1,000.00
			Total for Check Number 16351:	0.00	1,520.00
16352	UB*00527	VINCE FELICETTA	12/13/2018		
		Refund Check			222.42
			Total for Check Number 16352:	0.00	222.42
16353	UB*00522	HARVEY FOX	12/13/2018		
		Refund Check			13.66
		Refund Check			105.69
			Total for Check Number 16353:	0.00	119.35
16354	00329	GRAINGER	12/13/2018		
	9016853245	RAIN GEAR_SAFETY_WTP			224.02
	9016853252	RAIN GEAR_SAFETY_OPS			117.92
	9018423146	FLARES_OPS			337.31
			Total for Check Number 16354:	0.00	679.25
16355	00080	GRANITE CONSTRUCTION CO	12/13/2018		
	1506608	ASPHALT RECYCLE			8.40
	1507982	PAVING_HOT MIX			313.75
	1511622	BASE ROCK & COLD MIX			766.59
			Total for Check Number 16355:	0.00	1,088.74
16356	00589	RONALD RAY GREENLY	12/13/2018		
	7655	SEPTIC SERVICES_195 KIRBY			300.00
			Total for Check Number 16356:	0.00	300.00
16357	00016	GREENWASTE RECOVERY,INC	12/13/2018		
	3783830	TRASH/RECYCLE/YARDWASTE SERVICES			395.14
			Total for Check Number 16357:	0.00	395.14
16358	00615	HOME DEPOT CREDIT SERVICES	12/13/2018		
	112818_615A	SAWZALL_OPS			215.92
	112818_615B	KIRBY PLANT TOOL BOX_WTP			865.83
	112818_615C	RATCHING PIPE THREADER_OPS			836.59
	112818_615D	DWALT TOOL KIT_SAW/DRILL			583.74
	112818_615E	RATCHET STRAP_OPS			9.73

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
			Total for Check Number 16358:	0.00	2,511.81
16359	UB*00529	JJJWSU LLC	12/13/2018		
		Refund Check			22.59
			Total for Check Number 16359:	0.00	22.59
16360	UB*00525	PETER & FRANCES LUFKIN	12/13/2018		
		Refund Check			10.12
		Refund Check			14.14
			Total for Check Number 16360:	0.00	24.26
16361	00296	MESITI-MILLER ENGINEERING,INC	12/13/2018		
	1118012	ENGINEERING SERVICES_BLUE TANK_WO			5,678.00
	1118023	ENGINEERING SERVICES_PROBATION TAI			1,449.88
	1118032	ENGINEERING SERVICES_PROBATION TAI			3,502.80
	1118033	ENGINEERING SERVICES_PROBATION TAI			4,620.00
	1118043	ENGINEERING SERVICES_BLUE TANK_WO			668.00
			Total for Check Number 16361:	0.00	15,918.68
16362	00640	MONTEREY BAY AIR RESOURCES	12/13/2018		
	936-112818	ANNUAL GENERATOR PERMIT FEES			3,090.00
			Total for Check Number 16362:	0.00	3,090.00
16363	00582	OLIVE SPRINGS QUARRY	12/13/2018		
	118135	HOT MIX_PAVING_OPS			136.81
			Total for Check Number 16363:	0.00	136.81
16364	10120	PACIFIC CREDIT SERVICES	12/13/2018		
	022100000133	COLLECTION FEES			241.50
			Total for Check Number 16364:	0.00	241.50
16365	00054	PACIFIC GAS AND ELECTRIC	12/13/2018		
	1218_2564996928	UTILITIES_1150 REBECCA DRIVE			43.31
			Total for Check Number 16365:	0.00	43.31
16366	00054	PACIFIC GAS AND ELECTRIC	12/13/2018		
	1218_2836470071	UTILITIES_ZAYANTE & ROSEBLOOM			1,413.44
			Total for Check Number 16366:	0.00	1,413.44
16367	00054	PACIFIC GAS AND ELECTRIC	12/13/2018		
	1218_6279346884	UTILITIES_19 SUMMIT AVE			327.49
			Total for Check Number 16367:	0.00	327.49
16368	00054	PACIFIC GAS AND ELECTRIC	12/13/2018		
	1218_7179253583	UTILITIES_WTP			519.91
			Total for Check Number 16368:	0.00	519.91
16369	00054	PACIFIC GAS AND ELECTRIC	12/13/2018		
	1218_9754419334	UTILITIES_STATE HWY 9 NR LAZYWOODS			88.73
			Total for Check Number 16369:	0.00	88.73

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
16370	00217	CO. OF SANTA CRUZ PLANNING DEPT	12/13/2018		
	ACP17668	FALL CREEK DEBRIS REMOVAL_WO#280			329.10
			Total for Check Number 16370:	0.00	329.10
16371	00512	RIVERSIDE LIGHTING	12/13/2018		
	D149717	GENERATOR INSTALL_OPS			131.06
			Total for Check Number 16371:	0.00	131.06
16372	00711	ROBERTS & BRUNE CO.	12/13/2018		
	S1789501.005	REPAIR CLAMP 3/4" X 3"			15.80
	S1789501.006A	REPAIR CLAMP 3/4" X 3"			23.71
	S1789501.006B	REPAIR CLAMP 2" X 3"			72.95
	S1789501.006C	FULL CIRCLE 2.35-2.63 12.50"			214.01
	S1789501.006D	FULL CIRCLE 6.84-7.24 12.50"			307.45
	S1797252.005	FLEX COUPLING 2" X 5" OD 2.375			702.95
	S1797252.006A	BUSHING GALV 1-1/4" X 3/4"			16.72
	S1797252.006B	ELL 90 GALV 2"			59.40
	S1797252.006C	NIPPLE GALV 3/4" X 2"			5.48
	S1797252.006D	NIPPLE GALV 1-1/4" X 6"			28.78
	S1797252.006E	NIPPLE GALV 2" X 2-1/2"			16.39
	S1797252.006F	GATE VALVE 3/4"			141.74
	S1797252.006G	GATE VALVE 1-1/4"			286.66
			Total for Check Number 16372:	0.00	1,892.04
16373	10151	OSCAR RODAS	12/13/2018		
	227426	MAINTENANCE_NOVEMBER 2018			250.00
			Total for Check Number 16373:	0.00	250.00
16374	00142	SAN LORENZO LUMBER	12/13/2018		
	61-0129634	MISC HARDWARE_BOLTS_NUTS_WASHER			14.13
			Total for Check Number 16374:	0.00	14.13
16375	00040	SANTA CRUZ SENTINEL	12/13/2018		
	6254297	ADVERTISING_BLUE TANK_WO#521			44.80
			Total for Check Number 16375:	0.00	44.80
16376	00125	SCARBOROUGH LUMBER	12/13/2018		
	325581	PRESSURE REGULATOR			75.18
	325600	RUBBER GASKET MATERIAL FOR TANK L			9.65
	578761	ECHO TANK LADDER SUPPORT			30.81
	578800	GENERATOR INSTALL_OPS			13.89
			Total for Check Number 16376:	0.00	129.53
16377	UB*00526	JEFFREY SIPES	12/13/2018		
		Refund Check			149.71
			Total for Check Number 16377:	0.00	149.71
16378	UB*00487	ABIGAIL & SCOTT EKIN SMILEY	12/13/2018		
		Refund Check			3.77
			Total for Check Number 16378:	0.00	3.77
16379	00047	SOIL CONTROL LAB	12/13/2018		
	8110391	WATER ANALYSIS_5 LOCATIONS			145.00

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
	8110560	WATER ANALYSIS_5 LOCATIONS			145.00
			Total for Check Number 16379:	0.00	290.00
16380	00044	STAPLES CREDIT PLAN_6035 5178 622	12/13/2018		
	112918_44	OFFICE SUPPLIES_ADMIN			52.25
			Total for Check Number 16380:	0.00	52.25
16381	00722	SWRCB - ELAP	12/13/2018		
	WD-0139946	ANNUAL PERMIT FEE_BEAR CREEK ESTA			6,130.00
	WD-0139986	ANNUAL PERMIT FEE_BEAR CREEK ESTA			2,286.00
	WD-0143647	ANNUAL PERMIT FEE_FELTON WS			550.00
	WD-0143774	ANNUAL PERMIT FEE_SUPPLY			770.00
			Total for Check Number 16381:	0.00	9,736.00
16382	00351	T&T VALVE & INSTRUMENT, INC	12/13/2018		
	55693	KIRBY PLANT_FILTER #2			1,667.88
			Total for Check Number 16382:	0.00	1,667.88
16383	10184	THATCHER COMPANY, INC	12/13/2018		
	259531	CHLORINE_WTP			3,032.27
	259532	CONTAINER REFUND_WTP			-640.00
			Total for Check Number 16383:	0.00	2,392.27
16384	UB*00518	DOUGLAS UMBARGER	12/13/2018		
		Refund Check			1.88
			Total for Check Number 16384:	0.00	1.88
16385	10217	UMPQUA BANK	12/13/2018		
	113018_10217A	ADVERTISING_ENG			226.00
	113018_10217B	FASTTRAK_WTP			8.00
	113018_10217C	EMPLOYEE UNIFORMS_OPS			131.24
	113018_10217D	EMAIL/WEB SECURITY			163.35
	113018_10217E	TRAINING_WATER WELL DESIGN & CONS			150.00
	113018_10217F	TRAINING_WATER WELL DESIGN & CONS			150.00
	113018_10217G	OFFICE SUPPLIES_USB			21.69
	113018_10217H	EMPLOYEE BACKGROUND CHECK			39.95
	113018_10217I	EMPLOYEE BACKGROUND CHECK_OPS			39.95
	113018_10217J	TRAINING_WATER USE EFFICIENCY_GRA			375.00
	113018_10217K	SCREEN MESH_WTP			185.85
	113018_10217L	OFFICE SUPPLIES_KEYBOARD MOUNTIN			86.79
	113018_10217M	OFFICE SUPPLIES_MINI KEYBOARD			40.13
	113018_10217N	VICE MOUNTS FOR VEHICLES			767.38
	113018_10217O	OFFICE SUPPLIES_HDMI CABLE			24.04
	113018_10217P	OFFICE SUPPLIES_WALL CALENDARS			40.13
	113018_10217Q	MARKETING_NOVEMBER 2018			50.00
	113018_10217R	OFFICE SUPPLIES_ADMIN			114.11
	113018_10217S	EXCEL TRAINING_5 EMPLOYEES			750.00
	113018_10217T	RACK STRAPS FOR TRUCKS_OPS			721.53
	113018_10217U	BANK CHARGES			152.51
			Total for Check Number 16385:	0.00	4,237.65
16386	00781	UTILITY SERVICES ASSOCIATES	12/13/2018		
	125904	LEAK DETECTION SERVICE_WO#1060			12,678.00

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
			Total for Check Number 16386:	0.00	12,678.00
16387	UB*00520	JOAN WILLIAMS	12/13/2018		
		Refund Check			5.65
			Total for Check Number 16387:	0.00	5.65
16388	00309	AT&T IP SERVICES	12/17/2018		
	5328165403	IP SERVICES_195 KIRBY_WTP			273.34
			Total for Check Number 16388:	0.00	273.34
16389	00141	B & B SMALL ENGINE	12/17/2018		
	409272	PUMP REPAIR_OPS			273.49
			Total for Check Number 16389:	0.00	273.49
16390	10025	BADGER METER, INC	12/17/2018		
	80026799	BADGER SERVICES_NOVEMBER 2018			1,376.83
			Total for Check Number 16390:	0.00	1,376.83
16391	00342	BRASS KEY LOCKSMITH	12/17/2018		
	949997	REMOVE & REPLACE PASSAGER LEVER F			269.89
	950034	SPARE KEYS_WTP			39.17
			Total for Check Number 16391:	0.00	309.06
16392	00067	CALIFORNIA SPECIAL DISTRICT	12/17/2018		
	2019_252	CSDA 2019 MEMBERSHIP RENEWAL			7,252.00
			Total for Check Number 16392:	0.00	7,252.00
16393	00165	CAMERON-COLE LLC	12/17/2018		
	0815923	CLIMATE SERVICES_ENVIR			2,297.50
			Total for Check Number 16393:	0.00	2,297.50
16394	00174	CARUS CORPORATION	12/17/2018		
	10071502	POLYMER_CHEMICAL			1,852.11
			Total for Check Number 16394:	0.00	1,852.11
16395	00137	COLLEEN NEVINS	12/17/2018		
	83435	BOARD PLAQUES_ADMIN			63.36
			Total for Check Number 16395:	0.00	63.36
16396	00788	COMCAST	12/17/2018		
	1218_1236017	INTERNET_295 EAST RD			184.82
			Total for Check Number 16396:	0.00	184.82
16397	00788	COMCAST	12/17/2018		
	1218_1236058	INTERNET_17277 HWY 9			174.82
			Total for Check Number 16397:	0.00	174.82
16398	00788	COMCAST	12/17/2018		
	1218_1318922	INTERNET_3652 GRAHAM HILL RD			153.29

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
			Total for Check Number 16398:	0.00	153.29
16399	00788	COMCAST	12/17/2018		
	1218_1318955	INTERNET_1150 REBECCA DR			153.29
			Total for Check Number 16399:	0.00	153.29
16400	00788	COMCAST	12/17/2018		
	1218_1323583	INTERNET_365 MADRONE DR			264.28
			Total for Check Number 16400:	0.00	264.28
16401	00788	COMCAST	12/17/2018		
	1218_1323641	INTERNET_365 MADRONE DR OFC			264.28
			Total for Check Number 16401:	0.00	264.28
16402	00273	CORELOGIC, INC.	12/17/2018		
	30397602	REALQUEST SERVICES_11/01/18-11/30/18			206.00
			Total for Check Number 16402:	0.00	206.00
16403	10189	EXPONENT, INC	12/17/2018		
	376715	SLVWD ASSESSMENT_CONJUNCTIVE USE			5,381.00
			Total for Check Number 16403:	0.00	5,381.00
16404	00080	GRANITE CONSTRUCTION CO	12/17/2018		
	1514026	PAVING			384.86
	1514306	BASE ROCK_BACK FILL			142.40
			Total for Check Number 16404:	0.00	527.26
16405	10158	NOSSAMAN, LLP	12/17/2018		
	489416	PROFESSIONAL SERVICES THROUGH 11/3(			9,526.25
			Total for Check Number 16405:	0.00	9,526.25
16406	00054	PACIFIC GAS AND ELECTRIC	12/17/2018		
	1218_9655817646	UTILITIES_140 ELENA CT			10.73
			Total for Check Number 16406:	0.00	10.73
16407	00944	PDNC, INC.	12/17/2018		
	3015	MONTHLY SERVER SUPPORT_NOVEMBER			517.68
	3044	SERVER TROUBLESHOOTING ERRORS_TI!			64.07
			Total for Check Number 16407:	0.00	581.75
16408	00569	PITNEY BOWES GLOBAL FIN.LLC	12/17/2018		
	3102654845	MAIL MACHINE LEASE_NOVEMBER 2018			459.29
			Total for Check Number 16408:	0.00	459.29
16409	00302	POLLARDWATER.COM	12/17/2018		
	125805	D-CHLOR FLUSHING TABS			829.46
			Total for Check Number 16409:	0.00	829.46
16410	00264	RAIN FOR RENT	12/17/2018		
	1288947	PASO 8 WELL_WO#814			2,847.17

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
			Total for Check Number 16410:	0.00	2,847.17
16411	00125	SCARBOROUGH LUMBER	12/17/2018		
	325550	ADMIN LIGHTS			105.39
	325577	SPRING TANK LADDER_OPS			68.96
	325648	OPS GENERATOR INSTALL_OPS			102.45
	325680	HYDRANT BARRICADE_BLAKE HAMMON			56.68
	578777	ADMIN LIGHTS			-2.93
	578947	MISC PLUMBING_SERVICE LINE REPAIR_(			16.12
	578953	MISC SCREWS_OPS			24.76
	578956	MISC SCREWS_DRILL BIT			36.20
	578968	CLEANING SUPPLIES			18.21
	578994	STAPLE GUN_EXTENSION CORDS			35.85
			Total for Check Number 16411:	0.00	461.69
16412	00746	SCOTTS VALLEY BANNER	12/17/2018		
	57454	SLV COMMITTEE NOTICES_11/30/18			265.00
			Total for Check Number 16412:	0.00	265.00
16413	00599	WEX BANK	12/18/2018		
	56861018A	GAS_ADMIN			883.23
	56861018B	GAS_OPS			3,543.62
	56861018C	GAS_WTP			1,736.80
	56861018D	GAS_BANK CHARGES			342.47
			Total for Check Number 16413:	0.00	6,506.12
16414	00545	AFLAC	12/19/2018		
	549874	SUPPLEMENTAL INS_DEC 2018			221.77
			Total for Check Number 16414:	0.00	221.77
16415	00384	DON ALLEY	12/19/2018		
	1118-02	COMPLETED FINAL FALL CREEK FISH PAS			868.00
			Total for Check Number 16415:	0.00	868.00
16416	10023	AT & T CAPITAL SERVICES, INC	12/19/2018		
	3055439	PHONE PROGRAM CHANGE FOR LUNCH			396.07
			Total for Check Number 16416:	0.00	396.07
16417	00687	AT&T U-VERSE	12/19/2018		
	1218_132166881	INTERNET_MANANA WOODS			94.25
			Total for Check Number 16417:	0.00	94.25
16418	00687	AT&T U-VERSE	12/19/2018		
	1218_132182018	INTERNET_345 QUAIL TERRACE			84.25
			Total for Check Number 16418:	0.00	84.25
16419	00687	AT&T U-VERSE	12/19/2018		
	1218_137458730	INTERNET_13057 HWY 9			84.25
			Total for Check Number 16419:	0.00	84.25
16420	00609	BALANCE HYDROLOGICS, INC	12/19/2018		
	217018-1118	STREAM MONITORING PROGRAM			881.25

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
	218018-1118	STREAM MONITORING PROGRAM			18,092.24
			Total for Check Number 16420:	0.00	18,973.49
16421	10113	BANK MIDWEST	12/19/2018		
	122018_010113	SOLAR LOAN_PRINCIPAL			2,431.08
	122018_10113	SOLAR LOAN_INTEREST			818.82
			Total for Check Number 16421:	0.00	3,249.90
16422	00220	BAY BUILDING JANITORIAL,INC	12/19/2018		
	31871	JANITORIAL SERVICES_DECEMBER 2018			424.42
			Total for Check Number 16422:	0.00	424.42
16423	00099	JOEL BUSA	12/19/2018		
	JAN2019_99	RETIREE MEDICAL_JAN 2019			125.00
			Total for Check Number 16423:	0.00	125.00
16424	00788	COMCAST	12/19/2018		
	1218_1171123	INTERNET_23 SUMMIT AVE			153.29
			Total for Check Number 16424:	0.00	153.29
16425	00179	D & D COMPRESSOR, INC.	12/19/2018		
	62761	LYON PLANT COMPRESSOR SERVICE			688.85
			Total for Check Number 16425:	0.00	688.85
16426	00312	DOCTORS ON DUTY	12/19/2018		
	122018_312	EMPLOYEE PHYSICAL X 2			160.00
			Total for Check Number 16426:	0.00	160.00
16427	00409	EASYPERMIT POSTAGE	12/19/2018		
	121118_0409	POSTAGE METER REFILL_FEES			93.42
	121118_409	POSTAGE METER REFILL			500.00
			Total for Check Number 16427:	0.00	593.42
16428	00397	FERGUSON ENTERPRISES, INC	12/19/2018		
	6364253A	TRUCK MOUNTED PIPE VISE_VE-309			248.05
	6364253B	TRUCK MOUNTED PIPE VISE_VE-228			248.05
	6364253C	TRUCK MOUNTED PIPE VISE_VE-232			248.06
			Total for Check Number 16428:	0.00	744.16
16429	00164	FIRST ALARM	12/19/2018		
	439810A	ALARM SERVICES_13057 HWY 9			571.71
	439810B	ALARM SERVICES_101 QUAIL HOLLOW			92.76
	439810C	ALARM SERVICES_365 MADRONE DRIVE			163.62
	442154A	ALARM SERVICES_195 KIRBY STREET			329.22
	442154B	ALARM SERVICES_600 SAN LORENZO AVI			167.19
	442154C	ALARM SERVICES_15900 BEAR CREEK RD			343.59
	442154D	ALARM SERVICES_232 KINGS VILLAGE R(			287.64
			Total for Check Number 16429:	0.00	1,955.73
16430	00256	JESSE GUIVER	12/19/2018		
	121418	EMPLOYEE REIMBURSEMENT_UNIFORM			162.76

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
			Total for Check Number 16430:	0.00	162.76
16431	00208	LEONARD KUHNLEIN	12/19/2018		
	JAN2019_208	RETIREE MEDICAL_JAN2019			125.00
			Total for Check Number 16431:	0.00	125.00
16432	00539	MILLER MAXFIELD, INC	12/19/2018		
	1118SSLV	PUBLIC OUTREACH CONSULTING SERVIC			262.50
			Total for Check Number 16432:	0.00	262.50
16433	00662	JAMES A. MUELLER	12/19/2018		
	JAN2019_662	RETIREE MEDICAL_JAN2019			50.00
			Total for Check Number 16433:	0.00	50.00
16434	10139	NATIONAL METER & AUTOMATION	12/19/2018		
	S1108370.001	2" BADGER METER REGISTER			85.32
	S1108516.001A	METER 3/4"X3/4" BADGER MODEL 35			1,598.22
	S1108516.001B	METER 1" BADGER MODEL 55 COMPLETE			648.07
	S1108516.001C	METER 2" BADGER MODEL 170			1,531.46
	S1108516.001D	ME ENDPOINT DRIVE-BY_NICOR CONNEC			1,782.46
			Total for Check Number 16434:	0.00	5,645.53
16435	00350	HOWARD OLIPHANT	12/19/2018		
	121518_350	EMPLOYEE REIMBURSEMENT_MEALS			15.00
			Total for Check Number 16435:	0.00	15.00
16436	00711	ROBERTS & BRUNE CO.	12/19/2018		
	S1797252.007A	MTR VLV COPR-MTR STRT 1X1"			467.98
	S1797252.007B	MTR VLV PIPE-MTR STRT 3/4X5/8"			584.34
	S1797252.007C	SVC VALVE COPR-PIPE STRT 3/4"			299.77
	S1797252.007D	SVC VALVE PIPE-PIPE STRT 1"			253.94
	S1797252.007E	MTR CPLG COPR-COPR 3PT 1"			280.84
	S1797252.007F	COMPRESSION COUPLING 1" G/T			265.20
	S1797252.007G	METER RESETTER 3/4" X 12"			1,672.48
			Total for Check Number 16436:	0.00	3,824.55
16437	10174	BILL SMALLMAN	12/19/2018		
	121818_10174	REIMBURSEMENT FOR 2018 CSDA CONFE			845.96
			Total for Check Number 16437:	0.00	845.96
16438	00369	CAROLE TRIANTAFILLOS	12/19/2018		
	JAN2019_369	RETIREE MEDICAL_JAN2019			125.00
			Total for Check Number 16438:	0.00	125.00
16439	00721	UNITED SITE SVCS.,INC	12/19/2018		
	114-7746814	PROBATION TANK TOILET_WO#814			179.47
	114-7756950	QUAIL 5 TOILET SERVICE AND CLEANING			187.12
			Total for Check Number 16439:	0.00	366.59
16440	10152	WESTAMERICA BANK	12/19/2018		
	DEC2018_10152A	TRUCK LOAN_INTEREST			224.62
	DEC2018_10152B	TRUCK LOAN_PRINCIPAL			1,876.06

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
			Total for Check Number 16440:	0.00	2,100.68
16441	10005	ICMA RETIREMENT C/O M & T RETIRI	12/19/2018		
	73345	RETIREMENT WITHHOLDING_PP ENDING			3,859.52
			Total for Check Number 16441:	0.00	3,859.52
16442	00729	ALPHA ANALYTICAL LABS	12/26/2018		
	8122344	LAB FEES-ANALYTICAL SERVICES			430.00
	8123730	LAB FEES-ANALYTICAL SERVICES			1,032.00
			Total for Check Number 16442:	0.00	1,462.00
16443	00309	AT&T IP SERVICES	12/26/2018		
	2503745406A	IP SERVICES_ADMIN			250.49
	2503745406B	IP SERVICES_OPS			250.50
	2503745406C	IP SERVICES_WTP			250.49
			Total for Check Number 16443:	0.00	751.48
16444	UB*00531	SARAH BILIMORIA	12/26/2018		
		Refund Check			39.43
		Refund Check			20.63
			Total for Check Number 16444:	0.00	60.06
16445	00124	BRUCE BARTON PUMP, INC	12/26/2018		
	0098822-IN	FELTON ACRES PUMP			810.97
			Total for Check Number 16445:	0.00	810.97
16446	00788	COMCAST	12/26/2018		
	1218_1018662	INTERNET_264 ORCHARD ROAD			158.29
			Total for Check Number 16446:	0.00	158.29
16447	00788	COMCAST	12/26/2018		
	1218_1236074	INTERNET_200 ANNIES WAY			174.82
			Total for Check Number 16447:	0.00	174.82
16448	00265	COMMUNITY TELEVISION	12/26/2018		
	2594	BOARD MEETING COVERAGE_NOV 15TH			346.50
			Total for Check Number 16448:	0.00	346.50
16449	00343	ERNIE'S SERVICE CENTER	12/26/2018		
	73173	VE-181 SERVICE_WTP			119.91
	73263	VE-260_ANNUAL FLEET SMOG_WTP			44.78
			Total for Check Number 16449:	0.00	164.69
16450	00450	EUROFINS	12/26/2018		
	L0426722	WATER ANALYSIS_4 LOCATIONS			700.00
	L0427182	WATER ANALYSIS_LYONS WTP			275.00
	L0427184	WATER ANALYSIS_PASATIEMPO & QUAIL			825.00
	L0427996	WATER ANALYSIS_PASO 5A & 7			80.00
			Total for Check Number 16450:	0.00	1,880.00
16451	00118	FARMER BROTHERS COFFEE	12/26/2018		
	68656353	COFFEE SUPPLIES_OPS			214.48

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
			Total for Check Number 16451:	0.00	214.48
16452	UB*00532	DONALD FINN	12/26/2018		
		Refund Check			18.14
			Total for Check Number 16452:	0.00	18.14
16453	00367	INFOSEND, INC	12/26/2018		
	145591A	POSTAGE FEES			2,632.97
	145591B	MAILING FEES			1,122.89
			Total for Check Number 16453:	0.00	3,755.86
16454	10240	JENDCO SAFETY SUPPLY	12/26/2018		
	143337_143591	PORTABLE GAS DETECTOR			1,199.00
			Total for Check Number 16454:	0.00	1,199.00
16455	00336	LAND TRUST OF SANTA CRUZ COUNT	12/26/2018		
	11-2018	OLYMPIA PATROL SERVICE			450.88
			Total for Check Number 16455:	0.00	450.88
16456	00608	LLOYD'S TIRE SERVICE, INC	12/26/2018		
	344362	REPLACE TIRE_VE-280			233.69
			Total for Check Number 16456:	0.00	233.69
16457	00050	CO. OF SANTA CRUZ RECORDER'S OF	12/26/2018		
	074-142-26	RECORDING FEES FOR 074-142-26			14.00
			Total for Check Number 16457:	0.00	14.00
16458	00050	CO. OF SANTA CRUZ RECORDER'S OF	12/26/2018		
	078-242-17	RECORDING FEES FOR 078-242-17			14.00
			Total for Check Number 16458:	0.00	14.00
16459	00050	CO. OF SANTA CRUZ RECORDER'S OF	12/26/2018		
	085-233-01	RECORDING FEES FOR 085-233-01			14.00
			Total for Check Number 16459:	0.00	14.00
16460	00711	ROBERTS & BRUNE CO.	12/26/2018		
	S1802325.001A	PLUG GALV 3/4"			10.40
	S1802325.001B	ELL 90 GALV 3/4"			7.17
	S1802325.001C	6 HYMAX FLEX CPLG 6.42-7.68			507.99
	S1803651.001A	HYDRANT BURY MJXFLGJ 6"x16"			794.19
	S1803651.001B	HYDRNT B/O CK FEC-CLOW LB400E 8MIL			5,464.17
	S1803651.001C	HYDRANT(YW) 2-1/2" x 2-1/2" x 4-1/2"			8,067.37
			Total for Check Number 16460:	0.00	14,851.29
16461	00125	SCARBOROUGH LUMBER	12/26/2018		
	325009	REPLACEMENT SAWES-ALL			213.72
	326020	MISC SCREWS_MOUNTING			70.50
	326089	ANT BAIT			10.94
	579017	PLUMBING PARTS			3.86
	579059	PARTS FOR DRYING ROOM_CLAMPS			58.91
			Total for Check Number 16461:	0.00	357.93

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
16462	00746	SCOTTS VALLEY BANNER	12/26/2018		
	57873	COMMITTEE NOTICES_12/14/18			265.00
			Total for Check Number 16462:	0.00	265.00
16463	00047	SOIL CONTROL LAB	12/26/2018		
	8110392	WATER ANALYSIS_OLY 2			39.00
	8110561	WATER ANALYSIS_OLY 2			39.00
	8110690	WATER ANALYSIS_OLY 2			39.00
	8120118	WATER ANALYSIS_5 LOCATIONS			145.00
	8120119	WATER ANALYSIS_OLY 2			39.00
	8120120	WATER ANALYSIS_WELL SAMPLING			510.00
	8120379	WATER ANALYSIS_5 LOCATIONS			145.00
			Total for Check Number 16463:	0.00	956.00
16464	00555	STORDOK, INC.	12/26/2018		
	53541006	SHREDDING SERVICES_DEC2018			45.00
			Total for Check Number 16464:	0.00	45.00
16465	00011	VERIZON WIRELESS	12/26/2018		
	9820296776A	VERIZON CELL 1_ADMIN			191.27
	9820296776B	VERIZON CELL 1_OPS			576.83
	9820296776C	VERIZON CELL 1_WTP			452.79
			Total for Check Number 16465:	0.00	1,220.89
16466	00011	VERIZON WIRELESS	12/26/2018		
	9820296777A	VERIZON CELL 2_ENVIRON			95.18
	9820296777B	VERIZON CELL 2_OPS			268.47
	9820296777C	VERIZON CELL 2_WTP			287.22
			Total for Check Number 16466:	0.00	650.87
16467	00162	ANTHEM BLUE CROSS	01/02/2019		
	65508374	RETIRED EMPLOYEE MEDICAL_01/01/19-0			325.50
			Total for Check Number 16467:	0.00	325.50
16468	00767	ANTHEM BLUE CROSS	01/02/2019		
	970420251	MEDICARE RX_01/01/19-02/01/2019			116.90
			Total for Check Number 16468:	0.00	116.90
16469	00309	AT&T IP SERVICES	01/02/2019		
	2352905409A	IP SERVICES_DECEMBER 2018			393.81
	2352905409B	IP SERVICES_DECEMBER 2018			393.81
	2352905409C	IP SERVICES_DECEMBER 2018			393.81
			Total for Check Number 16469:	0.00	1,181.43
16470	00687	AT&T U-VERSE	01/02/2019		
	1218_132338293	U-VERSE_GRAHAM HILL			84.25
			Total for Check Number 16470:	0.00	84.25
16471	10113	BANK MIDWEST	01/02/2019		
	JAN19_10113	SOLAR LOAN_PRINCIPAL			2,431.08
	JAN2019_10113	SOLAR LOAN_INTEREST			818.82

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
			Total for Check Number 16471:	0.00	3,249.90
16472	00566	C S S C	01/02/2019		
	181200059101	ANSWERING SERVICE_11/22/18 THROUGH			334.76
			Total for Check Number 16472:	0.00	334.76
16473	00415	CA BANK & TRUST/GOV SVC DEPT_1(	01/02/2019		
	JAN2019_415	1976 SAFE DRINKING WATER BOND			15,581.43
			Total for Check Number 16473:	0.00	15,581.43
16474	00788	COMCAST	01/02/2019		
	1218_1028380	INTERNET_7400 HWY 9			153.29
			Total for Check Number 16474:	0.00	153.29
16475	00450	EUROFINS	01/02/2019		
	L0428762	WATER ANALYSIS_LYONS WTP			835.00
			Total for Check Number 16475:	0.00	835.00
16476	10005	ICMA RETIREMENT C/O M & T RETIRI	01/02/2019		
	76190	RETIREMENT WITHHOLDING_PP ENDING			3,374.80
			Total for Check Number 16476:	0.00	3,374.80
16477	10233	SCHAAF & WHEELER, CONSULTING C	01/02/2019		
	30518	LOMPICO TANKS_PROJECT MGMT & PREI			10,138.63
			Total for Check Number 16477:	0.00	10,138.63
16478	00183	SDRMA	01/02/2019		
	PD1819007623	INSURANCE CLAIM			2,500.00
			Total for Check Number 16478:	0.00	2,500.00
16479	00047	SOIL CONTROL LAB	01/02/2019		
	8120658	WATER ANALYSIS_5 LOCATIONS			145.00
			Total for Check Number 16479:	0.00	145.00
16480	10231	TIAA COMMERCIAL FINANCE, INC.	01/02/2019		
	5827572	5 YR LEASE NEW COPIER_DECEMBER 201			252.28
			Total for Check Number 16480:	0.00	252.28
16481	00398	WATSONVILLE METAL CO.,INC	01/02/2019		
	8425205	OLY DUMPSTER_HAUL-OUT			600.00
			Total for Check Number 16481:	0.00	600.00
16482	00363	CINCINNATI LIFE INSURANCE CO	01/04/2019		
	JAN2019_363	LIFE INSURANCE_JAN 2019			28.00
			Total for Check Number 16482:	0.00	28.00
16483	01050	COLONIAL LIFE	01/04/2019		
	4377735-1213616	SUPPLEMENTAL INS_12/13/18, 12/28/18			584.72
			Total for Check Number 16483:	0.00	584.72

Check No	Vendor No / Invoice No	Vendor Name / Description	Check Date / Reference	Void Checks	Check Amount
16484	00313	MET LIFE	01/04/2019		
	010119_313A	JAN 2019_ADMIN DENTAL			192.14
	010119_313B	JAN 2019_FINANCE DENTAL			1,425.60
	010119_313C	JAN 2019_ENG DENTAL			62.57
	010119_313D	JAN 2019_OPS DENTAL			1,778.27
	010119_313E	JAN 2019_ENV DENTAL			258.32
	010119_313F	JAN 2019_WTP DENTAL			1,568.47
	010119_313G	JAN 2019_ADMIN DISABILITY			84.83
	010119_313H	JAN 2019_FINANCE DISABILITY			284.18
	010119_313I	JAN 2019_ENG DISABILITY			41.45
	010119_313J	JAN 2019_OPS DISABILITY			310.11
	010119_313K	JAN 2019_ENVIR DISABILITY			78.38
	010119_313L	JAN 2019_WTP DISABILITY			385.24
	010119_313M	JAN 2019_ADMIN LIFE INSURANCE			33.30
	010119_313N	JAN 2019_FINANCE LIFE INSURANCE			138.19
	010119_313O	JAN 2019_ENG LIFE INSURANCE			16.65
	010119_313P	JAN 2019_OPS LIFE INSURANCE			176.49
	010119_313Q	JAN 2019_ENVIR LIFE INSURANCE			33.30
	010119_313R	JAN 2019_WTP LIFE INSURANCE			173.16
			Total for Check Number 16484:	0.00	7,040.65
16485	00399	VISION SERVICE PLAN - (CA)	01/04/2019		
	JAN2019_399A	JAN VISION_ADMIN			28.44
	JAN2019_399B	JAN VISION_FINANCE			156.50
	JAN2019_399C	JAN VISION_ENG			11.14
	JAN2019_399D	JAN VISION_OPS			333.74
	JAN2019_399E	JAN VISION_ENVR			38.58
	JAN2019_399F	JAN VISION_WTP			207.92
			Total for Check Number 16485:	0.00	776.32
			Report Total (225 checks):	0.00	452,523.73

EFT TRANSACTIONS

DECEMBER 2018

13060 Highway 9
Boulder Creek, CA 95006-9119
(831) 338-2153 phone
(831) 338-7986 fax

Date	Check No	Vendor	Description		Amount
12/5/2018	EFT	PAYCHEX	ADMIN & DELIVERY FEES	$	216.65
12/5/2018	EFT	PAYCHEX	PAYROLL	$	99,181.34
12/19/2018	EFT	PAYCHEX	ADMIN & DELIVERY FEES	$	233.75
12/19/2018	EFT	PAYCHEX	PAYROLL	$	102,707.94
12/28/2018	EFT	PAYCHEX	ADMIN & DELIVERY FEES	$	130.35
12/28/2018	EFT	PAYCHEX	PAYROLL	$	3,070.80
12/5/2018	EFT	CALPERS	RETIREMENT BENEFITS	$	16,145.62
12/19/2018	EFT	CALPERS	RETIREMENT BENEFITS	$	16,959.67
12/28/2018	EFT	CALPERS	RETIREMENT BENEFITS	$	905.69
			TOTAL EFT TRANSACTIONS	**$**	**239,551.81**

0084 A87P-7177 San Lorenzo Valley Water District

CASH REQUIREMENTS

CASH REQUIRED FOR NEGOTIABLE CHECKS &/OR ELECTRONIC FUNDS TRANSFERS (EFT) FOR CHECK DATE 12/05/18: $111,487.21

TRANSACTION SUMMARY

SUMMARY BY TRANSACTION TYPE -

TOTAL ELECTRONIC FUNDS TRANSFER (EFT)	99,181.34
TOTAL NEGOTIABLE CHECKS	12,305.87
CASH REQUIRED FOR NEGOTIABLE CHECKS &/OR EFT	**111,487.21**
TOTAL REMAINING DEDUCTIONS / WITHHOLDINGS / LIABILITIES	14,129.42
CASH REQUIRED FOR CHECK DATE 12/05/18	125,616.63

TRANSACTION DETAIL

ELECTRONIC FUNDS TRANSFER - *Your financial institution will initiate transfer to Paychex **at or after 12:01 A.M.** on transaction date.*

TRANS. DATE	BANK NAME	ACCOUNT NUMBER	PRODUCT	DESCRIPTION		BANK DRAFT AMOUNTS & OTHER TOTALS
12/04/18	WELLS FARGO BANK, NA	xxxxxx1358	Direct Deposit	Net Pay Allocations	64,835.53	**64,835.53**
12/04/18	WELLS FARGO BANK, NA	xxxxxx1358	Taxpay®	Employee Withholdings		
				Social Security	6,447.13	
				Medicare	1,679.88	
				Fed Income Tax	12,324.58	
				CA Income Tax	4,766.68	
				CA Disability	1,000.59	
				Total Withholdings	**26,218.86**	
				Employer Liabilities		
				Social Security	6,447.08	
				Medicare	1,679.87	
				Total Liabilities	**8,126.95**	**34,345.81**
					EFT FOR 12/04/18	**99,181.34**
					TOTAL EFT	**99,181.34**

NEGOTIABLE CHECKS - *Check amounts will be debited when payees cash checks. Funds must be available on check date.*

TRANS. DATE	BANK NAME	ACCOUNT NUMBER	PRODUCT	DESCRIPTION		TOTAL
12/05/18	WELLS FARGO BANK, NA	xxxxxx1358	Payroll	Check Amounts	12,305.87	
					TOTAL NEGOTIABLE CHECKS	**12,305.87**

REMAINING DEDUCTIONS / WITHHOLDINGS / LIABILITIES - *Paychex does not remit these funds.You must ensure accurate and timely payment of applicable items.*

TRANS. DATE	BANK NAME	ACCOUNT NUMBER	PRODUCT	DESCRIPTION		TOTAL
12/05/18	Refer to your records for account Information		Payroll	Employee Deductions		
				Aflc/Col Post	55.34	
				Aflc/Col Pre	347.92	

0084 A87P-7177 San Lorenzo Valley Water District

CASH REQUIREMENTS

CASH REQUIRED FOR NEGOTIABLE CHECKS &/OR ELECTRONIC FUNDS TRANSFERS (EFT) FOR CHECK DATE 12/05/18: $111,487.21

REMAINING DEDUCTIONS / WITHHOLDINGS / LIABILITIES (cont.) - *Paychex does not remit these funds.You must ensure accurate and timely payment of applicable items.*

TRANS. DATE	BANK NAME	ACCOUNT NUMBER	PRODUCT	DESCRIPTION		TOTAL
12/05/18	Refer to your records for account Information		Payroll	Employee Deductions **(cont.)**		
				Calper 457	25.00	
				Calpers 457 Catch Up	1,000.00	
				DPer	6,821.10	
				Health	809.14	
				ICMA	2,859.52	
				ICMA 457 Catch up	1,000.00	
				Life Ins	14.00	
				PXDCA EE PRE	192.30	
				PXUME EE PRE	505.77	
				Union dues	499.33	
				Total Deductions	**14,129.42**	
				TOTAL REMAINING DEDUCTIONS / WITHHOLDINGS / LIABILITIES		**14,129.42**

PAYCHEX WILL MAKE THESE TAX DEPOSIT(S) ON YOUR BEHALF - *This information serves as a record of payment.*

DUE DATE	PRODUCT	DESCRIPTION	
12/12/18	Taxpay®	FED IT PMT Group	28,578.54
12/12/18	Taxpay®	CA IT PMT Group	5,767.27

0084 A87P-7177 San Lorenzo Valley Water District

CASH REQUIREMENTS

CASH REQUIRED FOR NEGOTIABLE CHECKS &/OR ELECTRONIC FUNDS TRANSFERS (EFT) FOR CHECK DATE 12/19/18: $115,866.16

TRANSACTION SUMMARY

SUMMARY BY TRANSACTION TYPE -

TOTAL ELECTRONIC FUNDS TRANSFER (EFT)	102,707.94
TOTAL NEGOTIABLE CHECKS	13,158.22
CASH REQUIRED FOR NEGOTIABLE CHECKS &/OR EFT	**115,866.16**
TOTAL REMAINING DEDUCTIONS / WITHHOLDINGS / LIABILITIES	14,515.01
CASH REQUIRED FOR CHECK DATE 12/19/18	130,381.17

TRANSACTION DETAIL

ELECTRONIC FUNDS TRANSFER - *Your financial institution will initiate transfer to Paychex **at or after 12:01 A.M.** on transaction date.*

TRANS. DATE	BANK NAME	ACCOUNT NUMBER	PRODUCT	DESCRIPTION		BANK DRAFT AMOUNTS & OTHER TOTALS
12/18/18	WELLS FARGO BANK, NA	xxxxxx1358	Direct Deposit	Net Pay Allocations	67,548.94	**67,548.94**
12/18/18	WELLS FARGO BANK, NA	xxxxxx1358	Taxpay®	Employee Withholdings		
				Social Security	6,546.66	
				Medicare	1,743.38	
				Fed Income Tax	12,708.80	
				CA Income Tax	4,917.54	
				CA Disability	952.55	
				Total Withholdings	**26,868.93**	
				Employer Liabilities		
				Social Security	6,546.67	
				Medicare	1,743.40	
				Total Liabilities	**8,290.07**	**35,159.00**
					EFT FOR 12/18/18	**102,707.94**
					TOTAL EFT	**102,707.94**

NEGOTIABLE CHECKS - *Check amounts will be debited when payees cash checks. Funds must be available on check date.*

TRANS. DATE	BANK NAME	ACCOUNT NUMBER	PRODUCT	DESCRIPTION		TOTAL
12/19/18	WELLS FARGO BANK, NA	xxxxxx1358	Payroll	Check Amounts	13,158.22	
					TOTAL NEGOTIABLE CHECKS	**13,158.22**

REMAINING DEDUCTIONS / WITHHOLDINGS / LIABILITIES - *Paychex does not remit these funds.You must ensure accurate and timely payment of applicable items.*

TRANS. DATE	BANK NAME	ACCOUNT NUMBER	PRODUCT	DESCRIPTION		TOTAL
12/19/18	Refer to your records for account Information		Payroll	Employee Deductions		
				Aflc/Col Post	55.34	
				Aflc/Col Pre	347.92	

0084 A87P-7177 San Lorenzo Valley Water District

CASH REQUIREMENTS

CASH REQUIRED FOR NEGOTIABLE CHECKS &/OR ELECTRONIC FUNDS TRANSFERS (EFT) FOR CHECK DATE 12/19/18: $115,866.16

REMAINING DEDUCTIONS / WITHHOLDINGS / LIABILITIES (cont.) - *Paychex does not remit these funds.You must ensure accurate and timely payment of applicable items.*

TRANS. DATE	BANK NAME	ACCOUNT NUMBER	PRODUCT	DESCRIPTION		TOTAL
12/19/18	Refer to your records for account Information		Payroll	Employee Deductions **(cont.)**		
				Calper 457	25.00	
				Calpers 457 Catch Up	1,000.00	
				DPer	7,185.10	
				Health	809.14	
				ICMA	2,859.52	
				ICMA 457 Catch up	1,000.00	
				Life Ins	14.00	
				PXDCA EE PRE	192.30	
				PXUME EE PRE	505.65	
				Union dues	521.04	
				Total Deductions	**14,515.01**	
				TOTAL REMAINING DEDUCTIONS / WITHHOLDINGS / LIABILITIES		**14,515.01**

PAYCHEX WILL MAKE THESE TAX DEPOSIT(S) ON YOUR BEHALF - *This information serves as a record of payment.*

DUE DATE	PRODUCT	DESCRIPTION	
12/27/18	Taxpay®	FED IT PMT Group	29,288.91
12/27/18	Taxpay®	CA IT PMT Group	5,870.09

0084 A87P-7177 San Lorenzo Valley Water District

CASH REQUIREMENTS

CASH REQUIRED FOR NEGOTIABLE CHECKS &/OR ELECTRONIC FUNDS TRANSFERS (EFT) FOR CHECK DATE 12/28/18: $9,066.86

TRANSACTION SUMMARY

SUMMARY BY TRANSACTION TYPE -

TOTAL ELECTRONIC FUNDS TRANSFER (EFT)	3,070.80
TOTAL NEGOTIABLE CHECKS	5,996.06
CASH REQUIRED FOR NEGOTIABLE CHECKS &/OR EFT	**9,066.86**
TOTAL REMAINING DEDUCTIONS / WITHHOLDINGS / LIABILITIES	394.15
CASH REQUIRED FOR CHECK DATE 12/28/18	9,461.01

TRANSACTION DETAIL

ELECTRONIC FUNDS TRANSFER - *Your financial institution will initiate transfer to Paychex **at or after 12:01 A.M.** on transaction date.*

TRANS. DATE	BANK NAME	ACCOUNT NUMBER	PRODUCT	DESCRIPTION		BANK DRAFT AMOUNTS & OTHER TOTALS
12/27/18	WELLS FARGO BANK, NA	xxxxxx1358	Taxpay®	Employee Withholdings		
				Social Security	544.90	
				Medicare	127.44	
				Fed Income Tax	1,179.00	
				CA Income Tax	459.23	
				CA Disability	87.89	
				Total Withholdings	**2,398.46**	
				Employer Liabilities		
				Social Security	544.90	
				Medicare	127.44	
				Total Liabilities	**672.34**	**3,070.80**
					EFT FOR 12/27/18	**3,070.80**
					TOTAL EFT	**3,070.80**

NEGOTIABLE CHECKS - *Check amounts will be debited when payees cash checks. Funds must be available on check date.*

TRANS. DATE	BANK NAME	ACCOUNT NUMBER	PRODUCT	DESCRIPTION		TOTAL
12/28/18	WELLS FARGO BANK, NA	xxxxxx1358	Payroll	Check Amounts	5,996.06	
					TOTAL NEGOTIABLE CHECKS	**5,996.06**

0084 A87P-7177 San Lorenzo Valley Water District

CASH REQUIREMENTS

CASH REQUIRED FOR NEGOTIABLE CHECKS &/OR ELECTRONIC FUNDS TRANSFERS (EFT) FOR CHECK DATE 12/28/18: $9,066.86

REMAINING DEDUCTIONS / WITHHOLDINGS / LIABILITIES - *Paychex does not remit these funds.You must ensure accurate and timely payment of applicable items.*

TRANS. DATE	BANK NAME	ACCOUNT NUMBER	PRODUCT	DESCRIPTION		TOTAL
12/28/18	Refer to your records for account Information		Payroll	Employee Deductions		
				DPer	394.15	
				Total Deductions	**394.15**	

TOTAL REMAINING DEDUCTIONS / WITHHOLDINGS / LIABILITIES **394.15**

PAYCHEX WILL MAKE THESE TAX DEPOSIT(S) ON YOUR BEHALF - *This information serves as a record of payment.*

DUE DATE	PRODUCT	DESCRIPTION	
01/03/19	Taxpay®	FED IT PMT Group	2,523.68
01/15/19	Taxpay®	CA IT PMT Group	547.12

OPERATING ANALYSIS - NOVEMBER 2018

REVENUE BY CATEGORY

	COMPARING AGAINST PRIOR YEAR					COMPARING AGAINST BUDGET		
DESCRIPTION	**ACTUALS**	**% OF TOTAL**	**PRIOR YEAR**	***$ Diff.***	***% Diff.***	**Act. % of Budget**	**ANNUAL BUDGET**	***% of Annual***
WATER USAGE	$ 636,311	*70.2%*	$ 590,116	*$ 46,195*	*8%*	*9%*	$ 6,846,000	*68%*
BASIC CHARGES	253,599	*28.0%*	246,655	*6,944*	*3%*	*8%*	2,986,000	*30%*
METERS, PENALTIES & OTHER	7,570	*0.8%*	7,405	*165*	*2%*	*8%*	90,000	*1%*
SEWER CHARGES	8,344	*0.9%*	8,344	-	*0%*	*8%*	100,000	*1%*
TOTAL OPERATING REVENUE	**$ 905,824**	***100.0%***	**$ 852,520**	***$ 53,304***	***6%***	***9%***	**$ 10,022,000**	***100%***

REVENUE COMMENTS

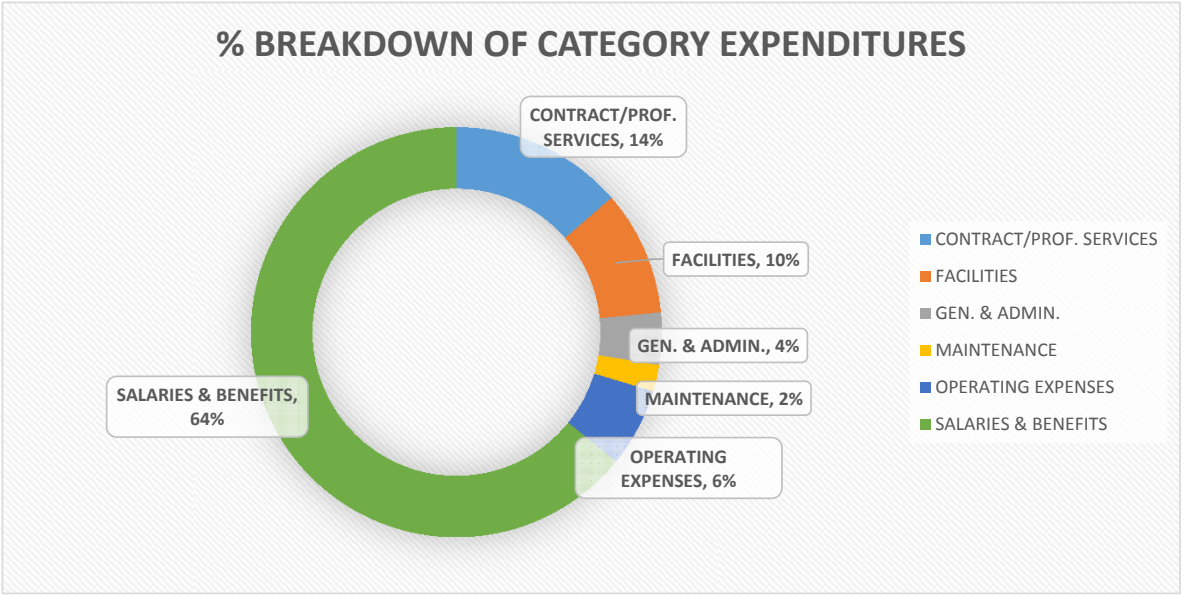
Nov 18 contains the new rates and was 1% higher consumption that the prior November.

EXPENSES BY CATEGORY

	COMPARING AGAINST PRIOR YEAR					COMPARING AGAINST BUDGET		
DESCRIPTION	**ACTUALS**	**% OF TOTAL**	**PRIOR YEAR**	***$ Diff.***	***% Diff.***	**Act. % of Budget**	**ANNUAL BUDGET**	***% of Annual***
SALARIES & BENEFITS	$ 334,286	*64.2%*	$ 309,986	*$ 24,300*	*8%*	*7%*	$ 5,048,246	*63%*
CONTRACT/PROF. SERVICES	70,907	*13.6%*	149,885	*(78,978)*	*-53%*	*5%*	1,316,360	*17%*
OPERATING EXPENSES	32,244	*6.2%*	30,382	*1,862*	*6%*	*8%*	420,500	*5%*
MAINTENANCE	10,919	*2.1%*	9,135	*1,784*	*20%*	*6%*	184,350	*2%*
FACILITIES	51,252	*9.8%*	16,509	*34,743*	*210%*	*9%*	571,800	*7%*
GEN. & ADMIN.	21,413	*4.1%*	26,626	*(5,214)*	*-20%*	*5%*	420,400	*5%*
TOTAL OPERATING EXPENSES	**$ 521,021**	***100%***	**$ 542,523**	***$ (21,502)***	***-4%***	***7%***	**$ 7,961,656**	***100%***

EXPENSE COMMENTS

Sal. & Ben.: Regular increases that were budgeted
Prof. Serv: Prior year had a $50K more one-time expense for a well repair
Legal Bills: Nov18 legal bills were $23K
Facilities: Current amount is more like the normal run rate. Prior year had timing of bills, which were higher in Dec 17



OPERATING ANALYSIS - YTD FY1819 (JULY-NOV)

REVENUE BY CATEGORY

DESCRIPTION	COMPARING AGAINST PRIOR YEAR: ACTUALS	% OF TOTAL	PRIOR YEAR	$ Diff.	% Diff.	COMPARING AGAINST BUDGET: Act. % of Budget	ANNUAL BUDGET	% of Annual
WATER USAGE	$ 3,124,592	*70.8%*	$ 2,149,180	$ *975,412*	*45%*	*46%*	$ 6,846,000	*68%*
BASIC CHARGES	1,210,252	*27.4%*	1,421,231	*(210,979)*	*-15%*	*41%*	2,986,000	*30%*
METERS, PENALTIES & OTHER	35,475	*0.8%*	42,869	*(7,394)*	*-17%*	*39%*	90,000	*1%*
SEWER CHARGES	41,721	*0.9%*	41,724	*(3)*	*0%*	*42%*	100,000	*1%*
TOTAL OPERATING REVENUE	**$ 4,412,040**	***100.0%***	**$ 3,655,004**	**$ *757,036***	***21%***	***44%***	**$ 10,022,000**	***100%***

REVENUE COMMENTS

YTD revenues are higher/shifted, due to the new rate structure that did not go into effect until Nov 2017, and then now the next year of the rate increases went into effect Nov 18.

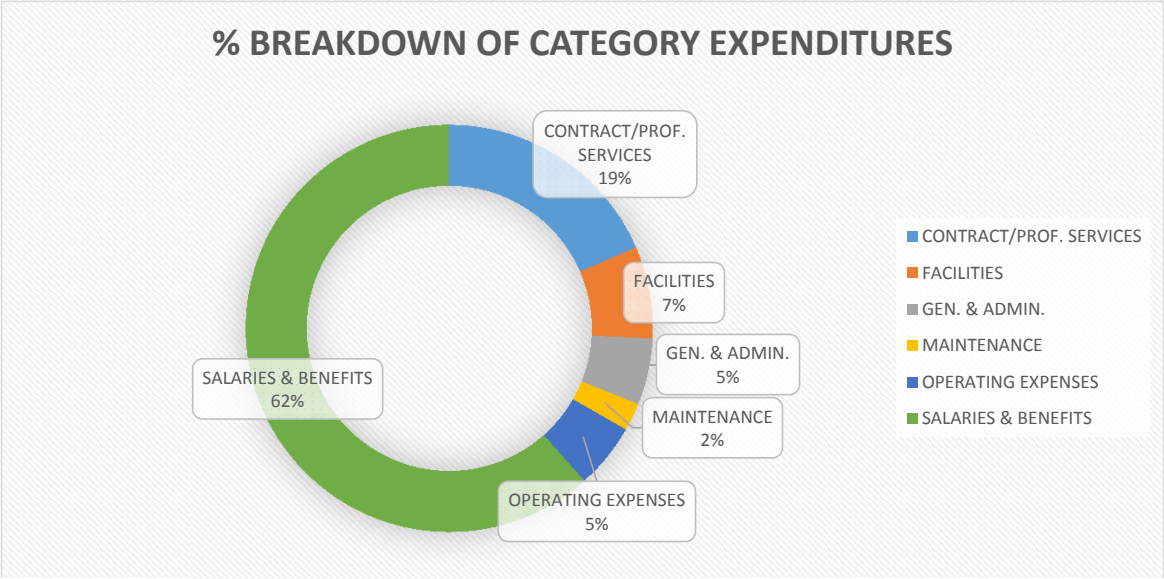
EXPENSES BY CATEGORY

DESCRIPTION	COMPARING AGAINST PRIOR YEAR: ACTUALS	% OF TOTAL	PRIOR YEAR	$ Diff.	% Diff.	COMPARING AGAINST BUDGET: Act. % of Budget	ANNUAL BUDGET	% of Annual
SALARIES & BENEFITS	$ 2,007,804	*65.7%*	$ 1,853,955	$ *153,849*	*8%*	*40%*	$ 5,048,246	*63%*
CONTRACT/PROF. SERVICES	432,590	*14.2%*	522,859	*(90,269)*	*-17%*	*33%*	1,316,360	*17%*
OPERATING EXPENSES	151,978	*5.0%*	124,269	*27,709*	*22%*	*36%*	420,500	*5%*
MAINTENANCE	54,147	*1.8%*	60,099	*(5,951)*	*-10%*	*29%*	184,350	*2%*
FACILITIES	213,870	*7.0%*	195,804	*18,066*	*9%*	*37%*	571,800	*7%*
GEN. & ADMIN.	196,142	*6.4%*	184,205	*11,938*	*6%*	*47%*	420,400	*5%*
TOTAL OPERATING EXPENSES	**$ 3,056,532**	***100%***	**$ 2,941,190**	**$ *115,342***	***4%***	***38%***	**$ 7,961,656**	***100%***

EXPENSE COMMENTS

For the most part, expenses are tracking similar to the prior year, outside of budgeted increases.

Prof. Serv: Prior year had a $50K one-time expense for a well repair.



OPERATING ANALYSIS - YTD TREND FY1819

REVENUE BY CATEGORY

DESCRIPTION	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	YTD	BUDGET	% OF BUD.
WATER USAGE	359,119	777,219	706,435	645,508	636,311	3,124,592	6,846,000	46%
BASIC CHARGES	237,313	237,200	236,928	245,212	253,599	1,210,252	2,986,000	41%
METERS, PENALTIES & OTHER	5,250	9,855	6,665	6,135	7,570	35,475	90,000	39%
SEWER CHARGES	8,344	8,345	8,344	8,344	8,344	41,721	100,000	42%
TOTAL OPERATING REVENUE	**610,027**	**1,032,619**	**958,372**	**905,199**	**905,824**	**4,412,040**	**10,022,000**	**44%**

EXPENSES BY CATEGORY

DESCRIPTION	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	YTD	BUDGET	% OF BUD.
SALARY & BENEFITS	514,027	510,140	321,910	327,440	334,286	2,007,804	5,048,246	40%
CONTRACT/PROF. SERVICES	5,572	48,144	87,073	220,894	70,907	432,590	1,316,360	33%
OPERATING EXPENSES	11,986	33,476	41,893	32,378	32,244	151,978	420,500	36%
MAINTENANCE	3,079	10,102	18,770	11,277	10,919	54,147	184,350	29%
FACILITIES	11,383	31,020	61,400	58,815	51,252	213,870	571,800	37%
GEN. & ADMIN.	101,568	16,460	31,246	25,456	21,413	196,142	420,400	47%
TOTAL OPERATING EXPENSES	**647,615**	**649,343**	**562,292**	**676,260**	**521,021**	**3,056,532**	**7,961,656**	**38%**
OPERATING INCOME (LOSS)	**(37,589)**	**383,276**	**396,079**	**228,939**	**384,802**	**1,355,508**	**2,060,344**	**66%**

COMMENTS

REVENUE/EXPENSES:

Current year to date revenue and expenses are tracking as expected overall. Please refer to the current month analysis for any further detail on revenue or expenses.

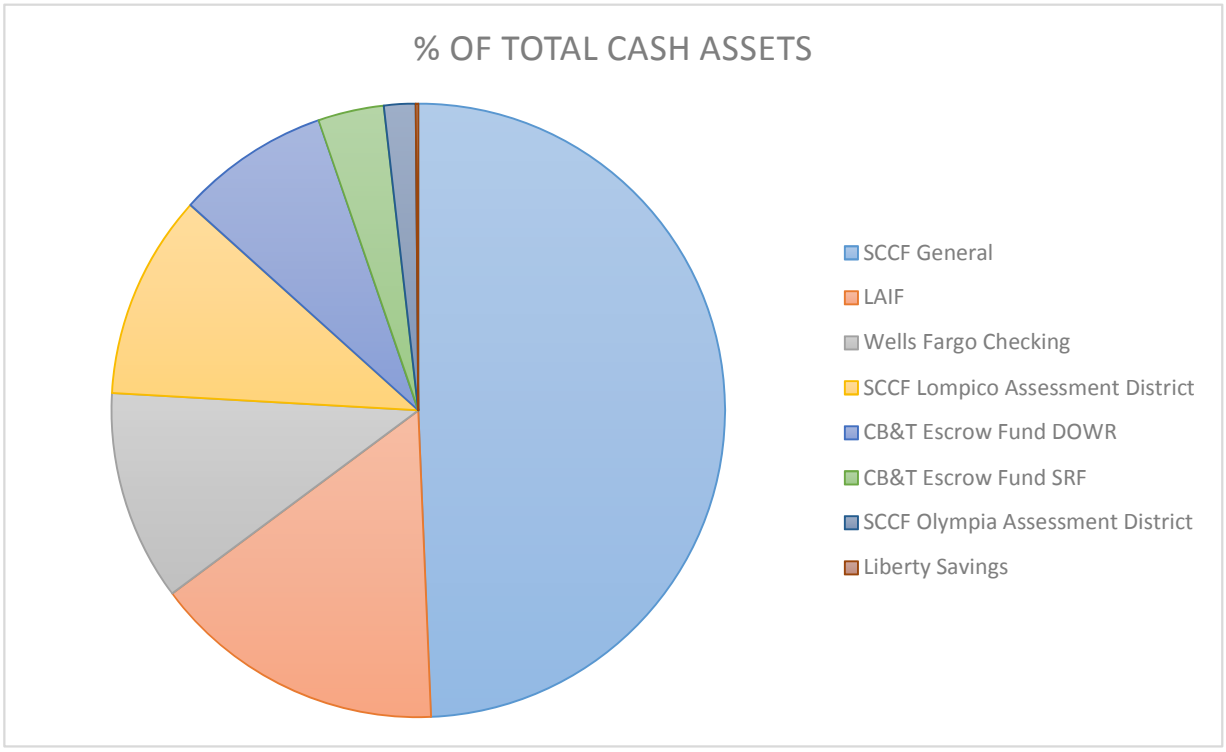
GENERAL/PROCESS:

There are annual/one-time expenses paid upfront that could cause individual months to appear skewed or accrual based accounting that will impact June/July more so. An example of this would be some insurances are paid in July, this causes July expenses to appear higher than other months. The District operates on an annual budget and performs accrual based accounting procedures for a hard year end close, this is typical for governmental accounting.

Data is continuously being reviewed, so it is not un-common for a prior report balance to change slightly throughout the year as accounts are reconciled.

CASH BALANCES AS OF **11/30/2018**

			Ave Interest Rate	
OPERATING ACCOUNTS	**CASH BALANCE**			
Wells Fargo Checking	$	360,557	*0.35%*	
Liberty Savings	$	4,513	*0.10%*	
LAIF	$	503,460	*2.21%*	
SCCF General	$	1,605,617	*1.87%*	
OPERATING BALANCE	**$**	**2,474,146**		
RESTRICTED ACCOUNTS				
SCCF Lompico Assessment District	$	350,743	*1.87%*	*For AD Projects*
SCCF Olympia Assessment District	$	53,784	*1.87%*	*For Debt Repayment*
CB&T Escrow Fund SRF	$	113,182	*0.02%*	*For Debt Repayment*
CB&T Escrow Fund DOWR	$	262,123	*0.02%*	*For Debt Repayment*
RESTRICTED BALANCE	**$**	**779,831**		



G/L Balances

Criteria: As Of = 11/30/2018; Fund = 76644, 76530

G/L Account	Title	Beginning Balance	Year-To-Date Debits	Year-To-Date Credits	End Balance
Fund 76530 -- SLV- EFF 6/2/16					
101	EQUITY IN POOLED CASH	450,344.24	9,299.28	(24,337.59)	435,305.93
240	STALE DATED WARRANTS LIABILITY	(1,363.90)	0.00	0.00	(1,363.90)
344	FUND BALANCE	(448,980.34)	24,337.59	(9,299.28)	(433,942.03)
Total Fund 76530		0.00	33,636.87	(33,636.87)	0.00
Fund 76644 -- SAN LORENZO VALLEY WATER TRUST					
101	EQUITY IN POOLED CASH	2,019,013.79	80,695.36	(524,871.29)	1,574,837.86
201	VOUCHERS PAYABLE (VENDOR)	0.00	500,000.00	(500,000.00)	0.00
344	FUND BALANCE	(2,019,013.79)	524,871.29	(80,695.36)	(1,574,837.86)
Total Fund 76644		0.00	1,105,566.65	(1,105,566.65)	0.00

Local Agency Investment Fund
P.O. Box 942809
Sacramento, CA 94209-0001
(916) 653-3001

www.treasurer.ca.gov/pmia-laif/laif.asp
December 05, 2018

SAN LORENZO VALLEY WATER DISTRICT

DISTRICT MANAGER
13060 HIGHWAY 9
BOULDER CREEK, CA 95006

PMIA Average Monthly Yields

Tran Type Definitions

November 2018 Statement

Effective Date	Transaction Date	Tran Type	Confirm Number	Authorized Caller	Amount
11/29/2018	11/28/2018	RD	1590907	STEPHANIE HILL	500,000.00

Account Summary

Total Deposit:	500,000.00	Beginning Balance:	3,459.52
Total Withdrawal:	0.00	Ending Balance:	503,459.52

REVENUE STABILIZATION RATE ANALYSIS FY1819

In accordance with the District's Revenue Stabilization Rates Policy & Procedures, the District Manager shall provide the Board of Directors with the average units of water sales (by month) for the rolling previous three years, which will serve as the baseline against which current annual sales to date will be compared. If the District Manager determines that budget-year water sales (in units) to date, and corresponding revenue, is more than 10% below expected year-to-date levels (based on monthly averages over the previous three years), the District Manager shall notify, at a public meeting, the Board of Directors of this determination at or before the next regularly scheduled Board meeting. For more information, please refer to the District's full Policy & Procedures.

MONTHLY CONSUMPTION IN UNITS BY FISCAL YEAR (BASELINE)

	July	August	September	October	November	December	January	February	March	April	May	June	**TOTAL**
FY1516	66,779	64,961	69,609	60,022	49,837	41,773	44,025	37,290	42,433	43,153	48,328	68,129	**636,340**
FY1617	74,199	73,414	71,825	59,518	41,777	45,698	45,401	37,667	41,173	42,898	52,932	68,388	**654,889**
FY1718	81,254	78,331	76,259	65,658	58,601	42,693	48,947	40,431	42,401	41,263	52,088	69,321	**697,247**
3 YR AVERAGE (BASELINE)	**74,077**	**72,235**	**72,564**	**61,733**	**50,072**	**43,388**	**46,124**	**38,463**	**42,002**	**42,438**	**51,116**	**68,613**	**662,826**

ACTUAL FY1819 CONSUMPTION

FY1819	69,843	76,594	70,487	62,230	58,962								**338,116**

CUMULATIVE ANALYSIS

% Above or Below Average	*-6%*	*6%*	*-3%*	*1%*	*18%*								
Cumulative %	***-6%***	***0%***	***-1%***	***-1%***	***2%***								

NOTES:

Consumption is cumulatively slightly above the prior three year average baseline. As of November 2018 consumption, the cumulative consumption is 2% above the baseline. There are no triggers identified per the revenue stabilization rate policy.

M E M O

TO: Board of Directors

FROM: District Manager

PREPARED BY: Environmental Programs Manager

SUBJECT: Environmental Department Status Report

DATE: January 17, 2019

RECOMMENDATION:

It is recommended that the Board of Directors review and file the Environmental Department status report.

SUSTAINABLE WATER SUPPLY PLANNING

CITY OF SANTA CRUZ: WATER RIGHTS PROJECT, RIVER BANK INFILTRATION STUDY & INJECTION STUDY
Staff will be meeting with staff at the City of Santa Cruz to clarify and discuss the City's proposed water rights changes, River Bank Infiltration Study and the Injection Study.

CONJUNCTIVE USE GRANT

- Hydrological Assessment is complete. Final report pending.
- Fish Assessment strategy is clear and underway.
- Public Engagement Workshop to be announced following Fish Assessment Report Completion.

Detailed analysis shall be completed for the following scenarios:

1) During dry periods, reduce Felton diversions to comply with water rights by using existing interties to supply the Felton service area with (a) additional groundwater pumping from South system wells and (b) if necessary, excess diversions and/or groundwater pumping from the North system. During wet periods, (a) provide the South System service areas with excess diversions from the Felton system and (b) if possible also provide water to the North system to reduce groundwater pumping during dry periods.

2) Utilize the District's right to 313 AFY of Loch Lomond water, in the following priority of use: first to supply the Felton service area and reduce Fall Creek diversions to comply with water rights; second, to serve the South service area and reduce South system groundwater pumping (i.e., achieve in-lieu recharge); and lastly to supply the North service area in order to reduce diversions, achieve in-lieu recharge, and increase groundwater discharge to dry-period base flows.

Preliminary feasibility-level analysis shall be completed for the following scenarios:

3) Recharge the Olympia area aquifer by injecting excess wet period diversions from the North system, Felton system, and/or Loch Lomond. Increase dry-period Olympia groundwater pumping by a comparable amount to reduce North system diversions.

4) Supply the South system and Scotts Valley Water District with excess wet period diversions from the Felton system, North system, and/or Loch Lomond in order to achieve in-lieu recharge. Utilize increased groundwater storage to increase dry period groundwater use and reduce stream diversions in the Felton system and North system.

STREAMFLOW, TEMPERATURE AND RELATED OBSERVATIONS FOR THE SAN LORENZO VALLEY WATER DISTRICT'S SURFACE SOURCES OF COMMUNITY WATER SUPPLY *WATER YEAR 2014 TO 2017*
Planning for water year 2019:

The District has been conducting Stream gaging associated with the District's surface water diversions since WY 2014 to learn more about how the District's water supply production impacts habitat in the San Lorenzo River and associated tributaries. Staff facilitated a Regulatory Agency meeting to discuss the results of the study and to discuss the future of the program, in addition to the Conjunctive Use Planning Effort. Staff will be conducting a public, board workshop in the near future to bring the new board up to speed with the effort.

SANTA MARGARITA SUSTAINABLE GROUNDWATER MANAGEMENT AGENCY (SMGWA.ORG)

- Staff provides ongoing support and District representation at the SMGWA at staff level.
- An RFP for a Technical Consultant is underway which will correct the deficiencies identified in the hydrologic model, and assist with the technical writing of the Sustainable Groundwater Management Plan.
- Staff met with the Facilitation Committee in a publicly noticed meeting on November 14th, to plan a series of 3 Educational Workshops that will focus on Local Hydrology, Land Use & Water and Integrated Water Management & Surface Water Groundwater Interactions.
- The next SGMWA Meeting will be held Thursday, January 24th at 7:00 PM at Scott's Valley Water District. For more information http://smgwa.org/

ENVIRONMENTAL COMPLIANCE - CAPITAL IMPROVEMENT PROGRAM

SANDHILLS HABITAT CONSERVATION PLAN FOR THE SAN LORENZO VALLEY WATER DISTRICT CAPITAL IMPROVEMENT PLAN

District is preparing a Habitat Conservation Plan to mitigate the impacts to listed species in sandhills habitat which result from the District's Capital Improvement Projects. The HCP will cover the District's capital improvement projects, operations and maintenance activities, and watershed management actions, that impact endangered species and sensitive habitat of the Santa Cruz sandhills. The District Sandhills HCP (DSHCP) will provide the basis for the United States Fish and Wildlife Service (USFWS), which

administers the ESA for terrestrial species, to issue the District an Incidental Take Permit (ITP) to cover all of the capital improvement projects, operations and maintenance activities, and watershed management actions that affect the covered species. This approach will greatly reduce the timeline and cost for project permitting compared to preparing individual HCPs for each project or site. Submit HCP for agency review December 2019. Cost for development of HCP: $129,000

CIP PROJECT PERMITTING
CEQA Lion Pipeline Project – Public comment period opening January 17th, 2019. CEQA documents available in January 17th board packet. Public Hearing scheduled February 21, 2019.

Staff is working to secure permits for the following Projects:
Fall Creek Fish Ladder Project Cost: $ 1,160,000
Lion Treatment Plan Access Road Slide (FEMA funded)

WATERSHED MANAGEMENT

ZAYANTE CREEK STREAM WOOD HABITAT ENHANCEMENT PROJECT
The San Lorenzo Valley Water District owns about 0.5 mile of Zayante Creek upstream of the Mountain Charlie Gulch confluence. This stream reach has the potential to serve as extremely valuable spawning and rearing habitat for both steelhead and Coho salmon. With the District's ownership, this reach is not impacted by residential development, which is prevalent in lower Zayante Creek, and is down stream of multiple obstructions that limit steelhead access into upper Zayante Creek.

The project focuses on habitat enhancement measures on publicly held properties, owned by the City and the SLVWD, with the objective of developing cost-effective restoration actions that attempt to restore historic functions that created and maintained the physical habitat necessary to support key life stages for these listed species. The design process to date has included technical review, site visits, and collaboration with the City, SLVWD, the City's consulting forester, County of Santa Cruz, Santa Cruz County Resource Conservation District, National Marine Fisheries Service, and California Department of Fish and Wildlife.

Timeline:

1. October 2, 2014: The SLVWD Board granted permission for the project to take place on District property.
2. July 2018: Resource Conservation District received a grant from State Water Resources Control Board for the Upper Zayante Creek Stream Wood Enhancement Project, and are in the process of mobilizing to begin work.
3. 2019: District to enter into cooperative agreement associated with permitting and implementation of the project.
4. 2018-19: Acquire Permits from State and Federal agencies, under the direction of the RCD.
5. Summer 2019: Large wood to be installed.

FIRE MANAGEMENT PLANNING ON DISTRICT WATERSHED LANDS
Staff has initiated an effort to improve mapping, road access and communications with Fire Prevention Agencies, in order to improve access to District Lands in case of a wildfire. Staff is also working to create a post-fire plan to ensure the District's water resources after a fire event.

WATER CONSERVATION

The District is working on a multi-tier effort to diversify water sources for each water system through the following efforts:

- Conjunctive Use
- Water Conservation
- Improving System Efficiencies
- Intertie Pipelines
- Sustainable Groundwater Management
- Climate Adaptation and Mitigation
- New Groundwater Supplies

Water Conservation Rebate Quarterly Report

FY 18/19 Q2 Ending Dec 31, 2018

Type	Water Savings by type	# Rebates	Amount	Water Saved Gallons per year
Drip	4,500 gpy/ 500sf	0	$ -	0
Clothes Washers	5100GPY	3	$ 300.00	15300
Recirculation System	7800GPY	0	$ -	0
Lawn	6 ft/sqft or 7.48*6=44.88 gpy/sqft	0	$ -	0
Toilet 1.6	1280 gpy	3	$ 225.00	3840
Toilet 3.5	5000gpcy	7	$ 1,211.99	140000
Irrigation Controler	1.7g/sqft/y	0	$ -	0
Greywater Irrigation	14,565 gpy	0	$ -	0
		13	$ 1,736.99	159140

WATER CONSERVATION DEVICES PURCHASED 2018

Supplier	Device Type	QTY	Cost
New Resources	Hose Nozzles	50	$ 99.50
New Resources	0.5 Aerators	100	$ 113.00
New Resources	Hose Nozzles	100	$ 387.00
New Resources	1.5 Shower Heads	250	$ 733.49
New Resources	Promotional Sponges	500	$ 464.85
New Resources	Hose Nozzles	50	$ 136.65
AM CONSERVATION	Hose Nozzles	150	$ 182.44
Total spent			**$ 2,116.93**

Additional efforts to reduce water consumption system wide include:

- Staff is working with teachers throughout District to plan conservation workshops & in-class presentations for Spring 2019
- Annual Water Conservation Video Contest prep has begun and staff will begin to contact teachers within District.
- Water audit program formation is complete. Staff is currently working with commercial and high water users. Water-wise audits are being offered upon request to all customers. Staff will begin to advertise and add water audit information to the District website in early 2019.
- Staff completed two large institutional water user water-wise audits in 2018. Both accounts have begun to implement suggested water saving findings and committed to lower their usage.
- Water Conservation Coalition of Santa Cruz meeting bi-monthly. Will discuss rebate programs, upcoming workshops, future events and water wise programing.
- Water conservation staff to take over high usage and leak prevention tagging follow-ups.
- Conservation staff reordering conservation devices and outreach materials. Currently all water conservation devices in stock. Staff plans to reassess inventory in Spring of 2019.
- Staff working to update current rebate programs and add additional programs. New programs to be considered by the Board in Spring 2019.
- 2019 Education and Data Collection grant schedule and planning initiated November 2018. New Education Commissioners have not been appointed by elected board members. Education and Data Collection Grants will not be offered until an Education Commission is seated.
- Environmental staff monitoring and mapping invasive species on District properties.

- Staff working to receive Water Efficiency Certification through AWWA.
- Create content for public outreach such as videos, content for social media and district workshops. Working with various agencies to create content efficiently.
- Environmental staff prepping to create a schedule of District run community workshops and volunteer events for 2019.

CLIMATE ADAPTATION

- The initial phase of competing the Climate Action Plan is to inventory existing carbon outputs from District operations. District plans to use 2012 as the base year and update inventory from 2017 onward.
- Staff has summarized all 2017 and onward District GHG emissions data to update "Our Carbon Footprint" page on the District website.
- Environmental staff has initiated a Climate Action Plan. Staff will undergo training on climate change planning in preparation to write SLVWD's Climate Action Plan (2020 Urban Water Management update will require a thorough reporting of climate mitigation and adaption strategies).

PUBLIC OUTREACH

- The District Facebook page and website are updated regularly (5-7 times per week).
- The District is running ads in the Mountain Bulletin bimonthly.
- Staff is conducting regular interviews on KBCZ regarding drought, infrastructure projects and other news from SLVWD.

FELTON LIBRARY OUTDOOR EDUCATION PARK
Staff continues to participate as part of the Felton Library Design Team. Community stakeholders meet monthly to discuss design, outreach & education opportunities for the Nature Discovery Park that will be associated with the new Felton Library.

UPCOMING EVENTS

SANTA MARGARITA GROUNDWATER AGENCY ANNOUNCES THREEPART 'UNDERSTANDING OUR WATER' EDUCATIONAL SERIES

The meetings will be held the second Saturdays of the month from January to March at Felton Community Hall from 9 a.m. to 1 p.m.

• January 12: Land Use and Water: How Much Does Growth Matter?
• February 9: Water Budgets: How Do We Balance All Needs?
• March 9: Managing Groundwater: How Can We Prepare for an Uncertain Future?

STATE OF THE SAN LORENZO RIVER – This annual event will be announced soon.

NETWORKING/ COLLABORATIONS

SANTA MARGARITA GROUNDWATER AGENCY- **http://smgwa.org/**

Under the Sustainable Groundwater Management Act of 2014, over-drafted groundwater basins need to be sustainably managed by a Groundwater Sustainability Agency (GSA)
through the development of a Groundwater Sustainability Plan (GSP). The GSP must be completed by 2022, and the basin must reach sustainability by 2040.

Under development is the Santa Margarita Groundwater Agency (SMGA), a three-member agency comprised of the Scotts Valley Water District, San Lorenzo Valley Water District and the County of Santa Cruz, which will oversee the groundwater management activities of the Santa Margarita Basin Area in Santa Cruz County, California. The Board of Directors of the SMGA includes two Board members from each of the water districts, one from the County, one from the City of Scotts Valley, one from the City of Santa Cruz, one from the Mount Hermon Association Community Water System and two private well owner representatives.
Once a Joint Powers Agreement (JPA) is completed in early 2017, the SMGA will apply to the state Department of Water Resources to become the GSA for the Basin.

SANTA CRUZ INTEGRATED GROUNDWATER MANAGEMENT - http://www.santacruzirwmp.org/

The Santa Cruz Integrated Regional Water Management (IRWM) program provides a framework for local stakeholders to manage this region's water and water-related resources. The Santa Cruz IRWM Plan was developed in response to California's IRWM planning initiative to promote an informed, locally-driven, and consensus-based approach to water resources management.

The IRWM Plan includes strategies for developing and implementing policies and projects to ensure sustainable water use, reliable water supply, better water quality, improved flood protection and storm water management, and environmental stewardship. Find out more.

FIRE SAFE COUNCIL OF SANTA CRUZ COUNTY https://www.firesafesantacruz.org/
Staff represents SLVWD and sits on the Board of the Fire Safe Santa Cruz County FSSCC and participates as one of the Directors on the Community Outreach Committee.

The purpose of the Fire Safe Santa Cruz County (FSSCC) is to help residents and landowners prepare for and respond to the effects of wildfire in Santa Cruz County in an effort to maintain the quality of life, property and the environment. FSSCC will assist in coordinating the fire preparedness actions of local residents, landowners/managers, utilities, fire districts, CALFIRE and local fire safe councils. FSSCC will identify and seek funding for the highest fire safety priorities, coordinate work activities, assist neighborhoods in securing equipment and labor, and best position fire-safe entities working in the County for funding opportunities and applications.

FSSCC is organized and operated exclusively for charitable and educational purposes within the meaning of Section 501(c)(3) of the Internal Revenue Code.

FSCSCC is currently seeking applications from community members in need of funding to reduce fire hazards in their neighborhoods. Contact Fire Safe SCC for applications.

WEED MANAGEMENT AREA OF SANTA CRUZ (WMA)
The Weed Management Area of Santa Cruz (WMA) meets 4 times annually. The group is working on the Strategic Plan, and prioritizing efforts for Santa Cruz County, and working to acquire resources to achieve the goal of fighting invasive species that impact biodiversity. The WMA will continue its use of the Calfora Observer app to allow for real time mapping which will allow land managers to monitor invasive and non-invasive plant life. As the WMA develops it is shifting its goals to better support member's needs; such as invasive removal, invasive plant prevention, engaging the community to be better stewards and collaborating to share information, and resources to protect biodiversity. On 01/08/19 the WMA held its fall quarter meeting. Networking, discussion of current invasive species and invasive removal practices were discussed. Ken Moore presented as special guest. The next meeting will focus on glyphosate and its uses for controlling invasive plant species.

SAN LORENZO 2025
The San Lorenzo River Watershed is the main source of drinking water for multiple communities and tens of thousands of residents. This watershed is home to dozens of species of fish and wildlife, including both threatened and endangered species. It is the heart of our community and is at risk because the San Lorenzo River is under stress from the effects of drought, climate change, and habitat degradation. Acting now we can keep the San Lorenzo River watershed viable for our communities and our native fish and wildlife for generations to come.
San Lorenzo River 2025 is a collaborative effort focused on addressing the risks facing the San Lorenzo River over the next ten years. Through a partnership between local governments, water districts, the Resource Conservation District and local nonprofits, San Lorenzo River 2025 seeks to achieve **reliability** of water, **restoration** of watershed habitats, and a **resilient and safe** community resource. This effort will increase both the pace and the scale of investment into the San Lorenzo Watershed.

San Lorenzo River 2025 will:

- Implement a suite of habitat restoration and watershed protection activities to maintain and improve water supplies, water quality, and natural habitats for native fish and wildlife

- Provide wildfire planning and readiness to avoid catastrophic events in the watershed

- Improve ailing infrastructure for flood protection and projected sea level rise

- Maintain and improve public areas, trails, and places for the community to enjoy the river.

FELTON LIBRARY - http://feltonlibraryfriends.org/
Staff continues to participate with the Technical Advisory Committee including Friends of the Felton Library, the Valley Women's Club and County Planners and administrators to design and implement a new Library building located on Gushee Street in Felton as well as an outdoor education area adjacent to the location and the District's Kirby Treatment Plant. The New Library has been awarded 10 million dollars for construction of a new library. Meetings held several times a month.

SANTA CRUZ MOUNTAINS STEWARDSHIP NETWORK - http://scmsn.net/
The Santa Cruz Mountains Stewardship Network is a region-wide and cross-sector collaboration of independent individuals and organizations who are committed to working together to help cultivate a resilient, vibrant region where human and natural systems thrive for generations to come.

SANTA CRUZ MOUNTAINS BIOREGIONAL COUNCIL - http://www.scmbc.org/
Jen Michelsen serves as president of the Santa Cruz Mountains Bioregional Council. The Bioregional Council is dedicated to the preservation and enhancement of regional biodiversity over time through education, the dissemination of accurate scientific information and assistance in the planning, coordination and implementation of conservation efforts.

WATER CONSERVATION COALITION - http://watersavingtips.org/
The Water Conservation Coalition is a partnership between all the local Water Districts in Santa Cruz County as well as the County Water Resources Division, Ecology Action and other groups who share a passion for water conservation and public education. Our goal is to combine efforts and share resources to provide a common message about water conservation issues to residents throughout Santa Cruz County, which is a special place because ALL of our water supply comes from rain that falls within our County boundaries. Though each water district gets drinking water from different sources, we all share a common goal and work together to protect water resources in our aquifers and watersheds and continue to provide safe, high quality drinking water to all who live, work and play in Santa Cruz County. Meeting held quarterly or monthly depending on activity level. Planned meeting for late January 2019.

COMPLETION REPORTS 2019

Staff has completed permits for the following USDA Loan Projects:

Swim Tank $ 678,000 Hihn Road Pipeline $ 90,000 Lyon Pipeline $ 450,000 Worth Lane Pipe $ 120,000 Sequoia Road Pipe $ 120,000 Bennett Booster $ 390,000 Hillside Drive Pipe $ 240,000 Riverview Drive Pipe $ 240,000 Two Bar Road Pipe $ 450,000 Orman Road Pipe $ 300,000 California Drive Pipe $ 240,000

Climate Registry Green House Gas Inventory of 2017 has been completed and completed verification through Cameron-Cole, LLC. Information has been updated on the website under Our Carbon Footprint.

MEMO

TO: District Manager

FROM: Director of Operations

SUBJECT: OPERATIONS DEPARTMENT STATUS REPORT DECEMBER 2018

DATE: January 17, 2019

RECOMMENDATION:

It is recommended that the District Manager review and file the Operations Department Project Status Report for the month of December 2018.

BACKGROUND:

BLUE TANK REPLACEMENT

The bids closed on December 11, 2018 for the concrete slab enhancement plans. The District received one bid for the enhancements. Following the concrete slab enhancements, Superior Tank Company will move in to erect the new tank on the existing improved concrete slab.

During routine inspection it was discovered that the Districts Blue Tank in Manana Woods has experienced extensive corrosion to the upper ring of staves, roof and internal roof structure system. In addition to corrosion the tank experienced buckling damage from the 1989 Loma Prieta Earthquake.

FELTON WATER SYSTEM WATER METER REPLACEMENT

Staff is continuing with the Felton Water System Meter Replacement Project. Domestic water meters are being replaced as existing metering has reached their life expectancy. Meters are being changed to the new Beacon “Eye on Water” system that will allow customers to monitor their water usage over the internet.

PASO WELL #8

The new Paso Well #8 construction continues. Test pumping and development is complete. The Well is looking to be a very good Well. The size of the pump and the depth it is to be set at has been determined. Title 22 and bacteriological samples have been taken for the water quality of the Well. This is to help determine if the Well will need treatment of any kind to improve water quality.

District staff continues to work with the contractor, and maintain environmental protection fencing around the area.

Paso Well #8 is a replacement to Paso Well #6 that began splitting in its casing in 2015, which was allowing sand to overcome the pump and motor. Many attempts to fix and seal the casing on the Well were unsuccessful leading to full replacement of the Well.

OLYMPIA WELL #2

Olympia Well #2 had stopped pumping water in the beginning of December. It was determined that the pump and motor had come to the end of their life, and were no longer able to pump water. The Well was pulled and the pump and motor were replaced. The Well is back in the ground and operational.

PASO WELL #5A

The District received multiple calls in the Scott's Valley area of brown and dirty water. The water quality group found that Paso Well #5A was pumping sand and gravel. The Well was pulled and video of the Well was taken. There was an area found in the screens where there was sand and gravel coming through the gravel pack and screen. It is undetermined what caused the sand and smaller gravel to begin to come through the gravel pack and screens, could have been ground movement or the pump and motor hitting the side of the Well column during a start or stop. The next step is water jetting and swabbing to clean the screens and gravel pack. This will be done in the beginning of January 2019.

SCADA (Supervisory control and data acquisition) UPGRADE

In December with the Holidays there was not much progress on the SCADA upgrade. The District did receive two more pieces of hardware for the upgrade. Much more progress will be made in January 2019. The project is proceeding forward and the District staff in anxious and looking forward to the system upgrade being complete.

The District is about 80% done with conversion of the new SCADA and HMI system. The conversion that is done is operational and live. Our equipment and software are out of date and have been crashing needing restarting and rebooting several times a month, leading to this upgrade. District staff has been working with an outside contractor that was contracted to do the upgrade and replacement.

MAINTENANCE ISSUES

Service Line Replacement Lompico

Service Line Replacement:
10405 Lake Blvd.
11101 Sequoia Ave.

Main Line Repairs

6 inch main line repairs 9837 Glenn Arbor Road. 600-800 GPM

System Wide

16+ Mainline/Service Line Leaks Were Repaired.
Abandoned an old 2” valve and short section of main line on Riverdale Blvd in Boulder Creek no longer in use.
Abandoned 30’ of old 2” main line no longer in use Big Basin Way Boulder Creek.
Meter relocate and set Back Flow 379 Felton Empire Rd, Felton.
Removed and replaced with a spare the Clarification basin return pump for repairs Lyon Treatment Plant.
Replaced 120’ of 4” sewer line pipe due to clogged old collapsing pipe being inundated with roots.
Worked on State Inspection Deficiency punch list system wide.

Dead Meter Change Out

Boulder Creek
Ben Lomond
Scotts Valley

James Furtado

Director of Operations

SAN LORENZO VALLEY WATER DISTRICT

PRODUCTION COMPARRISON

Source	December-18	November-18	December-13	Difference This Year To 2013
North System				
Surface Water Sources				
Foreman Creek	5,241,092	2,380,059	718,000	
Peavine Creek + Hydro	1,053,582	1,629,807	1,552,000	
Clear Creek	8,662,396	2,662,280	987,000	
Sweetwater Creek	5,774,930	1,774,854	658,000	
Sub-Total (Streams)	**20,732,000**	**8,447,000**	**3,915,000**	429.55%
Wells (North)				
Olympia No. 2	3,326,000	13,781,000	9,203,000	
Olympia No. 3	2,899,000	800,000	4,771,000	
Quail Well No. 4-A	4,378,000	8,137,000	8,863,000	
Quail Well No. 5-A	4,118,000	2,719,600	5,349,000	
Sub Total North Wells	**14,721,000**	**25,437,600**	**28,186,000**	-47.77%
South System Wells				
Pasatiempo 5A	13,023,100	6,171,200	N/A	
Pasatiempo 6	-	-	5,975,000	
Pasatiempo 7	4,725,000	1,710,000	2,493,000	
Sub Total Pasatiempo Wells	**17,748,100**	**7,881,200**	**8,468,000**	109.59%
North South All Sources Combined	**53,201,100**	**41,765,800**	**40,569,000**	31.14%
Felton System - Surface Water				
Fall Creek	5,498,714	5,391,992	5,707,580	
Bennett Spring	1,885,708	1,146,684	2,438,500	
Bull 1 & 2	1,184,832	1,710,676	0	
Total Felton System Sources	**8,569,254**	**8,249,352**	**8,146,080**	5.19%
Manana Woods System				
Well 1	-	-	507,775	
Total Manana Woods Sources	**-**	**-**	**507,775**	
Sub - Total Production				
North / Felton / Manana	61,770,354	50,015,152	49,222,855	25.49%
Surface	29,301,254	16,696,352	12,061,080	142.94%
Wells	32,469,100	33,318,800	37,161,775	-12.63%
Total Surface Water Percentage	47.44	33.38	24.50	93.59%
Total Wells Percentage	52.56	66.62	75.50	-30.38%

SAN LORENZO VALLEY WATER DISTRICT
PRODUCTION BY SYSTEM
+/- INTERTIES
December 2018

North System All Sources	**53,201,100**
Interties IN +	**315,392**
Interties OUT -	**3,532,730**
TOTAL NORHT SYSTEM	**49,983,762**
Felton Water system All Sources	**8,569,254**
Interties IN +	**0**
Interties OUT -	**315,160**
TOTAL FELTON SYSTEM	**8,254,094**
Manana Woods System	
Manana Woods Well 1	**0**
Interties IN +	**N/A**
TOTAL MANANA WOODS	**0**

SAN LORENZO VALLEY WATER DISTRICT
INTERTIE USAGE
December 2018

INTERTIE 2

SLVWD to SVWD	**1100**	**Flushed to Waste**
SVWD to SLVWD	**0**	

INTERTIE 3

SLV SOUTH to SLV NORTH	**232**
SLV NORTH to SLV SOUTH	**1,426,863**

INTERTIE 4

SLVWD to MHWD	**0**
MHWD to SLVWD	**0**

INTERTIE 6

SLV NORTH to SLV FELTON	**-**
SLV FELTON to SLV NORTH	**315,160**

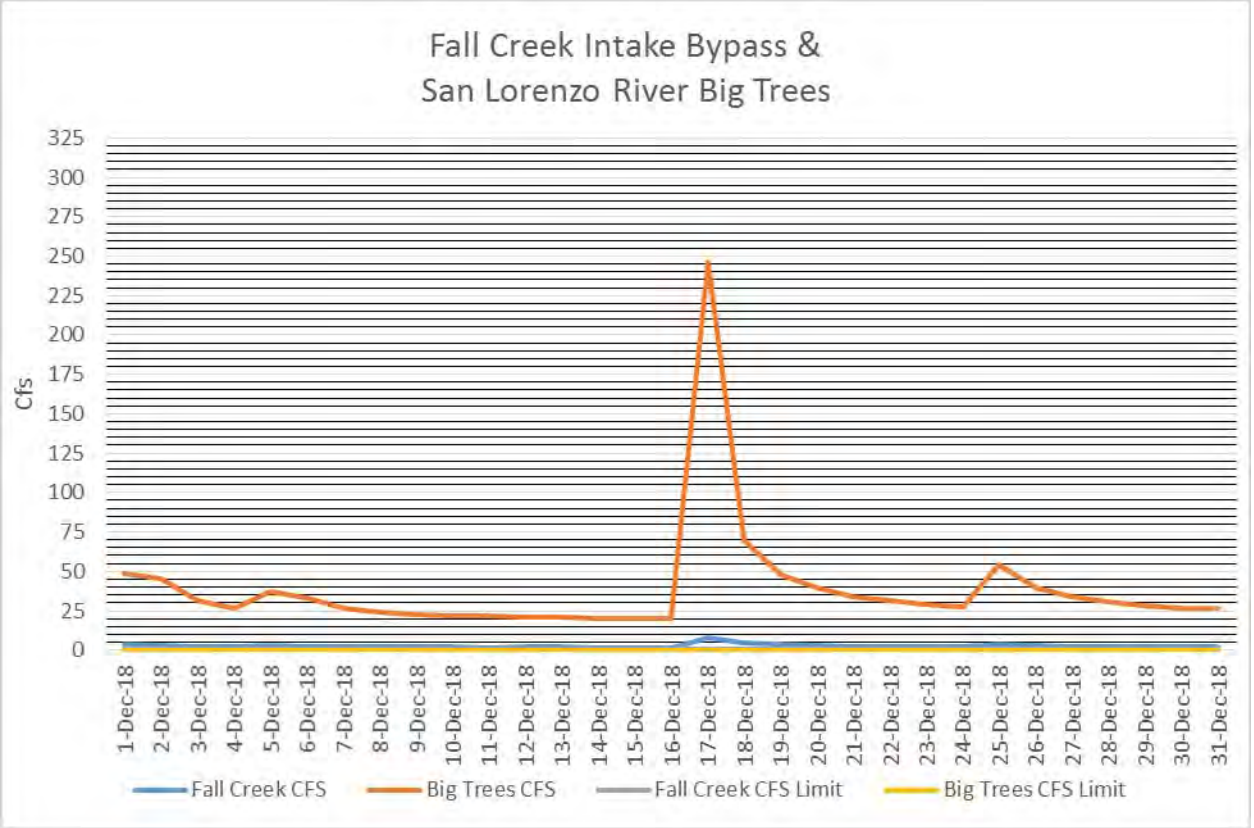
LOMPICO INTERTIE

SLV NORTH to LOMPICO	**2,104,767**

MANANA WOODS INTERTIE

SLVWD to MANANA WOODS	**N/A**

Fall Creek Intake December 2018



Normal Rainfall Fall Creek Intake Bypass Requirements

April 1 through October 31	1.0 cubic feet per second
November 1 through March 31	1.5 cubic feet per second

Dry Conditions Fall Creek Intake Bypass Requirements

April 1 through October 31	0.5 cubic feet per second
November 1 through March 31	0.75 cubic feet per second

Number of Days in month 0.5 cfs or below, ZERO days

San Lorenzo River USGS Big Trees Flow Requirements

September	11 cubic feet per second
October	26 cubic feet per second
November 1 through May 31	21 cubic feet per second
June – August	No Requirements

Fall Creek Intake December 2018

For the protection of fish and wildlife, during the period: (a) April 1 through October 31 bypass a minimum of 0.5 cfs; (b) November 1 through March 31 bypass a minimum of 1.5 cfs past the Fall Creek point of diversion. The natural streamflow shall be bypassed whenever it is less than 1.5 cfs; provided, however, that during a dry year, the bypass requirement shall be reduced from 1.5 to 0.75 cfs. A dry year is defined on a monthly basis of cumulative runoff beginning October 1 of each season in the San Lorenzo River at the USGS gage at Big Trees. These runoff figures are based on approximately 50 percent of normal runoff as the dividing level between normal and dry year runoff and are as, follows:

- November 1 for the month of October 500 af
- December 1 for October-November, inclusive 1,500 af
- January 1 for October-December, inclusive 5,000 af
- February 1 for October-January, inclusive 12,500 af
- March 1 for October-February, inclusive 26,500 af

Fall Creek Weir Measurement

Month: December | Year: 2018 | Big Trees > 26,500 Acre-ft Oct-Feb Normal Yr ☐ | Big Trees <26,500 Acre-ft Oct-Feb Dry Yr ☒

Date	Time	Initials	Pump #	Fall Cr. GPM into Kirby plant	Weir Board Height	Weir Height Measurement	Fall Creek (Cubic Feet per Second)	Big Trees (Cubic Feet per Second	Rainfall (Felton gauge)	Met Fall Cr, Bypass Requirement: Normal Year Apil 1 - Oct 31 1.0 cfs *Dry Year* April 1- Oct 31 0.5 cfs Nov. 1 - March 31 0.75 cfs (yes/no)	Met Big Trees Requirement Nov-May 21cfs Sept 11 cfs Oct 26 cfs (yes/no)	Notes
1	7:50	KS	1	101	25.0	N/A	3.832	48.4	0.11	Yes	Yes	
2	8:50	JT	1	0	25.0	N/A	3.187	45.5	0	Yes	Yes	
3	7:30	SS	1	154	25.0	N/A	2.385	31.9	0	Yes	Yes	
4	8:50	DB	1	155	25.0	N/A	2.160	27.0	0	Yes	Yes	
5	9:10	SS	1	135	25.0	N/A	2.697	37.4	0.50	Yes	Yes	
6	9:01	KS	1	91	25.0	N/A	2.414	33.1	0.19	Yes	Yes	
7	7:50	SS	1	84	25.0	N/A	2.248	26.5	0.06	Yes	Yes	
8	9:05	JG	1	93	25.0	N/A	2.131	24.0	0	Yes	Yes	
9	9:55	JG	1	104	25.0	N/A	2.043	22.6	0	Yes	Yes	
10	7:40	SS	1	143	25.0	N/A	1.880	21.7	0	Yes	Yes	
11	7:50	SS	1	143	25.0	N/A	1.810	21.7	0	Yes	Yes	
12	9:45	HO	2	102	25.0	N/A	1.880	20.8	0	Yes	No	
13	7:35	SS	2	93	25.0	N/A	1.820	20.8	0	Yes	No	
14	9:00	KS	2	120	25.0	N/A	1.730	20.3	0	Yes	No	
15	8:05	HO	2	130	25.0	N/A	1.711	19.9	0.04	Yes	No	IT6 Flow McCloud to Brookdale
16	7:45	HO	2	250	25.0	N/A	1.417	20.3	2.60	Yes	No	
17	9:15	HO	2	220	25.0	N/A	7.986	246	0	Yes	Yes	
18	9:45	HO	2	150	25.0	N/A	4.761	70.1	0	Yes	Yes	
19	9:50	KS	2	148	25.0	N/A	3.480	47.7	0	Yes	Yes	
20	7:55	HO	2	166	25.0	N/A	2.883	39.3	0	Yes	Yes	
21	10:50	KS	2	153	25.0	N/A	2.629	34.3	0	Yes	Yes	
22	8:10	KS	2	120	25.0	N/A	2.551	31.9	0	Yes	Yes	
23	8:10	KS	2	86	25.0	N/A	2.454	29.1	0	Yes	Yes	
24	8:00	KS	2	77	25.0	N/A	2.365	27.5	1.0	Yes	Yes	
25	9:15	KS	2	123	25.0	N/A	3.538	54.7	0.05	Yes	Yes	
26	10:40	JG	2	89	25.0	N/A	2.698	40.0	0	Yes	Yes	
27	8:05	SS	2	108	25.0	N/A	2.580	33.7	0	Yes	Yes	
28	7:35	SS	2	124	25.0	N/A	2.355	30.8	0	Yes	Yes	
29	9:20	JG	2	87	25.0	N/A	2.238	28.0	0	Yes	Yes	
30	10:40	JG	2	99	25.0	N/A	2.209	27.0	0	Yes	Yes	
31	9:55	JG	2	103	25.0	N/A	2.160	27.0	0	Yes	Yes	

San Lorenzo Valley Water District
Loch Lomond Water Supply
December 2018

Loch Lomond Water Level

Week ending 1 / 02 / 2019
(in feet above mean sea level; lake spills at 577.15 feet)

Currently:	568.45 ft
Percent of Capacity:	82.9 %

In 1958 SLVWD sold 2,500 acres of property in the vicinity of the Newell Creek Watershed to the City of Santa Cruz, with the agreement that SLVWD would be entitled to purchase 12 ½ percent of the annual safe yield from a future Newell Creek reservoir, up to a maximum of 500 AF/yr. Based on the 1958 agreement, SLVWD began receiving delivers of Loch Lomond water from the City in 1963. In 1965 the District constructed the Glen Arbor Water treatment plant for treating Loch Lomond water. Toward the end of the 1976-77 drought, the City stipulated that the District was not entitled to an allocation of 500 AF/yr, merely 12.5% of the safe yield. This decision based on a reduction to the estimated annual safe yield from the Newell Creek Reservoir, reduced the Districts contractual allocation. On June 7, 1977, the District filed a Complaint for Declaratory Relief, which requested the court to make a judicial determination of the respective parties' duties and rights. In June 1980 a court order fixed the estimated safe yield from Newell Creek Reservoir at reduced quantity, which resulted in a reduction to the Districts contractual allocation to 313 AF/yr.

Production Loch Lomond to SLVWD

Date	Total Used	Total Available
1976 July to June 1977	353 AF	
1977 July to June 2015	0	313 AF
2015 July to 02/2016	0	313 AF
2/20/16 to Current	0	313 AF

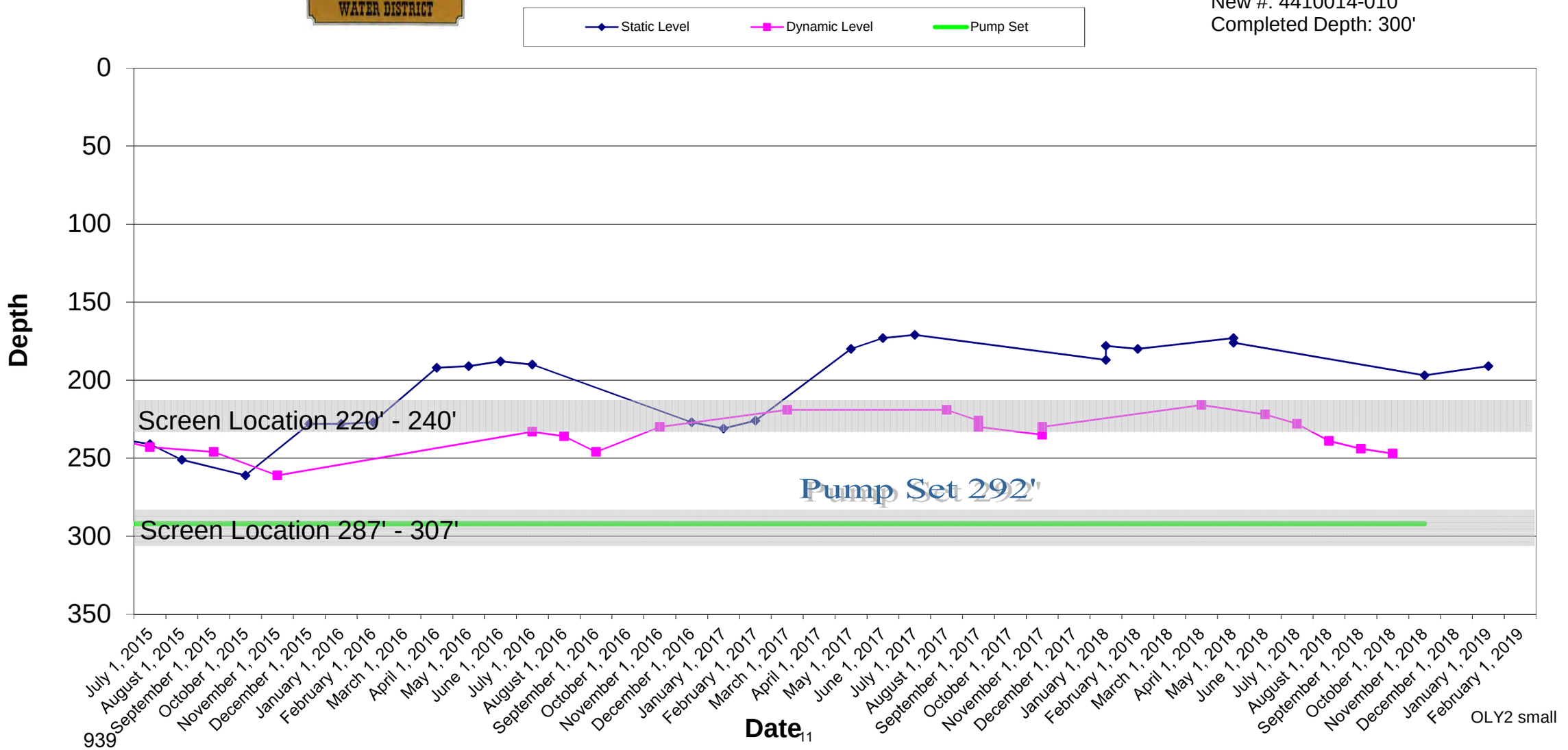
Last time District used Loch Lomond water was June 1977

SAN LORENZO VALLEY WATER DISTRICT

Well Drawdown Report

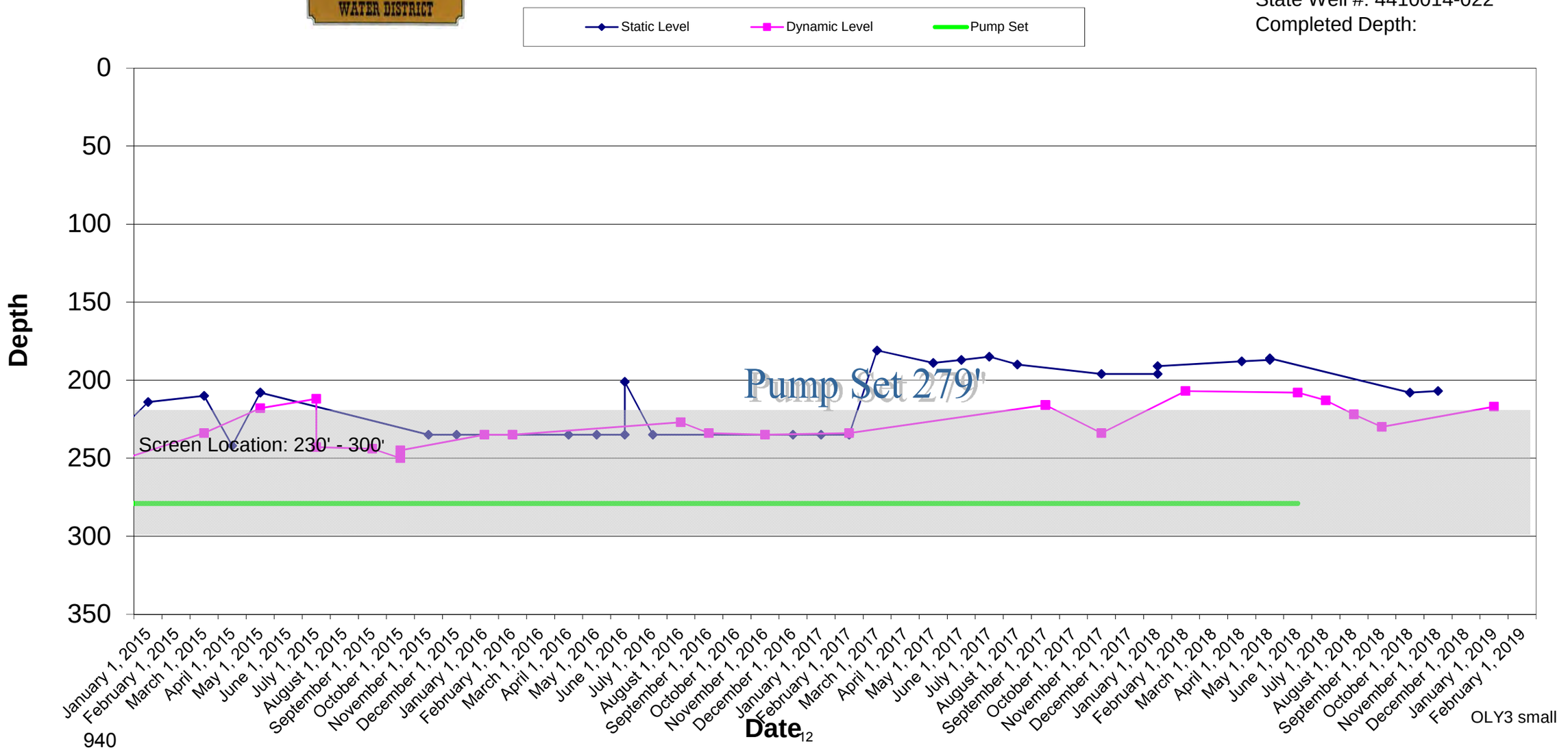
Olympia 2

Location: 7701 E. Zayante Rd.
Elevation: 525'
Installed: April 28, 1980
State Well #:10S/O2W-11P01
New #: 4410014-010
Completed Depth: 300'



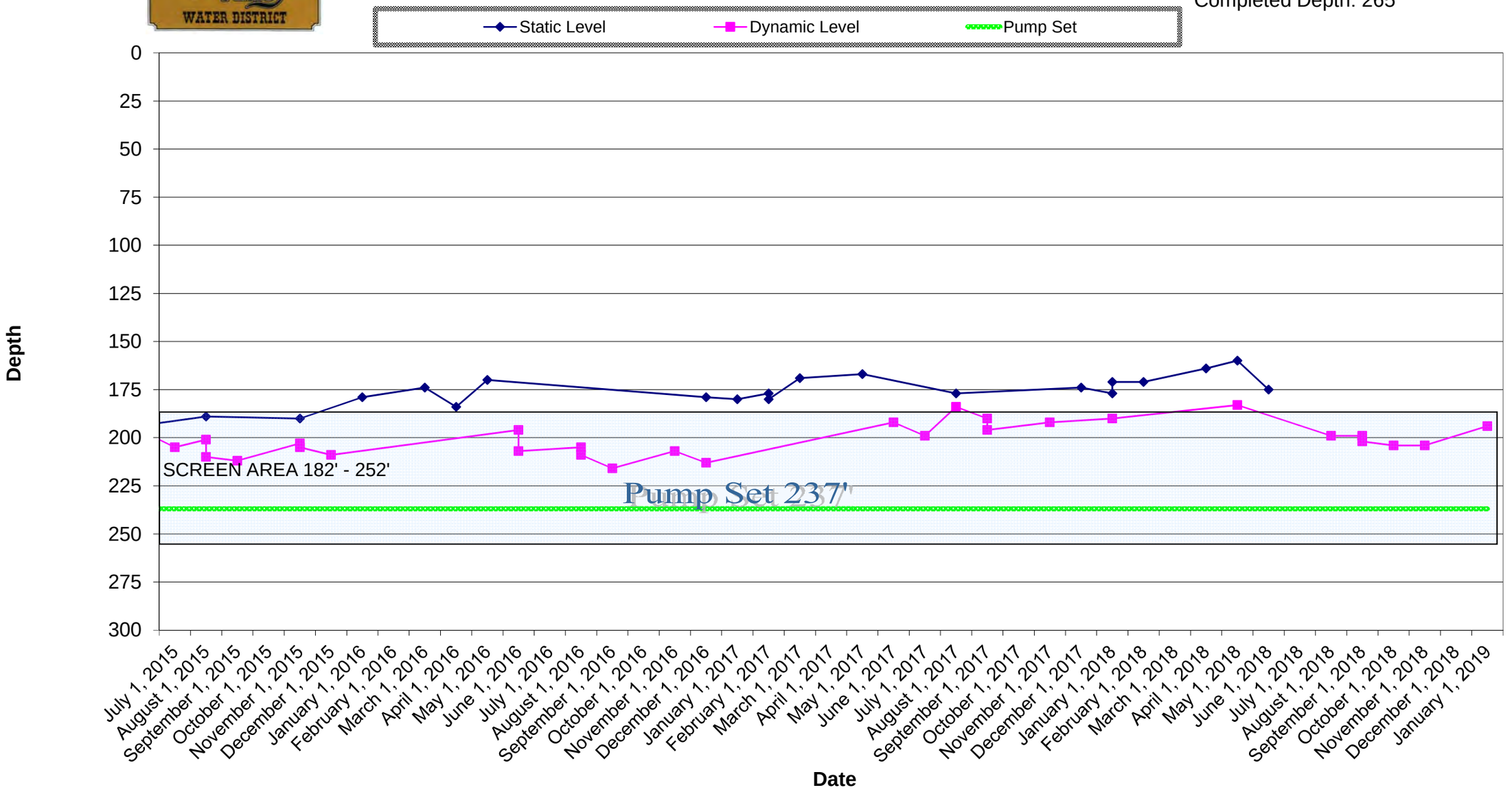
SAN LORENZO VALLEY WATER DISTRICT
Well Drawdown Report
Olympia 3

Location: 7701 E. Zayante Rd
Elevation: 538' Mean Sea Level
Installed: 8-15-90
State Well #: 4410014-022
Completed Depth:



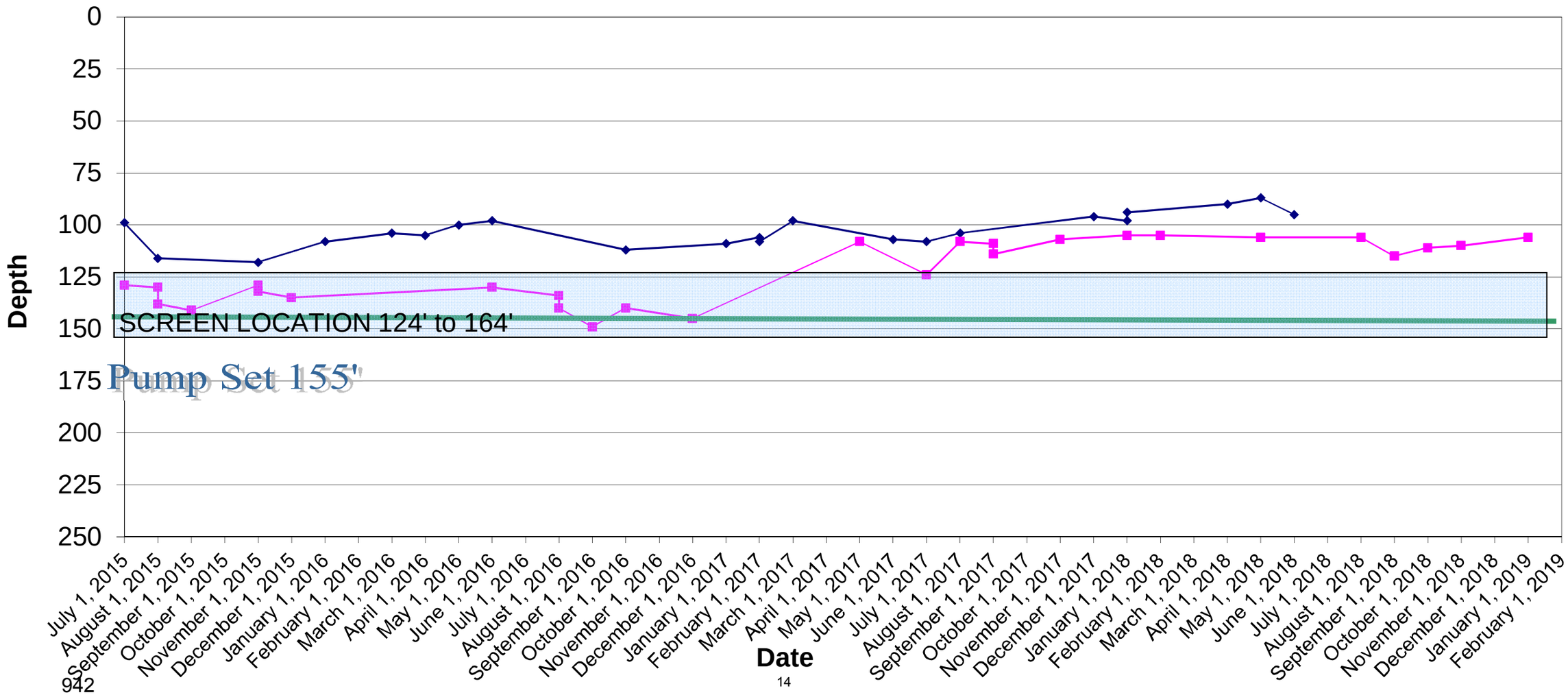
SAN LORENZO VALLEY WATER DISTRICT
Well Drawdown Report
Quail Well 4-A

Location: Cumora Ln. Ben Lomond
Elevation: 596.54 ft @ Pad
Installed: 6-07-2001
State Well #: 4410014-026
Completed Depth: 265



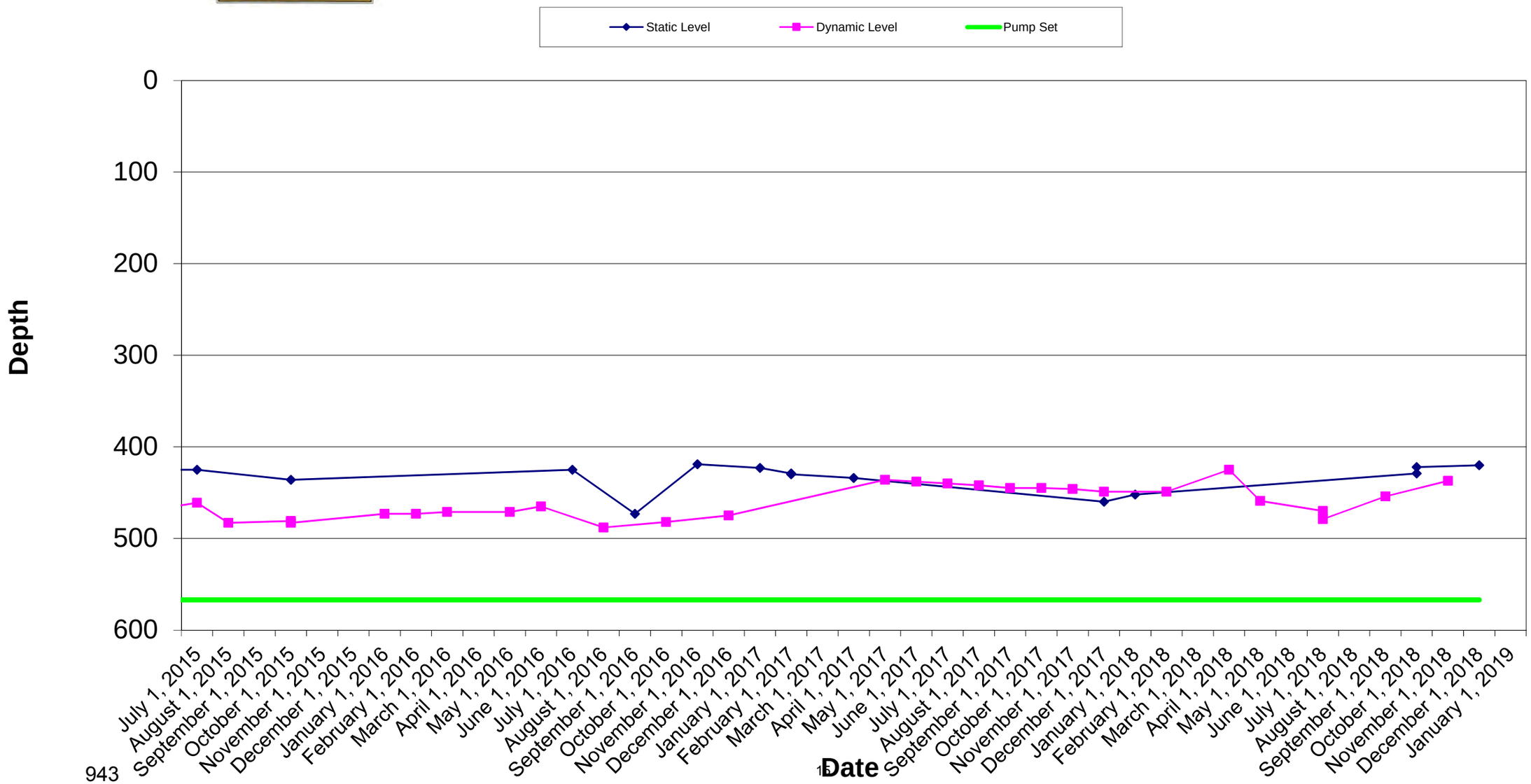
SAN LORENZO VALLEY WATER DISTRICT
Well Drawdown Report
Quail Well 5-A

Location: 1161 Quail Hollow Rd.
Ben Lomond
Elevation: 517.65 ft. @ Pad
Installed: March 2000
State Well #: 4410014-025
Completed Depth: 174'



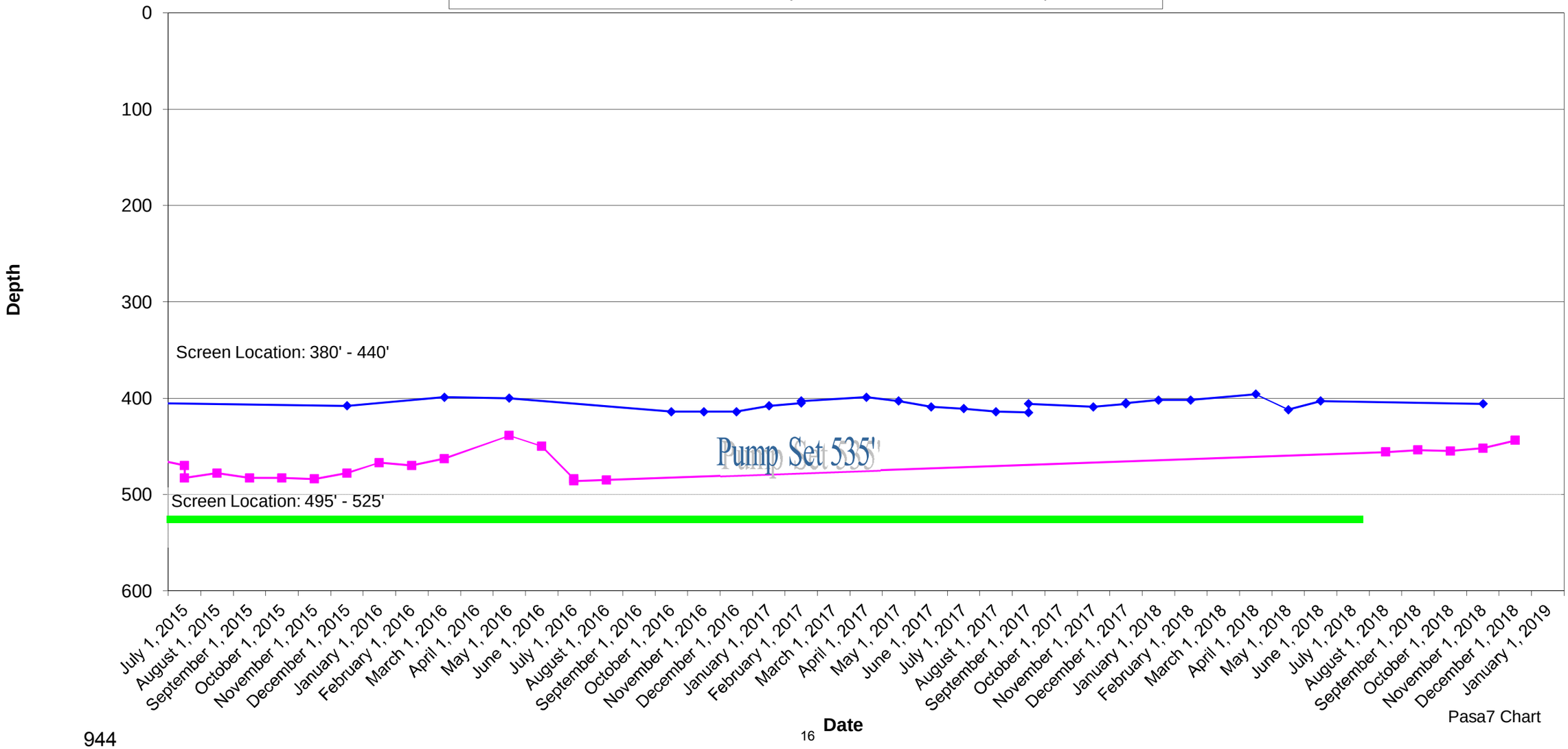
SAN LORENZO VALLEY WATER DISTRICT
Well Drawdown Report
Pasatiempo 5-A

Location: So. Of 3650 Graham Hill Rd
Elevation: 752'
Installed 1-1-14
State Well #:4410014-014
Completed Depth: 710'



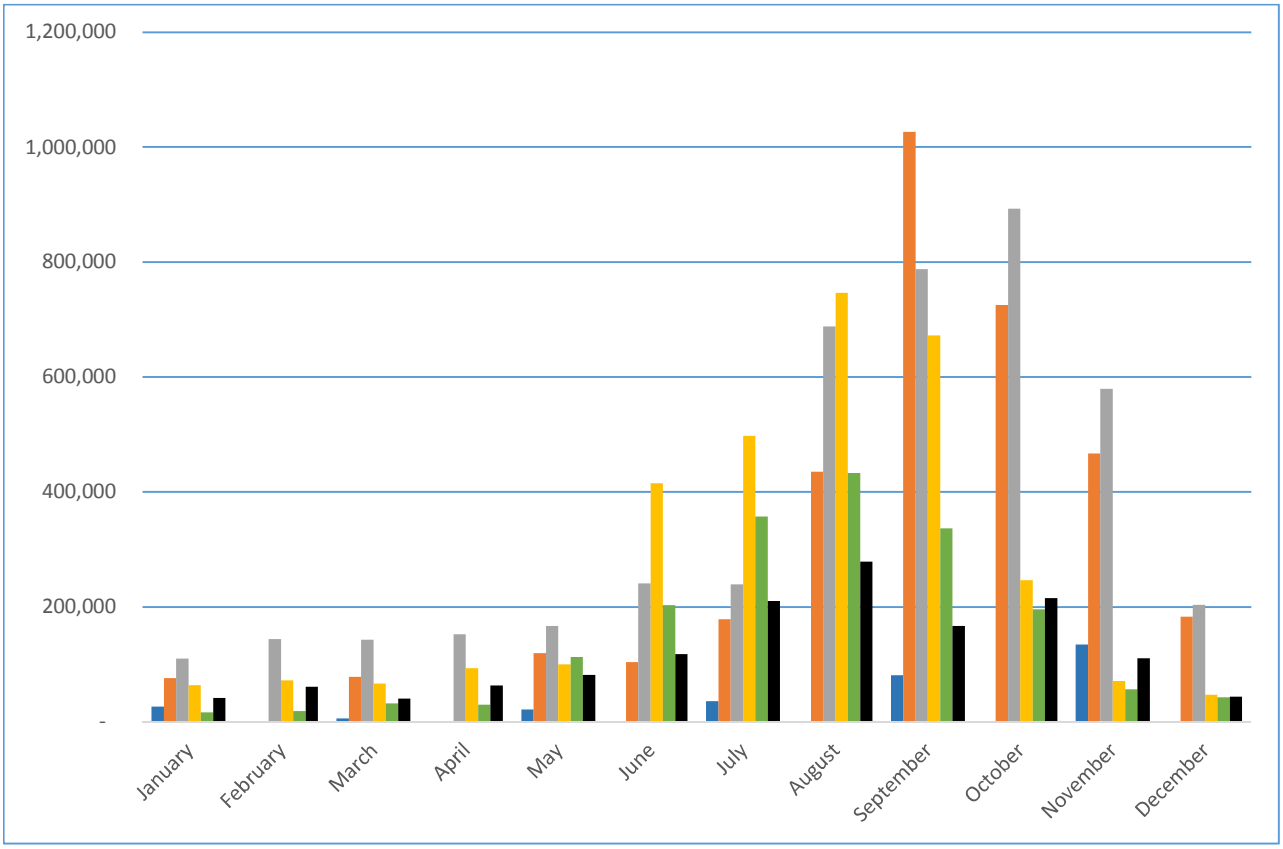
SAN LORENZO VALLEY WATER DISTRICT
Well Drawdown Report
Pasatiempo 7

Location: South of Probation Center
Elevation: 734' MSL
Installed: July 21,1990
State Well #: 4410014-024
Completed Depth: 540'



Pasa7 Chart

SAN LORENZO VALLEY WATER DISTRICT
BULK WATER SALES
GALLONS
December 2018



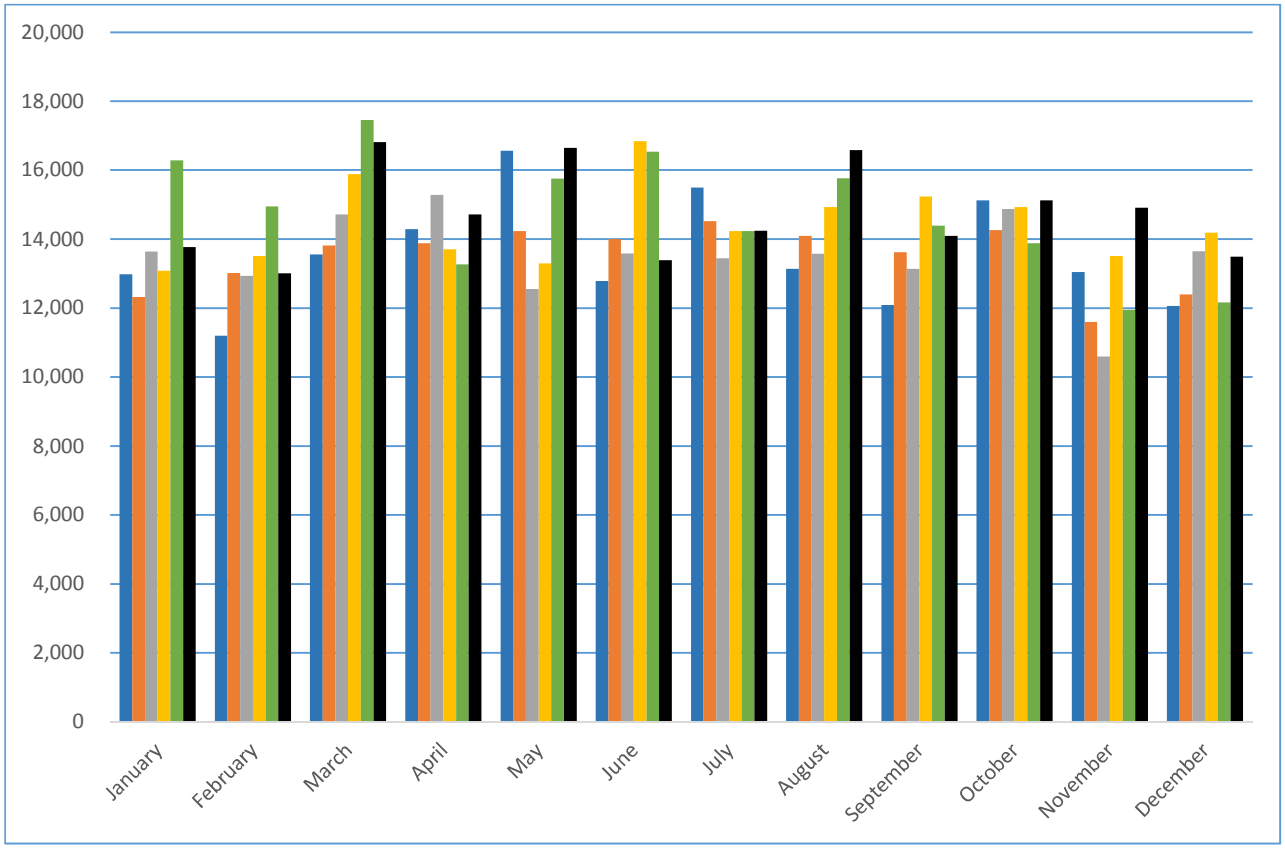
Month	2013	2014	2015	2016	2017	2018
January	26,928	76,296	109,965	63,850	16,456	41,888
February			144,364	72,556	18,700	61,366
March	5,984	78,540	142,868	66,572	32,164	40,392
April			152,592	93,500	29,920	63,580
May	21,692	119,680	166,804	100,232	112,948	81,532
June		103,972	240,983	415,140	203,179	118,184
July	35,904	178,772	239,360	497,420	357,544	210,188
August		435,336	688,160	746,504	433,092	279,004
September	81,352	1,026,256	787,644	672,183	336,570	166,804
October		725,560	893,112	246,840	195,976	215,424
November	134,640	466,752	579,700	71,060	56,848	110,704
December		183,260	203,456	47,124	42,636	44,132
Totals	306,500	3,394,424	4,349,008	3,092,981	1,836,033	1,433,198

SAN LORENZO VALLEY WATER DISTRICT
MONTHLY LEAK REPORT
December 2018

Leak Type	Location - NORTH SYSTEM	Town	Gallons Lost
400 MAIN LEAKING	CALIFORNIA DR.	BEN LOMOND	5,760
400 MAIN LEAKING	SUNNYSIDE & MAIN ST	BEN LOMOND	46,080
400 MAIN LEAKING	200 CALEDONIUM AVE.	BEN LOMOND	8,640
400 MAIN LEAKING	PARK DR & SCENIC	BEN LOMOND	480
400 MAIN LEAKING	9579 MILL ST	BEN LOMOND	10,800
400 MAIN LEAKING	8937 GLEN ARBOR RD.	BEN LOMOND	45,000
400 MAIN LEAKING	305 REYNOLDS DR	BOULDER CREEK	17,280
400 MAIN LEAKING	15965 KINGS CREEK RD.	BOULDER CREEK	1,440
400 MAIN LEAKING	RIVERDALE BLVD & HWY 9	BOULDER CREEK	1,000
400 MAIN LEAKING	15610 HWY 9	BOULDER CREEK	286,400
400 MAIN LEAKING	LORENZO LN & HWY 9	BOULDER CREEK	21,600
400 MAIN LEAKING	11247 HWY 9	BROOKDALE	262,800
400 MAIN LEAKING	10990 RIVERSIDE RD	BROOKDALE	43,200
400 MAIN LEAKING	EAST CREEK BRIDGE	ZAYANTE	432,000
		TOTAL	1,182,480
	FELTON SYSTEM		
400 MAIN LEAKING	6706 HWY 9	FELTON	0.50
400 MAIN LEAKING	11101 SEQUOIA AVE	FELTON	3,600.00
		Total Felton System	3,601
	LOMPICO		
400 MAIN LEAKING	ACROSS STREET FROM 10825 LAKE BLVD	LOMPICO	2
400 MAIN LEAKING	10405 LAKE BLVD	LOMPICO	6,000
		Total Lompico	6,002
	SCOTTS VALLEY		
		Total Scotts Valley	-
		Total All Systems	**1,192,083**

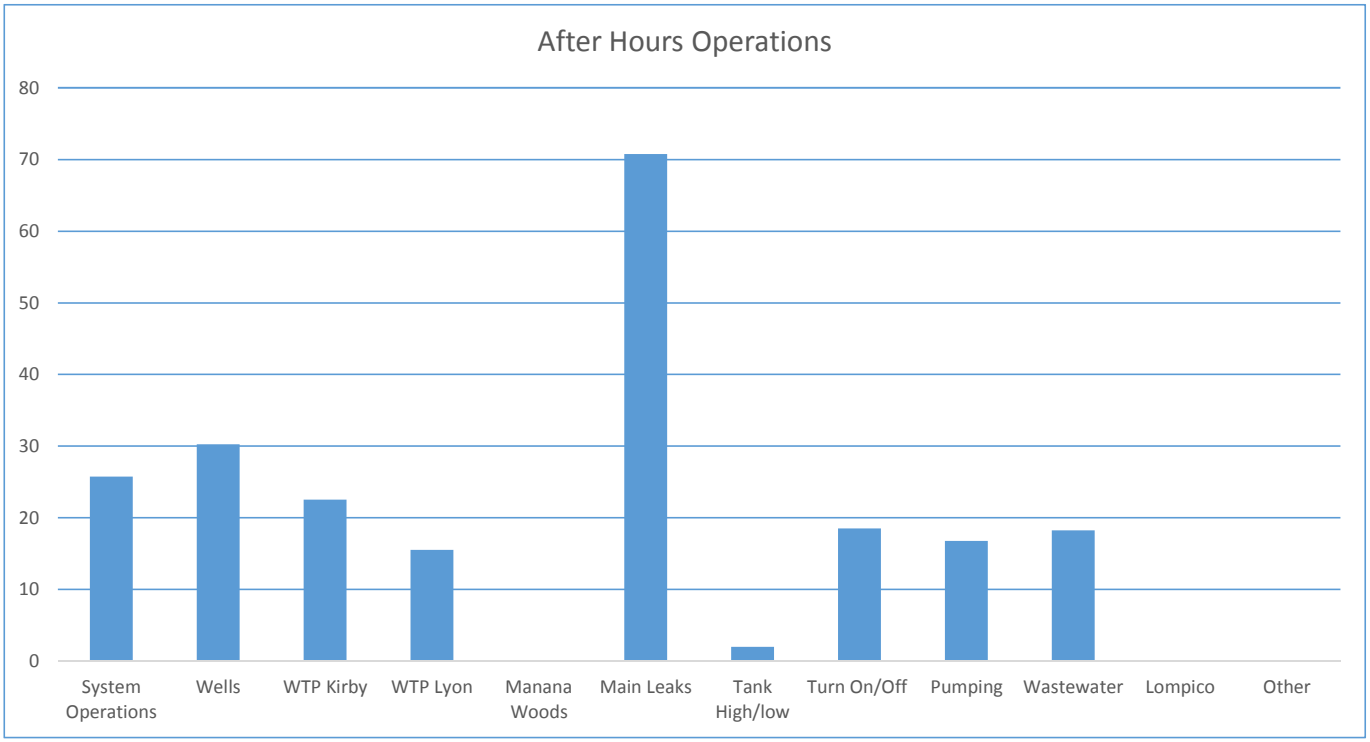
Water Quality Complaint List										
Date Received	Type Of Complaint							Address	Conclusion	System
	Taste/ Odor	Color	Turbidity/ Particles	Worms/ Other Visible Organisms	Pressure (High/Low)	Illness (Waterborne)	Other (Specify)			
12/16/2018		X					Customer reports brown water coming out of taps.	741 Worth Ln	Upon investigation by oncall staff, Paso Well #5a pump had failed and caused brown water in the Lockewood Ln area of Scotts Valley. Paso Well #5a was placed offline and Intertie #3 was activated to provide water to Scotts Valley service area. Water was verified to be running clear at sample station located at Bobs Ln and Sugar Pine Rd after operational changes were made.	SLVWD-North
12/16/2018		X					Customer reports brown water coming out of taps.	159 Twin Pines		SLVWD-North
12/16/2018		X					Customer reports brown water coming out of taps.	225 Bob's Ln		SLVWD-North
12/16/2018		X					Customer reports brown water coming out of taps.	740 Lockewood Ln		SLVWD-North
12/16/2018		X					Customer reports brown water coming out of taps.	651 Worth Ln		SLVWD-North
12/16/2018		X					Customer reports brown water coming out of taps.	631 Worth Ln		SLVWD-North
12/16/2018		X					Customer reports brown water coming out of taps.	134 Caseta Wy		SLVWD-North
12/16/2018		X					Customer reports brown water coming out of taps.	184 Bobs Ln		SLVWD-North
12/18/2018		X					Customer stated that water was brown	275 Bobs Ln	Upon investigation by SLVWD staff, water quality results were normal and within range. Customer's hose spigots were valved off, so staff collected a sample from the Bob's Ln routine sample station located 4 connections downstream of customer home. Free chlorine was 0.9 mg/L and no visual color was observed. Customer was provided with results and will call back if probelm returns.	SLVWD-North
12/28/2018	X						Customer stated that water has an odor and has a yellow tint to it	8101 Newton Dr	Upon investigation by SLVWD staff, water quality results were normal and within range. At customers front hose bib free chlorine was 1.0 mg/L and no odor or color was detected in field sample. Customer was notified of results.	SLVWD-North
12/28/2018		X					Customer stated that they had observed brownish tinted water for the last couple of weeks in their bathroom	150 Caliente Dr	Upon investigation by SLVWD staff, water quality results were normal and within range at customers outside hose bib. Free chlorine was 0.6 mg/L, and no color was apparent in field sample. Customer was provided with results and will flush internal plumbing.	SLVWD-North

SAN LORENZO VALLEY WATER DISTRICT
VEHICLE MILEAGE
December 2018



Month	2013	2014	2015	2016	2017	2018
January	12,976	12,317	13,633	13,082	16,286	13,763
February	11,201	13,015	12,934	13,505	14,945	13,003
March	13,558	13,817	14,714	15,882	17,451	16,809
April	14,283	13,883	15,279	13,704	13,270	14,711
May	16,560	14,228	12,550	13,290	15,757	16,646
June	12,780	14,000	13,582	16,841	16,534	13,390
July	15,497	14,519	13,441	14,228	14,229	14,242
August	13,136	14,096	13,569	14,923	15,761	16,576
September	12,087	13,622	13,137	15,229	14,388	14,094
October	15,120	14,261	14,868	14,924	13,880	15,126
November	13,046	11,594	10,591	13,510	11,952	14,908
December	12,060	12,394	13,648	14,187	12,158	13,492
Totals	162,304	161,746	161,946	173,305	176,611	176,760

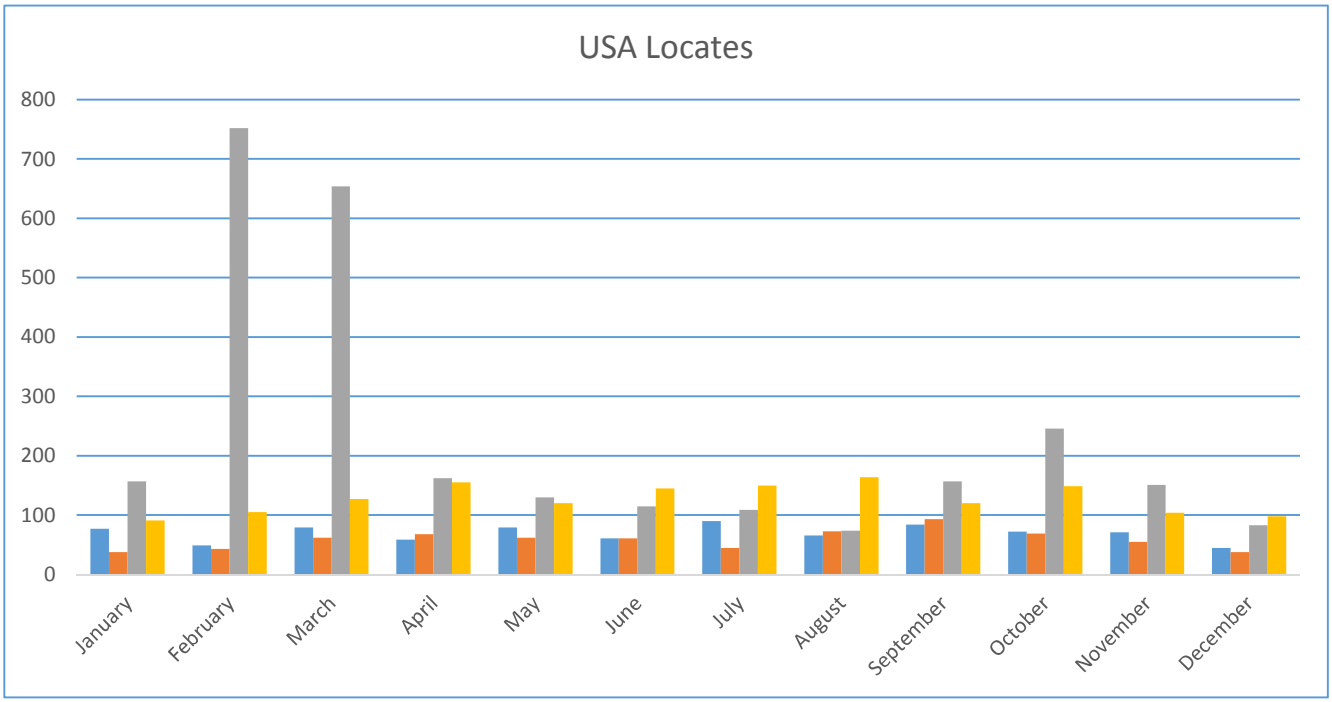
SAN LORENZO VALLEY WATER DISTRICT
OPERATIONS DEPARTMENT
December 2018



Description	Hours
System Operations	25.75
Wells	30.25
WTP Kirby	22.5
WTP Lyon	15.5
Manana Woods	0
Main Leaks	70.75
Tank High/low	2
Turn On/Off	18.5
Pumping	16.75
Wastewater	18.25
Lompico	0
Other	0
Total	220.25

	2015	2016	2017	2018
January	N/A	145.00	280.75	90.50
February	N/A	86.50	192.25	72.00
March	N/A	153.75	105.75	80.25
April	82.50	72.00	128.75	19.00
May	104.75	49.25	132.75	105.5
June	172.50	83.25	112.75	89.00
July	124.25	80.25	162.00	145.25
August	111.75	81.25	141.25	134.5
September	230.25	175.00	201.25	155.25
October	128.25	78.50	104.00	111.5
November	114.25	96.25	122.50	197.5
December	186.25	130.75	134.00	220.25
	1254.75	1231.75	1818.00	1420.50

SAN LORENZO VALLEY WATER DISTRICT
OPERATIONS DEPARTMENT
December 2018



Month	2015	2016	2017	2018
January	77	38	157	91
February	49	43	752	105
March	79	62	654	127
April	59	68	162	155
May	79	62	130	120
June	61	61	115	145
July	90	45	109	150
August	66	73	74	164
September	84	93	157	120
October	72	69	246	149
November	71	55	151	104
December	45	38	83	98
Total to Date	832	707	2,790	1528

NOSSAMAN LLP | Memorandum

TO: Board of Directors,
San Lorenzo Valley Water District

FROM: Gina R. Nicholls, District Counsel

DATE: January 10, 2019

RE: Legal Department Status Report
502665-0001

I have been asked by the San Lorenzo Valley Water District ("District") to provide information about the District's legal expenditures in a format that is suitable for public disclosure.[1] Since the last legal department status report dated December 12, 2018, the most significant broad categories of expenses arise from providing legal advice and support in the following areas, listed in descending order of their approximate significance in terms of cost to the District:[2]

- Financing
- Board meetings
- District policies and procedures
- Pending and anticipated litigation
- Public records request
- Other

During the past month, pending litigation (3 cases against the District) has comprised roughly ten percent of the legal work performed on behalf of the District. (Excluding work performed by counsel appointed and paid by the District's insurance providers.)

[1] Legal work performed for the District is confidential and privileged. Accordingly, the information provided herein is written in broad and general terms to avoid waiver and any disclosures that might compromise the District's interests in pending or future legal matters.

[2] List includes general and special counsel work by Nossaman and other law firms, if any, representing the District.

The most significant areas of effort over the next month are likely to include the following:

- Board meetings
- District policies & procedures
- Pending and anticipated litigation

Holly Hossack

From: Sharon Tapper <[redacted]>
Sent: Monday, December 31, 2018 9:27 AM
To: Board of Directors
Cc: Lois Henry
Subject: Bad water

RECEIVED
JAN 02 2019
SAN LORENZO VALLEY
WATER DISTRICT

Dear Board Members:

I live in Pinewood Estates off of Lockwood Lane. Something is terribly wrong with the quality of the water in my home. All of my pots and dishes have a coating on them.

I am also a member of the "Next Door" community. I am reading posts with similar complaints, including rust colored water. I have tried calling your offices both yesterday and today and am told they are closed and only emergencies will be handled. I'm not sure what the definition of an "emergency" is.

I have 2 requests:

1. Please assure me that my water is safe for drinking, washing, etc.

2. Please develop better ways of communicating with your customers when problems like this arise. It would be helpful to know as soon as possible that you are aware of issues with discolored water or sediment and how they are to be mitigated.
Aren't you able to post this information on your website or email customers?

I pay you literally thousands of dollars a year and I believe better communication is in order.

Respectfully submitted,

Sharon Tapper
[redacted]
Scotts Valley

Holly Hossack

From: Mark D. Lee <mdlee4125@gmail.com>
Sent: Saturday, January 05, 2019 8:17 AM
To: Board of Directors
Subject: Reference article to be considered as a future SLVWD's Board Policy Amendment- regarding allocating budgets to spend money on public relations and political consultants

Follow Up Flag: Follow up
Flag Status: Flagged

RECEIVED
JAN 07 2019
SAN LORENZO VALLEY
WATER DISTRICT

Commentary

A crackdown on misuse of taxes

By Dan Walters
CalMatters

Although state law specifically prohibits public officials from using taxpayers' money for political campaigning, they have been doing exactly that throughout California.

Local governments hire "consultants" to poll voters on what tax and bond measures they would find acceptable, to draft those proposals accordingly and, finally, to run socalled "information" campaigns to persuade voters to approve them.

It's so blatant that firms seeking lucrative contracts openly boast of their successful campaigns, eliminating any doubt that they are truly political operatives.

The practice has ballooned because local prosecutors and the state attorney general's office ignore complaints about its illegality. Indeed, local district attorneys often benefit from the higher taxes.

Finally, however, we may be seeing some effort to sanitize this very stinky phenomenon which, if left unchecked, will only become more commonplace.

Last month, the state Fair Political Practices Commission took a potentially significant action against the Bay Area Rapid Transit District for doing what it and other local governments have been doing.

The FPPC voted unanimously to impose a $7,500 fine on BART for failing to report its spending on a bond issue as a campaign contribution. It also asked the attorney general and Bay Area district attorneys toprosecute the transit district for violating the law prohibiting the use of public funds for political campaigns.

"It's not the total (amount) of what was used; it's the concept of misusing public funds," FPPC chairwoman Alice Germond said at the commission's December meeting. "We want to send a warning and not create a precedent that it's a minor, 'slap on the wrist' kind of thing."

The action stems from a proposed $3.5 billion bond issue, Measure RR, that voters in the three-county district approved two years ago by a 70 percent margin. The "information campaign" for the bond included a video, featuring Golden State Warriors player Draymond Green, that the FPPC said was acceptable, while concluding that two other videos and text messages to voters were clearly advocacy.

BART paid a public relations firm, Clifford Moss LLC, $99,000 to craft its measure before the item was placed on the ballot, and the same firm then directed the supposedly independent campaign for the bond measure.

The FPPC acted on a complaint from Jason Bezis, a Lafayette attorney. It's similar to complaints that have been filed about other local bond and tax measures, including those in Los Angeles County, by taxpayer advocacy groups.

After the FPPC acted, a BART spokeswoman, Alicia Trost, told the Bay Area News Group that the campaign errors were "accidental."

"We have been and will continue to be committed to following the law," Trost told BANG. "We accept their finding."

While state law allows agencies to publish accurate information about their proposals, they are not allowed to advocate their passage, and that's the line that BART and other agencies have obviously and arrogantly been crossing.

If they use public money for campaigns, they will, the FPPC implies, be treated like other financiers of political campaigns and be required to file reports. If they file such reports, however, they will be admitting, in effect, that they are violating the law prohibiting such spending.

That's where the prosecutors should come into the picture. They should do their duty, enforce the law and seek personal fines from the officials involved. And the Legislature could, and should, invalidate any local measure that's passed when those officials ignore the law.

While state law allows agencies to publish accurate information about their proposals, they are not allowed to advocate their passage, and that's the line that BART and other agencies have obviously and arrogantly been crossing.