Lyon and Sequoia Avenue Pipelines Project

Mitigation Monitoring and Reporting Program

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

February 2019

Overview

CEQA requires that a reporting or monitoring program be adopted for the conditions of project approval that are necessary to mitigate or avoid significant effects on the environment (Public Resources Code 21081.6). The Mitigation Monitoring and Reporting Program (MMRP) is designed to ensure compliance with adopted mitigation measures during project implementation. For each applicable mitigation measure recommended in this Initial Study – Mitigated Negative Declaration, specifications are made herein that identify the action required and the monitoring that must occur. In addition, a responsible party is identified for verifying compliance with individual conditions of approval contained in the Mitigation Monitoring and Reporting Program.

To implement this MMRP, the San Lorenzo Valley Water District (SLVWD) shall designate a Project Mitigation Monitoring and Reporting Coordinator ("Coordinator"). The coordinator shall be responsible for ensuring that the mitigation measures incorporated into the project are complied with during project implementation.

Mitigation Measure/Condition of Approval	Action Required	Timing	Monitoring Frequency	Responsible Agency or Party	Initial	Date	Comments
BIOLOGICAL RESOURCES	•						
BIO-1 Worker Environmental Awareness Program (WEAP). 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 employees, 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.	Review factsheet to confirm information requirements are met. Confirm fact sheet availability/distribution. Verify that all personnel associated with project construction activities in Environmentally Sensitive Areas.	Prior to start of construction. During construction period as new workers visit the site, or when construction involves a new areas with different species considerations.	Once. Periodically.	San Lorenzo Valley Water District			
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	Verify that a qualified biologist has performed a nesting bird pre-construction survey; review results submitted by biologist. If active bird nests are located during the pre-construction survey, qualified biologist establishes appropriates buffer zones and monitor nests	Prior to start of construction (within 14 days), if during nesting season. Not required outside nesting season. During construction, based on conditions.	Once. Periodically.	San Lorenzo Valley Water District			

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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	Verify that a qualified biologist has	Prior to start of	Once.	San Lorenzo Valley			
Relocation/Avoidance. Prior to vegetation clearing	conducted pre-construction surveys for	construction.		Water District			
within woodland areas of the project sites, a	San Francisco dusky-footed woodrat						
qualified biologist shall conduct a preconstruction	middens; dismantled any middens that						
survey for San Francisco dusky-footed woodrat	would be damaged by project activity,						
middens. If no middens are found that would be	marked and established a buffer for						
damaged or destroyed by project activity, or that	remaining middens within 25 feet of						
occur within 25 feet of proposed project activity, no	project.						
further action would be required. If woodrat							
middens are found that would be damaged by							

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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 	Verify that a qualified biologist has conducted an amphibian education session for all personnel. Verify that written approval has been received from the USFWS and CDFW for	Prior to start of construction. Prior to start of construction and	Once. Once, and as needed.	San Lorenzo Valley Water District			
 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 proved is presided from the United States Fich 	qualified biologist(s).	upon staffing changes.					
 approval is received from the United States Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) that project biologist(s) are qualified to conduct the work. If feasible, initial ground disturbing activities 	Verify that no work is happening during	During construction.	Periodically.	San Lorenzo Valley			
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.	non- daylight hours. Verify that a qualified biologist has conducts a CRLF and FYLF pre- construction survey; and review results. if	Prior to initial ground disturbance.	Once.	Water District			
 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 	presence, consult with USFW or CDFW respectively for guidance.						
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,							

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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. 	Verify that a qualified biologist is on-site to monitor construction activity as indicated in the mitigation measure.	During construction.	Periodically.	San Lorenzo Valley Water District			
 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 	Verify that a qualified biologist conducts pre-activity clearance sweeps.	Within 48 hours of rain or wet conditions.	Periodically when conditions warrant.	San Lorenzo Valley Water District			
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	Verify that dirt and sand are being covered to preclude amphibians. Very that a qualified biologist is on-site to	During construction.	Periodically. Periodically.				
 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 	inspects holes and trenches.		renouically.				

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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 	Verify that vegetation disturbance is being minimized, re-vegetation is occurring, and control invasive or exotic plants controls are being implemented.	During and post- construction.	Periodically.	San Lorenzo Valley Water District			
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	Verify that erosion-control best management practices are being implemented.	During and post- construction.	Periodically.				
be implemented in all areas disturbed by activities associated with the project, unless the USFWS and SLVWD determine that it is not practical.	Verify that no water is being impounded on site.	During and post- construction.	Periodically.				
• 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.	Screen dewatering intakes as indicated. Release water downstream to maintain flows during construction. Remove diversions or barriers to water flow as indicated.	During construction.	On-going.				
 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 							

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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. 	Verify that streambed alteration is minimized, and that excess imported material is removed.	During and post- construction.	Periodically.	San Lorenzo Valley Water District			
 All trash should be removed from the site daily and disposed of properly to avoid attracting potential predators to the site. 	Verify that the site is free of trash and removed.	At all times.	Periodically.				
No pets should be permitted on-site during	Verify that no pets are on-site.	At all times.	Periodically.				
 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. 	Verify that vehicles are free of leaks, and that spills/leaks are cleaned up and reported.	At all times.	Periodically.				
 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). 	Verify that refueling, maintenance and staging areas are at least 100 free from riparian habitat/water bodies.	At all times.	Periodically.				
• 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	Verify that routes, staging, and activity disturbance areas have been minimized.	At all times.	Periodically.	San Lorenzo Valley Water District			
 goals. To ensure that diseases are not conveyed between work sites by the qualified biologist, the 	Verify that <i>Declining Amphibian</i> Populations Task Force protocols are being followed.	At all times.	Periodically.				
fieldwork code of practice developed by the Declining Amphibian Populations Task Force	Verify that no herbicides are being used.	At all times.	Periodically.				
should be followed at all times.No herbicide should be use on-site.	Very that a County-approved biologist is	Prior to construction.	Once.				
 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 	on-site during initial ground disturbance.						

Lyon and Sequoia Avenue Pipelines

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contacted immediately to determine the appropriate course of action.							
GEOLOGY AND SOILS	•	•	•				
 GEOLOGY AND SOILS 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. 	Verify that the Erosion Control Plan addresses the BMPs detailed in the mitigation. Field verify that standard BMPs are in place during construction activities.	Prior to approval of grading plans. Field verify during construction activities.	Once. Periodically.	San Lorenzo Valley Water District			
 Available stockpiling sites at or near the project site shall be determined prior to the start of construction. Frequency of sediment removal from detention 							

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 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. 							
HAZ-1 Prevention of Fire Hazards. During	Verify that these fire prevention measures	Prior to issuance of	Once.	San Lorenzo Valley			
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	are included as a note on all contractor's specifications. Field verify compliance with these measures.	contractor's specifications. During construction.	Periodically.	, Water District			

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accordance with applicable fire regulations. During construction of the project, contractors shall require vehicles and crews to have access to functional fire extinguishers.							
HYDROLOGY AND WATER QUALITY		1					
 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 	Verify that these stormwater pollution prevention measures are included in contractor's specifications. Field verify compliance with these measures.	Prior to issuance of contractor's specifications. During construction.	Once. Periodically.	San Lorenzo Valley Water District			
shall be limited to a minimum of 100 feet away from Foreman Creek, the unnamed ephemeral stream, and Boulder Creek.							
NOISE							
 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. 	Verify that construction noise mitigation measures are included in contractor's specifications. Field verify compliance with measures.	Prior to issuance of contractor's specifications. During construction.	Once. Periodically.	San Lorenzo Valley Water District			
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.							

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 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 							

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 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. 							
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.	Verify that non-vibratory or pneumatic rollers are included in contractor's specifications. Field verify compliance with measure.	Prior to issuance of contractor's specifications. During construction.	Once. Periodically.	San Lorenzo Valley Water District			
TRANSPORTATION/TRAFFIC					1		
 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 	Review and approve Traffic Control Plan from contractor. Field verify traffic control implementation.	Prior to issuance of applicable approvals. During construction.	Once. Periodically.	San Lorenzo Valley Water District			

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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.							
 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.							