San Lorenzo Valley Water District (Emissions from California operations)

Report Generated On: 08/30/2010 01:11 pm PT

0 Report Revision #: 13060 Highway 9 Boulder Creek, CA 95006 United States www.slvwd.com 831-430-4627 bherbert@slvwd.com Betsy Herbert Contact: Government - State Industry Type: 2213-Water, Sewage and Other Systems NAIC Code: SIC Code: The San Lorenzo Valley Water District (SLVWD) is an independent special district supplying water to Description: approximately 22,500 people on the Central Coast. SLVWD utilizes both surface water and ground water sources. SLVWD also owns and operates a wastewater treatment facility, serving 56 houses. Primary Calculation SLV Water District used equations in the GRP 3, Rev. 1 which accounts for special emission factors for P Methodologies: G & E, and default factors in CARROT to report and inventory our 2009 GHG emissions. Organizational The San Lorenzo Valley Water District is a government agency. structure disclosure:





VERIFIED EMISSIONS INFORMA	ATION
Reporting Year:	2009
Reporting Scope:	CA
Reporting Protocol:	General Reporting Protocol, Version 3.1, (January 2009)
Reporting Boundaries:	Management Control - Operational Criteria
Direct Baseline Year	2009
Indirect Baseline Year	2009

Direct Emissions	CO2e	CO2	CH4	N20	HFCs*	PFCs*	SF6	Unit
Mobile Combustion	142.81	141.32	0.00	0.00	0.00	0.00	0.00	metric ton
Stationary Combustion	18.72	18.72	0.00	0.00	0.00	0.00	0.00	metric ton
Process Emissions	0.61	0.30	0.00	0.00	0.00	0.00	0.00	metric ton
Fugitive Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
TOTAL DIRECT	162.14	160.34	0.00	0.01	0.00	0.00	0.00	metric ton

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

CO2e	CO2	CH4	N20	Unit
633.62	630.79	0.03	0.01	metric ton
0.00	0.00	0.00	0.00	-
0.00	0.00	0.00	0.00	-
633.62	630.79	0.03	0.01	metric ton
	CO2e 633.62 0.00 0.00 633.62	CO2e CO2 633.62 630.79 0.00 0.00 0.00 0.00 633.62 630.79	CO2e CO2 CH4 633.62 630.79 0.03 0.00 0.00 0.00 0.00 0.00 0.00 633.62 630.79 0.03	CO2e CO2 CH4 N2O 633.62 630.79 0.03 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 633.62 630.79 0.03 0.01

Total Emissions Summary Report San Lorenzo Valley Water District (Emissions from California operations)

Report Generated On: 08/30/2010 01:11 pm PT

0



Report Revision #: 0									
De Minimis Emissions	CO2e	C02	CH4	N20	HFCs*	PFCs*	SF6	Unit	
District vehicle air conditioner-ADMIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	metric tor	
District vehicle air conditioners-OPS/	6.50	0.00	0.00	0.00	0.01	0.00	0.00	metric tor	
District vehicle air conditioners-OPS/	2.60	0.00	0.00	0.00	0.00	0.00	0.00	metric tor	
Generator-ADMIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	metric tor	
Generators SUP/TRTMNT	2.27	2.27	0.00	0.00	0.00	0.00	0.00	metric tor	
Generators, etc. OPS/Dist	0.00	0.00	0.00	0.00	0.00	0.00	0.00	metric tor	
Generators, etc. OPS/Dist	1.60	1.60	0.00	0.00	0.00	0.00	0.00	metric tor	
Generators-SUP/TRTMNT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	metric tor	
Generators-WSTWTR	0.50	0.50	0.00	0.00	0.00	0.00	0.00	metric tor	
TOTAL DEMINIMIS	13.47	4.37	0.00	0.00	0.01	0.00	0.00	metric tor	
Percentage of Total Inventory:	1.66 %								

Movement Report*			
Factor	Details	Amount (CO2e)	Unit
Other	2009 was not a drought year, which accounts for the decrease in	9.10	metric ton
	kwh consumed by groundwater pumping from 2008, which was a		
	drought year. In 2008, the District estimated from three months of		
	actual data, the entire year's emissions for the Felton water system,		
	which was acquired in September 2008. Staff estimated the therms		
	of natural gas used by the newly acquired water treatment plant at		
	839 for the year 2008. Actual therms consumed by the treatment		

*The Movement Report documents changes in the members inventory. This data is not verified but must be completed by the member to help track changes in emissions over time.

difference of approximately 9 metric tons of CO2e

plant in 2009 were 2230. The difference between 2230 and 839 is a

VERIFICATION INFORMATION		
Verification Company:		
Verifier Name:		
Lead Verifier Name:		
Basis of Verification Opinion:		
Date Submitted:		
Verifier Comments:		
OPTIONAL INFORMATION		

Information in this section is voluntarily provided by the participant for public information, but is not required and thus, not verified under California Registry protocols.

Optional Emissions	CO2e	CO2	CH4	N20	HFCs*	PFCs*	SF6 Unit
Employee Commuting and Business Travel	33.43	33.13	0.00	0.00	0.00	0.00	0.00 metric ton
TOTAL OPTIONAL	33.43	33.13	0.00	0.00	0.00	0.00	0.00 metric ton

Emissions Efficiency metric:

Emissions Management Programs:

San Lorenzo Valley Water District (Emissions from California operations)

Report Generated On: 08/30/2010 01:11 pm PT

0



Report Revision #:

Emissions Reduction Projects: The District participates in several water conservation projects to encourage its customers to conserve water; thereby conserving energy and reducing GHG emissions. The District is investigating water recharge projects to increase groundwater storage to better conserve energy from groundwater pumping. The District is also investigating solar power to use at various installations. The District's Board adopted a resolution in 2008 to adopt a policy matching AB 32 GHG emission reduction goals.

Emissions Reduction Goals:

REFERENCE DOCUMENTS			
Title	Author	Document Status	Publish Date
Indirect_emissions_calculation_worksheet	Betsy Herbert, Ph.D.	Private	08/30/2010 12:00:00AM
2009-Direct_emissions_calculation_worksheet	Betsy Herbert, Ph.D.	Private	08/30/2010 12:00:00AM
2009-optional-emissions_calculation_workshee	Betsy Herbert, Ph.D.	Private	08/30/2010 12:00:00AM
Gas_year-2009	Carol Triant, Accounting clerk	Private	08/30/2010 12:00:00AM

San Lorenzo Valley Water District

0

(Emissions from California operations)

Report Generated On: 08/30/2010 01:11 pm PT

Report Revision #:



FACILITY INFORMATION								
Facility Name		ADMIN						
Facility ID								
ReportingYear		2009						
Facility Address		Boulder Creek, CA 9500	06, United State	es				
Facility PO Box								
Facility Contact Person		Lynn Barker						
Facility Contact Phone		831-430-4637						
Facility Contact Email		lbarker@slvwd.com						
Facility Description		ADMIN is equivalent to department "01" in SLVWD's accounting system, and includes emissions from the office buildings at 12788 Highway 9, and 13060 Highway 9.						
SIC Code								
NAIC Code								
Industry Type								
Direct Emissions	CO2e	CO2	CH4	N20	HFCs*	PFCs*	SF6	Unit
Mobile Combustion	1.76	1.66	0.00	0.00	0.00	0.00	0.00	metric tor
Stationary Combustion	2.11	2.11	0.00	0.00	0.00	0.00	0.00	metric tor
Process Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00) –
Fugitive Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00) –
TOTAL DIRECT	3.87	3.77	0.00	0.00	0.00	0.00	0.00	metric tor
compounds, each of which has a unique Gk summed in the total CO2-equivalent column	bal Warming Poter	ntial (GWP). Emissions of e	ach gas are firsi	t multiplied by	/ their respec	tive GWP and	then	
Indirect Emissions	CO2e	C02	CH4	N20		Unit		
Purchased Electricity	9.93	9.88	0.00	0.00		metric ton		
Purchased Steam	0.00	0.00	0.00	0.00		-		
Purchased Heating and Cooling	0.00	0.00	0.00	0.00		-		
TOTAL INDIRECT	9.93	9.88	0.00	0.00		metric ton		
De Minimis Detail	CO2e	C02	CH4	N20	HFCs*	PFCs*	SF6	Unit
District vehicle air conditioner-AD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	metric ton
Generator-ADMIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	metric ton
TOTAL DEMINIMIS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	metric ton
Percentage of Total Inventory:	0.00%							
Optional Emissions	CO2e	CO2	CH4	N20	HFCs*	PFCs*	SF6	Unit
Employee Commuting and Busir	10.53	10.45	0.00	0.00	0.00	0.00	0.00	metric ton
TOTAL OPTIONAL	10.53	10.45	0.00	0.00	0.00	0.00	0.00 1	metric ton
Facility Emission Red	uction Goals:							
Environmental Progra	ms/Policies:							
	thodologics							
Primary Calculation Me	inouologies:							

Equity Share: 100.00

San Lorenzo Valley Water District

(Emissions from California operations)

Report Generated On: 08/30/2010 01:11 pm PT

0

Source	Emission Category	Calc Method	Fuel Name	Fuel/ Mileage	Emission Factor	Fract. Oxid	GHG	Amount	Unit	Methodol./ Source	General Info
ADMIN personal vehicles	Employee Commuting and Business Travel	Pre-Calc				UXIU.	C02	10.45	metric	Make, year & model of each vehicle was recorded and miles per gallon determined from www.fueleconomy. gov. Mileage calculated on-line based on distance to and from employee homes; gallons of gas calculated from mileage using Equation III.7b from CCAR GRP 3.1: Total fuel Use (gallons) = Total mileage / (fuel economy city mpg x 55% + Fuel Economy highway mpg x 45%) Emissions factors from Table C-4, GRP-3.1, CH4 and N2O emissions factors for highway vehicles by model & year Used calculation III.7E from GRP-3.1, p. 43 to determine emissions	
ADMIN personal vehicles	Employee Commuting and Business Travel	Pre-Calc					CH4	0.00	metric ton	Vehicle make, model, year & fuel type were recorded from employee survey. CH4 emissions were then calculated according to calculation III.7E from GRP-3.1, p. 43. <hr/>	
ADMIN personal vehicles	Employee Commuting and Business Travel	Pre-Calc					N2O	0.00	metric ton	Vehicle make, model, year & fuel type were recorded from employee survey. NO2 emissions were then calculated according to calculation III.7E from GRP-3.1, p. 43.	

San Lorenzo Valley Water District

(Emissions from California operations)

Report Generated On: 08/30/2010 01:11 pm PT

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Buildings-ADMI N	Purchased Electricity	Pre-Calc	C02	9.88	metric ton	All of Kwh information was obtained from spreadsheets, routinely compiled by SLVWD's accounting department, from PG & E bills. Equation uses PG& E multipiler for CO2 in pounds per Kwh (0.63567), and converts pounds to metric tons; (PG & E multipiler was reported in 2008 from 2010 CCAR	
Buildings-ADMI N	Purchased Electricity	Pre-Calc	CH4	0.00	metric ton	website) Emission factor from GRP-3.1, Table C-2 br> chromediate C-2 der chromediate table C-2 der 	All purchased electricity from PG&E
Buildings-ADMI N	Purchased Electricity	Pre-Calc	N2O	0.00	metric ton	***Emission factor from GRP-3.1, Table C-2	
District vehicle air conditioner-AD MIN	Fugitive Emissions	Pre-Calc	HFC-134a	0.00	metric	The screening method in GRP-3.1 assumes a refrigerant charge of 1 kg of HFC-134a for large vehicles and 0.5 kg of the same compound for small vehicles. The refrigerant loss rate for both vehicle types is assumed to be 35%. In 2008, SLVWD operated 23 vehicles, of which 21 were equipped with air conditioning units. Of these 21 vehicles, 2 were small and 19 were large in size. Only one of these vehicles is charged to ADMIN. The screening determined that direct fugitive emissions from vehicle air conditioning units were not significant, and therefore, could be categorized as de minimis emissions.	
Generator-ADM IN	Stationary Combustion	Pre-Calc	CO2	0.18	metric ton	<pr><pr><pr><pr><pr><pr><pr><pre>Used Table C.7,</pre> Carbon Dioxide Emission Factors for Stationary Combustion from GRP-3.1 <pr><pr><pr><pr><pre><pre><pre><pre><pre< td=""><td></td></pre<></pre></pre></pre></pre></pr></pr></pr></pr></pr></pr></pr></pr></pr></pr></pr>	
Generator-ADM IN	Stationary Combustion	Pre-Calc	CH4	0.00	metric ton	Used Table C.8, from GRP-3.1	
Generator-ADM IN	Stationary Combustion	Pre-Calc	N2O	0.00	metric ton	-	Used Table C.8, from GRP-3.1

San Lorenzo Valley Water District

(Emissions from California operations)

Report Generated On: 08/30/2010 01:11 pm PT



Natural par-ADMIN Stationary Conductors Pre-Calc CO2 L-B mate: How How Form Take mater How Take Conductors No. 2 E supplement contract from mater total act, them par-ADMIN Natural par-ADMIN Stationary Conductors Pre-Calc Cl-4 D.00 mater How How Form total act, them par-ADMIN Stationary Conductors Pre-Calc Cl-4 D.00 mater How Form total act, the par-ADMIN Stationary Conductors Pre-Calc Cl-4 D.00 mater How Form total act, the par-ADMIN Stationary Conductors Pre-Calc Cl-4 D.00 mater How Form total act, the par-ADMIN Stationary Conductors Pre-Calc NDD D.00 mater How Form total act, the par-ADMIN Stationary Conductors Pre-Calc NDD D.00 mater How Form total act, the par-ADMIN Mater How Form total act, the par-ADMIN Pre-Calc NDD D.00 mater How Form total act, the par-ADMIN Mater How Form total act, the par-ADMIN Mater How Form total act, the par-ADMIN NDD D.00 mater How Form total act, the par-ADMIN Mater How Form total act, the par-ADMIN Mater How Form total act, the par-ADMIN NDD D.00 mater How Form total act, the par-ADMIN Mater How Form total act, the par-ADMIN Mater How F								
Natural par-ADMIN Stationary Combustion Pre-Calc Cr4 0.00 mater is in MMBU from Table 11.8.1, GPD-3.1; multiplied by enclose in material par-ADMIN Stationary Combustion Pre-Calc N2O 0.00 material is multiplied by enclose in material par-Calc Natural par-ADMIN Stationary Combustion Pre-Calc N2O 0.00 material par-Calc material par-Calc Natural par-Calc Pre-Calc N2O 0.00 material par-Calc material par-Ca	Natural gas-ADMIN	Stationary Combustion	Pre-Calc	CO2	1.93	metric ton	****Therms X 0.1= MMBtu from Table III.8.1, GRP-3.1; multiplied by emission factor for NO2 in Table C.8 for natural gas and converted from kg to metric tons <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	PG & E supplies the natural gas; therms obtained from monthly bills
statulation y Combustion Pre-Calc N2O 0.00 memce ****Terms X 0.1= pas-ADMIN Webbu Tom Table III.8.1, GRP-3.1; multiplied by emission factor for N2O N2D	Natural gas-ADMIN	Stationary Combustion	Pre-Calc	CH4	0.00	metric ton	<pre>***Therms X 0.1= MMBtu from Table III.8.1, GRP-3.1; multiplied by emission factor for NO2 in Table C.8 for natural gas and converted from kg to metric tons <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/></pre>	
wehicle -ADMINMobile CombustionPre-CalcCO21.66metricCalculated using GRP-3.1, with emission factors riom Table C.3, GRP-3.1, Total emission factors riom Table C.3, GRP-3.1, With emission factor (kg CO2/gallon) x O.001 metric Calculated using riom Table C.3, GRP-3.1, with emission factor emission factor (kg CO2/gallon) x O.001 metric consumed (gallons) x emission factor (kg CO2/gallon) x O.001 metric <b< td=""><td>Natural gas-ADMIN</td><td>Stationary Combustion</td><td>Pre-Calc</td><td>N2O</td><td>0.00</td><td>metric ton</td><td>Market Arrows X 0.1= MMBtu from Table III.8.1, GRP-3.1; multiplied by emission factor for NO2 in Table C.8 for natural gas and converted from kg to metric tons</td><td></td></b<>	Natural gas-ADMIN	Stationary Combustion	Pre-Calc	N2O	0.00	metric ton	Market Arrows X 0.1= MMBtu from Table III.8.1, GRP-3.1; multiplied by emission factor for NO2 in Table C.8 for natural gas and converted from kg to metric tons	
vehicle Mobile Combustion Pre-Calc CH4 0.00 metric Calculated using teet-ADMIN ton Equation III.7c in Equation III.7c in gRP-3.1, vhr emission factor from Table C.3, GRP-3.1, vhr emission in metric tons= fuel consumed (gallons) x emission factor vehicle Mobile Combustion Pre-Calc Vehicle Mobile Combustion Pre-Calc Vehicle Mobile Combustion Pre-Calc Vehicle Mobile Combustion Pre-Calc Ieet-ADMIN Pre-Calc N2O Vehicle Mobile Combustion Pre-Calc Ieet-ADMIN Pre-Calc N2O Vehicle Mobile Combustion Pre-Calc Ieet-ADMIN Pre-Calc N2O Vehicle King Calculated using termination of the provide termination of terminati	vehicle -ADMIN	Mobile Combustion	Pre-Calc	CO2	1.66	metric ton	Calculated using Equation III.7c in GRP-3.1, with emission factors from Table C.3, GRP-3.1; Total emissions in metric tons= fuel consumed (gallons) x emission factor (kg CO2/gallon) x 0.001 metric tons/ka cbr> cbr>	
Vehicle Mobile Combustion Pre-Calc N2O 0.00 metric Used mileage data fleet-ADMIN District; Conversion factor from Table C.4, GRP-3.1 br> 	Vehicle fleet-ADMIN	Mobile Combustion	Pre-Calc	CH4	0.00	metric ton	Calculated using Equation III.7c in GRP-3.1, with emission factor from Table C.3, GRP-3: Total emissions in metric tons= fuel consumed (gallons) x emission factor (kg CO2/gallon) x 0.001 metric tons/kg >	
	Vehicle fleet-ADMIN	Mobile Combustion	Pre-Calc	NZO	0.00	metric ton	Used mileage data collected by the District; Conversion factor from Table C.4, GRP-3.1	

San Lorenzo Valley Water District

(Emissions from California operations)

Report Generated On: 08/2

08/30/2010 01:11 pm PT

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Report I	Revision	#:
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FACILITY INFORMATION								
Facility Name	0	PS/DISTRIBUTION						
Facility ID								
ReportingYear	20	009						
Facility Address	B	oulder Creek, CA 9500	6, United State	es				
Facility PO Box								
Facility Contact Person	В	etsy Herbert						
Facility Contact Phone	83	31-430-4627						
Facility Contact Email	bl	nerbert@slvwd.com						
Facility Description	O sy fa	PS/DISTRIBUTION is e stem, and includes en cilities.	equivalent to de nissions from p	epartment "(ump station	04" in SLVW Is, tanks, re	D's accountin servoirs, and	g storage	
SIC Code								
NAIC Code								
Industry Type								
Direct Emissions	C02e	CO 2	CH4	N20	HFCs*	DFCs*	SEG	Unit
Mobile Compustion	110.05	109.04	0.00	0.00	0.00	0.00	0.00	metric to
Stationary Combustion	4 78	4 78	0.00	0.00	0.00	0.00	0.00	metric to
Process Emissions	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	-
Fugitive Emissions	0100	0.00	0.00	0.00	0.00	0.00	0.00	metric to
Fugitive Emissions TOTAL DIRECT * HFCs and PFCs are classes of greenhou compounds, each of which has a unique G summed in the total CO2-equivalent colum	114.83 se gases that include ma lobal Warming Potential n.	113.82 iny compounds. These (GWP). Emissions of ea	columns may re ach gas are first	flect the tota multiplied by	I emissions of their respenses	of multiple HFC	C and PFC	
Fugitive Emissions TOTAL DIRECT * HFCs and PFCs are classes of greenhou compounds, each of which has a unique G summed in the total CO2-equivalent colum Indirect Emissions	114.83 se gases that include ma lobal Warming Potential n. CO2e	113.82 ny compounds. These (GWP). Emissions of ea	columns may re ach gas are first	eflect the tota multiplied by	I emissions of their respectively the respective the resp	of multiple HFC ctive GWP and	C and PFC	
Fugitive Emissions TOTAL DIRECT * HFCs and PFCs are classes of greenhou compounds, each of which has a unique G summed in the total CO2-equivalent colum Indirect Emissions Purchased Electricity	114.83 se gases that include ma lobal Warming Potential n. CO2e 125.33	113.82 iny compounds. These (GWP). Emissions of ea CO2 124.98	columns may re ach gas are first CH4 0.01	eflect the tota multiplied by N20 0.00	I emissions of y their respectively	of multiple HF(ctive GWP and Unit metric ton	C and PFC	
Fugitive Emissions TOTAL DIRECT * HFCs and PFCs are classes of greenhou compounds, each of which has a unique G summed in the total CO2-equivalent colum Indirect Emissions Purchased Electricity Purchased Steam	114.83 se gases that include ma lobal Warming Potential n. CO2e 125.33 0.00	113.82 iny compounds. These (GWP). Emissions of ea CO2 124.98 0.00	columns may re ach gas are first CH4 0.01 0.00	flect the tota multiplied by N2O 0.00 0.00	I emissions of y their respe	of multiple HF(ctive GWP and Unit metric ton	C and PFC	
Fugitive Emissions TOTAL DIRECT * HFCs and PFCs are classes of greenhou compounds, each of which has a unique G summed in the total CO2-equivalent colum Indirect Emissions Purchased Electricity Purchased Steam Purchased Heating and Cooling	114.83 se gases that include ma lobal Warming Potential n. CO2e 125.33 0.00 0.00	113.82 iny compounds. These (GWP). Emissions of ea CO2 124.98 0.00 0.00	columns may re ach gas are first CH4 0.01 0.00 0.00	flect the tota multiplied by 0.00 0.00 0.00	I emissions of y their respectively	of multiple HFC ctive GWP and Unit metric ton -	C and PFC	
Fugitive Emissions TOTAL DIRECT * HFCs and PFCs are classes of greenhou compounds, each of which has a unique G summed in the total CO2-equivalent colum Indirect Emissions Purchased Electricity Purchased Steam Purchased Heating and Cooling TOTAL INDIRECT	114.83 se gases that include ma lobal Warming Potential n. CO2e 125.33 0.00 0.00 125.33	113.82 iny compounds. These (GWP). Emissions of ea (200 124.98 0.00 0.00 124.98	columns may re ach gas are first CH4 0.01 0.00 0.00 0.00 0.01	flect the tota multiplied by 0.00 0.00 0.00 0.00 0.00	I emissions of y their respectively	of multiple HF(ctive GWP and Unit metric ton - - metric ton	C and PFC	
Fugitive Emissions TOTAL DIRECT * HFCs and PFCs are classes of greenhou compounds, each of which has a unique G summed in the total CO2-equivalent colum Indirect Emissions Purchased Electricity Purchased Steam Purchased Heating and Cooling TOTAL INDIRECT De Minimis Detail	114.83 se gases that include ma lobal Warming Potential n. CO2e 125.33 0.00 0.00 125.33 CO2e	113.82 ny compounds. These (GWP). Emissions of ea (200 124.98 0.00 0.00 124.98 CO2	Columns may re ach gas are first CH4 0.01 0.00 0.00 0.01 CH4	flect the tota multiplied by 0.00 0.00 0.00 0.00 0.00	Il emissions a y their respe	of multiple HF(ctive GWP and Unit metric ton - - metric ton PECs*	C and PFC	Unit
Fugitive Emissions TOTAL DIRECT * HFCs and PFCs are classes of greenhou compounds, each of which has a unique G summed in the total CO2-equivalent column Indirect Emissions Purchased Electricity Purchased Steam Purchased Heating and Cooling TOTAL INDIRECT De Minimis Detail District vehicle air conditioners-()	114.83 se gases that include ma lobal Warming Potential n. CO2e 125.33 0.00 0.00 125.33 CO2e 6.50	113.82 iny compounds. These (GWP). Emissions of ea 124.98 0.00 0.00 124.98 CO2 0.00	Columns may re ach gas are first CH4 0.01 0.00 0.00 0.01 CH4 0.00	N20 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	I emissions of their respective to the section of t	Unit Unit Metric ton - - metric ton PFCs* 0.00	C and PFC I then SF6 0.00	Unit metric to
Fugitive Emissions TOTAL DIRECT * HFCs and PFCs are classes of greenhou compounds, each of which has a unique G summed in the total CO2-equivalent colum Indirect Emissions Purchased Electricity Purchased Steam Purchased Heating and Cooling TOTAL INDIRECT De Minimis Detail District vehicle air conditioners-10 Generators, etc. OPS/Dist	114.83 se gases that include ma lobal Warming Potential n. CO2e 125.33 0.00 0.00 125.33 CO2e 6.50 0.00	113.82 iny compounds. These (GWP). Emissions of ea 124.98 0.00 0.00 124.98 CO2 0.00 0.00	Columns may re ach gas are first CH4 0.01 0.00 0.00 0.01 CH4 0.00 0.00 0.00	N20 0.00	HFCs* 0.01 0.00	Unit Metric ton - metric ton PFCs* 0.00 0.00	C and PFC I then SF6 0.00 0.00	Unit metric to metric to
Fugitive Emissions TOTAL DIRECT * HFCs and PFCs are classes of greenhou compounds, each of which has a unique G summed in the total CO2-equivalent colum Indirect Emissions Purchased Electricity Purchased Steam Purchased Heating and Cooling TOTAL INDIRECT De Minimis Detail District vehicle air conditioners-1) Generators, etc. OPS/Dist Generators, etc. OPS/Dist	114.83 se gases that include ma lobal Warming Potential n. CO2e 125.33 0.00 0.00 125.33 CO2e 6.50 0.00 1.60	113.82 iny compounds. These (GWP). Emissions of ea (200 124.98 0.00 0.00 124.98 CO2 0.00 0.00 0.00 1.60	CH4 0.01 0.00 0.00 0.01 CH4 0.00 0.01 CH4 0.00 0.00 0.00 0.00	N20 0.00	HFCs* 0.01 0.00	of multiple HFC ctive GWP and Unit metric ton - - metric ton PFCs* 0.00 0.00 0.00	C and PFC I then SF6 0.00 0.00 0.00	Unit metric to metric to metric to
Fugitive Emissions TOTAL DIRECT * HFCs and PFCs are classes of greenhou compounds, each of which has a unique G summed in the total CO2-equivalent colum Indirect Emissions Purchased Electricity Purchased Steam Purchased Heating and Cooling TOTAL INDIRECT De Minimis Detail District vehicle air conditioners-() Generators, etc. OPS/Dist Generators, etc. OPS/Dist TOTAL DEMINIMIS	114.83 se gases that include ma lobal Warming Potential n. CO2e 125.33 0.00 0.00 125.33 CO2e 6.50 0.00 1.60 8.10	113.82 iny compounds. These (GWP). Emissions of ea (GWP). Emissions	CH4 0.01 0.00 0.00 0.00 0.01 CH4 0.00 0.00 0.00 0.00 0.00 0.00 0.00	N20 0.00	HFCs* 0.01 0.00 0.00 0.01	of multiple HFC ctive GWP and Unit metric ton - metric ton PFCs* 0.00 0.00 0.00 0.00	C and PFC I then 5F6 0.00 0.00 0.00 0.00	Unit metric to metric to metric to metric to
Fugitive Emissions TOTAL DIRECT * HFCs and PFCs are classes of greenhou compounds, each of which has a unique G summed in the total CO2-equivalent colum Indirect Emissions Purchased Electricity Purchased Steam Purchased Heating and Cooling TOTAL INDIRECT De Minimis Detail District vehicle air conditioners-() Generators, etc. OPS/Dist Generators, etc. OPS/Dist TOTAL DEMINIMIS Percentage of Total Inventory:	114.83 se gases that include ma lobal Warming Potential n.	113.82 iny compounds. These (GWP). Emissions of ea (GWP). Emissions of ea (GWP). Emissions of ea (GWP). Emissions of ea (CO2 0.00 124.98 (CO2 0.00 0.00 1.60 1.60	CH4 0.01 0.00 0.00 0.00 0.01 CH4 0.00 0.00 0.00 0.00 0.00 0.00 0.00	N20 0.00	HFCs* 0.01 0.00 0.01 0.01	of multiple HFC ctive GWP and Unit metric ton - metric ton <u>PFCs*</u> 0.00 0.00 0.00 0.00	C and PFC I then 0.00 0.00 0.00 0.00 0.00	Unit metric to metric to metric to metric to
Fugitive Emissions TOTAL DIRECT * HFCs and PFCs are classes of greenhou compounds, each of which has a unique G summed in the total CO2-equivalent colum Indirect Emissions Purchased Electricity Purchased Steam Purchased Heating and Cooling TOTAL INDIRECT De Minimis Detail District vehicle air conditioners-ID Generators, etc. OPS/Dist Generators, etc. OPS/Dist TOTAL DEMINIMIS Percentage of Total Inventory: Optional Emissions	114.83 se gases that include ma lobal Warming Potential n. CO2e 125.33 0.00 125.33 CO2e 6.50 0.00 1.60 8.10 3.26%	113.82 my compounds. These (GWP). Emissions of ex (GWP). Emissions (GWP). Emission (CH4 0.00 CH4 0.01 0.00 0.00 0.01 CH4 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	N20 0.00	HFCs*	Unit metric ton - metric ton PFCs* 0.00 0.00 0.00 0.00 0.00	C and PFC t then 0.00 0.00 0.00 0.00 0.00 0.00 0.00	Unit metric to metric to metric to metric to
Fugitive Emissions TOTAL DIRECT * HFCs and PFCs are classes of greenhou compounds, each of which has a unique G summed in the total CO2-equivalent colum Indirect Emissions Purchased Electricity Purchased Steam Purchased Heating and Cooling TOTAL INDIRECT De Minimis Detail District vehicle air conditioners-() Generators, etc. OPS/Dist Generators, etc. OPS/Dist TOTAL DEMINIMIS Percentage of Total Inventory: Optional Emissions Employee Commuting and Busir	114.83 se gases that include ma lobal Warming Potential n. CO2e 125.33 0.00 0.00 125.33 CO2e 6.50 0.00 1.60 8.10 3.26% CO2e 19.27	113.82 my compounds. These (GWP). Emissions of ea (GWP). Emissions (GWP). Emissions of ea (GWP). Emissions of ea (CH4 0.00 CH4 0.01 0.00 0.00 0.01 CH4 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	N20 0.00	HFCs* 0.00 0.00 0.00 0.01 0.00 0.01	Unit of multiple HF(ctive GWP and Unit metric ton - metric ton PFCs* 0.00 0.00 0.00 0.00 0.00 0.00 0.00	C and PFC t then 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	Unit metric to metric to metric to metric to Unit metric ton
Fugitive Emissions TOTAL DIRECT * HFCs and PFCs are classes of greenhou compounds, each of which has a unique G summed in the total CO2-equivalent colum Indirect Emissions Purchased Electricity Purchased Steam Purchased Heating and Cooling TOTAL INDIRECT De Minimis Detail District vehicle air conditioners-() Generators, etc. OPS/Dist Generators, etc. OPS/Dist TOTAL DEMINIMIS Percentage of Total Inventory: Optional Emissions Employee Commuting and Busir TOTAL OPTIONAL	114.83 se gases that include ma lobal Warming Potential n. CO2e 125.33 0.00 0.00 125.33 CO2e 6.50 0.00 1.60 8.10 3.26% CO2e 19.27 19.27	113.82 iny compounds. These (GWP). Emissions of ea (GWP). Emissions of ea (GWP). Emissions of ea (GWP). Emissions of ea (CO2 (124.98) (CO2 (0.00) (0.00) (1.60) (1.	CH4 0.00 CH4 0.01 0.00 0.00 0.01 CH4 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	N20 0.00	HFCs* 0.01 0.00 0.01 HFCs* 0.00 0.00 0.00 0.00	Unit of multiple HFC ctive GWP and metric ton - metric ton PFCs* 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	C and PFC I then 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	Unit metric to metric to metric to Unit metric ton metric ton
Fugitive Emissions TOTAL DIRECT * HFCs and PFCs are classes of greenhou compounds, each of which has a unique G summed in the total CO2-equivalent column Indirect Emissions Purchased Electricity Purchased Steam Purchased Heating and Cooling TOTAL INDIRECT De Minimis Detail District vehicle air conditioners-() Generators, etc. OPS/Dist Generators, etc. OPS/Dist TOTAL DEMINIMIS Percentage of Total Inventory: Optional Emissions Employee Commuting and Busir TOTAL OPTIONAL Facility Emission Rec	114.83 se gases that include ma lobal Warming Potential n. CO2e 125.33 0.00 0.00 125.33 CO2e 6.50 0.00 1.60 8.10 3.26% CO2e 19.27 19.27 ly.27	113.82 my compounds. These (GWP). Emissions of ea (GWP). Emissions (GWP). Emissions of ea (GWP). Emissions (GWP).	CH4 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	N20 0.00	HFCs* 0.01 0.00 0.01 0.00 0.01 HFCs* 0.00 0.00 0.00	Unit of multiple HF(ctive GWP and Unit metric ton - metric ton PFCs* 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	C and PFC I then 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	Unit metric to metric to metric to Unit metric ton metric ton
Fugitive Emissions TOTAL DIRECT * HFCs and PFCs are classes of greenhou compounds, each of which has a unique G summed in the total CO2-equivalent colum Indirect Emissions Purchased Electricity Purchased Steam Purchased Heating and Cooling TOTAL INDIRECT De Minimis Detail District vehicle air conditioners-() Generators, etc. OPS/Dist Generators, etc. OPS/Dist Generators, etc. OPS/Dist TOTAL DEMINIMIS Percentage of Total Inventory: Optional Emissions Employee Commuting and Busir TOTAL OPTIONAL Facility Emission Reco	114.83 se gases that include ma lobal Warming Potential n. CO2e 125.33 0.00 125.33 CO2e 6.50 0.00 1.60 8.10 3.26% CO2e 19.27 19.27 ly.27 luction Goals: ams/Policies:	113.82 iny compounds. These (GWP). Emissions of ex (GWP). Emissions (GWP). Emissions of ex (GWP). Emissions of ex	CH4 0.00 CH4 0.01 0.00 0.	N20 0.00	HFCs* 0.01 0.00 0.01 HFCs* 0.00 0.00 0.00 0.00	Unit of multiple HFC ctive GWP and metric ton - - metric ton PFCs* 0.00 0.00 0.00 0.00 0.00	C and PFC I then 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	Unit metric to metric to metric to Unit metric ton metric ton
Fugitive Emissions TOTAL DIRECT * HFCs and PFCs are classes of greenhou compounds, each of which has a unique G summed in the total CO2-equivalent colum Indirect Emissions Purchased Electricity Purchased Steam Purchased Heating and Cooling TOTAL INDIRECT De Minimis Detail District vehicle air conditioners-ID Generators, etc. OPS/Dist Generators, etc. OPS/Dist Generators, etc. OPS/Dist TOTAL DEMINIMIS Percentage of Total Inventory: Optional Emissions Employee Commuting and Busir TOTAL OPTIONAL Facility Emission Rec Environmental Progr Other Public	114.83 se gases that include ma lobal Warming Potential n. CO2e 125.33 0.00 0.00 125.33 CO2e 6.50 0.00 1.60 8.10 3.26% CO2e 19.27 19.27 19.27	113.82 Iny compounds. These (GWP). Emissions of ea (CO2 (124.98) (CO2 (0.00) (0.00) (1.60) (CH4 0.00 CH4 0.01 0.00 0.	N20 0.00	HFCs* 0.01 0.00 0.01 0.00 0.01 HFCs* 0.00 0.00	Unit of multiple HFC ctive GWP and Unit metric ton - metric ton PFCs* 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	C and PFC I then 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	Unit metric to metric to metric to Unit metric ton metric ton
Fugitive Emissions TOTAL DIRECT * HFCs and PFCs are classes of greenhou compounds, each of which has a unique G summed in the total CO2-equivalent colum Indirect Emissions Purchased Electricity Purchased Steam Purchased Heating and Cooling TOTAL INDIRECT De Minimis Detail District vehicle air conditioners-ID Generators, etc. OPS/Dist Generators, etc. OPS/Dist TOTAL DEMINIMIS Percentage of Total Inventory: Optional Emissions Employee Commuting and Busir TOTAL OPTIONAL Facility Emission Rec Environmental Progr Other Public Primary Calculation M	114.83 se gases that include ma lobal Warming Potential n. CO2e 125.33 0.00 0.00 125.33 CO2e 6.50 0.00 1.60 8.10 3.26% CO2e 19.27 19.27 19.27	113.82 Iny compounds. These (GWP). Emissions of ex (GWP). Emissions (GWP). Emissions of ex (GWP). Emissions (GWP). Emission (GWP	CH4 0.00 0.00 0.01 0.00 0.00 0.00 0.00 0.0	N20 0.00	HFCs* 0.01 0.01 0.01 0.00 0.01	Unit of multiple HF(ctive GWP and metric ton - metric ton 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	C and PFC t then 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	Unit metric to metric to metric to Unit metric ton metric ton

San Lorenzo Valley Water District

(Emissions from California operations)

Report Generated On: 08/30/2010 01:11 pm PT

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Source	Emission Category	Calc	Fuel Name	Fuel/	Emission	Fract	бне	Amount	Unit	Methodol /	General Info
Source	Emission Category	Method	i dei Name	Mileage	Factor	Oxid.	GHG	Amount	onit	Source	General Into
Booster pumps, buildings OPS/Dist	Purchased Electricity	Pre-Calc					C02	124.98	metric ton	All of Kwh information was obtained from spreadsheets, routinely compiled by SLVWD's accounting department, from PG & E bills. Equation uses PG& E multiplier for CO2 in pounds per Kwh (0.63567), and converts pounds to metric tons; (PG & E multiplier for 2008 as reported on 2010 CCAR website)	
Booster pumps, buildings OPS/Dist	Purchased Electricity	Pre-Calc					CH4	0.01	metric ton	All of SLVWD's indirect emissions of CH4 come from electricity purchased from PG &E. Kwh provided in PG&E bills. Excel Worksheet is available. Emission factor from GRP-3.1, Table C-2kDr> <br< td=""><td></td></br<>	
Booster pumps, buildings OPS/Dist	Purchased Electricity	Pre-Calc					N2O	0.00	metric ton	Emission factor from GRP-3.1, Table C-2	
District vehicle air conditioners-O PS/Dist	Fugitive Emissions	Pre-Caic					HFC-134a	0.01	metric ton	The screening method in GRP-3.1 assumes a refrigerant charge of 1 kg of HFC-134 for large vehicles and 0.5 kg of the same compound for small vehicles. The refrigerant loss rate for both vehicle types is assumed to be 35%. In 2009, SLVWD operated 23 vehicles, of which 21 were equipped with air conditioning units. Of these 21 vehicles, 17 were operated under OPS/Distrubtion. The screening determined that direct fugitive emissions from vehicle air conditioning units were not significant, and therefore, could be categorized as de minimis emissions. br> 	5kg * .0001 = .005 metri tons br> kr>

San Lorenzo Valley Water District

(Emissions from California operations)

Report Generated On: 08/30/2010 01:11 pm PT



Generators, etc. OPS/Dist	Stationary Combustion	Pre-Calc	CH4	0.00	metric ton	Stationary diesel, lpg, and unleaded fuel data from spreadsheets kept by inhouse operations staff, with data estimated for each generator: beginning of year fuel inventory, fuel added during the year, and end of year fuel inventory. See 09 -stat-fuel-work worksheet for details and accounting.	Includes generators and other transportable equipment including chainsaws.
						Used Table C8, GRP 3.1 for emissions	
Generators, etc. OPS/Dist	Stationary Combustion	Pre-Calc	CO2	1.60	metric ton	factors. Stationary diesel fuel data from spreadsheets kept by inhouse	
						operations staff, with data estimated for each generator: beginning of year fuel inventory, fuel added during the year, and end of year fuel inventory. Used Table C.7 for emissions factors.	
Generators, etc. OPS/Dist	Stationary Combustion	Pre-Calc	N2O	0.00	metric ton	Stationary fuel data from spreadsheets kept by inhouse operations staff, with data estimated for each generator: beginning of year fuel inventory, fuel added during the year, and end of year fuel inventory. Used Table C8, GRP 3.1 for emissions factors. 	Includes generators and other equipment including chainsaws
Natural gas-OPS/Dist	Stationary Combustion	Pre-Calc	CO2	4.78	metric ton	Therms X 0.1= MMBtu from Table III.8.1, GRP-3.1; multiplied by emission factor for N2O in Table C.8 for natural gas and converted from kg to metric tons br> br>	
Natural gas-OPS/Dist	Stationary Combustion	Pre-Calc	CH4	0.00	metric ton	Therms X 0.1= MMBtu from Table III.8.1, GRP-3.1; multiplied by emission factor for NO2 in Table C.8 for natural gas and converted from kg to metric tons	

San Lorenzo Valley Water District (Emissions from California operations)

Report Generated On: 08/30/2010 01:11 pm PT



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Natural gas-OPS/Dist	Stationary Combustion	Pre-Calc	N20	0.00	metric ton	Therms X 0.1= MMBtu from Table III.8.1, GRP-3.1; multiplied by emission factor for NO2 in Table C.8 for natural gas and converted from kg to metric	
OPS/DIST personal vehicles	Employee Commuting and Business Travel	Pre-Calc	CH4	0.00	metric ton	tons Vehicle make, model, year & fuel type were recorded from employee survey. CH4 emissions were then calculated according to calculation III.7E from GRP-3.1, p. 43.	
OPS/DIST personal vehicles	Employee Commuting and Business Travel	Pre-Calc	N2O	0.00	metric ton	vehicle make, model, year & fuel type were recorded from employee survey. NO2 emissions were then calculated according to ccalculation III.7E from GRP-3.1, p. 43. chro = chro	
OPS/DIST personal vehicles Gasoline	Employee Commuting and Business Travel	Pre-Calc	CO2	19.05	metric ton	Calculated from mileage using Equation III.7b from CCAR GRP 3.1: Total fuel Use (gallons) = Total mileage / (fuel economy city mpg x 55% + Fuel Economy highway mpg x 45%); Used emissions factors from Table C.1 for gasoline and diesel fuels cfbr2 cfbr2	
Vehicle fleet OPS/Dist	Mobile Combustion	Pre-Calc	CO2	109.04	metric ton	Calculated using Equation III.7c in GRP-3.1, with emission factors from Table C.3, GRP-3.1; Total emissions in metric tons= fuel consumed (gallons) x emission factor (kg CO2/gallon) x 0.001 metric tons/kg	Includes forklift
Vehicle fleet OPS/Dist	Mobile Combustion	Pre-Calc	CH4	0.00	metric ton	Conversion factor from Table C.4, (GRP-3.1, p. 97) Used calculation III.7E from GRP-3.1, p. 43.	
Vehicle fleet OPS/Dist	Mobile Combustion	Pre-Calc	N2O	0.00	metric ton	Used mileage data collected by the District; Used Equation III.7E from GRP-3.1. Conversion factor from Table C.4, GRP-3.1)	

San Lorenzo Valley Water District

(Emissions from California operations)

Report Generated On: 08/30/2010 01:11 pm PT

Report Revision #:

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FACILITY INFORMATION								
Facility Name		OPS/SUPPLY & TRE	ATMENT					
Facility ID								
ReportingYear		2009						
Facility Address		Boulder Creek, CA 950	06, United State	S				
Facility PO Box								
Facility Contact Person		Betsy Herbert						
Facility Contact Phone								
Facility Contact Email		bherbert@slvwd.com						
Facility Description		OPS/SUPPLY & TREATI system, and includes e	MENT is equivaled emissions from g	nt to departn roundwater v	nent "08" in : vell pumps a	SLVWD's acco nd treatment	ounting plants.	
SIC Code								
NAIC Code								
Industry Type								
Direct Emissions	CO2e	CO2	CH4	N20	HFCs*	PFCs*	SF6	Unit
Mobile Combustion	31.00	30.62	0.00	0.00	0.00	0.00	0.00	metric tor
Stationary Combustion	11.83	11.83	0.00	0.00	0.00	0.00	0.00	metric tor
Process Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Fugitive Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
TOTAL DIRECT	42.83	42.45	0.00	0.00	0.00	0.00	0.00	metric tor
* HFCs and PFCs are classes of green compounds, each of which has a unique summed in the total CO2-equivalent co	nhouse gases that includ ue Global Warming Pote olumn.	e many compounds. These ntial (GWP). Emissions of	e columns may re each gas are first	flect the total multiplied by	emissions of their respecti	multiple HFC ve GWP and t	and PFC hen	
Indirect Emissions	CO2e	CO2	CH4	N20		Unit		
Purchased Electricity	491.44	489.04	0.02	0.01	r	netric ton		

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Purchased Steam	0.00	0.00	0.00	0.00		-		
Purchased Heating and Cooling	0.00	0.00	0.00	0.00		-		
TOTAL INDIRECT	491.44	489.04	0.02	0.01		metric ton		
De Minimis Detail	CO2e	CO2	CH4	N20	HFCs*	PFCs*	SF6	Unit
District vehicle air conditioners-O	2.60	0.00	0.00	0.00	0.00	0.00	0.00	metric tor
Generators SUP/TRTMNT	2.27	2.27	0.00	0.00	0.00	0.00	0.00	metric tor
Generators-SUP/TRTMNT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	metric tor
TOTAL DEMINIMIS	4.87	2.27	0.00	0.00	0.00	0.00	0.00	metric tor
Percentage of Total Inventory:	0.90%							

Optional Emissions	CO2e	CO2	CH4	N20	HFCs*	PFCs*	SF6	Unit
Employee Commuting and Busir	3.63	3.63	0.00	0.00	0.00	0.00	0.00	metric ton
TOTAL OPTIONAL	3.63	3.63	0.00	0.00	0.00	0.00	0.00	metric ton

Facility Emission F	Reduction	Goals:
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Environmental Programs/Policies:

Other Public Information:

Primary Calculation Methodologies:

Equity Share: 100.00

San Lorenzo Valley Water District

(Emissions from California operations)

Report Generated On: 08/30/2010 01:11 pm PT

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Source	Emission Category	Calc Method	Fuel Name	Fuel/ Mileage	Emission Factor	Fract. Oxid.	GHG	Amount	Unit	Methodol./ Source	General Info
District vehicle air conditioners-O PS/Sup & Trtmnt	Fugitive Emissions	Pre-Calc					HFC-134a	0.00	metric	The screening method in GRP-3.1 assumes a refrigerant charge of 1 kg of HFC-134a for large vehicles and 0.5 kg of the same compound for small vehicles. The refrigerant loss rate for both vehicle types is assumed to be 35%. In 2009, SLVWD operated 23 vehicles, of which 21 were equipped with air conditioning units. Of these 21 vehicles, 5 were operated under OPS/Supply & Treatment. The screening determined that direct fugitive emissions from vehicle air conditioning units were not significant, and therefore, could be categorized as de minimis emissions.	2 kg * .001 = .002 metric tons
Generators SUP/TRTMNT	Stationary Combustion	Pre-Calc					CO2	2.27	metric ton	Stationary fuel data from spreadsheets kept by inhouse operations staff, with data estimated for each generator: beginning of year fuel inventory, fuel added during the year, and end of year fuel inventory. Used Table C.7, Carbon Dioxide Emission Factors for Stationary Combustion from GRP-3.1 > br>	
Generators-SU P/TRTMNT	Stationary Combustion	Pre-Calc					CH4	0.00	metric ton	Used Table C.8, Carbon Dioxide Emission Factors for Stationary Combustion from GRP-3.1	
Generators-SU P/TRTMNT	Stationary Combustion	Pre-Calc					N2O	0.00	metric ton	Used Table C.8, GRP-3.1 for emissions factors	

San Lorenzo Valley Water District

(Emissions from California operations)

Report Generated On: 08/30/2010 01:11 pm PT



Groundwater wells, buildings-SUP/ TRTMNT	Purchased Electricity	Pre-Calc	CO2	489.04	metric ton	All of Kwh information was obtained from spreadsheets, routinely compiled by SLVWD's accounting department, from PG & E bills. Equation uses PG& E multiplier for CO2 in pounds per Kwh (0.63567), and converts pounds to metric tons; (PG & E multiplier for 2008 from 2010 CCAR website)	
Groundwater wells, buildings-SUP/ TRTMNT	Purchased Electricity	Pre-Calc	CH4	0.02	metric ton	Emission factor from GRP-3.1, Table C-2	All of SLVWD's indirect emissions of CH4 come from electricity purchased from PG & E. Kwh provided in PG&E bills. Excel Worksheet is available.
Groundwater wells, buildings-SUP/ TRTMNT	Purchased Electricity	Pre-Calc	N2O	0.01	metric ton	Emission factor from GRP-3.1, Table C-2	All of SLVWD's indirect emissions of N2O come from electricity purchased from PG & E. Kwh provided in PG&E bills. Excel Worksheet is available.
Natural gas-SUP/TRTM NT	Stationary Combustion	Pre-Calc	C02	11.83	metric ton	Therms X 0.1= MMBtu from Table III.8.1, GRP-3.1; multiplied by emission factor for NO2 in Table C.8 for natural gas and converted from kg to metric tomschrochro	
Natural gas-SUP/TRTM NT	Stationary Combustion	Pre-Calc	CH4	0.00	metric ton	MBtu from Table III.8.1, GRP-3.1; multiplied by emission factor for NO2 in Table C.8 for natural gas and converted from kg to metric tons cbr >	
Natural gas-SUP/TRTM NT	Stationary Combustion	Pre-Calc	N2O	0.00	metric ton	Therms X 0.1= MMBtu from Table III.8.1, GRP-3.1; multiplied by emission factor for NO2 in Table C.8 for natural gas and converted from kg to metric toms br> br>	
OPS SUP & TRTMNT personal vehicle Diesel	Employee Commuting and Business Travel	Pre-Calc	CO2	0.22	metric ton		
OPS SUP & TRTMNT personal vehicles	Employee Commuting and Business Travel	Pre-Calc	N2O	0.00	metric ton	Vehicle make, model, year & fuel type were recorded from employee survey. NO2 emissions calculations from III.7E from GRP-3.1, p. 43.	

San Lorenzo Valley Water District (Emissions from California operations)

Report Generated On: 08/30/2010 01:11 pm PT





OPS SUP & TRTMNT-perso nal vehicles	Employee Commuting and Business Travel	Pre-Calc	СН4	0.00	metric ton	Vehicle make, model, year & fuel type were recorded from employee survey. CH4 emissions from calculation III.7E from GRP-3.1, p. 43. <hr/>
OPS/SUP & TRTMNT personal vehicle Gasoline	Employee Commuting and Business Travel	Pre-Calc	C02	3.41	metric ton	Fuel use calculated from mileage using Equation III.7b from CCAR GRP 3.1: Total fuel Use (gallons) = Total mileage / (fuel economy city mpg x 55% + Fuel Economy highway mpg x 45%) < hr>
Vehicle fleet-SUP/TRT MNT	Mobile Combustion	Pre-Calc	C02	30.62	metric ton	Calculated using Equation III.7c in GRP-3.1, with emission factor from Table C.3, GRP-3: Total emissions in metric tons= fuel consumed (gallons) x emission factor (kg CO2/gallon) x 0.001 metric tons/ka
Vehicle fleet-SUP/TRT MNT	Mobile Combustion	Pre-Calc	CH4	0.00	metric ton	Used mileage data collected by District staff; Conversion factor from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (GRP-3, p. 97) cbr> tr>
Vehicle fleet-SUP/TRT MNT	Mobile Combustion	Pre-Calc	N2O	0.00	metric ton	Used mileage data collected by District; Conversion factor from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (GRP-3, p. 97) br>
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San Lorenzo Valley Water District

(Emissions from California operations)

Report Generated On: 08/30/2010 01:11 pm PT

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Report Revision #: 0



FACILITY INFORMATION											
Facility Name	WAS	WASTEWATER									
Facility ID											
ReportingYear	2009	2009									
Facility Address	Bould	Boulder Creek, CA 95006, United States									
Facility PO Box											
Facility Contact Person	Betsy	Betsy Herbert 831-430-4627 bherbert@slvwd.com WASTEWATER is equivalent to department "06" in SLVWD's accounting system, and includes emissions from the Bear Creek Wastewater Treatment Plant.									
Facility Contact Phone	831-										
Facility Contact Email	bherl										
Facility Description	WAS										
	inclu	des emissions from	the Bear Creek	Wastewater	Treatment P	Plant.					
SIC Code	inclu	des emissions from	the Bear Creek	Wastewater	Treatment P	Plant.					
SIC Code NAIC Code	inclu	des emissions from	the Bear Creek	Wastewater	Treatment F	Plant.					
SIC Code NAIC Code Industry Type	inclu	des emissions from	the Bear Creek	Wastewater	Treatment F	Plant.					
SIC Code NAIC Code Industry Type Direct Emissions	inclu CO2e	des emissions from CO2	the Bear Creek CH4	Wastewater N20	Treatment F	Plant. PFCs*	SF6	Unit			
SIC Code NAIC Code Industry Type Direct Emissions Mobile Combustion	inclu CO2e 0.00	des emissions from CO2 0.00	the Bear Creek CH4 0.00	Wastewater	HFCs* 0.00	PFCs* 0.00	<mark>SF6</mark> 0.00	Unit			
SIC Code NAIC Code Industry Type Direct Emissions Mobile Combustion Stationary Combustion	inclu CO2e 0.00 0.00	des emissions from CO2 0.00 0.00	the Bear Creek CH4 0.00 0.00	Wastewater N20 0.00 0.00	HFCs* 0.00 0.00	PFCs* 0.00 0.00	SF6 0.00 0.00	Unit - -			
SIC Code NAIC Code Industry Type Direct Emissions Mobile Combustion Stationary Combustion Process Emissions	inclu CO2e 0.00 0.00 0.61	des emissions from CO2 0.00 0.00 0.30	the Bear Creek CH4 0.00 0.00 0.00	Wastewater N20 0.00 0.00 0.00	HFCs* 0.00 0.00 0.00	PFCs* 0.00 0.00 0.00	SF6 0.00 0.00 0.00 r	Unit - - netric tol			
SIC Code NAIC Code Industry Type Direct Emissions Mobile Combustion Stationary Combustion Process Emissions Fugitive Emissions	inclu CO2e 0.00 0.00 0.61 0.00	CO2 0.00 0.00 0.30 0.00	CH4 0.00 0.00 0.00 0.00 0.00	Wastewater 0.00 0.00 0.00 0.00 0.00	HFCs* 0.00 0.00 0.00 0.00 0.00	PFCs* 0.00 0.00 0.00 0.00 0.00	SF6 0.00 0.00 0.00 r 0.00	Unit - - netric tor -			

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

6.92 0.00 0.00	6.89 0.00 0.00	0.00 0.00	0.00 0.00		metric ton		
0.00 0.00	0.00 0.00	0.00	0.00				
0.00	0.00				-		
6.97		0.00	0.00		-		
0.92	6.89	0.00	0.00		metric ton		
CO2e	C02	CH4	N20	HFCs*	PFCs*	SF6	Unit
0.50	0.50	0.00	0.00	0.00	0.00	0.00	metric tor
0.50	0.50	0.00	0.00	0.00	0.00	0.00	metric tor
6.22%							
CO2e	CO2	CH4	N20	HFCs*	PFCs*	SF6	Unit
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	-
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odologies:							
ity Share: 100.00							
-							
	6.92 CO2e 0.50 0.50 6.22% CO2e 0.00 0.00 ion Goals: s/Policies: formation: bdologies: lity Share: 100.00	6.92 6.89 CO2e CO2 0.50 0.50 0.50 0.50 6.22% CO2 CO2e CO2 0.00 0.00 0.00 0.00 ion Goals: S/Policies: 'ormation: 100.00	6.92 6.89 0.00 CO2e CO2 CH4 0.50 0.50 0.00 0.50 0.50 0.00 6.22% CO2 CH4 0.00 0.00 0.00 0.00 0.00 0.00 ion Goals: s/Policies: S/Policies: iormation: 100.00 Sinterimeter	6.92 6.89 0.00 0.00 CO2e CO2 CH4 N2O 0.50 0.50 0.00 0.00 0.50 0.50 0.00 0.00 6.22% CO2 CH4 N2O 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 ion Goals: s//Policies: s//Policies: s//Policies: iormation: 100.00 100.00 s//Policies:	6.92 6.89 0.00 0.00 CO2e CO2 CH4 N20 HFCs* 0.50 0.50 0.00 0.00 0.00 0.50 0.50 0.00 0.00 0.00 6.22% CO2 CH4 N20 HFCs* 0.00 0.00 0.00 0.00 0.00 0.00 ion Goals: S/Policies: S/Policies: S/Policies: S/Policies: S/Policies: 100.00	6.92 6.89 0.00 0.00 metric ton CO2e CO2 CH4 N20 HFCs* PFCs* 0.50 0.50 0.00 0.00 0.00 0.00 0.50 0.50 0.00 0.00 0.00 0.00 6.22% CO2 CH4 N20 HFCs* PFCs* 0.00 0.00 0.00 0.00 0.00 0.00 0.00 6.22% CO2 CH4 N20 HFCs* PFCs* 0.00 0.00 0.00 0.00 0.00 0.00 0.00 in Goals: Strain	6.92 6.89 0.00 0.00 metric ton CO2e CO2 CH4 N20 HFCs* PFCs* SF6 0.50 0.50 0.00 0.00 0.00 0.00 0.00 0.00 0.50 0.50 0.00 0.00 0.00 0.00 0.00 0.00 6.22% CO2 CH4 N20 HFCs* PFCs* SF6 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 6.22% CO2 CH4 N20 HFCs* PFCs* SF6 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 ior Goals: :

San Lorenzo Valley Water District (Emissions from California operations)

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Source	Emission Category	Calc Method	Fuel Name	Fuel/ Mileage	Emission Factor	Fract. Oxid.	GHG	Amount	Unit	Methodol./ Source	General Info
Bear Creek Wastewater septic system	Process Emissions	Pre-Calc					CO2	0.30	metric ton	Equation 10.7: Process N2O emissions from WWTP with nitrification/denitrif ication	
Bear Creek WWTP septic system	Process Emissions	Pre-Calc					N2O	0.00	metric ton	Used equation 10.7 from Local Government Operations Protocol, V. 1, 2008 to calculate the annual N20 emissions in metric tons produced by this nitrification/denitrifi cation system chp>chp>	.00098 metric tons of N20 is equivalent to .304 metric tons CO2 equivalent
Generators-WS TWTR	Stationary Combustion	Pre-Calc					CO2	0.50	metric ton	Used equation III.8c from GRP-3.1 Used Table C7, GRP-3.1 for emissions factors	Generators used two different types of fuel
Generators-WS TWTR	Stationary Combustion	Pre-Calc					CH4	0.00	metric ton	Used equation III.8e from GRP-3.1; Used Table C8, for emission factors for stationary sources	
Generators-WS TWTR	Stationary Combustion	Pre-Calc					N2O	0.00	metric ton	<pre><pre><pre><pre>Corp<<pre>Corp</pre> Used equation III.8e from GRP-3.1; Used Table C8, for fuels emission factors for stationary sources </pre></pre></pre></pre>	
Wastewater treatment plant	Purchased Electricity	Pre-Calc					CO2	6.89	metric ton	<ur> ur> cor> Kwh provided in PG&E bills. Excel Worksheet is available. Equation uses PG& E multiplier for CO2 in pounds per Kwh (0.63567), and converts pounds to metric tons; (PG & E multiplier for 2008 from 2010 CCAR website) </ur>	Total Kwh used includes only that purchased from P G & E; it does not reflect the unknown amount of Kwh saved by our solar panel contribution (Meter # P99739).
Wastewater treatment plant	Purchased Electricity	Pre-Calc					CH4	0.00	metric ton	Emission factor from GRP-3.1, Table C-2	
Wastewater treatment plant	Purchased Electricity	Pre-Calc					N2O	0.00	metric ton	Emission factor from GRP-3.1, Table C-2.	