

The City of Woodland

Detail Report - Control (Private)

Transitional Inventory 2017

**Description:**

**Industry:** 92 - Public Administration

**Address:** 42929 County Road  
Woodland, California US

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**Reporting Information**

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Reporting Protocol: General Reporting Protocol 2.1 and associated updates and clarifications

GWP Standard: AR5

Base Year:

Consolidation Methodology: Operational Control Only

Status: TCR Accepted

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**Verification Information**

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Verification Body: SCS Global Services

Level of Assurance: Reasonable

**Entity Emissions | Total in metric tons of CO<sub>2</sub>e**

Scope 1 - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t of CO <sub>2</sub> e)	N <sub>2</sub> O (t of CO <sub>2</sub> e)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t of CO <sub>2</sub> e)	SF <sub>6</sub> (t of CO <sub>2</sub> e)
Stationary Combustion	827.675078	823.969829	0.912653	2.792597	0	0	0	0
Mobile Combustion	1,148.921735	1,133.961932	1.5421	13.417704	0	0	0	0
Process	317.882	0	127.4	190.482	0	0	0	0
<b>Total</b>	2,294.478813	1,957.931761	129.854753	206.6923	0	0	0	0
<b>NetTotal</b>	2,294.478813	1,957.931761	129.854753	206.6923	0	0	0	0

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t of CO <sub>2</sub> e)	N <sub>2</sub> O (t of CO <sub>2</sub> e)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t of CO <sub>2</sub> e)	SF <sub>6</sub> (t of CO <sub>2</sub> e)
Purchased Electricity - Location Based	1,974.559986	1,967.166807	3.443194	3.949984	0	0	0	0
<b>Total</b>	1,974.559986	1,967.166807	3.443194	3.949984	0	0	0	0
<b>NetTotal</b>	1,974.559986	1,967.166807	3.443194	3.949984	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t of CO <sub>2</sub> e)	N <sub>2</sub> O (t of CO <sub>2</sub> e)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t of CO <sub>2</sub> e)	SF <sub>6</sub> (t of CO <sub>2</sub> e)
Purchased Electricity - Market Based	1,101.725204	1,094.332025	3.443194	3.949984	0	0	0	0
<b>Total</b>	1,101.725204	1,094.332025	3.443194	3.949984	0	0	0	0
<b>NetTotal</b>	1,101.725204	1,094.332025	3.443194	3.949984	0	0	0	0

## Entity Emissions | Total in metric tons of gas

Scope 1 - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Stationary Combustion	827.675078	823.969829	0.032595	0.010538	0	0	0	0
Mobile Combustion	1,148.921735	1,133.961932	0.055075	0.050633	0	0	0	0
Process	317.882	0	4.55	0.7188	0	0	0	0
<b>Total</b>	<b>2,294.478813</b>	<b>1,957.931761</b>	<b>4.63767</b>	<b>0.779971</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Location Based	1,974.559986	1,967.166807	0.122971	0.014906	0	0	0	0
<b>Total</b>	<b>1,974.559986</b>	<b>1,967.166807</b>	<b>0.122971</b>	<b>0.014906</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Scope 2 - Market Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Market Based	1,101.725204	1,094.332025	0.122971	0.014906	0	0	0	0
<b>Total</b>	<b>1,101.725204</b>	<b>1,094.332025</b>	<b>0.122971</b>	<b>0.014906</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

## Simplified Estimation Methods (SEMs)

	Total Estimated CO <sub>2</sub> e (t)	Total Emissions (t of CO <sub>2</sub> e)	Estimated CO <sub>2</sub> e as a Percentage of Total*
Location Based	0.272513	4,269.038799	0.00638346271457497%
Market Based	0.272513	3,396.204017	0.00802403208445624%

\*Total based on scope 1, scope 2 & biomass emissions

## Facility Emissions | Backup Diesel Engines

Equity share - 100% | Entity controls the facility emissions - Yes

655 N. Pioneer Ave, Woodland, California, 95695, US

Scope 1 - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Stationary Combustion	0.25935	0.25935	0	0	0	0	0	0
<b>Total</b>	0.25935	0.25935	0	0	0	0	0	0

## Source Emissions | Backup Engines Diesel Fuel

Volumetric data was not available in the throughput reports which are typically used to quantify the amount of fuel burned in the back-up generator/motors. Emissions were quantified using hourly usage data and the manufacturer. See attachments "Throughput Reports 2017\_corrected" and "Backup Generator Calcs 2017\_corrected"

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO <sub>2</sub> e (t)
Stationary Combustion	CO <sub>2</sub>	Petroleum Products	Commercial	Unspecified Technology	PreCalculated	Yes		Distillate Fuel Oil No. 2	N/A	N/A	N/A	0.25935	0.25935
Stationary Combustion	CH <sub>4</sub>	Petroleum Products	Commercial	Unspecified Technology	Emission Factor	No		Distillate Fuel Oil No. 2	0	10 g/MMBtu	2018 Default Emission Factors - Table #12.9	0	0
Stationary Combustion	N <sub>2</sub> O	Petroleum Products	Commercial	Unspecified Technology	Emission Factor	No		Distillate Fuel Oil No. 2	0	0.6 g/MMBtu	2018 Default Emission Factors - Table #12.9	0	0

## Facility Emissions | Charles Brooks Swim Center

Equity share - 100% | Entity controls the facility emissions - Yes

155 North West Street, Woodland, California, 95695, US

Scope 1 - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Stationary Combustion	593.092853	590.15985	0.01001	0.01001	0	0	0	0
<b>Total</b>	593.092853	590.15985	0.01001	0.01001	0	0	0	0

## Source Emissions | Charles Brooks Natural Gas Usage

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecified (Weighted U.S. Average)	111,225 therm	53.06 kg/MMBtu	2018 Default Emission Factors - Table #12.1	590.15985	590.15985
Stationary Combustion	CH4	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecified (Weighted U.S. Average)	111,225 therm	0.9 g/MMBtu	2018 Default Emission Factors - Table #12.8	0.01001	0.280287
Stationary Combustion	N2O	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecified (Weighted U.S. Average)	111,225 therm	0.9 g/MMBtu	2018 Default Emission Factors - Table #12.8	0.01001	2.652716

## Facility Emissions | City Hall

Equity share - 100% | Entity controls the facility emissions - Yes

300 First Street, Woodland, California, 95695, US

Scope 1 - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Stationary Combustion	11.459665	11.423818	0.001077	0.000022	0	0	0	0
<b>Total</b>	11.459665	11.423818	0.001077	0.000022	0	0	0	0

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Location Based	16.895758	16.832496	0.001052	0.000128	0	0	0	0
<b>Total</b>	16.895758	16.832496	0.001052	0.000128	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Market Based	9.427155	9.363893	0.001052	0.000128	0	0	0	0
<b>Total</b>	9.427155	9.363893	0.001052	0.000128	0	0	0	0

## Source Emissions | City Hall Electricity - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	70,296 kWh	293.67 lb/MWh	2018 Default Emission Factors - Table #14.8	9.363893	9.363893
Purchased Electricity - Market Based	CH4	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	70,296 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.001052	0.029462
Purchased Electricity - Market Based	N2O	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	70,296 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000128	0.033799

## Source Emissions | City Hall Electricity - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	70,296 kWh	527.9 lb/MWh	2018 Default Emission Factors - Table #14.1	16.832496	16.832496
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	70,296 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.001052	0.029462
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	70,296 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000128	0.033799

## Source Emissions | City Hall Natural Gas

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	2,153 therm	53.06 kg/MMBtu	2018 Default Emission Factors - Table #12.1	11.423818	11.423818
Stationary Combustion	CH4	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	2,153 therm	5 g/MMBtu	2018 Default Emission Factors - Table #12.9	0.001077	0.030142
Stationary Combustion	N2O	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	2,153 therm	0.1 g/MMBtu	2018 Default Emission Factors - Table #12.9	0.000022	0.005705

## Facility Emissions | EV Charging Station - City Hall

Equity share - 100% | Entity controls the facility emissions - Yes

307 First Street, Woodland, California, 95695, US

Scope 2 - Location Based - Indirect Emissions	Total CO2e (t)	CO2 (t)	CH4 (t)	N2O (t)	HFC (t of CO2e)	PFC (t of CO2e)	NF3 (t)	SF6 (t)
Purchased Electricity - Location Based	2.48788	2.478565	0.000155	0.000019	0	0	0	0
<b>Total</b>	<b>2.48788</b>	<b>2.478565</b>	<b>0.000155</b>	<b>0.000019</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Scope 2 - Market Based - Indirect Emissions	Total CO2e (t)	CO2 (t)	CH4 (t)	N2O (t)	HFC (t of CO2e)	PFC (t of CO2e)	NF3 (t)	SF6 (t)
Purchased Electricity - Market Based	1.388137	1.378822	0.000155	0.000019	0	0	0	0
<b>Total</b>	<b>1.388137</b>	<b>1.378822</b>	<b>0.000155</b>	<b>0.000019</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

## Source Emissions | EV Charging Station - City Hall - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	10,351 kWh	527.9 lb/MWh	2018 Default Emission Factors - Table #14.1	2.478565	2.478565
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	10,351 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000155	0.004338
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	10,351 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000019	0.004977

## Source Emissions | EV Charging Station - City Hall - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	10,351 kWh	293.67 lb/MWh	2018 Default Emission Factors - Table #14.8	1.378822	1.378822
Purchased Electricity - Market Based	CH4	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	10,351 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000155	0.004338
Purchased Electricity - Market Based	N2O	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	10,351 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000019	0.004977

## Facility Emissions | Fire Station 1

Equity share - 100% | Entity controls the facility emissions - Yes

101 Court Street, Woodland, California, 95695, US

Scope 1 - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Stationary Combustion	6.152983	6.133736	0.000578	0.000012	0	0	0	0
<b>Total</b>	6.152983	6.133736	0.000578	0.000012	0	0	0	0

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Location Based	14.47734	14.423134	0.000902	0.000109	0	0	0	0
<b>Total</b>	14.47734	14.423134	0.000902	0.000109	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Market Based	8.077774	8.023568	0.000902	0.000109	0	0	0	0
<b>Total</b>	8.077774	8.023568	0.000902	0.000109	0	0	0	0

## Source Emissions | Fire Station 1 Electricity - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	60,234 kWh	527.9 lb/MWh	2018 Default Emission Factors - Table #14.1	14.423134	14.423134
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	60,234 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000902	0.025245
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	60,234 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000109	0.028961

## Source Emissions | Fire Station 1 Electricity - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	60,234 kWh	293.67 lb/MWh	2018 Default Emission Factors - Table #14.8	8.023568	8.023568
Purchased Electricity - Market Based	CH4	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	60,234 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000902	0.025245
Purchased Electricity - Market Based	N2O	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	60,234 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000109	0.028961

## Source Emissions | Fire Station 1 Natural Gas

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	1,156 therm	53.06 kg/MMBtu	2018 Default Emission Factors - Table #12.1	6.133736	6.133736
Stationary Combustion	CH4	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	1,156 therm	5 g/MMBtu	2018 Default Emission Factors - Table #12.9	0.000578	0.016184
Stationary Combustion	N2O	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	1,156 therm	0.1 g/MMBtu	2018 Default Emission Factors - Table #12.9	0.000012	0.003063

## Facility Emissions | Fire Station 2

Equity share - 100% | Entity controls the facility emissions - Yes

1619 West Street, Woodland, California, 95695, US

Scope 1 - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Stationary Combustion	5.902819	5.884354	0.000555	0.000011	0	0	0	0
<b>Total</b>	5.902819	5.884354	0.000555	0.000011	0	0	0	0

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Location Based	9.816441	9.779686	0.000611	0.000074	0	0	0	0
<b>Total</b>	9.816441	9.779686	0.000611	0.000074	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Market Based	5.47718	5.440425	0.000611	0.000074	0	0	0	0
<b>Total</b>	5.47718	5.440425	0.000611	0.000074	0	0	0	0

## Source Emissions | Fire Station 2 Electricity - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	40,842 kWh	527.9 lb/MWh	2018 Default Emission Factors - Table #14.1	9.779686	9.779686
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	40,842 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000611	0.017118
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	40,842 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000074	0.019637

## Source Emissions | Fire Station 2 Electricity - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	40,842 kWh	293.67 lb/MWh	2018 Default Emission Factors - Table #14.8	5.440425	5.440425
Purchased Electricity - Market Based	CH4	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	40,842 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000611	0.017118
Purchased Electricity - Market Based	N2O	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	40,842 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000074	0.019637

## Source Emissions | Fire Station 2 Natural Gas

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	1,109 therm	53.06 kg/MMBtu	2018 Default Emission Factors - Table #12.1	5.884354	5.884354
Stationary Combustion	CH4	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	1,109 therm	5 g/MMBtu	2018 Default Emission Factors - Table #12.9	0.000555	0.015526
Stationary Combustion	N2O	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	1,109 therm	0.1 g/MMBtu	2018 Default Emission Factors - Table #12.9	0.000011	0.002939

## Facility Emissions | Fire Station 3

Equity share - 100% | Entity controls the facility emissions - Yes

1550 Springlake Court, Woodland, California, 95776, US

Scope 1 - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Stationary Combustion	27.885363	27.798134	0.00262	0.000052	0	0	0	0
<b>Total</b>	27.885363	27.798134	0.00262	0.000052	0	0	0	0

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Location Based	36.17292	36.03748	0.002253	0.000273	0	0	0	0
<b>Total</b>	36.17292	36.03748	0.002253	0.000273	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Market Based	20.183037	20.047598	0.002253	0.000273	0	0	0	0
<b>Total</b>	20.183037	20.047598	0.002253	0.000273	0	0	0	0

## Source Emissions | Fire Station 3 Electricity - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	150,500 kWh	527.9 lb/MWh	2018 Default Emission Factors - Table #14.1	36.03748	36.03748
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	150,500 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.002253	0.063078
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	150,500 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000273	0.072362

## Source Emissions | Fire Station 3 Electricity - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	150,500 kWh	293.67 lb/MWh	2018 Default Emission Factors - Table #14.8	20.047598	20.047598
Purchased Electricity - Market Based	CH4	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	150,500 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.002253	0.063078
Purchased Electricity - Market Based	N2O	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	150,500 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000273	0.072362

## Source Emissions | Fire Station 3 Natural Gas

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	5,239 therm	53.06 kg/MMBtu	2018 Default Emission Factors - Table #12.1	27.798134	27.798134
Stationary Combustion	CH4	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	5,239 therm	5 g/MMBtu	2018 Default Emission Factors - Table #12.9	0.00262	0.073346
Stationary Combustion	N2O	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	5,239 therm	0.1 g/MMBtu	2018 Default Emission Factors - Table #12.9	0.000052	0.013883

## Facility Emissions | Fleet

Equity share - 100% | Entity controls the facility emissions - Yes  
 655 Pioneer Avenue, Woodland, California, 95695, US

Scope 1 - Direct Emissions	Total CO2e (t)	CO2 (t)	CH4 (t)	N2O (t)	HFC (t of CO2e)	PFC (t of CO2e)	NF3 (t)	SF6 (t)
Mobile Combustion	1,148.921735	1,133.961932	0.055075	0.050633	0	0	0	0
<b>Total</b>	<b>1,148.921735</b>	<b>1,133.961932</b>	<b>0.055075</b>	<b>0.050633</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

## Source Emissions | Diesel

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Mobile Combustion	CO2	Diesel Fuel	Diesel Medium and Heavy-Duty Trucks and Busses	Medium and Heavy-Duty Vehicles (Model Years 1960-2011)	Emission Factor	No		All	39,552.24 gal	10.21 kg/gal	2018 Default Emission Factors - Table #13.1	403.82837	403.82837
Mobile Combustion	CH4	Diesel Fuel	Diesel Medium and Heavy-Duty Trucks and Busses	Medium and Heavy-Duty Vehicles (Model Years 1960-2011)	Emission Factor	No		All	151,044 mi	0.0051 g/mi	2018 Default Emission Factors - Table #13.5	0.00077	0.021569
Mobile Combustion	N2O	Diesel Fuel	Diesel Medium and Heavy-Duty Trucks and Busses	Medium and Heavy-Duty Vehicles (Model Years 1960-2011)	Emission Factor	No		All	151,044 mi	0.0048 g/mi	2018 Default Emission Factors - Table #13.5	0.000725	0.192128

## Source Emissions | Gasoline

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Mobile Combustion	CO2	Motor Gasoline	Gasoline Passenger Cars	Cars (Model Years 1984-1993)	Emission Factor	No		All	83,158.72 gal	8.78 kg/gal	2018 Default Emission Factors - Table #13.1	730.133562	730.133562
Mobile Combustion	CH4	Motor Gasoline	Gasoline Passenger Cars	Cars (Model Years 1984-1993)	Emission Factor	No		All	771,373 mi	0.0704 g/mi	2018 Default Emission Factors - Table #13.5	0.054305	1.52053
Mobile Combustion	N2O	Motor Gasoline	Gasoline Passenger Cars	Cars (Model Years 1984-1993)	Emission Factor	No		All	771,373 mi	0.0647 g/mi	2018 Default Emission Factors - Table #13.5	0.049908	13.225576

## Facility Emissions | Library

Equity share - 100% | Entity controls the facility emissions - Yes

250 First Street, Woodland, California, 95695, US

Scope 1 - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Stationary Combustion	19.071055	19.011398	0.001792	0.000036	0	0	0	0
<b>Total</b>	19.071055	19.011398	0.001792	0.000036	0	0	0	0

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Location Based	13.476275	13.425817	0.000839	0.000102	0	0	0	0
<b>Total</b>	13.476275	13.425817	0.000839	0.000102	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Market Based	7.519221	7.468763	0.000839	0.000102	0	0	0	0
<b>Total</b>	7.519221	7.468763	0.000839	0.000102	0	0	0	0

## Source Emissions | Library Electricity - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	56,069 kWh	527.9 lb/MWh	2018 Default Emission Factors - Table #14.1	13.425817	13.425817
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	56,069 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000839	0.0235
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	56,069 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000102	0.026958

## Source Emissions | Library Electricity - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	56,069 kWh	293.67 lb/MWh	2018 Default Emission Factors - Table #14.8	7.468763	7.468763
Purchased Electricity - Market Based	CH4	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	56,069 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000839	0.0235
Purchased Electricity - Market Based	N2O	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	56,069 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000102	0.026958

## Source Emissions | Library Natural Gas

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	3,583 therm	53.06 kg/MMBtu	2018 Default Emission Factors - Table #12.1	19.011398	19.011398
Stationary Combustion	CH4	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	3,583 therm	5 g/MMBtu	2018 Default Emission Factors - Table #12.9	0.001792	0.050162
Stationary Combustion	N2O	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	3,583 therm	0.1 g/MMBtu	2018 Default Emission Factors - Table #12.9	0.000036	0.009495

## Facility Emissions | Municipal Service Center

Equity share - 100% | Entity controls the facility emissions - Yes

655 North Pioneer Avenue, Woodland, California, 95776, US

Scope 1 - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Stationary Combustion	39.549807	39.426131	0.003714	0.000074	0	0	0	0
<b>Total</b>	39.549807	39.426131	0.003714	0.000074	0	0	0	0

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Location Based	15.348134	15.290667	0.000956	0.000116	0	0	0	0
<b>Total</b>	15.348134	15.290667	0.000956	0.000116	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Market Based	8.563642	8.506176	0.000956	0.000116	0	0	0	0
<b>Total</b>	8.563642	8.506176	0.000956	0.000116	0	0	0	0

## Source Emissions | Municipal Service Center Acetylene Tank

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Fossil Fuel-derived Fuels (gaseous)	All	Unspecified Technology	Emission Factor	Yes		Acetylene	125 scf	0.1053 kg/scf	2018 Default Emission Factors - Table #12.1	0.013163	0.013163
Stationary Combustion	CH4	Fossil Fuel-derived Fuels (gaseous)	All	Unspecified Technology	Emission Factor	No		Acetylene	125 scf		2018 Default Emission Factors - Table #12.9	0	0
Stationary Combustion	N2O	Fossil Fuel-derived Fuels (gaseous)	All	Unspecified Technology	Emission Factor	No		Acetylene	125 scf		2018 Default Emission Factors - Table #12.9	0	0

## Source Emissions | Municipal Service Center Electricity - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	63,857 kWh	527.9 lb/MWh	2018 Default Emission Factors - Table #14.1	15.290667	15.290667
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	63,857 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000956	0.026764
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	63,857 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000116	0.030703

## Source Emissions | Municipal Service Center Electricity - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	63,857 kWh	293.67 lb/MWh	2018 Default Emission Factors - Table #14.8	8.506176	8.506176
Purchased Electricity - Market Based	CH4	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	63,857 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000956	0.026764
Purchased Electricity - Market Based	N2O	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	63,857 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000116	0.030703

## Source Emissions | Municipal Service Center Natural Gas

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	7,428 therm	53.06 kg/MMBtu	2018 Default Emission Factors - Table #12.1	39.412968	39.412968
Stationary Combustion	CH4	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	7,428 therm	5 g/MMBtu	2018 Default Emission Factors - Table #12.9	0.003714	0.103992
Stationary Combustion	N2O	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	7,428 therm	0.1 g/MMBtu	2018 Default Emission Factors - Table #12.9	0.000074	0.019684

## Facility Emissions | Parks, Cemetery, and Ballfield

Equity share - 100% | Entity controls the facility emissions - Yes

2001 East Street, Woodland, California, 95776, US

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Location Based	61.025758	60.797265	0.003801	0.000461	0	0	0	0
<b>Total</b>	61.025758	60.797265	0.003801	0.000461	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Market Based	34.049923	33.82143	0.003801	0.000461	0	0	0	0
<b>Total</b>	34.049923	33.82143	0.003801	0.000461	0	0	0	0

## Source Emissions | Parks Misc. Electricity - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	253,902 kWh	527.9 lb/MWh	2018 Default Emission Factors - Table #14.1	60.797265	60.797265
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	253,902 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.003801	0.106415
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	253,902 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000461	0.122078

## Source Emissions | Parks Misc. Electricity - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	253,902 kWh	293.67 lb/MWh	2018 Default Emission Factors - Table #14.8	33.82143	33.82143
Purchased Electricity - Market Based	CH4	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	253,902 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.003801	0.106415
Purchased Electricity - Market Based	N2O	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	253,902 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000461	0.122078

## Facility Emissions | Police Department

Equity share - 100% | Entity controls the facility emissions - Yes

1000 Lincoln Avenue, Woodland, California, 95695, US

Scope 1 - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Stationary Combustion	85.359338	85.092322	0.008019	0.00016	0	0	0	0
<b>Total</b>	85.359338	85.092322	0.008019	0.00016	0	0	0	0

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Location Based	67.263364	67.011515	0.004189	0.000508	0	0	0	0
<b>Total</b>	67.263364	67.011515	0.004189	0.000508	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Market Based	37.530257	37.278408	0.004189	0.000508	0	0	0	0
<b>Total</b>	37.530257	37.278408	0.004189	0.000508	0	0	0	0

## Source Emissions | Police Department Electricity - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	279,854 kWh	293.67 lb/MWh	2018 Default Emission Factors - Table #14.8	37.278408	37.278408
Purchased Electricity - Market Based	CH4	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	279,854 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.004189	0.117292
Purchased Electricity - Market Based	N2O	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	279,854 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000508	0.134556

## Source Emissions | Police Department Electricity - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	279,854 kWh	527.9 lb/MWh	2018 Default Emission Factors - Table #14.1	67.011515	67.011515
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	279,854 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.004189	0.117292
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	279,854 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000508	0.134556

## Source Emissions | Police Department Natural Gas

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	16,037 therm	53.06 kg/MMBtu	2018 Default Emission Factors - Table #12.1	85.092322	85.092322
Stationary Combustion	CH4	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	16,037 therm	5 g/MMBtu	2018 Default Emission Factors - Table #12.9	0.008019	0.224518
Stationary Combustion	N2O	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	16,037 therm	0.1 g/MMBtu	2018 Default Emission Factors - Table #12.9	0.00016	0.042498

## Facility Emissions | Traffic Signals & Lights

Equity share - 100% | Entity controls the facility emissions - Yes

655 N. Pioneer Ave, Woodland, California, 95776, US

Scope 2 - Location Based - Indirect Emissions	Total CO2e (t)	CO2 (t)	CH4 (t)	N2O (t)	HFC (t of CO2e)	PFC (t of CO2e)	NF3 (t)	SF6 (t)
Purchased Electricity - Location Based	387.559785	386.108678	0.024136	0.002926	0	0	0	0
<b>Total</b>	<b>387.559785</b>	<b>386.108678</b>	<b>0.024136</b>	<b>0.002926</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Scope 2 - Market Based - Indirect Emissions	Total CO2e (t)	CO2 (t)	CH4 (t)	N2O (t)	HFC (t of CO2e)	PFC (t of CO2e)	NF3 (t)	SF6 (t)
Purchased Electricity - Market Based	216.242802	214.791694	0.024136	0.002926	0	0	0	0
<b>Total</b>	<b>216.242802</b>	<b>214.791694</b>	<b>0.024136</b>	<b>0.002926</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

## Source Emissions | Traffic Signals & Lights Electricity - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	1,612,470 kWh	527.9 lb/MWh	2018 Default Emission Factors - Table #14.1	386.108678	386.108678
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	1,612,470 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.024136	0.675818
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	1,612,470 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.002926	0.775289

## Source Emissions | Traffic Signals & Lights Electricity - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	1,612,470 kWh	293.67 lb/MWh	2018 Default Emission Factors - Table #14.8	214.791694	214.791694
Purchased Electricity - Market Based	CH4	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	1,612,470 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.024136	0.675818
Purchased Electricity - Market Based	N2O	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	1,612,470 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.002926	0.775289

## Facility Emissions | Water Pollution Control Facility

Equity share - 100% | Entity controls the facility emissions - Yes

42929 County Road 24, Woodland, California, 95776, US

Scope 1 - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Stationary Combustion	14.159586	14.076	0.001904	0.000114	0	0	0	0
Process	317.882	0	4.55	0.7188	0	0	0	0
<b>Total</b>	<b>332.041586</b>	<b>14.076</b>	<b>4.551904</b>	<b>0.718914</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Location Based	1,105.508597	1,101.369334	0.068849	0.008345	0	0	0	0
<b>Total</b>	<b>1,105.508597</b>	<b>1,101.369334</b>	<b>0.068849</b>	<b>0.008345</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Scope 2 - Market Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Market Based	616.829417	612.690154	0.068849	0.008345	0	0	0	0
<b>Total</b>	<b>616.829417</b>	<b>612.690154</b>	<b>0.068849</b>	<b>0.008345</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

## Source Emissions | Diesel Fuel

Diesel purchases fueling diesel-powered forklift, diesel pumps, and backup generators at or associated with the WPCF.

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Petroleum Products	Commercial	Unspecified Technology	Emission Factor	No		Distillate Fuel Oil No. 2	1,360 gal	10.35 kg/gal	2018 Default Emission Factors - Table #12.1	14.076	14.076
Stationary Combustion	CH4	Petroleum Products	Commercial	Unspecified Technology	Emission Factor	No		Distillate Fuel Oil No. 2	1,360 gal	10 g/MMBtu	2018 Default Emission Factors - Table #12.9	0.001904	0.053312
Stationary Combustion	N2O	Petroleum Products	Commercial	Unspecified Technology	Emission Factor	No		Distillate Fuel Oil No. 2	1,360 gal	0.6 g/MMBtu	2018 Default Emission Factors - Table #12.9	0.000114	0.030274

## Source Emissions | Process CH4 Emissions from Wastewater Treatment Ponds

Used equation 10.3 from LGOP V1.1

Used Population estimates from California Department of Finance E-1 sheet

BOD5 load = 4,326.364 kg/day ; Fp = 0.994

$(4326.364 \times (1-0.994) \times 0.6 \times 0.8 \times 365.25 \times 10^{-3}) = 4.55 \times \text{GWP of } 28 = 127.4$

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Process	CH4	N/A	All	Unspecified Technology	PreCalculated	No		N/A	N/A	N/A	N/A	4.55	127.4

## Source Emissions | Process N2O Emissions from Centralized WWTP with nitrification/denitrification

Used equation 10.7 from LGOP V1.1

Used Population estimates from California Department of Finance E-1 sheet

PTotal=59,863

$((59,863 \times 1.25) \times 7 \times 0.000001) = 0.5238 \times \text{GWP of } 265 = 138.8073 \text{ MTCO}_2\text{e}$

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Process	N2O	N/A	All	Unspecified Technology	PreCalculated	No		N/A	N/A	N/A	N/A	0.5238	138.807

## Source Emissions | Process N2O Emissions from Effluent Discharge to Receiving Aquatic Environments

Emissions from effluent discharge to receiving aquatic environments.

Used equation 10.9 from LGOP V1.1

N Load = 68

$(68 \times 0.005 \times 365.25 \times 10^{-3} \times 44/28) = 0.195 \times \text{GWP of } 265 = 51.675$

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Process	N2O	N/A	All	Unspecified Technology	PreCalculated	No		N/A	N/A	N/A	N/A	0.195	51.675

## Source Emissions | WPCF Electricity - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	4,599,547 kWh	527.9 lb/MWh	2018 Default Emission Factors - Table #14.1	1,101.369334	1,101.369334
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	4,599,547 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.068849	1.927761
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	4,599,547 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.008345	2.211501

## Source Emissions | WPCF Electricity - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	4,599,547 kWh	293.67 lb/MWh	2018 Default Emission Factors - Table #14.8	612.690154	612.690154
Purchased Electricity - Market Based	CH4	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	4,599,547 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.068849	1.927761
Purchased Electricity - Market Based	N2O	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	4,599,547 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.008345	2.211501

## Facility Emissions | Wells and Stormwater Electricity

Equity share - 100% | Entity controls the facility emissions - Yes

655 N. Pioneer Avenue, Woodland, California, 95695, US

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Location Based	192.462045	191.741425	0.011986	0.001453	0	0	0	0
<b>Total</b>	192.462045	191.741425	0.011986	0.001453	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Market Based	107.386095	106.665475	0.011986	0.001453	0	0	0	0
<b>Total</b>	107.386095	106.665475	0.011986	0.001453	0	0	0	0

## Source Emissions | Wells and Stormwater Electricity - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	800,752 kWh	527.9 lb/MWh	2018 Default Emission Factors - Table #14.1	191.741425	191.741425
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	800,752 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.011986	0.335611
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	800,752 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.001453	0.385008

## Source Emissions | Wells and Stormwater Electricity - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	800,752 kWh	293.67 lb/MWh	2018 Default Emission Factors - Table #14.8	106.665475	106.665475
Purchased Electricity - Market Based	CH4	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	800,752 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.011986	0.335611
Purchased Electricity - Market Based	N2O	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	800,752 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.001453	0.385008

## Facility Emissions | Woodland Community and Senior Center

Equity share - 100% | Entity controls the facility emissions - Yes

2001 East Street, Woodland, California, 95776, US

Scope 1 - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Stationary Combustion	24.782258	24.704736	0.002328	0.000047	0	0	0	0
<b>Total</b>	24.782258	24.704736	0.002328	0.000047	0	0	0	0

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Location Based	52.06569	51.870745	0.003243	0.000393	0	0	0	0
<b>Total</b>	52.06569	51.870745	0.003243	0.000393	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Market Based	29.050565	28.85562	0.003243	0.000393	0	0	0	0
<b>Total</b>	29.050565	28.85562	0.003243	0.000393	0	0	0	0

## Source Emissions | Community/Senior Center Electricity - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	216,623 kWh	527.9 lb/MWh	2018 Default Emission Factors - Table #14.1	51.870745	51.870745
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	216,623 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.003243	0.090791
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2017	Unspecified Technology	Emission Factor	No		WECC California	216,623 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000393	0.104154

## Source Emissions | Community/Senior Center Electricity - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	216,623 kWh	293.67 lb/MWh	2018 Default Emission Factors - Table #14.8	28.85562	28.85562
Purchased Electricity - Market Based	CH4	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	216,623 kWh	33 lb/GWh	2018 Default Emission Factors - Table #14.1	0.003243	0.090791
Purchased Electricity - Market Based	N2O	Utility-Specific Rate	2016	System Average	Emission Factor	No		Pacific Gas & Electric	216,623 kWh	4 lb/GWh	2018 Default Emission Factors - Table #14.1	0.000393	0.104154

## Source Emissions | Community/Senior Center Natural Gas

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	4,656 therm	53.06 kg/MMBtu	2018 Default Emission Factors - Table #12.1	24.704736	24.704736
Stationary Combustion	CH4	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	4,656 therm	5 g/MMBtu	2018 Default Emission Factors - Table #12.9	0.002328	0.065184
Stationary Combustion	N2O	Natural Gas	Commercial	Unspecified Technology	Emission Factor	No		Unspecified (Weighted U.S. Average)	4,656 therm	0.1 g/MMBtu	2018 Default Emission Factors - Table #12.9	0.000047	0.012338