

Appendix A: Air Quality and Greenhouse Gas Emissions Supporting Information

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Air Quality and Greenhouse Gas Emissions Supporting Information

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Canine Companions Campus Expansion Construction Assumptions

Proejct Site

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Annual

Construction Phase

Phase Name	Phase Type	Start Date	End Date	Num Days	
				Week	Num Days
Site Preparation	Site Preparation	7/1/2021	7/5/2021	5	3
Grading	Grading	7/6/2021	7/13/2021	5	6
Building Construction	Building Construction	7/14/2021	8/4/2022	5	277
Paving	Paving	8/5/2022	8/18/2022	5	10
Architectural Coating	Architectural Coating	8/19/2022	9/1/2022	5	10

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse	
				Power	Load Factor
Site Preparation	Graders	1	8	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	7	97	0.37
Site Preparation	Scrapers	1	8	367	0.48
Grading	Rubber Tired Dozers	1	8	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7	97	0.37
Grading	Graders	1	8	187	0.41
Building Construction	Generator Sets	1	8	84	0.74
Building Construction	Cranes	1	8	231	0.29
Building Construction	Forklifts	2	7	89	0.20
Building Construction	Tractors/Loaders/Backhoes	1	6	97	0.37
Building Construction	Welders	3	8	46	0.45
Paving	Cement and Mortar Mixers	1	8	9	0.56
Paving	Pavers	1	8	130	0.42
Paving	Rollers	2	8	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8	97	0.37
Paving	Paving Equipment	1	8	132	0.36
Architectural Coating	Air Compressors	1	6	78	0.48

Trips and VMT

Phase Name	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling	Worker	Vendor	Hauling
	Number	Number	Number	Length	Length	Trip Length	Vehicle Class	Vehicle Class	Vehicle Class
Site Preparation	8	0	6	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT
Grading	10	0	8	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT
Building Construction	54	21	16	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT
Paving	15	4	12	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT
Architectural Coating	11	0	2	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	5.18	1000sqft	0.12	5,180.00	0
General Light Industry	21.99	1000sqft	0.50	21,991.00	0
Parking Lot	68.00	Space	0.61	27,200.00	0
General Light Industry	8.97	1000sqft	0.21	8,972.00	0
Other Non-Asphalt Surfaces	23.14	1000sqft	0.53	23,140.00	0
Other Asphalt Surfaces	43.41	1000sqft	1.01	43,413.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	75
Climate Zone	4			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	390.65	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - Canine Companions Canine Early Development Center Expansion Project

CO2 intensity factor adjusted based on Renewable Energy Portfolio.

Construction start date as provided by the project applicant.

Land Use - Based on project description and project plans.

Construction Phase - Start date: July 2021

Completer: Sept. 2022

Grading - Cut/fill to be balanced on-site.

Trips and VMT - Additional haul trips added to account for transport of off-road equipment (2 trips per piece of equipment assumed)

Additional vendor trips assumed in the paving phase to account for delivery of materials.

Vehicle Trips - Trip Generation rate adjusted to match the daily trips as per W-Trans. 2021. Focused Traffic Study for the Canine Companions CEDC Expansion Project. March 9. Weekday trip generation rate used for weekends.

Energy Use -

Construction Off-road Equipment Mitigation - Compliance with BAAQMD best management practices threshold for fugitive dust.

The project would use electric or alternatively-fueled off-road equipment. In the absence of project-specific information, CalEEMod default assumptions were retained.

Energy Mitigation - Rooftop solar would be included. In the absence of project-specific information regarding the anticipated on-site renewable energy, no reductions were taken for the inclusion of solar.

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Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	220.00	277.00
tblConstructionPhase	PhaseEndDate	6/14/2022	9/1/2022
tblConstructionPhase	PhaseEndDate	5/17/2022	8/4/2022
tblConstructionPhase	PhaseEndDate	5/31/2022	8/18/2022
tblConstructionPhase	PhaseStartDate	6/1/2022	8/19/2022
tblConstructionPhase	PhaseStartDate	5/18/2022	8/5/2022
tblLandUse	LotAcreage	1.00	1.01
tblProjectCharacteristics	CO2IntensityFactor	641.35	390.65
tblTripsAndVMT	HaulingTripNumber	0.00	6.00
tblTripsAndVMT	HaulingTripNumber	0.00	8.00
tblTripsAndVMT	HaulingTripNumber	0.00	16.00
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	1.32	21.50
tblVehicleTrips	ST_TR	8.96	3.52
tblVehicleTrips	SU_TR	0.68	21.50
tblVehicleTrips	SU_TR	1.55	3.52
tblVehicleTrips	WD_TR	6.97	21.50
tblVehicleTrips	WD_TR	36.13	3.52

2.0 Emissions Summary

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2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1526	1.2276	1.0820	2.2500e-003	0.0570	0.0546	0.1117	0.0199	0.0522	0.0721	0.0000	193.5901	193.5901	0.0307	0.0000	194.3582
2022	0.3812	1.3621	1.3345	2.7900e-003	0.0445	0.0576	0.1021	0.0121	0.0551	0.0672	0.0000	240.0156	240.0156	0.0368	0.0000	240.9346
Maximum	0.3812	1.3621	1.3345	2.7900e-003	0.0570	0.0576	0.1117	0.0199	0.0551	0.0721	0.0000	240.0156	240.0156	0.0368	0.0000	240.9346

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1526	1.2276	1.0820	2.2500e-003	0.0449	0.0546	0.0996	0.0142	0.0522	0.0664	0.0000	193.5899	193.5899	0.0307	0.0000	194.3581
2022	0.3812	1.3621	1.3345	2.7900e-003	0.0445	0.0576	0.1021	0.0121	0.0551	0.0672	0.0000	240.0154	240.0154	0.0368	0.0000	240.9344
Maximum	0.3812	1.3621	1.3345	2.7900e-003	0.0449	0.0576	0.1021	0.0142	0.0551	0.0672	0.0000	240.0154	240.0154	0.0368	0.0000	240.9344

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	11.95	0.00	5.67	17.83	0.00	4.09	0.00	0.00	0.00	0.00	0.00	0.00

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2021	9-30-2021	0.6879	0.6879
2	10-1-2021	12-31-2021	0.6865	0.6865
3	1-1-2022	3-31-2022	0.6145	0.6145
4	4-1-2022	6-30-2022	0.6190	0.6190
5	7-1-2022	9-30-2022	0.5124	0.5124
		Highest	0.6879	0.6879

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1682	1.0000e-005	1.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.0500e-003	3.0500e-003	1.0000e-005	0.0000	3.2500e-003
Energy	4.8600e-003	0.0442	0.0371	2.7000e-004		3.3600e-003	3.3600e-003		3.3600e-003	3.3600e-003	0.0000	111.4841	111.4841	5.6300e-003	1.8600e-003	112.1776
Mobile	0.2276	1.2292	2.7103	8.9500e-003	0.7343	8.8900e-003	0.7431	0.1976	8.3400e-003	0.2059	0.0000	822.4985	822.4985	0.0336	0.0000	823.3390
Waste						0.0000	0.0000		0.0000	0.0000	19.1481	0.0000	19.1481	1.1316	0.0000	47.4387
Water						0.0000	0.0000		0.0000	0.0000	2.4776	7.5646	10.0422	0.2550	6.1200e-003	18.2432
Total	0.4006	1.2735	2.7490	9.2200e-003	0.7343	0.0123	0.7465	0.1976	0.0117	0.2093	21.6257	941.5502	963.1759	1.4259	7.9800e-003	1,001.2018

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2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1682	1.0000e-005	1.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.0500e-003	3.0500e-003	1.0000e-005	0.0000	3.2500e-003
Energy	4.8600e-003	0.0442	0.0371	2.7000e-004		3.3600e-003	3.3600e-003		3.3600e-003	3.3600e-003	0.0000	111.4841	111.4841	5.6300e-003	1.8600e-003	112.1776
Mobile	0.2276	1.2292	2.7103	8.9500e-003	0.7343	8.8900e-003	0.7431	0.1976	8.3400e-003	0.2059	0.0000	822.4985	822.4985	0.0336	0.0000	823.3390
Waste						0.0000	0.0000		0.0000	0.0000	19.1481	0.0000	19.1481	1.1316	0.0000	47.4387
Water						0.0000	0.0000		0.0000	0.0000	2.4776	7.5646	10.0422	0.2550	6.1200e-003	18.2432
Total	0.4006	1.2735	2.7490	9.2200e-003	0.7343	0.0123	0.7465	0.1976	0.0117	0.2093	21.6257	941.5502	963.1759	1.4259	7.9800e-003	1,001.2018

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2021	7/5/2021	5	3	
2	Grading	Grading	7/6/2021	7/13/2021	5	6	
3	Building Construction	Building Construction	7/14/2021	8/4/2022	5	277	
4	Paving	Paving	8/5/2022	8/18/2022	5	10	
5	Architectural Coating	Architectural Coating	8/19/2022	9/1/2022	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 2.15

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 54,215; Non-Residential Outdoor: 18,072; Striped Parking Area: 5,625 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	6.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	8.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	54.00	21.00	16.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	11.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3200e-003	0.0274	0.0161	4.0000e-005		1.0500e-003	1.0500e-003		9.7000e-004	9.7000e-004	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551
Total	2.3200e-003	0.0274	0.0161	4.0000e-005	2.3900e-003	1.0500e-003	3.4400e-003	2.6000e-004	9.7000e-004	1.2300e-003	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551

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3.2 Site Preparation - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	8.2000e-004	1.7000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.2281	0.2281	1.0000e-005	0.0000	0.2284
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	3.8000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0838	0.0838	0.0000	0.0000	0.0838
Total	7.0000e-005	8.6000e-004	5.5000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	0.3118	0.3118	1.0000e-005	0.0000	0.3123

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0700e-003	0.0000	1.0700e-003	1.2000e-004	0.0000	1.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3200e-003	0.0274	0.0161	4.0000e-005		1.0500e-003	1.0500e-003		9.7000e-004	9.7000e-004	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551
Total	2.3200e-003	0.0274	0.0161	4.0000e-005	1.0700e-003	1.0500e-003	2.1200e-003	1.2000e-004	9.7000e-004	1.0900e-003	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551

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3.2 Site Preparation - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	8.2000e-004	1.7000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.2281	0.2281	1.0000e-005	0.0000	0.2284
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	3.8000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0838	0.0838	0.0000	0.0000	0.0838
Total	7.0000e-005	8.6000e-004	5.5000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	0.3118	0.3118	1.0000e-005	0.0000	0.3123

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4800e-003	0.0606	0.0293	6.0000e-005		2.7500e-003	2.7500e-003		2.5300e-003	2.5300e-003	0.0000	5.4312	5.4312	1.7600e-003	0.0000	5.4751
Total	5.4800e-003	0.0606	0.0293	6.0000e-005	0.0197	2.7500e-003	0.0224	0.0101	2.5300e-003	0.0126	0.0000	5.4312	5.4312	1.7600e-003	0.0000	5.4751

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3.3 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.0900e-003	2.3000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.3041	0.3041	2.0000e-005	0.0000	0.3046
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	9.5000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2094	0.2094	1.0000e-005	0.0000	0.2096
Total	1.6000e-004	1.1800e-003	1.1800e-003	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.5135	0.5135	3.0000e-005	0.0000	0.5141

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.8500e-003	0.0000	8.8500e-003	4.5500e-003	0.0000	4.5500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4800e-003	0.0606	0.0293	6.0000e-005		2.7500e-003	2.7500e-003		2.5300e-003	2.5300e-003	0.0000	5.4312	5.4312	1.7600e-003	0.0000	5.4751
Total	5.4800e-003	0.0606	0.0293	6.0000e-005	8.8500e-003	2.7500e-003	0.0116	4.5500e-003	2.5300e-003	7.0800e-003	0.0000	5.4312	5.4312	1.7600e-003	0.0000	5.4751

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3.3 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.0900e-003	2.3000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.3041	0.3041	2.0000e-005	0.0000	0.3046
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	9.5000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2094	0.2094	1.0000e-005	0.0000	0.2096
Total	1.6000e-004	1.1800e-003	1.1800e-003	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.5135	0.5135	3.0000e-005	0.0000	0.5141

3.4 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1258	0.9857	0.8956	1.5400e-003		0.0503	0.0503		0.0482	0.0482	0.0000	127.7040	127.7040	0.0251	0.0000	128.3321
Total	0.1258	0.9857	0.8956	1.5400e-003		0.0503	0.0503		0.0482	0.0482	0.0000	127.7040	127.7040	0.0251	0.0000	128.3321

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3.4 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	9.7000e-004	2.1000e-004	0.0000	1.1000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.2701	0.2701	2.0000e-005	0.0000	0.2705
Vendor	4.1000e-003	0.1406	0.0344	3.4000e-004	8.3700e-003	3.5000e-004	8.7200e-003	2.4200e-003	3.4000e-004	2.7600e-003	0.0000	32.9516	32.9516	1.9600e-003	0.0000	33.0005
Worker	0.0147	0.0103	0.1046	2.6000e-004	0.0261	2.0000e-004	0.0263	6.9400e-003	1.9000e-004	7.1300e-003	0.0000	23.1790	23.1790	7.8000e-004	0.0000	23.1986
Total	0.0188	0.1518	0.1393	6.0000e-004	0.0345	5.5000e-004	0.0351	9.3900e-003	5.3000e-004	9.9200e-003	0.0000	56.4006	56.4006	2.7600e-003	0.0000	56.4696

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1258	0.9857	0.8956	1.5400e-003		0.0503	0.0503		0.0482	0.0482	0.0000	127.7038	127.7038	0.0251	0.0000	128.3319
Total	0.1258	0.9857	0.8956	1.5400e-003		0.0503	0.0503		0.0482	0.0482	0.0000	127.7038	127.7038	0.0251	0.0000	128.3319

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3.4 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	9.7000e-004	2.1000e-004	0.0000	1.1000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.2701	0.2701	2.0000e-005	0.0000	0.2705
Vendor	4.1000e-003	0.1406	0.0344	3.4000e-004	8.3700e-003	3.5000e-004	8.7200e-003	2.4200e-003	3.4000e-004	2.7600e-003	0.0000	32.9516	32.9516	1.9600e-003	0.0000	33.0005
Worker	0.0147	0.0103	0.1046	2.6000e-004	0.0261	2.0000e-004	0.0263	6.9400e-003	1.9000e-004	7.1300e-003	0.0000	23.1790	23.1790	7.8000e-004	0.0000	23.1986
Total	0.0188	0.1518	0.1393	6.0000e-004	0.0345	5.5000e-004	0.0351	9.3900e-003	5.3000e-004	9.9200e-003	0.0000	56.4006	56.4006	2.7600e-003	0.0000	56.4696

3.4 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1429	1.1245	1.1052	1.9300e-003		0.0541	0.0541		0.0518	0.0518	0.0000	159.9137	159.9137	0.0309	0.0000	160.6850
Total	0.1429	1.1245	1.1052	1.9300e-003		0.0541	0.0541		0.0518	0.0518	0.0000	159.9137	159.9137	0.0309	0.0000	160.6850

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3.4 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.1100e-003	2.5000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.3335	0.3335	2.0000e-005	0.0000	0.3340
Vendor	4.7500e-003	0.1672	0.0395	4.2000e-004	0.0105	3.8000e-004	0.0109	3.0300e-003	3.7000e-004	3.4000e-003	0.0000	40.8732	40.8732	2.3900e-003	0.0000	40.9329
Worker	0.0170	0.0114	0.1174	3.1000e-004	0.0326	2.5000e-004	0.0329	8.6900e-003	2.3000e-004	8.9100e-003	0.0000	27.9590	27.9590	8.6000e-004	0.0000	27.9806
Total	0.0218	0.1797	0.1572	7.3000e-004	0.0432	6.3000e-004	0.0439	0.0118	6.0000e-004	0.0123	0.0000	69.1657	69.1657	3.2700e-003	0.0000	69.2476

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1429	1.1245	1.1052	1.9300e-003		0.0541	0.0541		0.0518	0.0518	0.0000	159.9135	159.9135	0.0309	0.0000	160.6848
Total	0.1429	1.1245	1.1052	1.9300e-003		0.0541	0.0541		0.0518	0.0518	0.0000	159.9135	159.9135	0.0309	0.0000	160.6848

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3.4 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.1100e-003	2.5000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.3335	0.3335	2.0000e-005	0.0000	0.3340
Vendor	4.7500e-003	0.1672	0.0395	4.2000e-004	0.0105	3.8000e-004	0.0109	3.0300e-003	3.7000e-004	3.4000e-003	0.0000	40.8732	40.8732	2.3900e-003	0.0000	40.9329
Worker	0.0170	0.0114	0.1174	3.1000e-004	0.0326	2.5000e-004	0.0329	8.6900e-003	2.3000e-004	8.9100e-003	0.0000	27.9590	27.9590	8.6000e-004	0.0000	27.9806
Total	0.0218	0.1797	0.1572	7.3000e-004	0.0432	6.3000e-004	0.0439	0.0118	6.0000e-004	0.0123	0.0000	69.1657	69.1657	3.2700e-003	0.0000	69.2476

3.5 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7100e-003	0.0467	0.0585	9.0000e-005		2.4400e-003	2.4400e-003		2.2500e-003	2.2500e-003	0.0000	7.7550	7.7550	2.4600e-003	0.0000	7.8165
Paving	2.1200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.8300e-003	0.0467	0.0585	9.0000e-005		2.4400e-003	2.4400e-003		2.2500e-003	2.2500e-003	0.0000	7.7550	7.7550	2.4600e-003	0.0000	7.8165

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3.5 Paving - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	1.4900e-003	3.3000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.4499	0.4499	3.0000e-005	0.0000	0.4506
Vendor	6.0000e-005	2.0700e-003	4.9000e-004	1.0000e-005	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.5055	0.5055	3.0000e-005	0.0000	0.5063
Worker	3.1000e-004	2.1000e-004	2.1200e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5043	0.5043	2.0000e-005	0.0000	0.5047
Total	4.1000e-004	3.7700e-003	2.9400e-003	2.0000e-005	8.2000e-004	0.0000	8.2000e-004	2.3000e-004	0.0000	2.3000e-004	0.0000	1.4598	1.4598	8.0000e-005	0.0000	1.4616

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7100e-003	0.0467	0.0585	9.0000e-005		2.4400e-003	2.4400e-003		2.2500e-003	2.2500e-003	0.0000	7.7550	7.7550	2.4600e-003	0.0000	7.8165
Paving	2.1200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.8300e-003	0.0467	0.0585	9.0000e-005		2.4400e-003	2.4400e-003		2.2500e-003	2.2500e-003	0.0000	7.7550	7.7550	2.4600e-003	0.0000	7.8165

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3.5 Paving - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	1.4900e-003	3.3000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.4499	0.4499	3.0000e-005	0.0000	0.4506
Vendor	6.0000e-005	2.0700e-003	4.9000e-004	1.0000e-005	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.5055	0.5055	3.0000e-005	0.0000	0.5063
Worker	3.1000e-004	2.1000e-004	2.1200e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5043	0.5043	2.0000e-005	0.0000	0.5047
Total	4.1000e-004	3.7700e-003	2.9400e-003	2.0000e-005	8.2000e-004	0.0000	8.2000e-004	2.3000e-004	0.0000	2.3000e-004	0.0000	1.4598	1.4598	8.0000e-005	0.0000	1.4616

3.6 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2080					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	0.2090	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787

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3.6 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.5000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0750	0.0750	0.0000	0.0000	0.0751
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.5000e-004	1.5500e-003	0.0000	4.3000e-004	0.0000	4.3000e-004	1.1000e-004	0.0000	1.2000e-004	0.0000	0.3698	0.3698	1.0000e-005	0.0000	0.3701
Total	2.4000e-004	4.0000e-004	1.6100e-003	0.0000	4.5000e-004	0.0000	4.5000e-004	1.1000e-004	0.0000	1.3000e-004	0.0000	0.4448	0.4448	1.0000e-005	0.0000	0.4452

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2080					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	0.2090	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787

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3.6 Architectural Coating - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.5000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0750	0.0750	0.0000	0.0000	0.0751
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.5000e-004	1.5500e-003	0.0000	4.3000e-004	0.0000	4.3000e-004	1.1000e-004	0.0000	1.2000e-004	0.0000	0.3698	0.3698	1.0000e-005	0.0000	0.3701
Total	2.4000e-004	4.0000e-004	1.6100e-003	0.0000	4.5000e-004	0.0000	4.5000e-004	1.1000e-004	0.0000	1.3000e-004	0.0000	0.4448	0.4448	1.0000e-005	0.0000	0.4452

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2276	1.2292	2.7103	8.9500e-003	0.7343	8.8900e-003	0.7431	0.1976	8.3400e-003	0.2059	0.0000	822.4985	822.4985	0.0336	0.0000	823.3390
Unmitigated	0.2276	1.2292	2.7103	8.9500e-003	0.7343	8.8900e-003	0.7431	0.1976	8.3400e-003	0.2059	0.0000	822.4985	822.4985	0.0336	0.0000	823.3390

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	472.79	472.79	472.79	1,380,301	1,380,301
General Light Industry	192.86	192.86	192.86	563,042	563,042
Medical Office Building	18.24	18.24	18.24	35,695	35,695
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	683.88	683.88	683.88	1,979,038	1,979,038

4.3 Trip Type Information

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Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.586631	0.037797	0.168261	0.105494	0.026152	0.006386	0.029932	0.027401	0.003107	0.001767	0.005158	0.000878	0.001037
Medical Office Building	0.586631	0.037797	0.168261	0.105494	0.026152	0.006386	0.029932	0.027401	0.003107	0.001767	0.005158	0.000878	0.001037
Other Asphalt Surfaces	0.586631	0.037797	0.168261	0.105494	0.026152	0.006386	0.029932	0.027401	0.003107	0.001767	0.005158	0.000878	0.001037
Other Non-Asphalt Surfaces	0.586631	0.037797	0.168261	0.105494	0.026152	0.006386	0.029932	0.027401	0.003107	0.001767	0.005158	0.000878	0.001037
Parking Lot	0.586631	0.037797	0.168261	0.105494	0.026152	0.006386	0.029932	0.027401	0.003107	0.001767	0.005158	0.000878	0.001037

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	63.3712	63.3712	4.7000e-003	9.7000e-004	63.7789
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	63.3712	63.3712	4.7000e-003	9.7000e-004	63.7789
NaturalGas Mitigated	4.8600e-003	0.0442	0.0371	2.7000e-004		3.3600e-003	3.3600e-003		3.3600e-003	3.3600e-003	0.0000	48.1128	48.1128	9.2000e-004	8.8000e-004	48.3988
NaturalGas Unmitigated	4.8600e-003	0.0442	0.0371	2.7000e-004		3.3600e-003	3.3600e-003		3.3600e-003	3.3600e-003	0.0000	48.1128	48.1128	9.2000e-004	8.8000e-004	48.3988

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Annual

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	580123	3.1300e-003	0.0284	0.0239	1.7000e-004		2.1600e-003	2.1600e-003		2.1600e-003	2.1600e-003	0.0000	30.9576	30.9576	5.9000e-004	5.7000e-004	31.1415
General Light Industry	236681	1.2800e-003	0.0116	9.7500e-003	7.0000e-005		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	12.6302	12.6302	2.4000e-004	2.3000e-004	12.7053
Medical Office Building	84796.6	4.6000e-004	4.1600e-003	3.4900e-003	2.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	4.5251	4.5251	9.0000e-005	8.0000e-005	4.5520
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		4.8700e-003	0.0442	0.0371	2.6000e-004		3.3600e-003	3.3600e-003		3.3600e-003	3.3600e-003	0.0000	48.1128	48.1128	9.2000e-004	8.8000e-004	48.3988

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Annual

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	236681	1.2800e-003	0.0116	9.7500e-003	7.0000e-005		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	12.6302	12.6302	2.4000e-004	2.3000e-004	12.7053
General Light Industry	580123	3.1300e-003	0.0284	0.0239	1.7000e-004		2.1600e-003	2.1600e-003		2.1600e-003	2.1600e-003	0.0000	30.9576	30.9576	5.9000e-004	5.7000e-004	31.1415
Medical Office Building	84796.6	4.6000e-004	4.1600e-003	3.4900e-003	2.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	4.5251	4.5251	9.0000e-005	8.0000e-005	4.5520
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		4.8700e-003	0.0442	0.0371	2.6000e-004		3.3600e-003	3.3600e-003		3.3600e-003	3.3600e-003	0.0000	48.1128	48.1128	9.2000e-004	8.8000e-004	48.3988

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	181646	32.1869	2.3900e-003	4.9000e-004	32.3939
General Light Industry	74108.7	13.1318	9.7000e-004	2.0000e-004	13.2162
Medical Office Building	92359.4	16.3657	1.2100e-003	2.5000e-004	16.4710
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	9520	1.6869	1.3000e-004	3.0000e-005	1.6978
Total		63.3712	4.7000e-003	9.7000e-004	63.7789

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Annual

5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	181646	32.1869	2.3900e-003	4.9000e-004	32.3939
General Light Industry	74108.7	13.1318	9.7000e-004	2.0000e-004	13.2162
Medical Office Building	92359.4	16.3657	1.2100e-003	2.5000e-004	16.4710
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	9520	1.6869	1.3000e-004	3.0000e-005	1.6978
Total		63.3712	4.7000e-003	9.7000e-004	63.7789

6.0 Area Detail**6.1 Mitigation Measures Area**

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1682	1.0000e-005	1.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.0500e-003	3.0500e-003	1.0000e-005	0.0000	3.2500e-003
Unmitigated	0.1682	1.0000e-005	1.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.0500e-003	3.0500e-003	1.0000e-005	0.0000	3.2500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0208					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1472					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	1.0000e-005	1.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.0500e-003	3.0500e-003	1.0000e-005	0.0000	3.2500e-003
Total	0.1682	1.0000e-005	1.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.0500e-003	3.0500e-003	1.0000e-005	0.0000	3.2500e-003

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Annual

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0208					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1472					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	1.0000e-005	1.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.0500e-003	3.0500e-003	1.0000e-005	0.0000	3.2500e-003
Total	0.1682	1.0000e-005	1.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.0500e-003	3.0500e-003	1.0000e-005	0.0000	3.2500e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	10.0422	0.2550	6.1200e-003	18.2432
Unmitigated	10.0422	0.2550	6.1200e-003	18.2432

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	7.1595 / 0	9.1360	0.2338	5.6100e-003	16.6540
Medical Office Building	0.649989 / 0.123807	0.9062	0.0212	5.1000e-004	1.5892
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		10.0422	0.2550	6.1200e-003	18.2432

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	7.1595 / 0	9.1360	0.2338	5.6100e-003	16.6540
Medical Office Building	0.649989 / 0.123807	0.9062	0.0212	5.1000e-004	1.5892
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		10.0422	0.2550	6.1200e-003	18.2432

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	19.1481	1.1316	0.0000	47.4387
Unmitigated	19.1481	1.1316	0.0000	47.4387

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	38.39	7.7928	0.4605	0.0000	19.3064
Medical Office Building	55.94	11.3553	0.6711	0.0000	28.1323
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		19.1481	1.1316	0.0000	47.4387

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Annual

8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	38.39	7.7928	0.4605	0.0000	19.3064
Medical Office Building	55.94	11.3553	0.6711	0.0000	28.1323
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		19.1481	1.1316	0.0000	47.4387

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Annual

User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

Canine Companions Canine Project - Unmitigated Construction and Project Buildout Sonoma-San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	5.18	1000sqft	0.12	5,180.00	0
General Light Industry	21.99	1000sqft	0.50	21,991.00	0
Parking Lot	68.00	Space	0.61	27,200.00	0
General Light Industry	8.97	1000sqft	0.21	8,972.00	0
Other Non-Asphalt Surfaces	23.14	1000sqft	0.53	23,140.00	0
Other Asphalt Surfaces	43.41	1000sqft	1.01	43,413.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	75
Climate Zone	4			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	390.65	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

Project Characteristics - Canine Companions Canine Early Development Center Expansion Project

CO2 intensity factor adjusted based on Renewable Energy Portfolio.

Construction start date as provided by the project applicant.

Land Use - Based on project description and project plans.

Construction Phase - Start date: July 2021

Completer: Sept. 2022

Grading - Cut/fill to be balanced on-site.

Trips and VMT - Additional haul trips added to account for transport of off-road equipment (2 trips per piece of equipment assumed)

Additional vendor trips assumed in the paving phase to account for delivery of materials.

Vehicle Trips - Trip Generation rate adjusted to match the daily trips as per W-Trans. 2021. Focused Traffic Study for the Canine Companions CEDC Expansion Project. March 9. Weekday trip generation rate used for weekends.

Energy Use -

Construction Off-road Equipment Mitigation - Compliance with BAAQMD best management practices threshold for fugitive dust.

The project would use electric or alternatively-fueled off-road equipment. In the absence of project-specific information, CalEEMod default assumptions were retained.

Energy Mitigation - Rooftop solar would be included. In the absence of project-specific information regarding the anticipated on-site renewable energy, no reductions were taken for the inclusion of solar.

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	220.00	277.00
tblConstructionPhase	PhaseEndDate	6/14/2022	9/1/2022
tblConstructionPhase	PhaseEndDate	5/17/2022	8/4/2022
tblConstructionPhase	PhaseEndDate	5/31/2022	8/18/2022
tblConstructionPhase	PhaseStartDate	6/1/2022	8/19/2022
tblConstructionPhase	PhaseStartDate	5/18/2022	8/5/2022
tblLandUse	LotAcreage	1.00	1.01
tblProjectCharacteristics	CO2IntensityFactor	641.35	390.65
tblTripsAndVMT	HaulingTripNumber	0.00	6.00
tblTripsAndVMT	HaulingTripNumber	0.00	8.00
tblTripsAndVMT	HaulingTripNumber	0.00	16.00
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	1.32	21.50
tblVehicleTrips	ST_TR	8.96	3.52
tblVehicleTrips	SU_TR	0.68	21.50
tblVehicleTrips	SU_TR	1.55	3.52
tblVehicleTrips	WD_TR	6.97	21.50
tblVehicleTrips	WD_TR	36.13	3.52

2.0 Emissions Summary

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.3556	20.5973	16.8892	0.0351	6.6575	0.9176	7.5751	3.3956	0.8442	4.2398	0.0000	3,331.960 2	3,331.960 2	0.7797	0.0000	3,344.440 5
2022	41.8562	16.9037	16.4554	0.0349	0.5865	0.7103	1.2968	0.1587	0.6808	0.8395	0.0000	3,310.600 5	3,310.600 5	0.5578	0.0000	3,322.800 6
Maximum	41.8562	20.5973	16.8892	0.0351	6.6575	0.9176	7.5751	3.3956	0.8442	4.2398	0.0000	3,331.960 2	3,331.960 2	0.7797	0.0000	3,344.440 5

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.3556	20.5973	16.8892	0.0351	3.0537	0.9176	3.9713	1.5434	0.8442	2.3877	0.0000	3,331.960 2	3,331.960 2	0.7797	0.0000	3,344.440 5
2022	41.8562	16.9037	16.4554	0.0349	0.5865	0.7103	1.2968	0.1587	0.6808	0.8395	0.0000	3,310.600 5	3,310.600 5	0.5578	0.0000	3,322.800 6
Maximum	41.8562	20.5973	16.8892	0.0351	3.0537	0.9176	3.9713	1.5434	0.8442	2.3877	0.0000	3,331.960 2	3,331.960 2	0.7797	0.0000	3,344.440 5

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	49.75	0.00	40.62	52.11	0.00	36.46	0.00	0.00	0.00	0.00	0.00	0.00

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9223	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0374	0.0374	1.0000e-004		0.0398
Energy	0.0266	0.2422	0.2034	1.4500e-003		0.0184	0.0184		0.0184	0.0184		290.6045	290.6045	5.5700e-003	5.3300e-003	292.3314
Mobile	1.3950	6.5393	15.3496	0.0515	4.2190	0.0487	4.2677	1.1309	0.0457	1.1767		5,216.5087	5,216.5087	0.2048		5,221.6291
Total	2.3439	6.7817	15.5705	0.0529	4.2190	0.0672	4.2862	1.1309	0.0642	1.1951		5,507.1506	5,507.1506	0.2105	5.3300e-003	5,514.0003

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9223	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0374	0.0374	1.0000e-004		0.0398
Energy	0.0266	0.2422	0.2034	1.4500e-003		0.0184	0.0184		0.0184	0.0184		290.6045	290.6045	5.5700e-003	5.3300e-003	292.3314
Mobile	1.3950	6.5393	15.3496	0.0515	4.2190	0.0487	4.2677	1.1309	0.0457	1.1767		5,216.5087	5,216.5087	0.2048		5,221.6291
Total	2.3439	6.7817	15.5705	0.0529	4.2190	0.0672	4.2862	1.1309	0.0642	1.1951		5,507.1506	5,507.1506	0.2105	5.3300e-003	5,514.0003

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2021	7/5/2021	5	3	
2	Grading	Grading	7/6/2021	7/13/2021	5	6	
3	Building Construction	Building Construction	7/14/2021	8/4/2022	5	277	
4	Paving	Paving	8/5/2022	8/18/2022	5	10	
5	Architectural Coating	Architectural Coating	8/19/2022	9/1/2022	5	10	

Acres of Grading (Site Preparation Phase): 4.5**Acres of Grading (Grading Phase): 3****Acres of Paving: 2.15****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 54,215; Non-Residential Outdoor: 18,072; Striped Parking Area: 5,625 (Architectural Coating – sqft)****OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	6.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	8.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	54.00	21.00	16.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	11.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457		2,372.883 2	2,372.883 2	0.7674		2,392.069 2
Total	1.5463	18.2862	10.7496	0.0245	1.5908	0.7019	2.2926	0.1718	0.6457	0.8175		2,372.883 2	2,372.883 2	0.7674		2,392.069 2

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

3.2 Site Preparation - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0148	0.5343	0.1123	1.5600e-003	0.0345	1.8400e-003	0.0364	9.4200e-003	1.7600e-003	0.0112		168.5920	168.5920	0.0101		168.8450
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0363	0.0221	0.2664	6.6000e-004	0.0657	4.9000e-004	0.0662	0.0174	4.5000e-004	0.0179		65.5015	65.5015	2.1800e-003		65.5559
Total	0.0511	0.5564	0.3787	2.2200e-003	0.1002	2.3300e-003	0.1026	0.0269	2.2100e-003	0.0291		234.0935	234.0935	0.0123		234.4010

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7158	0.0000	0.7158	0.0773	0.0000	0.0773			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457	0.0000	2,372.883 2	2,372.883 2	0.7674		2,392.069 2
Total	1.5463	18.2862	10.7496	0.0245	0.7158	0.7019	1.4177	0.0773	0.6457	0.7230	0.0000	2,372.883 2	2,372.883 2	0.7674		2,392.069 2

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

3.2 Site Preparation - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0148	0.5343	0.1123	1.5600e-003	0.0345	1.8400e-003	0.0364	9.4200e-003	1.7600e-003	0.0112		168.5920	168.5920	0.0101		168.8450
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0363	0.0221	0.2664	6.6000e-004	0.0657	4.9000e-004	0.0662	0.0174	4.5000e-004	0.0179		65.5015	65.5015	2.1800e-003		65.5559
Total	0.0511	0.5564	0.3787	2.2200e-003	0.1002	2.3300e-003	0.1026	0.0269	2.2100e-003	0.0291		234.0935	234.0935	0.0123		234.4010

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
Total	1.8271	20.2135	9.7604	0.0206	6.5523	0.9158	7.4681	3.3675	0.8425	4.2100		1,995.6114	1,995.6114	0.6454		2,011.7470

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

3.3 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.8900e-003	0.3562	0.0749	1.0400e-003	0.0230	1.2200e-003	0.0242	6.2800e-003	1.1700e-003	7.4500e-003		112.3947	112.3947	6.7500e-003		112.5634
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0454	0.0276	0.3330	8.2000e-004	0.0822	6.1000e-004	0.0828	0.0218	5.7000e-004	0.0224		81.8769	81.8769	2.7200e-003		81.9449
Total	0.0552	0.3838	0.4078	1.8600e-003	0.1052	1.8300e-003	0.1070	0.0281	1.7400e-003	0.0298		194.2716	194.2716	9.4700e-003		194.5083

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.9486	0.0000	2.9486	1.5154	0.0000	1.5154			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
Total	1.8271	20.2135	9.7604	0.0206	2.9486	0.9158	3.8643	1.5154	0.8425	2.3579	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

3.3 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.8900e-003	0.3562	0.0749	1.0400e-003	0.0230	1.2200e-003	0.0242	6.2800e-003	1.1700e-003	7.4500e-003		112.3947	112.3947	6.7500e-003		112.5634
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0454	0.0276	0.3330	8.2000e-004	0.0822	6.1000e-004	0.0828	0.0218	5.7000e-004	0.0224		81.8769	81.8769	2.7200e-003		81.9449
Total	0.0552	0.3838	0.4078	1.8600e-003	0.1052	1.8300e-003	0.1070	0.0281	1.7400e-003	0.0298		194.2716	194.2716	9.4700e-003		194.5083

3.4 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

3.4 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.3000e-004	0.0154	3.2400e-003	5.0000e-005	1.9500e-003	5.0000e-005	2.0100e-003	5.1000e-004	5.0000e-005	5.6000e-004		4.8691	4.8691	2.9000e-004		4.8764
Vendor	0.0652	2.2654	0.5250	5.6000e-003	0.1413	5.6300e-003	0.1470	0.0406	5.3800e-003	0.0460		596.0204	596.0204	0.0339		596.8679
Worker	0.2449	0.1489	1.7980	4.4400e-003	0.4436	3.3100e-003	0.4469	0.1177	3.0500e-003	0.1207		442.1352	442.1352	0.0147		442.5026
Total	0.3105	2.4297	2.3262	0.0101	0.5869	8.9900e-003	0.5959	0.1588	8.4800e-003	0.1673		1,043.0247	1,043.0247	0.0489		1,044.2469

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
Total	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935

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3.4 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.3000e-004	0.0154	3.2400e-003	5.0000e-005	1.9500e-003	5.0000e-005	2.0100e-003	5.1000e-004	5.0000e-005	5.6000e-004		4.8691	4.8691	2.9000e-004		4.8764
Vendor	0.0652	2.2654	0.5250	5.6000e-003	0.1413	5.6300e-003	0.1470	0.0406	5.3800e-003	0.0460		596.0204	596.0204	0.0339		596.8679
Worker	0.2449	0.1489	1.7980	4.4400e-003	0.4436	3.3100e-003	0.4469	0.1177	3.0500e-003	0.1207		442.1352	442.1352	0.0147		442.5026
Total	0.3105	2.4297	2.3262	0.0101	0.5869	8.9900e-003	0.5959	0.1588	8.4800e-003	0.1673		1,043.0247	1,043.0247	0.0489		1,044.2469

3.4 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230

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3.4 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.0000e-004	0.0142	3.1200e-003	4.0000e-005	1.6100e-003	5.0000e-005	1.6500e-003	4.2000e-004	4.0000e-005	4.7000e-004		4.8030	4.8030	2.9000e-004		4.8103
Vendor	0.0603	2.1532	0.4818	5.5400e-003	0.1413	4.8900e-003	0.1462	0.0406	4.6700e-003	0.0453		590.5420	590.5420	0.0331		591.3687
Worker	0.2269	0.1323	1.6172	4.2800e-003	0.4436	3.1800e-003	0.4468	0.1177	2.9300e-003	0.1206		425.9742	425.9742	0.0130		426.2987
Total	0.2876	2.2997	2.1021	9.8600e-003	0.5865	8.1200e-003	0.5946	0.1587	7.6400e-003	0.1664		1,021.3192	1,021.3192	0.0463		1,022.4777

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230

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3.4 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.0000e-004	0.0142	3.1200e-003	4.0000e-005	1.6100e-003	5.0000e-005	1.6500e-003	4.2000e-004	4.0000e-005	4.7000e-004		4.8030	4.8030	2.9000e-004		4.8103
Vendor	0.0603	2.1532	0.4818	5.5400e-003	0.1413	4.8900e-003	0.1462	0.0406	4.6700e-003	0.0453		590.5420	590.5420	0.0331		591.3687
Worker	0.2269	0.1323	1.6172	4.2800e-003	0.4436	3.1800e-003	0.4468	0.1177	2.9300e-003	0.1206		425.9742	425.9742	0.0130		426.2987
Total	0.2876	2.2997	2.1021	9.8600e-003	0.5865	8.1200e-003	0.5946	0.1587	7.6400e-003	0.1664		1,021.3192	1,021.3192	0.0463		1,022.4777

3.5 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.4244					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3656	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

3.5 Paving - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.3800e-003	0.2939	0.0648	9.3000e-004	0.0207	9.4000e-004	0.0217	5.6500e-003	9.0000e-004	6.5500e-003		99.7828	99.7828	6.0100e-003		99.9330
Vendor	0.0115	0.4101	0.0918	1.0600e-003	0.0269	9.3000e-004	0.0279	7.7400e-003	8.9000e-004	8.6300e-003		112.4842	112.4842	6.3000e-003		112.6417
Worker	0.0630	0.0368	0.4492	1.1900e-003	0.1232	8.8000e-004	0.1241	0.0327	8.1000e-004	0.0335		118.3262	118.3262	3.6100e-003		118.4163
Total	0.0829	0.7408	0.6058	3.1800e-003	0.1709	2.7500e-003	0.1736	0.0461	2.6000e-003	0.0487		330.5932	330.5932	0.0159		330.9909

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500	0.0000	1,709.689 2	1,709.689 2	0.5419		1,723.235 6
Paving	0.4244					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3656	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500	0.0000	1,709.689 2	1,709.689 2	0.5419		1,723.235 6

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

3.5 Paving - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.3800e-003	0.2939	0.0648	9.3000e-004	0.0207	9.4000e-004	0.0217	5.6500e-003	9.0000e-004	6.5500e-003		99.7828	99.7828	6.0100e-003		99.9330
Vendor	0.0115	0.4101	0.0918	1.0600e-003	0.0269	9.3000e-004	0.0279	7.7400e-003	8.9000e-004	8.6300e-003		112.4842	112.4842	6.3000e-003		112.6417
Worker	0.0630	0.0368	0.4492	1.1900e-003	0.1232	8.8000e-004	0.1241	0.0327	8.1000e-004	0.0335		118.3262	118.3262	3.6100e-003		118.4163
Total	0.0829	0.7408	0.6058	3.1800e-003	0.1709	2.7500e-003	0.1736	0.0461	2.6000e-003	0.0487		330.5932	330.5932	0.0159		330.9909

3.6 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	41.6040					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	41.8085	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

3.6 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4000e-003	0.0490	0.0108	1.5000e-004	3.4500e-003	1.6000e-004	3.6100e-003	9.4000e-004	1.5000e-004	1.0900e-003		16.6305	16.6305	1.0000e-003		16.6555
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0462	0.0270	0.3294	8.7000e-004	0.0904	6.5000e-004	0.0910	0.0240	6.0000e-004	0.0246		86.7725	86.7725	2.6400e-003		86.8386
Total	0.0476	0.0760	0.3402	1.0200e-003	0.0938	8.1000e-004	0.0946	0.0249	7.5000e-004	0.0257		103.4030	103.4030	3.6400e-003		103.4941

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	41.6040					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	41.8085	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

3.6 Architectural Coating - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4000e-003	0.0490	0.0108	1.5000e-004	3.4500e-003	1.6000e-004	3.6100e-003	9.4000e-004	1.5000e-004	1.0900e-003		16.6305	16.6305	1.0000e-003		16.6555
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0462	0.0270	0.3294	8.7000e-004	0.0904	6.5000e-004	0.0910	0.0240	6.0000e-004	0.0246		86.7725	86.7725	2.6400e-003		86.8386
Total	0.0476	0.0760	0.3402	1.0200e-003	0.0938	8.1000e-004	0.0946	0.0249	7.5000e-004	0.0257		103.4030	103.4030	3.6400e-003		103.4941

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3950	6.5393	15.3496	0.0515	4.2190	0.0487	4.2677	1.1309	0.0457	1.1767		5,216.5087	5,216.5087	0.2048		5,221.6291
Unmitigated	1.3950	6.5393	15.3496	0.0515	4.2190	0.0487	4.2677	1.1309	0.0457	1.1767		5,216.5087	5,216.5087	0.2048		5,221.6291

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	472.79	472.79	472.79	1,380,301	1,380,301
General Light Industry	192.86	192.86	192.86	563,042	563,042
Medical Office Building	18.24	18.24	18.24	35,695	35,695
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	683.88	683.88	683.88	1,979,038	1,979,038

4.3 Trip Type Information

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.586631	0.037797	0.168261	0.105494	0.026152	0.006386	0.029932	0.027401	0.003107	0.001767	0.005158	0.000878	0.001037
Medical Office Building	0.586631	0.037797	0.168261	0.105494	0.026152	0.006386	0.029932	0.027401	0.003107	0.001767	0.005158	0.000878	0.001037
Other Asphalt Surfaces	0.586631	0.037797	0.168261	0.105494	0.026152	0.006386	0.029932	0.027401	0.003107	0.001767	0.005158	0.000878	0.001037
Other Non-Asphalt Surfaces	0.586631	0.037797	0.168261	0.105494	0.026152	0.006386	0.029932	0.027401	0.003107	0.001767	0.005158	0.000878	0.001037
Parking Lot	0.586631	0.037797	0.168261	0.105494	0.026152	0.006386	0.029932	0.027401	0.003107	0.001767	0.005158	0.000878	0.001037

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0266	0.2422	0.2034	1.4500e-003		0.0184	0.0184		0.0184	0.0184		290.6045	290.6045	5.5700e-003	5.3300e-003	292.3314
NaturalGas Unmitigated	0.0266	0.2422	0.2034	1.4500e-003		0.0184	0.0184		0.0184	0.0184		290.6045	290.6045	5.5700e-003	5.3300e-003	292.3314

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	648.442	6.9900e-003	0.0636	0.0534	3.8000e-004		4.8300e-003	4.8300e-003		4.8300e-003	4.8300e-003		76.2873	76.2873	1.4600e-003	1.4000e-003	76.7406
General Light Industry	1589.38	0.0171	0.1558	0.1309	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.9855	186.9855	3.5800e-003	3.4300e-003	188.0967
Medical Office Building	232.319	2.5100e-003	0.0228	0.0191	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.3317	27.3317	5.2000e-004	5.0000e-004	27.4941
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0266	0.2422	0.2034	1.4500e-003		0.0184	0.0184		0.0184	0.0184		290.6045	290.6045	5.5600e-003	5.3300e-003	292.3314

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0.648442	6.9900e-003	0.0636	0.0534	3.8000e-004		4.8300e-003	4.8300e-003		4.8300e-003	4.8300e-003		76.2873	76.2873	1.4600e-003	1.4000e-003	76.7406
General Light Industry	1.58938	0.0171	0.1558	0.1309	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.9855	186.9855	3.5800e-003	3.4300e-003	188.0967
Medical Office Building	0.232319	2.5100e-003	0.0228	0.0191	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.3317	27.3317	5.2000e-004	5.0000e-004	27.4941
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0266	0.2422	0.2034	1.4500e-003		0.0184	0.0184		0.0184	0.0184		290.6045	290.6045	5.5600e-003	5.3300e-003	292.3314

6.0 Area Detail**6.1 Mitigation Measures Area**

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9223	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0374	0.0374	1.0000e-004		0.0398
Unmitigated	0.9223	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0374	0.0374	1.0000e-004		0.0398

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8067					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6200e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0374	0.0374	1.0000e-004		0.0398
Total	0.9223	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0374	0.0374	1.0000e-004		0.0398

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8067					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6200e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0374	0.0374	1.0000e-004		0.0398
Total	0.9223	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0374	0.0374	1.0000e-004		0.0398

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

Canine Companions Canine Project - Unmitigated Construction and Project Buildout Sonoma-San Francisco County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	5.18	1000sqft	0.12	5,180.00	0
General Light Industry	21.99	1000sqft	0.50	21,991.00	0
Parking Lot	68.00	Space	0.61	27,200.00	0
General Light Industry	8.97	1000sqft	0.21	8,972.00	0
Other Non-Asphalt Surfaces	23.14	1000sqft	0.53	23,140.00	0
Other Asphalt Surfaces	43.41	1000sqft	1.01	43,413.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	75
Climate Zone	4			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	390.65	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

Project Characteristics - Canine Companions Canine Early Development Center Expansion Project

CO2 intensity factor adjusted based on Renewable Energy Portfolio.

Construction start date as provided by the project applicant.

Land Use - Based on project description and project plans.

Construction Phase - Start date: July 2021

Completer: Sept. 2022

Grading - Cut/fill to be balanced on-site.

Trips and VMT - Additional haul trips added to account for transport of off-road equipment (2 trips per piece of equipment assumed)

Additional vendor trips assumed in the paving phase to account for delivery of materials.

Vehicle Trips - Trip Generation rate adjusted to match the daily trips as per W-Trans. 2021. Focused Traffic Study for the Canine Companions CEDC Expansion Project. March 9. Weekday trip generation rate used for weekends.

Energy Use -

Construction Off-road Equipment Mitigation - Compliance with BAAQMD best management practices threshold for fugitive dust.

The project would use electric or alternatively-fueled off-road equipment. In the absence of project-specific information, CalEEMod default assumptions were retained.

Energy Mitigation - Rooftop solar would be included. In the absence of project-specific information regarding the anticipated on-site renewable energy, no reductions were taken for the inclusion of solar.

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	220.00	277.00
tblConstructionPhase	PhaseEndDate	6/14/2022	9/1/2022
tblConstructionPhase	PhaseEndDate	5/17/2022	8/4/2022
tblConstructionPhase	PhaseEndDate	5/31/2022	8/18/2022
tblConstructionPhase	PhaseStartDate	6/1/2022	8/19/2022
tblConstructionPhase	PhaseStartDate	5/18/2022	8/5/2022
tblLandUse	LotAcreage	1.00	1.01
tblProjectCharacteristics	CO2IntensityFactor	641.35	390.65
tblTripsAndVMT	HaulingTripNumber	0.00	6.00
tblTripsAndVMT	HaulingTripNumber	0.00	8.00
tblTripsAndVMT	HaulingTripNumber	0.00	16.00
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	1.32	21.50
tblVehicleTrips	ST_TR	8.96	3.52
tblVehicleTrips	SU_TR	0.68	21.50
tblVehicleTrips	SU_TR	1.55	3.52
tblVehicleTrips	WD_TR	6.97	21.50
tblVehicleTrips	WD_TR	36.13	3.52

2.0 Emissions Summary

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.3785	20.6122	16.9185	0.0347	6.6575	0.9176	7.5751	3.3956	0.8443	4.2398	0.0000	3,287.764 1	3,287.764 1	0.7801	0.0000	3,300.298 0
2022	41.8598	16.9528	16.4738	0.0345	0.5865	0.7105	1.2971	0.1587	0.6810	0.8397	0.0000	3,267.513 3	3,267.513 3	0.5584	0.0000	3,279.765 3
Maximum	41.8598	20.6122	16.9185	0.0347	6.6575	0.9176	7.5751	3.3956	0.8443	4.2398	0.0000	3,287.764 1	3,287.764 1	0.7801	0.0000	3,300.298 0

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.3785	20.6122	16.9185	0.0347	3.0537	0.9176	3.9713	1.5434	0.8443	2.3877	0.0000	3,287.764 1	3,287.764 1	0.7801	0.0000	3,300.298 0
2022	41.8598	16.9528	16.4738	0.0345	0.5865	0.7105	1.2971	0.1587	0.6810	0.8397	0.0000	3,267.513 3	3,267.513 3	0.5584	0.0000	3,279.765 3
Maximum	41.8598	20.6122	16.9185	0.0347	3.0537	0.9176	3.9713	1.5434	0.8443	2.3877	0.0000	3,287.764 1	3,287.764 1	0.7801	0.0000	3,300.298 0

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	49.75	0.00	40.62	52.11	0.00	36.46	0.00	0.00	0.00	0.00	0.00	0.00

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9223	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0374	0.0374	1.0000e-004		0.0398
Energy	0.0266	0.2422	0.2034	1.4500e-003		0.0184	0.0184		0.0184	0.0184		290.6045	290.6045	5.5700e-003	5.3300e-003	292.3314
Mobile	1.2437	6.9188	15.5228	0.0487	4.2190	0.0492	4.2682	1.1309	0.0461	1.1771		4,936.0343	4,936.0343	0.2082		4,941.2381
Total	2.1926	7.1611	15.7437	0.0502	4.2190	0.0676	4.2866	1.1309	0.0646	1.1955		5,226.6762	5,226.6762	0.2138	5.3300e-003	5,233.6093

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9223	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0374	0.0374	1.0000e-004		0.0398
Energy	0.0266	0.2422	0.2034	1.4500e-003		0.0184	0.0184		0.0184	0.0184		290.6045	290.6045	5.5700e-003	5.3300e-003	292.3314
Mobile	1.2437	6.9188	15.5228	0.0487	4.2190	0.0492	4.2682	1.1309	0.0461	1.1771		4,936.0343	4,936.0343	0.2082		4,941.2381
Total	2.1926	7.1611	15.7437	0.0502	4.2190	0.0676	4.2866	1.1309	0.0646	1.1955		5,226.6762	5,226.6762	0.2138	5.3300e-003	5,233.6093

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2021	7/5/2021	5	3	
2	Grading	Grading	7/6/2021	7/13/2021	5	6	
3	Building Construction	Building Construction	7/14/2021	8/4/2022	5	277	
4	Paving	Paving	8/5/2022	8/18/2022	5	10	
5	Architectural Coating	Architectural Coating	8/19/2022	9/1/2022	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 2.15

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 54,215; Non-Residential Outdoor: 18,072; Striped Parking Area: 5,625 (Architectural Coating – sqft)

OffRoad Equipment

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	6.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	8.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	54.00	21.00	16.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	11.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457		2,372.883 2	2,372.883 2	0.7674		2,392.069 2
Total	1.5463	18.2862	10.7496	0.0245	1.5908	0.7019	2.2926	0.1718	0.6457	0.8175		2,372.883 2	2,372.883 2	0.7674		2,392.069 2

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

3.2 Site Preparation - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0152	0.5468	0.1201	1.5400e-003	0.0345	1.8800e-003	0.0364	9.4200e-003	1.8000e-003	0.0112		166.2584	166.2584	0.0106		166.5229
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0391	0.0273	0.2595	6.1000e-004	0.0657	4.9000e-004	0.0662	0.0174	4.5000e-004	0.0179		60.8690	60.8690	2.0900e-003		60.9213
Total	0.0543	0.5741	0.3796	2.1500e-003	0.1002	2.3700e-003	0.1026	0.0269	2.2500e-003	0.0291		227.1274	227.1274	0.0127		227.4442

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7158	0.0000	0.7158	0.0773	0.0000	0.0773			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457	0.0000	2,372.883 2	2,372.883 2	0.7674		2,392.069 2
Total	1.5463	18.2862	10.7496	0.0245	0.7158	0.7019	1.4177	0.0773	0.6457	0.7230	0.0000	2,372.883 2	2,372.883 2	0.7674		2,392.069 2

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

3.2 Site Preparation - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0152	0.5468	0.1201	1.5400e-003	0.0345	1.8800e-003	0.0364	9.4200e-003	1.8000e-003	0.0112		166.2584	166.2584	0.0106		166.5229
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0391	0.0273	0.2595	6.1000e-004	0.0657	4.9000e-004	0.0662	0.0174	4.5000e-004	0.0179		60.8690	60.8690	2.0900e-003		60.9213
Total	0.0543	0.5741	0.3796	2.1500e-003	0.1002	2.3700e-003	0.1026	0.0269	2.2500e-003	0.0291		227.1274	227.1274	0.0127		227.4442

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
Total	1.8271	20.2135	9.7604	0.0206	6.5523	0.9158	7.4681	3.3675	0.8425	4.2100		1,995.6114	1,995.6114	0.6454		2,011.7470

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

3.3 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0102	0.3645	0.0801	1.0300e-003	0.0230	1.2600e-003	0.0243	6.2800e-003	1.2000e-003	7.4800e-003		110.8389	110.8389	7.0500e-003		111.0153
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0489	0.0342	0.3243	7.6000e-004	0.0822	6.1000e-004	0.0828	0.0218	5.7000e-004	0.0224		76.0863	76.0863	2.6100e-003		76.1517
Total	0.0590	0.3987	0.4044	1.7900e-003	0.1052	1.8700e-003	0.1070	0.0281	1.7700e-003	0.0298		186.9252	186.9252	9.6600e-003		187.1669

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.9486	0.0000	2.9486	1.5154	0.0000	1.5154			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
Total	1.8271	20.2135	9.7604	0.0206	2.9486	0.9158	3.8643	1.5154	0.8425	2.3579	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

3.3 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0102	0.3645	0.0801	1.0300e-003	0.0230	1.2600e-003	0.0243	6.2800e-003	1.2000e-003	7.4800e-003		110.8389	110.8389	7.0500e-003		111.0153
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0489	0.0342	0.3243	7.6000e-004	0.0822	6.1000e-004	0.0828	0.0218	5.7000e-004	0.0224		76.0863	76.0863	2.6100e-003		76.1517
Total	0.0590	0.3987	0.4044	1.7900e-003	0.1052	1.8700e-003	0.1070	0.0281	1.7700e-003	0.0298		186.9252	186.9252	9.6600e-003		187.1669

3.4 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

3.4 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.4000e-004	0.0158	3.4700e-003	4.0000e-005	1.9500e-003	5.0000e-005	2.0100e-003	5.1000e-004	5.0000e-005	5.6000e-004		4.8017	4.8017	3.1000e-004		4.8093
Vendor	0.0691	2.2862	0.6006	5.4800e-003	0.1413	5.8900e-003	0.1472	0.0406	5.6300e-003	0.0463		583.1609	583.1609	0.0366		584.0762
Worker	0.2640	0.1845	1.7515	4.1300e-003	0.4436	3.3100e-003	0.4469	0.1177	3.0500e-003	0.1207		410.8660	410.8660	0.0141		411.2190
Total	0.3335	2.4865	2.3556	9.6500e-003	0.5869	9.2500e-003	0.5961	0.1588	8.7300e-003	0.1675		998.8286	998.8286	0.0510		1,000.1045

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
Total	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

3.4 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.4000e-004	0.0158	3.4700e-003	4.0000e-005	1.9500e-003	5.0000e-005	2.0100e-003	5.1000e-004	5.0000e-005	5.6000e-004		4.8017	4.8017	3.1000e-004		4.8093
Vendor	0.0691	2.2862	0.6006	5.4800e-003	0.1413	5.8900e-003	0.1472	0.0406	5.6300e-003	0.0463		583.1609	583.1609	0.0366		584.0762
Worker	0.2640	0.1845	1.7515	4.1300e-003	0.4436	3.3100e-003	0.4469	0.1177	3.0500e-003	0.1207		410.8660	410.8660	0.0141		411.2190
Total	0.3335	2.4865	2.3556	9.6500e-003	0.5869	9.2500e-003	0.5961	0.1588	8.7300e-003	0.1675		998.8286	998.8286	0.0510		1,000.1045

3.4 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

3.4 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.1000e-004	0.0145	3.3300e-003	4.0000e-005	1.6100e-003	5.0000e-005	1.6500e-003	4.2000e-004	4.0000e-005	4.7000e-004		4.7356	4.7356	3.0000e-004		4.7431
Vendor	0.0638	2.1705	0.5507	5.4200e-003	0.1413	5.1200e-003	0.1464	0.0406	4.9000e-003	0.0455		577.6625	577.6625	0.0357		578.5550
Worker	0.2447	0.1638	1.5665	3.9800e-003	0.4436	3.1800e-003	0.4468	0.1177	2.9300e-003	0.1206		395.8340	395.8340	0.0124		396.1441
Total	0.3089	2.3488	2.1205	9.4400e-003	0.5865	8.3500e-003	0.5949	0.1587	7.8700e-003	0.1666		978.2320	978.2320	0.0484		979.4423

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

3.4 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.1000e-004	0.0145	3.3300e-003	4.0000e-005	1.6100e-003	5.0000e-005	1.6500e-003	4.2000e-004	4.0000e-005	4.7000e-004		4.7356	4.7356	3.0000e-004		4.7431
Vendor	0.0638	2.1705	0.5507	5.4200e-003	0.1413	5.1200e-003	0.1464	0.0406	4.9000e-003	0.0455		577.6625	577.6625	0.0357		578.5550
Worker	0.2447	0.1638	1.5665	3.9800e-003	0.4436	3.1800e-003	0.4468	0.1177	2.9300e-003	0.1206		395.8340	395.8340	0.0124		396.1441
Total	0.3089	2.3488	2.1205	9.4400e-003	0.5865	8.3500e-003	0.5949	0.1587	7.8700e-003	0.1666		978.2320	978.2320	0.0484		979.4423

3.5 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.4244					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3656	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

3.5 Paving - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.6000e-003	0.3004	0.0692	9.1000e-004	0.0207	9.7000e-004	0.0217	5.6500e-003	9.3000e-004	6.5800e-003		98.3814	98.3814	6.2800e-003		98.5384
Vendor	0.0122	0.4134	0.1049	1.0300e-003	0.0269	9.8000e-004	0.0279	7.7400e-003	9.3000e-004	8.6700e-003		110.0310	110.0310	6.8000e-003		110.2010
Worker	0.0680	0.0455	0.4351	1.1000e-003	0.1232	8.8000e-004	0.1241	0.0327	8.1000e-004	0.0335		109.9539	109.9539	3.4500e-003		110.0400
Total	0.0887	0.7593	0.6092	3.0400e-003	0.1709	2.8300e-003	0.1737	0.0461	2.6700e-003	0.0488		318.3663	318.3663	0.0165		318.7794

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.4244					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3656	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

3.5 Paving - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.6000e-003	0.3004	0.0692	9.1000e-004	0.0207	9.7000e-004	0.0217	5.6500e-003	9.3000e-004	6.5800e-003		98.3814	98.3814	6.2800e-003		98.5384
Vendor	0.0122	0.4134	0.1049	1.0300e-003	0.0269	9.8000e-004	0.0279	7.7400e-003	9.3000e-004	8.6700e-003		110.0310	110.0310	6.8000e-003		110.2010
Worker	0.0680	0.0455	0.4351	1.1000e-003	0.1232	8.8000e-004	0.1241	0.0327	8.1000e-004	0.0335		109.9539	109.9539	3.4500e-003		110.0400
Total	0.0887	0.7593	0.6092	3.0400e-003	0.1709	2.8300e-003	0.1737	0.0461	2.6700e-003	0.0488		318.3663	318.3663	0.0165		318.7794

3.6 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	41.6040					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	41.8085	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

3.6 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4300e-003	0.0501	0.0115	1.5000e-004	3.4500e-003	1.6000e-004	3.6100e-003	9.4000e-004	1.5000e-004	1.1000e-003		16.3969	16.3969	1.0500e-003		16.4231
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0498	0.0334	0.3191	8.1000e-004	0.0904	6.5000e-004	0.0910	0.0240	6.0000e-004	0.0246		80.6328	80.6328	2.5300e-003		80.6960
Total	0.0513	0.0834	0.3306	9.6000e-004	0.0938	8.1000e-004	0.0946	0.0249	7.5000e-004	0.0257		97.0297	97.0297	3.5800e-003		97.1191

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	41.6040					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	41.8085	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

3.6 Architectural Coating - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4300e-003	0.0501	0.0115	1.5000e-004	3.4500e-003	1.6000e-004	3.6100e-003	9.4000e-004	1.5000e-004	1.1000e-003		16.3969	16.3969	1.0500e-003		16.4231
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0498	0.0334	0.3191	8.1000e-004	0.0904	6.5000e-004	0.0910	0.0240	6.0000e-004	0.0246		80.6328	80.6328	2.5300e-003		80.6960
Total	0.0513	0.0834	0.3306	9.6000e-004	0.0938	8.1000e-004	0.0946	0.0249	7.5000e-004	0.0257		97.0297	97.0297	3.5800e-003		97.1191

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.2437	6.9188	15.5228	0.0487	4.2190	0.0492	4.2682	1.1309	0.0461	1.1771		4,936.034 3	4,936.034 3	0.2082		4,941.238 1
Unmitigated	1.2437	6.9188	15.5228	0.0487	4.2190	0.0492	4.2682	1.1309	0.0461	1.1771		4,936.034 3	4,936.034 3	0.2082		4,941.238 1

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	472.79	472.79	472.79	1,380,301	1,380,301
General Light Industry	192.86	192.86	192.86	563,042	563,042
Medical Office Building	18.24	18.24	18.24	35,695	35,695
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	683.88	683.88	683.88	1,979,038	1,979,038

4.3 Trip Type Information

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.586631	0.037797	0.168261	0.105494	0.026152	0.006386	0.029932	0.027401	0.003107	0.001767	0.005158	0.000878	0.001037
Medical Office Building	0.586631	0.037797	0.168261	0.105494	0.026152	0.006386	0.029932	0.027401	0.003107	0.001767	0.005158	0.000878	0.001037
Other Asphalt Surfaces	0.586631	0.037797	0.168261	0.105494	0.026152	0.006386	0.029932	0.027401	0.003107	0.001767	0.005158	0.000878	0.001037
Other Non-Asphalt Surfaces	0.586631	0.037797	0.168261	0.105494	0.026152	0.006386	0.029932	0.027401	0.003107	0.001767	0.005158	0.000878	0.001037
Parking Lot	0.586631	0.037797	0.168261	0.105494	0.026152	0.006386	0.029932	0.027401	0.003107	0.001767	0.005158	0.000878	0.001037

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0266	0.2422	0.2034	1.4500e-003		0.0184	0.0184		0.0184	0.0184		290.6045	290.6045	5.5700e-003	5.3300e-003	292.3314
NaturalGas Unmitigated	0.0266	0.2422	0.2034	1.4500e-003		0.0184	0.0184		0.0184	0.0184		290.6045	290.6045	5.5700e-003	5.3300e-003	292.3314

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	648.442	6.9900e-003	0.0636	0.0534	3.8000e-004		4.8300e-003	4.8300e-003		4.8300e-003	4.8300e-003		76.2873	76.2873	1.4600e-003	1.4000e-003	76.7406
General Light Industry	1589.38	0.0171	0.1558	0.1309	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.9855	186.9855	3.5800e-003	3.4300e-003	188.0967
Medical Office Building	232.319	2.5100e-003	0.0228	0.0191	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.3317	27.3317	5.2000e-004	5.0000e-004	27.4941
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0266	0.2422	0.2034	1.4500e-003		0.0184	0.0184		0.0184	0.0184		290.6045	290.6045	5.5600e-003	5.3300e-003	292.3314

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0.648442	6.9900e-003	0.0636	0.0534	3.8000e-004		4.8300e-003	4.8300e-003		4.8300e-003	4.8300e-003		76.2873	76.2873	1.4600e-003	1.4000e-003	76.7406
General Light Industry	1.58938	0.0171	0.1558	0.1309	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.9855	186.9855	3.5800e-003	3.4300e-003	188.0967
Medical Office Building	0.232319	2.5100e-003	0.0228	0.0191	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.3317	27.3317	5.2000e-004	5.0000e-004	27.4941
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0266	0.2422	0.2034	1.4500e-003		0.0184	0.0184		0.0184	0.0184		290.6045	290.6045	5.5600e-003	5.3300e-003	292.3314

6.0 Area Detail**6.1 Mitigation Measures Area**

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9223	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0374	0.0374	1.0000e-004		0.0398
Unmitigated	0.9223	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0374	0.0374	1.0000e-004		0.0398

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8067					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6200e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0374	0.0374	1.0000e-004		0.0398
Total	0.9223	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0374	0.0374	1.0000e-004		0.0398

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8067					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6200e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0374	0.0374	1.0000e-004		0.0398
Total	0.9223	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0374	0.0374	1.0000e-004		0.0398

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Canine Companions Canine Project - Unmitigated Construction and Project Buildout - Sonoma-San Francisco County, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Canine Companions Canine Project CO2 Intensity Factor

PG&E Electricity Emissions Factors

Year	lbs CO ₂ e/MWh
2020-2029	390.65
2030	233.79

2017 Electricity Emissions Factor

Emissions Factors	t/kWh	Share of Portfolio	t/kWh	t/MWh	lbs/MWh
RPS sources	-	33%	-		
Natural Gas	0.000459	20%	0.00009170		
Nuclear	0.000002	27%	0.00000043		
Coal	0.001037	0%	-		
Unspecified Sources	0.000427	20%	0.00008550		
Total	-	100%	0.00017763	0.18	391.60

Power Content Label

PG&E 2017	%	Source
RPS sources	33%	California Energy Commission (CEC). 2018. Pacific Gas and Electric Company Power Content Label 2008. July. Website: https://ww2.energy.ca.gov/pcl/labels/2017_labels/P_G_and_E_2017_PCL.pdf . Accessed January 15, 2020.
Natural Gas	20%	
Nuclear	27%	
Coal	0%	
Unspecified Sources	20%	
Total	100%	

Natural Gas Facility Emissions Factor Calculation

Natural Gas Emissions Factor

	CO ₂	CH ₄	N ₂ O	CO ₂ e	Source
kg per mmBtu	53.06	-	-	-	Environmental Protection Agency (EPA). 2018. Emission Factors for Greenhouse Gas Inventories. March 9. Website: https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf . Accessed January 15, 2020.
g per mmBtu	53,060	1.00	0.10	-	
t per mmBtu	0.05	0.00	0.00	-	Calculated
t CO ₂ e per mmBtu	0.05	0.00	0.00	0.05	Calculated
t CO ₂ e per GJ	-	-	-	0.06	Calculated

Heat Rates

Value	Units	Source	Notes
7,755	btu/kWh	California Energy Commission (CEC). 2017. <i>Thermal Efficiency of Natural Gas-Fired Generation in California: 2016 Update</i> . February. Website: http://www.energy.ca.gov/2017publications/CEC-200-2017-003/CEC-200-2017-003.pdf . Accessed January 15, 2020.	Table 1, State Average w/o Cogeneration (per last paragraph on pg 4)
0.00818196	GJ/kWh	Converted in Google: GJ per btu	

Natural Gas Facility Emissions Factor

Natural gas emissions factor	0.06	t CO ₂ e per GJ
Natural gas facility heat rate	0.00818196	GJ/kWh
Natural Gas Facility Emissions Factor	0.000458507	t CO ₂ e per kWh

Nuclear Emissions Factor

Nuclear GHG Emissions	0.40	gCO ₂ e/MJ	California Air Resource Board. 2009. <i>Detailed California-Modified GREET Pathway for California Average and Marginal Electricity</i> . February 27. Website: https://www.arb.ca.gov/fuels/lcfs/022709lcfs_elec.pdf . Accessed January 15, 2020.
Nuclear Emissions Factor	0.00000159	t/kWh	

Unspecified Electricity Source Emissions Factor Calculation

ARB California GHG Inventory Electricity Emissions Factors

2014	CO ₂	CH ₄	N ₂ O	CO ₂ e	Units	Source
Pacific Northwest (PNW)	427	0.008117	0.00094388	427.4774042	g/kWh	California Air Resource Board. 2016. <i>Annex 1B. Electricity Production - Imports (IPCC 1A1a) to the Technical Support Document for California's 2000-2014 Greenhouse Gas Emission Inventory</i> . March 30. Website: https://www.arb.ca.gov/cc/inventory/doc/methods_00-14/annex_1b_electricity_production_imports.pdf . Accessed January 15, 2020.
Pacific Southwest (PSW)	427	0.008117	0.00094388	427.4774042	g/kWh	
PNW and PSW	-	-	-	0.000427477	t/kWh	-

Other/Unspecified Emissions Factor

Unspecified Electricity Emissions Factor	0.000427	t CO ₂ e per kWh
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Coal Electricity Source Emissions Factor Calculation

ARB California GHG Inventory Electricity Emissions Factors

2007	CO ₂	CH ₄	N ₂ O	CO ₂ e	Units	Source
Coal Electricity Source Emissions Factor Calculation	1033	0.011	0.0153	1037.3625	g/kWh	California Air Resource Board. 2016. Annex 1B. Electricity Production - Imports (IPCC 1A1a) to the Technical Support Document for California's 2000-2014 Greenhouse Gas Emission Inventory. March 30. Website: https://www.arb.ca.gov/cc/inventory/doc/methods_00-14/annex_1b_electricity_production_imports.pdf . Accessed January 15, 2020.
Total	-	-	-	0.001037363	t/kWh	-

Coal Emissions Factor

Unspecified Electricity Emissions Factor	0.001037	t CO ₂ e per kWh
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2020-2029 and 2030 Electricity Emissions Factors

Non-RPS Energy	Year	PG&E RPS Position	Notes	Source
89.0%	2008	11.0%		California Energy Commission (CEC). 2018. Power Content Label 2008 PG&E Power Mix. Website: https://www2.energy.ca.gov/pcl/labels/2008_labels/PG%20and%20E%20pcl%202008.pdf . Accessed January 15, 2020.
67.0%	2020-2029	33.0%		
40.0%	2030	60.0%		

Estimated Power Content Label Sources

PG&E	2017	Share of Non-RPS in 2017	2020-2029	Share of Non-RPS in 2020-2029	2030
RPS	33.0%	-	33.0%	-	60.0%
Natural Gas	20.0%	22%	20.0%	29.9%	11.9%
Nuclear	27.0%	30%	27.0%	40.3%	16.1%
Coal	0.0%	0%	0.0%	0.0%	0.0%
Unspecified Sources	20.0%	22%	20.0%	29.9%	11.9%
Total	100%	75%	100%	100.0%	100%

2020-2029					
Emissions Factors	t/kWh	Share of Portfolio	t/kWh	t/MWh	lbs/MWh
RPS	-	33.0%	-		
Natural Gas	0.000459	20.0%	0.000092		
Nuclear	0.000002	27.0%	-		
Coal	0.001037	0.0%	-		
Unspecified	0.000427	20.0%	0.000085		
Total	-	100.0%	0.000177	0.18	390.65

2030					
Emissions Factors	t/kWh	Share of Portfolio	t/kWh	t/MWh	lbs/MWh
RPS	-	60.0%	-		
Natural Gas	0.000459	11.9%	0.000055		
Nuclear	0.000002	16.1%	0.000000		
Coal	0.001037	0.0%	-		
Unspecified	0.000427	11.9%	0.000051		
Total	-	100.0%	0.000106	0.11	233.79

CONVERSION FACTORS

Conversions

GJ	mmBtu
1	0.947817
g	kg
1	1,000
g	t
1	0.000001
lb	t
2,204.62	1
kW	MW
1	0.001

GWP Factors

CO ₂	1
CH ₄	28
N ₂ O	265

ABBREVIATIONS

RPS	Renewable Portfolio Standard
GWP	Global Warming Potential
CO₂e	Carbon Dioxide Equivalent
CO₂	Carbon Dioxide
CH₄	Methane
N₂O	Nitrous Oxide
lbs CO₂e/MWh	Pounds Carbon Dioxide Equivalent/Mega-Watt Hour
t/kWh	tonnes/kilo-Watt hour
t/MWh	tonnes/Mega-Watt Hour
lbs/MWh	pounds/Mega-Watt Hour
kg per mmBtu	kilograms per million British Thermal Unit
g per mmBtu	grams per million British Thermal Unit
t per mmBtu	tonnes per million British Thermal Unit
t CO₂e per mmBtu	tonnes Carbon Dioxide Equivalent per million British Thermal Unit
t CO₂e per GJ	tonnes Carbon Dioxide Equivalent per Gigajoule
btu/kWh	British Thermal Unit/kilo-Watt hour
GJ/kWh	Gigajoule/kilo-Watt hour
t CO₂e per kWh	tonnes Carbon Dioxide Equivalent per kilo-Watt hour
gCO₂e/MJ	grams Carbon Dioxide Equivalent/Megajoule
t/kWh	tonnes/kilo-Watt hour
g/kWh	grams/kilo-Watt hour