Appendix B:
Air Quality and GHG Supporting Information

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B.1 - CalEEMod Output Files

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CalEEMod Output Files

Table of Contents

College Creek Apartments Unmitigated Construction (On-Site) and Project Operations

Sonoma-San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	1.18	Acre	1.18	51,490.00	0
Other Non-Asphalt Surfaces	2.03	Acre	2.03	36,090.00	0
Parking Lot	272.00	Space	1.06	46,324.00	0
Recreational Swimming Pool	1.40	1000sqft	0.03	1,500.00	0
Apartments Mid Rise	168.00	Dwelling Unit	1.42	172,000.00	286

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/MWhr)	390.65	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor adjusted based on California's Renewables Portfolio Standard. Start of construction and operational year based on applicant-provided information, consistent with the project description.

Land Use - Sqft and population as provided by applicant in response to information request form (11/12/2019).Sqft converted to acres for all ground land uses. Acres for apartment calculated, deducting all ground level land uses from total lot acres.

Construction Phase - Schedule as provided by applicant in response to information request form (11/12/2019). Architectural Coating concurrent with building construction. Building construction start date adjusted to match full build out in Dec 2022 as per Project Description.

Demolition - Demolition of existing building structures(34,794sqft),existing hardscape (110,467sqft) and softscape (109,484sqft). Total sqft converted to tons of debris. As per information provided by applicant in response to information request form(11/12/2019).

Grading - No fill and approximately 1,800 cubic yards of material to be exported.
As per information provided in Project Description confirmed by applicant in response to information request form (11/12/2019).

Vehicle Trips - Trip Generation rate as per Traffic Impact Study. 2019.W-Trans.October 9. Changed trip percentage as 100% primary and adjusted trip length to match project-specific Traffic Impact Study (4.28 miles).

Woodstoves - No woodburning fireplaces or woodstoves in compliance with BAAQMD Regulation 6 Particulate Matter and visible emissions, Rule 3 Wood-burning devices
No natural gas - confirmed by applicant 1/27/20.

Energy Use - No natural gas use - confirmed by applicant 1/27/20

Construction Off-road Equipment Mitigation - Compliance with BAAQMD best management practices thresholds for fugitive dust; recommended measures from BAAQMD's Basic Construction Mitigation Measures for all Proposed Projects.

Area Mitigation - No wood burning fireplaces or woodstoves in compliance with BAAQMD Regulation 6 Particulate Matter and visible emissions, Rule 3 Wood-burning devices.

Energy Mitigation - To comply with the City of Santa Rosa Climate Action Plan (adopted on June 5,2012) as a new development project after 2020, the project will utilize zero net electricity.

Water Mitigation - Compliance with Green Building Code Standards and the Water Efficient Land Use Ordinance.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	29.00
tblConstructionPhase	NumDays	20.00	120.00
tblConstructionPhase	NumDays	230.00	260.00
tblConstructionPhase	NumDays	20.00	22.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	T24NG	5,484.45	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	25.20	0.00
tblFireplaces	NumberWood	28.56	0.00
tblGrading	MaterialExported	0.00	1,800.00
tblLandUse	LandUseSquareFeet	51,400.80	51,490.00
tblLandUse	LandUseSquareFeet	88,426.80	36,090.00
tblLandUse	LandUseSquareFeet	108,800.00	46,324.00
tblLandUse	LandUseSquareFeet	1,400.00	1,500.00
tblLandUse	LandUseSquareFeet	168,000.00	172,000.00
tblLandUse	LotAcreage	2.45	1.06
tblLandUse	LotAcreage	4.42	1.42
tblLandUse	Population	480.00	286.00

tblProjectCharacteristics	CO2IntensityFactor	641.35	390.65
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	5.70	4.28
tblVehicleTrips	HS_TL	4.80	4.28
tblVehicleTrips	HW_TL	10.80	4.28
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	6.39	5.44
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	SU_TR	5.86	5.44
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	WD_TR	6.65	5.44
tblVehicleTrips	WD_TR	33.82	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1678	1.8172	1.1353	2.4700e-003	0.4711	0.0806	0.5518	0.2040	0.0744	0.2784	0.0000	221.4796	221.4796	0.0564	0.0000	222.8883
2022	1.6348	3.1669	3.3927	7.4700e-003	0.3724	0.1329	0.5053	0.1290	0.1245	0.2535	0.0000	665.9962	665.9962	0.1083	0.0000	668.7046
Maximum	**1.6348**	**3.1669**	**3.3927**	**7.4700e-003**	**0.4711**	**0.1329**	**0.5518**	**0.2040**	**0.1245**	**0.2784**	**0.0000**	**665.9962**	**665.9962**	**0.1083**	**0.0000**	**668.7046**

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	0.1678	1.8172	1.1353	2.4700e-003	0.2217	0.0806	0.3023	0.0944	0.0744	0.1688	0.0000	221.4794	221.4794	0.0564	0.0000	222.8881
2022	1.6348	3.1668	3.3927	7.4700e-003	0.2886	0.1329	0.4215	0.0907	0.1245	0.2152	0.0000	665.9957	665.9957	0.1083	0.0000	668.7041
Maximum	**1.6348**	**3.1668**	**3.3927**	**7.4700e-003**	**0.2886**	**0.1329**	**0.4215**	**0.0944**	**0.1245**	**0.2152**	**0.0000**	**665.9957**	**665.9957**	**0.1083**	**0.0000**	**668.7041**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**39.50**	**0.00**	**31.52**	**44.41**	**0.00**	**27.80**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**7-20-2021**	**10-19-2021**	1.2253	1.2253
2	**10-20-2021**	**1-19-2022**	1.0370	1.0370
3	**1-20-2022**	**4-19-2022**	1.0383	1.0383
4	**4-20-2022**	**7-19-2022**	0.7385	0.7385
5	**7-20-2022**	**9-30-2022**	0.7273	0.7273
		Highest	1.2253	1.2253

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	0.8484	0.0144	1.2513	7.0000e-005		6.9100e-003	6.9100e-003		6.9100e-003	6.9100e-003	0.0000	2.0426	2.0426	1.9800e-003	0.0000	2.0921
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	125.7694	125.7694	9.3400e-003	1.9300e-003	126.5785
Mobile	0.2481	1.1837	2.3609	6.7300e-003	0.5283	6.9300e-003	0.5352	0.1422	6.5000e-003	0.1487	0.0000	618.7291	618.7291	0.0298	0.0000	619.4732
Waste						0.0000	0.0000		0.0000	0.0000	17.3070	0.0000	17.3070	1.0228	0.0000	42.8774
Water						0.0000	0.0000		0.0000	0.0000	3.4989	14.8855	18.3844	0.3605	8.7100e-003	29.9931
Total	**1.0965**	**1.1981**	**3.6122**	**6.8000e-003**	**0.5283**	**0.0138**	**0.5421**	**0.1422**	**0.0134**	**0.1556**	**20.8059**	**761.4266**	**782.2325**	**1.4244**	**0.0106**	**821.0141**

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	0.8484	0.0144	1.2513	7.0000e-005		6.9100e-003	6.9100e-003		6.9100e-003	6.9100e-003	0.0000	2.0426	2.0426	1.9800e-003	0.0000	2.0921
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.2481	1.1837	2.3609	6.7300e-003	0.5283	6.9300e-003	0.5352	0.1422	6.5000e-003	0.1487	0.0000	618.7291	618.7291	0.0298	0.0000	619.4732
Waste						0.0000	0.0000		0.0000	0.0000	17.3070	0.0000	17.3070	1.0228	0.0000	42.8774
Water						0.0000	0.0000		0.0000	0.0000	2.7991	11.9084	14.7075	0.2884	6.9700e-003	23.9945
Total	**1.0965**	**1.1981**	**3.6122**	**6.8000e-003**	**0.5283**	**0.0138**	**0.5421**	**0.1422**	**0.0134**	**0.1556**	**20.1061**	**632.6801**	**652.7862**	**1.3429**	**6.9700e-003**	**688.4371**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.36**	**16.91**	**16.55**	**5.72**	**34.49**	**16.15**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/20/2021	8/27/2021	5	29	
2	Site Preparation	Site Preparation	8/28/2021	9/10/2021	5	10	
3	Grading	Grading	9/11/2021	2/25/2022	5	120	
4	Building Construction	Building Construction	12/30/2021	12/28/2022	5	260	
5	Paving	Paving	8/1/2022	8/30/2022	5	22	
6	Architectural Coating	Architectural Coating	12/1/2022	12/28/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 60

Acres of Paving: 4.27

Residential Indoor: 348,300; Residential Outdoor: 116,100; Non-Residential Indoor: 2,100; Non-Residential Outdoor: 700; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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
Demolition	6	15.00	0.00	836.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	225.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	178.00	40.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	36.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 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					0.0904	0.0000	0.0904	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0459	0.4559	0.3127	5.6000e-004		0.0225	0.0225		0.0209	0.0209	0.0000	49.3011	49.3011	0.0139	0.0000	49.6481
Total	**0.0459**	**0.4559**	**0.3127**	**5.6000e-004**	**0.0904**	**0.0225**	**0.1129**	**0.0137**	**0.0209**	**0.0346**	**0.0000**	**49.3011**	**49.3011**	**0.0139**	**0.0000**	**49.6481**

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	3.1300e-003	0.1136	0.0242	3.3000e-004	6.9300e-003	3.9000e-004	7.3200e-003	1.9000e-003	3.7000e-004	2.2700e-003	0.0000	31.7795	31.7795	1.9600e-003	0.0000	31.8284
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.6000e-004	6.7000e-004	6.8500e-003	2.0000e-005	1.7100e-003	1.0000e-005	1.7200e-003	4.5000e-004	1.0000e-005	4.7000e-004	0.0000	1.5181	1.5181	5.0000e-005	0.0000	1.5193
Total	**4.0900e-003**	**0.1143**	**0.0310**	**3.5000e-004**	**8.6400e-003**	**4.0000e-004**	**9.0400e-003**	**2.3500e-003**	**3.8000e-004**	**2.7400e-003**	**0.0000**	**33.2975**	**33.2975**	**2.0100e-003**	**0.0000**	**33.3477**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0407	0.0000	0.0407	6.1600e-003	0.0000	6.1600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0459	0.4559	0.3127	5.6000e-004		0.0225	0.0225		0.0209	0.0209	0.0000	49.3011	49.3011	0.0139	0.0000	49.6480
Total	**0.0459**	**0.4559**	**0.3127**	**5.6000e-004**	**0.0407**	**0.0225**	**0.0632**	**6.1600e-003**	**0.0209**	**0.0271**	**0.0000**	**49.3011**	**49.3011**	**0.0139**	**0.0000**	**49.6480**

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	3.1300e-003	0.1136	0.0242	3.3000e-004	6.9300e-003	3.9000e-004	7.3200e-003	1.9000e-003	3.7000e-004	2.2700e-003	0.0000	31.7795	31.7795	1.9600e-003	0.0000	31.8284
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.6000e-004	6.7000e-004	6.8500e-003	2.0000e-005	1.7100e-003	1.0000e-005	1.7200e-003	4.5000e-004	1.0000e-005	4.7000e-004	0.0000	1.5181	1.5181	5.0000e-005	0.0000	1.5193
Total	**4.0900e-003**	**0.1143**	**0.0310**	**3.5000e-004**	**8.6400e-003**	**4.0000e-004**	**9.0400e-003**	**2.3500e-003**	**3.8000e-004**	**2.7400e-003**	**0.0000**	**33.2975**	**33.2975**	**2.0100e-003**	**0.0000**	**33.3477**

3.3 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					0.0904	0.0000	0.0904	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0904**	**0.0102**	**0.1007**	**0.0497**	**9.4000e-003**	**0.0591**	**0.0000**	**16.7179**	**16.7179**	**5.4100e-003**	**0.0000**	**16.8530**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.4000e-004	0.0306	6.5000e-003	9.0000e-005	1.8700e-003	1.0000e-004	1.9700e-003	5.1000e-004	1.0000e-004	6.1000e-004	0.0000	8.5531	8.5531	5.3000e-004	0.0000	8.5663
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.8000e-004	2.8400e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.1000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6282	0.6282	2.0000e-005	0.0000	0.6287
Total	**1.2400e-003**	**0.0309**	**9.3400e-003**	**1.0000e-004**	**2.5800e-003**	**1.1000e-004**	**2.6800e-003**	**7.0000e-004**	**1.1000e-004**	**8.0000e-004**	**0.0000**	**9.1813**	**9.1813**	**5.5000e-004**	**0.0000**	**9.1950**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0407	0.0000	0.0407	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0407**	**0.0102**	**0.0509**	**0.0224**	**9.4000e-003**	**0.0318**	**0.0000**	**16.7178**	**16.7178**	**5.4100e-003**	**0.0000**	**16.8530**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.4000e-004	0.0306	6.5000e-003	9.0000e-005	1.8700e-003	1.0000e-004	1.9700e-003	5.1000e-004	1.0000e-004	6.1000e-004	0.0000	8.5531	8.5531	5.3000e-004	0.0000	8.5663
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.8000e-004	2.8400e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.1000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6282	0.6282	2.0000e-005	0.0000	0.6287
Total	**1.2400e-003**	**0.0309**	**9.3400e-003**	**1.0000e-004**	**2.5800e-003**	**1.1000e-004**	**2.6800e-003**	**7.0000e-004**	**1.1000e-004**	**8.0000e-004**	**0.0000**	**9.1813**	**9.1813**	**5.5000e-004**	**0.0000**	**9.1950**

3.4 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					0.2727	0.0000	0.2727	0.1358	0.0000	0.1358	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0916	0.9895	0.6343	1.1900e-003		0.0464	0.0464		0.0427	0.0427	0.0000	104.2148	104.2148	0.0337	0.0000	105.0574
Total	**0.0916**	**0.9895**	**0.6343**	**1.1900e-003**	**0.2727**	**0.0464**	**0.3191**	**0.1358**	**0.0427**	**0.1785**	**0.0000**	**104.2148**	**104.2148**	**0.0337**	**0.0000**	**105.0574**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6500e-003	1.8500e-003	0.0189	5.0000e-005	4.7100e-003	4.0000e-005	4.7500e-003	1.2500e-003	3.0000e-005	1.2900e-003	0.0000	4.1877	4.1877	1.4000e-004	0.0000	4.1913
Total	**2.6500e-003**	**1.8500e-003**	**0.0189**	**5.0000e-005**	**4.7100e-003**	**4.0000e-005**	**4.7500e-003**	**1.2500e-003**	**3.0000e-005**	**1.2900e-003**	**0.0000**	**4.1877**	**4.1877**	**1.4000e-004**	**0.0000**	**4.1913**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1227	0.0000	0.1227	0.0611	0.0000	0.0611	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0916	0.9895	0.6343	1.1900e-003		0.0464	0.0464		0.0427	0.0427	0.0000	104.2147	104.2147	0.0337	0.0000	105.0573
Total	**0.0916**	**0.9895**	**0.6343**	**1.1900e-003**	**0.1227**	**0.0464**	**0.1691**	**0.0611**	**0.0427**	**0.1038**	**0.0000**	**104.2147**	**104.2147**	**0.0337**	**0.0000**	**105.0573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6500e-003	1.8500e-003	0.0189	5.0000e-005	4.7100e-003	4.0000e-005	4.7500e-003	1.2500e-003	3.0000e-005	1.2900e-003	0.0000	4.1877	4.1877	1.4000e-004	0.0000	4.1913
Total	**2.6500e-003**	**1.8500e-003**	**0.0189**	**5.0000e-005**	**4.7100e-003**	**4.0000e-005**	**4.7500e-003**	**1.2500e-003**	**3.0000e-005**	**1.2900e-003**	**0.0000**	**4.1877**	**4.1877**	**1.4000e-004**	**0.0000**	**4.1913**

3.4 Grading - 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					
Fugitive Dust					0.1523	0.0000	0.1523	0.0696	0.0000	0.0696	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0390	0.4171	0.3055	5.9000e-004		0.0188	0.0188		0.0173	0.0173	0.0000	52.1095	52.1095	0.0169	0.0000	52.5309
Total	**0.0390**	**0.4171**	**0.3055**	**5.9000e-004**	**0.1523**	**0.0188**	**0.1711**	**0.0696**	**0.0173**	**0.0870**	**0.0000**	**52.1095**	**52.1095**	**0.0169**	**0.0000**	**52.5309**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2300e-003	8.2000e-004	8.4700e-003	2.0000e-005	2.3500e-003	2.0000e-005	2.3700e-003	6.3000e-004	2.0000e-005	6.4000e-004	0.0000	2.0173	2.0173	6.0000e-005	0.0000	2.0188
Total	**1.2300e-003**	**8.2000e-004**	**8.4700e-003**	**2.0000e-005**	**2.3500e-003**	**2.0000e-005**	**2.3700e-003**	**6.3000e-004**	**2.0000e-005**	**6.4000e-004**	**0.0000**	**2.0173**	**2.0173**	**6.0000e-005**	**0.0000**	**2.0188**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0685	0.0000	0.0685	0.0313	0.0000	0.0313	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0390	0.4171	0.3055	5.9000e-004		0.0188	0.0188		0.0173	0.0173	0.0000	52.1095	52.1095	0.0169	0.0000	52.5308
Total	**0.0390**	**0.4171**	**0.3055**	**5.9000e-004**	**0.0685**	**0.0188**	**0.0873**	**0.0313**	**0.0173**	**0.0487**	**0.0000**	**52.1095**	**52.1095**	**0.0169**	**0.0000**	**52.5308**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2300e-003	8.2000e-004	8.4700e-003	2.0000e-005	2.3500e-003	2.0000e-005	2.3700e-003	6.3000e-004	2.0000e-005	6.4000e-004	0.0000	2.0173	2.0173	6.0000e-005	0.0000	2.0188
Total	**1.2300e-003**	**8.2000e-004**	**8.4700e-003**	**2.0000e-005**	**2.3500e-003**	**2.0000e-005**	**2.3700e-003**	**6.3000e-004**	**2.0000e-005**	**6.4000e-004**	**0.0000**	**2.0173**	**2.0173**	**6.0000e-005**	**0.0000**	**2.0188**

3.5 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	1.9000e-003	0.0174	0.0166	3.0000e-005		9.6000e-004	9.6000e-004		9.0000e-004	9.0000e-004	0.0000	2.3164	2.3164	5.6000e-004	0.0000	2.3303
Total	**1.9000e-003**	**0.0174**	**0.0166**	**3.0000e-005**		**9.6000e-004**	**9.6000e-004**		**9.0000e-004**	**9.0000e-004**	**0.0000**	**2.3164**	**2.3164**	**5.6000e-004**	**0.0000**	**2.3303**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3000e-004	4.3500e-003	1.0700e-003	1.0000e-005	2.6000e-004	1.0000e-005	2.7000e-004	7.0000e-005	1.0000e-005	9.0000e-005	0.0000	1.0206	1.0206	6.0000e-005	0.0000	1.0221
Worker	7.9000e-004	5.5000e-004	5.6100e-003	1.0000e-005	1.4000e-003	1.0000e-005	1.4100e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.2424	1.2424	4.0000e-005	0.0000	1.2434
Total	**9.2000e-004**	**4.9000e-003**	**6.6800e-003**	**2.0000e-005**	**1.6600e-003**	**2.0000e-005**	**1.6800e-003**	**4.4000e-004**	**2.0000e-005**	**4.7000e-004**	**0.0000**	**2.2629**	**2.2629**	**1.0000e-004**	**0.0000**	**2.2655**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9000e-003	0.0174	0.0166	3.0000e-005		9.6000e-004	9.6000e-004		9.0000e-004	9.0000e-004	0.0000	2.3164	2.3164	5.6000e-004	0.0000	2.3303
Total	**1.9000e-003**	**0.0174**	**0.0166**	**3.0000e-005**		**9.6000e-004**	**9.6000e-004**		**9.0000e-004**	**9.0000e-004**	**0.0000**	**2.3164**	**2.3164**	**5.6000e-004**	**0.0000**	**2.3303**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3000e-004	4.3500e-003	1.0700e-003	1.0000e-005	2.6000e-004	1.0000e-005	2.7000e-004	7.0000e-005	1.0000e-005	9.0000e-005	0.0000	1.0206	1.0206	6.0000e-005	0.0000	1.0221
Worker	7.9000e-004	5.5000e-004	5.6100e-003	1.0000e-005	1.4000e-003	1.0000e-005	1.4100e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.2424	1.2424	4.0000e-005	0.0000	1.2434
Total	**9.2000e-004**	**4.9000e-003**	**6.6800e-003**	**2.0000e-005**	**1.6600e-003**	**2.0000e-005**	**1.6800e-003**	**4.4000e-004**	**2.0000e-005**	**4.7000e-004**	**0.0000**	**2.2629**	**2.2629**	**1.0000e-004**	**0.0000**	**2.2655**

3.5 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	0.2201	2.0144	2.1109	3.4700e-003		0.1044	0.1044		0.0982	0.0982	0.0000	298.9256	298.9256	0.0716	0.0000	300.7159
Total	**0.2201**	**2.0144**	**2.1109**	**3.4700e-003**		**0.1044**	**0.1044**		**0.0982**	**0.0982**	**0.0000**	**298.9256**	**298.9256**	**0.0716**	**0.0000**	**300.7159**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0152	0.5336	0.1262	1.3500e-003	0.0335	1.2300e-003	0.0347	9.6700e-003	1.1700e-003	0.0108	0.0000	130.4301	130.4301	7.6300e-003	0.0000	130.6208
Worker	0.0940	0.0630	0.6484	1.7100e-003	0.1802	1.3500e-003	0.1816	0.0480	1.2500e-003	0.0492	0.0000	154.4000	154.4000	4.7800e-003	0.0000	154.5194
Total	**0.1092**	**0.5966**	**0.7746**	**3.0600e-003**	**0.2137**	**2.5800e-003**	**0.2162**	**0.0576**	**2.4200e-003**	**0.0601**	**0.0000**	**284.8301**	**284.8301**	**0.0124**	**0.0000**	**285.1402**

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	0.2201	2.0144	2.1109	3.4700e-003		0.1044	0.1044		0.0982	0.0982	0.0000	298.9252	298.9252	0.0716	0.0000	300.7156
Total	**0.2201**	**2.0144**	**2.1109**	**3.4700e-003**		**0.1044**	**0.1044**		**0.0982**	**0.0982**	**0.0000**	**298.9252**	**298.9252**	**0.0716**	**0.0000**	**300.7156**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0152	0.5336	0.1262	1.3500e-003	0.0335	1.2300e-003	0.0347	9.6700e-003	1.1700e-003	0.0108	0.0000	130.4301	130.4301	7.6300e-003	0.0000	130.6208
Worker	0.0940	0.0630	0.6484	1.7100e-003	0.1802	1.3500e-003	0.1816	0.0480	1.2500e-003	0.0492	0.0000	154.4000	154.4000	4.7800e-003	0.0000	154.5194
Total	**0.1092**	**0.5966**	**0.7746**	**3.0600e-003**	**0.2137**	**2.5800e-003**	**0.2162**	**0.0576**	**2.4200e-003**	**0.0601**	**0.0000**	**284.8301**	**284.8301**	**0.0124**	**0.0000**	**285.1402**

3.6 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	0.0121	0.1224	0.1604	2.5000e-004		6.2500e-003	6.2500e-003		5.7500e-003	5.7500e-003	0.0000	22.0303	22.0303	7.1300e-003	0.0000	22.2084
Paving	2.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0151**	**0.1224**	**0.1604**	**2.5000e-004**		**6.2500e-003**	**6.2500e-003**		**5.7500e-003**	**5.7500e-003**	**0.0000**	**22.0303**	**22.0303**	**7.1300e-003**	**0.0000**	**22.2084**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	4.5000e-004	4.6600e-003	1.0000e-005	1.2900e-003	1.0000e-005	1.3000e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.1095	1.1095	3.0000e-005	0.0000	1.1103
Total	**6.8000e-004**	**4.5000e-004**	**4.6600e-003**	**1.0000e-005**	**1.2900e-003**	**1.0000e-005**	**1.3000e-003**	**3.4000e-004**	**1.0000e-005**	**3.5000e-004**	**0.0000**	**1.1095**	**1.1095**	**3.0000e-005**	**0.0000**	**1.1103**

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	0.0121	0.1224	0.1604	2.5000e-004		6.2500e-003	6.2500e-003		5.7500e-003	5.7500e-003	0.0000	22.0303	22.0303	7.1300e-003	0.0000	22.2084
Paving	2.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0151**	**0.1224**	**0.1604**	**2.5000e-004**		**6.2500e-003**	**6.2500e-003**		**5.7500e-003**	**5.7500e-003**	**0.0000**	**22.0303**	**22.0303**	**7.1300e-003**	**0.0000**	**22.2084**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	4.5000e-004	4.6600e-003	1.0000e-005	1.2900e-003	1.0000e-005	1.3000e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.1095	1.1095	3.0000e-005	0.0000	1.1103
Total	**6.8000e-004**	**4.5000e-004**	**4.6600e-003**	**1.0000e-005**	**1.2900e-003**	**1.0000e-005**	**1.3000e-003**	**3.4000e-004**	**1.0000e-005**	**3.5000e-004**	**0.0000**	**1.1095**	**1.1095**	**3.0000e-005**	**0.0000**	**1.1103**

3.7 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	1.2460					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**1.2481**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4700e-003	9.9000e-004	0.0102	3.0000e-005	2.8300e-003	2.0000e-005	2.8500e-003	7.5000e-004	2.0000e-005	7.7000e-004	0.0000	2.4207	2.4207	7.0000e-005	0.0000	2.4226
Total	**1.4700e-003**	**9.9000e-004**	**0.0102**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8500e-003**	**7.5000e-004**	**2.0000e-005**	**7.7000e-004**	**0.0000**	**2.4207**	**2.4207**	**7.0000e-005**	**0.0000**	**2.4226**

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	1.2460					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**1.2481**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4700e-003	9.9000e-004	0.0102	3.0000e-005	2.8300e-003	2.0000e-005	2.8500e-003	7.5000e-004	2.0000e-005	7.7000e-004	0.0000	2.4207	2.4207	7.0000e-005	0.0000	2.4226
Total	**1.4700e-003**	**9.9000e-004**	**0.0102**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8500e-003**	**7.5000e-004**	**2.0000e-005**	**7.7000e-004**	**0.0000**	**2.4207**	**2.4207**	**7.0000e-005**	**0.0000**	**2.4226**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2481	1.1837	2.3609	6.7300e-003	0.5283	6.9300e-003	0.5352	0.1422	6.5000e-003	0.1487	0.0000	618.7291	618.7291	0.0298	0.0000	619.4732
Unmitigated	0.2481	1.1837	2.3609	6.7300e-003	0.5283	6.9300e-003	0.5352	0.1422	6.5000e-003	0.1487	0.0000	618.7291	618.7291	0.0298	0.0000	619.4732

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	913.92	913.92	913.92	1,423,814	1,423,814
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		
Recreational Swimming Pool	0.00	0.00	0.00		
Total	913.92	913.92	913.92	1,423,814	1,423,814

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	4.28	4.28	4.28	31.00	15.00	54.00	100	0	0
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
Recreational Swimming Pool	9.50	7.30	7.30	33.00	48.00	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	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
Recreational Swimming Pool	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

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	125.7694	125.7694	9.3400e-003	1.9300e-003	126.5785
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	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 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
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	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 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
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	693563	122.8965	9.1200e-003	1.8900e-003	123.6870
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	16213.4	2.8730	2.1000e-004	4.0000e-005	2.8914
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Total		**125.7694**	**9.3300e-003**	**1.9300e-003**	**126.5785**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
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
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.8484	0.0144	1.2513	7.0000e-005		6.9100e-003	6.9100e-003		6.9100e-003	6.9100e-003	0.0000	2.0426	2.0426	1.9800e-003	0.0000	2.0921
Unmitigated	0.8484	0.0144	1.2513	7.0000e-005		6.9100e-003	6.9100e-003		6.9100e-003	6.9100e-003	0.0000	2.0426	2.0426	1.9800e-003	0.0000	2.0921

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	0.1246					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6859					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0380	0.0144	1.2513	7.0000e-005		6.9100e-003	6.9100e-003		6.9100e-003	6.9100e-003	0.0000	2.0426	2.0426	1.9800e-003	0.0000	2.0921
Total	**0.8484**	**0.0144**	**1.2513**	**7.0000e-005**		**6.9100e-003**	**6.9100e-003**		**6.9100e-003**	**6.9100e-003**	**0.0000**	**2.0426**	**2.0426**	**1.9800e-003**	**0.0000**	**2.0921**

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	0.1246					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6859					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0380	0.0144	1.2513	7.0000e-005		6.9100e-003	6.9100e-003		6.9100e-003	6.9100e-003	0.0000	2.0426	2.0426	1.9800e-003	0.0000	2.0921
Total	**0.8484**	**0.0144**	**1.2513**	**7.0000e-005**		**6.9100e-003**	**6.9100e-003**		**6.9100e-003**	**6.9100e-003**	**0.0000**	**2.0426**	**2.0426**	**1.9800e-003**	**0.0000**	**2.0921**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	14.7075	0.2884	6.9700e-003	23.9945
Unmitigated	18.3844	0.3605	8.7100e-003	29.9931

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	10.9459 / 6.90066	18.2473	0.3578	8.6500e-003	29.7688
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
Recreational Swimming Pool	0.0828004 /	0.1371	2.7100e-003	7.0000e-005	0.2243
Total		**18.3844**	**0.3605**	**8.7200e-003**	**29.9931**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	8.7567 / 5.52053	14.5978	0.2862	6.9200e-003	23.8151
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
Recreational Swimming Pool	0.0662403 / 0.0495089	0.1097	2.1700e-003	5.0000e-005	0.1794
Total		**14.7075**	**0.2884**	**6.9700e-003**	**23.9945**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	17.3070	1.0228	0.0000	42.8774
Unmitigated	17.3070	1.0228	0.0000	42.8774

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	77.28	15.6871	0.9271	0.0000	38.8642
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
Recreational Swimming Pool	7.98	1.6199	0.0957	0.0000	4.0132
Total		**17.3070**	**1.0228**	**0.0000**	**42.8774**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	77.28	15.6871	0.9271	0.0000	38.8642
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
Recreational Swimming Pool	7.98	1.6199	0.0957	0.0000	4.0132
Total		**17.3070**	**1.0228**	**0.0000**	**42.8774**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Multipurpose Creek Trail - Unmitigated Construction Run

Sonoma-San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.21	1000sqft	0.01	205.00	0
Other Non-Asphalt Surfaces	1.26	1000sqft	0.03	1,260.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	75
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	390.65	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Multipurpose Creek Trail - Unmitigated Construction Run - Sonoma-San Francisco County, Annual

Project Characteristics - CO2 intensity factor based on Renewable Energy Portfolio Standard. Start of construction and operational year based on Applicant provided information in in response to information request form (11/12/2019).

Land Use - Sqft as provided by Applicant in response to information request form (11/12/2019).Sqft converted to acres for all ground land uses.

Construction Phase - Overlaps and adjustments to be consistent with construction start date, end date and number of working days as provided by Applicant in response to information request form(11/12/2019). Schedule for extension of Multipurpose Creek Trail.

Demolition -

Grading -

Vehicle Trips - Construction Only.

Woodstoves -

Area Coating - Construction Only.

Energy Use -

Construction Off-road Equipment Mitigation - Compliance with BAAQMD best management practices thresholds for fugitive dust; recommended measures from BAAQMD's Basic Construction Mitigation Measures for all Proposed Projects.

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	88	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	2.00	3.00
tblConstructionPhase	NumDays	1.00	2.00
tblLandUse	LandUseSquareFeet	210.00	205.00
tblLandUse	LotAcreage	0.00	0.01
tblProjectCharacteristics	CO2IntensityFactor	641.35	390.65

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	3.9400e-003	0.0357	0.0352	6.0000e-005	2.1700e-003	1.8000e-003	3.9700e-003	8.1000e-004	1.6800e-003	2.5000e-003	0.0000	5.2183	5.2183	1.2700e-003	0.0000	5.2500
Maximum	**3.9400e-003**	**0.0357**	**0.0352**	**6.0000e-005**	**2.1700e-003**	**1.8000e-003**	**3.9700e-003**	**8.1000e-004**	**1.6800e-003**	**2.5000e-003**	**0.0000**	**5.2183**	**5.2183**	**1.2700e-003**	**0.0000**	**5.2500**

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	3.9400e-003	0.0357	0.0352	6.0000e-005	1.2600e-003	1.8000e-003	3.0500e-003	4.4000e-004	1.6800e-003	2.1200e-003	0.0000	5.2183	5.2183	1.2700e-003	0.0000	5.2500
Maximum	**3.9400e-003**	**0.0357**	**0.0352**	**6.0000e-005**	**1.2600e-003**	**1.8000e-003**	**3.0500e-003**	**4.4000e-004**	**1.6800e-003**	**2.1200e-003**	**0.0000**	**5.2183**	**5.2183**	**1.2700e-003**	**0.0000**	**5.2500**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**41.94**	**0.00**	**23.17**	**45.68**	**0.00**	**15.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Multipurpose Creek Trail - Unmitigated Construction Run - Sonoma-San Francisco County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	1.0000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.0000e-004**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.0000e-004**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	10/14/2021	10/15/2021	5	2	
2	Grading	Grading	10/16/2021	10/20/2021	5	3	
3	Paving	Paving	10/19/2021	10/25/2021	5	5	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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					5.3000e-004	0.0000	5.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4000e-004	7.8200e-003	4.0300e-003	1.0000e-005		3.0000e-004	3.0000e-004		2.8000e-004	2.8000e-004	0.0000	0.8551	0.8551	2.8000e-004	0.0000	0.8620
Total	**6.4000e-004**	**7.8200e-003**	**4.0300e-003**	**1.0000e-005**	**5.3000e-004**	**3.0000e-004**	**8.3000e-004**	**6.0000e-005**	**2.8000e-004**	**3.4000e-004**	**0.0000**	**0.8551**	**0.8551**	**2.8000e-004**	**0.0000**	**0.8620**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0349	0.0349	0.0000	0.0000	0.0349
Total	**2.0000e-005**	**2.0000e-005**	**1.6000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0349**	**0.0349**	**0.0000**	**0.0000**	**0.0349**

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					2.4000e-004	0.0000	2.4000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4000e-004	7.8200e-003	4.0300e-003	1.0000e-005		3.0000e-004	3.0000e-004		2.8000e-004	2.8000e-004	0.0000	0.8551	0.8551	2.8000e-004	0.0000	0.8620
Total	**6.4000e-004**	**7.8200e-003**	**4.0300e-003**	**1.0000e-005**	**2.4000e-004**	**3.0000e-004**	**5.4000e-004**	**3.0000e-005**	**2.8000e-004**	**3.1000e-004**	**0.0000**	**0.8551**	**0.8551**	**2.8000e-004**	**0.0000**	**0.8620**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0349	0.0349	0.0000	0.0000	0.0349
Total	**2.0000e-005**	**2.0000e-005**	**1.6000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0349**	**0.0349**	**0.0000**	**0.0000**	**0.0349**

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					1.1300e-003	0.0000	1.1300e-003	6.2000e-004	0.0000	6.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1900e-003	0.0109	0.0114	2.0000e-005		6.1000e-004	6.1000e-004		5.8000e-004	5.8000e-004	0.0000	1.5614	1.5614	2.9000e-004	0.0000	1.5687
Total	**1.1900e-003**	**0.0109**	**0.0114**	**2.0000e-005**	**1.1300e-003**	**6.1000e-004**	**1.7400e-003**	**6.2000e-004**	**5.8000e-004**	**1.2000e-003**	**0.0000**	**1.5614**	**1.5614**	**2.9000e-004**	**0.0000**	**1.5687**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	4.7000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1047	0.1047	0.0000	0.0000	0.1048
Total	**7.0000e-005**	**5.0000e-005**	**4.7000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1047**	**0.1047**	**0.0000**	**0.0000**	**0.1048**

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					5.1000e-004	0.0000	5.1000e-004	2.8000e-004	0.0000	2.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1900e-003	0.0109	0.0114	2.0000e-005		6.1000e-004	6.1000e-004		5.8000e-004	5.8000e-004	0.0000	1.5614	1.5614	2.9000e-004	0.0000	1.5687
Total	**1.1900e-003**	**0.0109**	**0.0114**	**2.0000e-005**	**5.1000e-004**	**6.1000e-004**	**1.1200e-003**	**2.8000e-004**	**5.8000e-004**	**8.6000e-004**	**0.0000**	**1.5614**	**1.5614**	**2.9000e-004**	**0.0000**	**1.5687**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	4.7000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1047	0.1047	0.0000	0.0000	0.1048
Total	**7.0000e-005**	**5.0000e-005**	**4.7000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1047**	**0.1047**	**0.0000**	**0.0000**	**0.1048**

3.4 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.8000e-003	0.0168	0.0177	3.0000e-005		8.8000e-004	8.8000e-004		8.2000e-004	8.2000e-004	0.0000	2.3481	2.3481	6.8000e-004	0.0000	2.3652
Paving	1.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.8100e-003**	**0.0168**	**0.0177**	**3.0000e-005**		**8.8000e-004**	**8.8000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.3481**	**2.3481**	**6.8000e-004**	**0.0000**	**2.3652**

3.4 Paving - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.4000e-004	1.4200e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3141	0.3141	1.0000e-005	0.0000	0.3143
Total	**2.0000e-004**	**1.4000e-004**	**1.4200e-003**	**0.0000**	**3.5000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3141**	**0.3141**	**1.0000e-005**	**0.0000**	**0.3143**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.8000e-003	0.0168	0.0177	3.0000e-005		8.8000e-004	8.8000e-004		8.2000e-004	8.2000e-004	0.0000	2.3481	2.3481	6.8000e-004	0.0000	2.3652
Paving	1.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.8100e-003**	**0.0168**	**0.0177**	**3.0000e-005**		**8.8000e-004**	**8.8000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.3481**	**2.3481**	**6.8000e-004**	**0.0000**	**2.3652**

3.4 Paving - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.4000e-004	1.4200e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3141	0.3141	1.0000e-005	0.0000	0.3143
Total	**2.0000e-004**	**1.4000e-004**	**1.4200e-003**	**0.0000**	**3.5000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3141**	**0.3141**	**1.0000e-005**	**0.0000**	**0.3143**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.578299	0.039453	0.169996	0.109068	0.028307	0.006716	0.029274	0.026666	0.003071	0.001838	0.005325	0.000874	0.001112
Other Non-Asphalt Surfaces	0.578299	0.039453	0.169996	0.109068	0.028307	0.006716	0.029274	0.026666	0.003071	0.001838	0.005325	0.000874	0.001112

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	1.0000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Total	**9.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Total	**9.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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B.2 - Additional Air Quality and Greenhouse Gas Supporting Information

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College Creek Apartments Construction Parameters

College Creek Apartments Unmitigated Construction and Operational Run (On-Site)

Construction Phase

Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
Demolition	Demolition	7/20/2021	8/27/2021	5	29
Site Preparation	Site Preparation	8/28/2021	9/10/2021	5	10
Grading	Grading	9/11/2021	2/25/2022	5	120
Building Construction	Building Construction	12/30/2021	12/28/2022	5	260
Paving	Paving	8/1/2022	8/30/2022	5	22
Architectural Coating	Architectural Coating	12/1/2022	12/28/2022	5	20

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8	81	0.73
Demolition	Excavators	3	8	158	0.38
Demolition	Rubber Tired Dozers	2	8	247	0.40
Site Preparation	Rubber Tired Dozers	3	8	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	1	8	158	0.38
Grading	Graders	1	8	187	0.41
Grading	Rubber Tired Dozers	1	8	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8	97	0.37
Building Construction	Cranes	1	7	231	0.29
Building Construction	Forklifts	3	8	89	0.20
Building Construction	Generator Sets	1	8	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37
Building Construction	Welders	1	8	46	0.45
Paving	Pavers	2	8	130	0.42
Paving	Paving Equipment	2	8	132	0.36
Paving	Rollers	2	8	80	0.38
Architectural Coating	Air Compressors	1	6	78	0.48

Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number
Demolition	15	0	836
Site Preparation	18	0	225
Grading	15	0	0
Building Construction	178	40	0
Paving	15	0	0
Architectural Coating	36	0	0

Multipurpose Creek Trail - Unmitigated Construction Run

Construction Phase

Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
Site Preparation	Site Preparation	10/14/2021	10/15/2021	5	2
Grading	Grading	10/16/2021	10/20/2021	5	3
Paving	Paving	10/19/2021	10/25/2021	5	5

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	8	97	0.37
Grading	Concrete/Industrial Saws	1	8	81	0.73
Grading	Rubber Tired Dozers	1	1	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6	97	0.37
Paving	Cement and Mortar Mixers	4	6	9	0.56
Paving	Pavers	1	7	130	0.42
Paving	Rollers	1	7	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7	97	0.37

Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number
Site Preparation	5	0	0
Grading	10	0	0
Paving	18	0	0

College Creek Apartments Additional Construction Parameters

Estimation of Demolition Debris

Buildings

Debris Generation for Buildings (cy)

Approximate Size	Area (sq ft)	~H (ft)	Stories	Cubic Feet	/27	*0.33	Cubic Yards	
Existing building	34,794	15	1.5	782865	28995	9568.35	9,568	
Total Building	34,794						9,568	cy

Removal of Hardscape

Approximate Size	219,951	sq-feet	Hardscape	110467
Thickness	4	inches	Softscape	109484
Volume	73,317	cu-ft		
Volume	2,715	cy		

Conversion Weight of Impervious:	2,700	lbs/cy
Weight of Impervious:	3665.85	tons of debris

Conversion of Tons of Debris to Cubic Yards

Conversion Factor	1 cy = 0.5 tons	
Impervious	7331.7	cy

Total

Removal of surfaces	7332	cy
Total Building	9,568	cy
Total	**16,900**	**cy**

Removal of surfaces	3666	tons of debris
Total Building	4,784	tons of debris
Total	**8,450**	**tons of debris**

Notes: cy = cubic yards; ft= feet; ~ = approximate; lbs = pounds; sq-feet = square feet; cu-ft = cubic feet

Sources of factors:

Federal Emergency Management Agency (FEMA). 2010. Debris Estimating Field Guide. September. Website: https://www.fema.gov/pdf/government/grant/pa/fema_329_debris_estimating.pdf. Accessed February 2019.

DownEaster. 2015. Material Weight – Pounds per Cubic Yard. June 9. Website: https://downeastermfg.com/wp-content/uploads/2015/.../Cubic_Yardage_Chart-D.pdf. Accessed February 2019.

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx

Notes and References listed below the Search Boxes

Search Parameters

County	Sonoma
Roadway Direction	North-South
Side of the Roadway	West
Distance from Roadway	600 feet
Annual Average Daily Traffic (ADT)	19,063

Results

Sonoma County

NORTH-SOUTH DIRECTIONAL ROADWAY

PM2.5 annual average

0.027 ($\mu g/m^3$)

Cancer Risk

1.04 (per million)

Data for Sonoma County based on meteorological data collected from Santa Rosa in 2005

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust.
2. Roadways were modeled using CALINE4 air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.

Adjusted cancer risk calculation: 1.04 x 1.3744 = 1.43 (per million)
The cancer risk calculated using the BAAQMD Roadway Screening Analysis Calculator was adjusted by a correction factor of 1.3744 to incorporate the latest OEHHA guidance.
Source of 1.3744 correction factor: BAAQMD recommendation confirmed through personal communication with BAAQMD Environmental Planner, Areana Flores, on January 8, 2020.

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx

Notes and References listed below the Search Boxes

Search Parameters

County	Sonoma
Roadway Direction	East-West
Side of the Roadway	South
Distance from Roadway	10 feet
Annual Average Daily Traffic (ADT)	3,692

Results

Sonoma County

EAST-WEST DIRECTIONAL ROADWAY

PM2.5 annual average

0.041 ($\mu g/m^3$)

Cancer Risk

1.66 (per million)

Data for Sonoma County based on meteorological data collected from Santa Rosa in 2005

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust.
2. Roadways were modeled using CALINE4 air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.

Adjusted cancer risk calculation: 1.66 x 1.3744 = 2.28 (per million)
The cancer risk calculated using the BAAQMD Roadway Screening Analysis Calculator was adjusted by a correction factor of 1.3744 to incorporate the latest OEHHA guidance.
Source of 1.3744 correction factor: BAAQMD recommendation confirmed through personal communication with BAAQMD Environmental Planner, Areana Flores, on January 8, 2020.

Step 1:

Plant Name	Pacific Gas & Electric
Plant No.	22657

Step 4:
Specify Source Type

Does facility have only diesel backup generators?	no
Is this analysis for a gas station?	no

Note: Default generic distance multiplier used if source is not a generator or gas station.

Step 2:
Estimate Distance

What is the distance (m) from the facility boundary to the MEI?	300

Step 5:
Read Estimates

Total Cancer Risk	0.000	per 1,000,000
Total Chronic Hazard	0.000	
Total PM2.5 Concentration	0.000	µg/m^3

Step 3:
Enter Emissions Data

Chemical Name	CAS No. (dashes removed)	Rate (lb/day)	Risk (# / 1,000,000)	Hazard (index)	Concentration (µg/m3)
Fine Particulate Matter (PM2.5)		4.22E-04			0.00
1,1,1-Trichloroethane	71556	0.00E+00			
1,1,2,2-Tetrachloroethane	79345	0.00E+00			
1,1,2-Trichloroethane	79005	0.00E+00			
1,1-Dichloroethane	75343	0.00E+00			
1,1-Dichloroethylene	75354	0.00E+00			
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268879	0.00E+00			
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001020	0.00E+00			
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822469	0.00E+00			
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562394	0.00E+00			
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673897	0.00E+00			
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227286	0.00E+00			
1,2,3,4,7,8-Hexachlorodibenzofuran	70648269	0.00E+00			
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653857	0.00E+00			
1,2,3,6,7,8-Hexachlorodibenzofuran	57117449	0.00E+00			
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408743	0.00E+00			
1,2,3,7,8,9-Hexachlorodibenzofuran	72918219	0.00E+00			
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321764	0.00E+00			
1,2,3,7,8-Pentachlorodibenzofuran	57117416	0.00E+00			
1,2-Dibromo-3-chloropropane	96128	0.00E+00			
1,2-Dibromoethane	106934	0.00E+00			
1,2-Dichloroethane	107062	0.00E+00			
1,2-Epoxybutane	106887	0.00E+00			
1,3-Butadiene	106990	0.00E+00			
1,3-Propane sultone	1120714	0.00E+00			
1,4-Dichlorobenzene	106467	0.00E+00			
1,4-Dioxane	123911	0.00E+00			
1,6-Dinitropyrene	42397648	0.00E+00			
1,8-Dinitropyrene	42397659	0.00E+00			
1-Nitropyrene	5522430	0.00E+00			
2',3,4,4',5-PeCB	65510443	0.00E+00			
2,3',4,4',5,5'-HxCB	52663726	0.00E+00			
2,3',4,4',5-PeCB	31508006	0.00E+00			
2,3,3',4,4',5'-HxCB	69782907	0.00E+00			
2,3,3',4,4',5,5'-HpCB	39635319	0.00E+00			
2,3,3',4,4',5-HxCB	38380084	0.00E+00			
2,3,3',4,4'-PeCB	32598144	0.00E+00			
2,3,4,4',5-PeCB	74472370	0.00E+00			
2,3,4,6,7,8-hexachlorodibenzofuran	60851345	0.00E+00			
2,3,4,7,8-Pentachlorodibenzofuran	57117314	0.00E+00			
2,3,7,8-Tetrachlorodibenzo-p-dioxin and related comp	1746016	0.00E+00			
2,3,7,8-Tetrachlorodibenzofuran	51207319	0.00E+00			
2,4,6-Trichlorophenol	88062	0.00E+00			
2,4-Diaminoanisole	615054	0.00E+00			
2,4-Diaminotoluene	95807	0.00E+00			
2,4-Dinitrotoluene	121142	0.00E+00			
2-Aminoanthraquinone	117793	0.00E+00			
2-Nitrofluorene	607578	0.00E+00			
3,3',4,4',5,5'-HxCB	32774166	0.00E+00			
3,3',4,4',5-PeCB	57465288	0.00E+00			
3,3',4,4'-TCB	32598133	0.00E+00			
3,3-Dichlorobenzidine	91941	0.00E+00			
3,4,4'5-TCB	70362504	0.00E+00			
3-Methylcholanthrene	56495	0.00E+00			
4,4-Methylene bis(2-chloroaniline)	101144	0.00E+00			
4,4-Methylenedianiline	101779	0.00E+00			
4-Chloro-ortho-phenylenediamine	95830	0.00E+00			
4-Dimethylaminoazobenzene	60117	0.00E+00			
4-Nitropyrene	57835924	0.00E+00			
5-Methylchrysene	3697243	0.00E+00			

5-Nitroacenaphthene	602879	0.00E+00	
6-Nitrochrysene	7496028	0.00E+00	
7,12-Dimethylbenz(a)anthracene	57976	0.00E+00	
7H-dibenzo(c,g)carbazole	194592	0.00E+00	
Acetaldehyde	75070	0.00E+00	
Acetamide	60355	0.00E+00	
Acrolein	107028	0.00E+00	
Acrylamide	79061	0.00E+00	
Acrylic Acid	79107	0.00E+00	
Acrylonitrile	107131	0.00E+00	
Allyl chloride	107051	0.00E+00	
Ammonia	7664417	0.00E+00	
Aniline	62533	0.00E+00	
Arsenic	7440382	0.00E+00	
Arsine	7784421	0.00E+00	
Asbestos [1/(100 PCM fibers/m^3)]^-1	1332214	0.00E+00	
Benz(a)anthracene	56553	0.00E+00	
Benzene	71432	0.00E+00	
Benzidine	92875	0.00E+00	
Benzo(a)pyrene	50328	0.00E+00	
Benzo(b)fluoranthene	205992	0.00E+00	
Benzo(j)fluoranthene	205823	0.00E+00	
Benzo(k)fluoranthene	207089	0.00E+00	
Benzyl Chloride	100447	0.00E+00	
Beryllium	7440417	0.00E+00	
Bis(2-chloroethyl) Ether	111444	0.00E+00	
Bis(2-chloromethyl) Ether	542881	0.00E+00	
Cadmium	7440439	0.00E+00	
Caprolactam	105602	0.00E+00	
Carbon Disulfide	75150	0.00E+00	
Carbon Monoxide	630080	3.63E-03	
Carbon Tetrachloride	56235	0.00E+00	
Carbonyl Sulfide	463581	0.00E+00	
Chlorinated paraffins (Avg. chain length C12; approx. 6	108171262	0.00E+00	
Chlorine	7782505	0.00E+00	
Chlorine Dioxide	10049044	0.00E+00	
Chlorite	7758192	0.00E+00	
Chlorobenzene	108907	0.00E+00	
Chlorodibromomethane	124481	0.00E+00	
Chloroethane (Ethyl Chloride)	75003	0.00E+00	
Chloroform	67663	0.00E+00	
Chloropicrin	76062	0.00E+00	
Chromic Trioxide	1333820	0.00E+00	
Chromium-hexavalent	18540299	0.00E+00	
Barium chromate2	10294403	0.00E+00	
Calcium chromate2	13765190	0.00E+00	
Lead chromate2	7758976	0.00E+00	
Sodium dichromate2	10588019	0.00E+00	
Strontium chromate2	7789062	0.00E+00	
CHROMIC TRIOXIDE (as chromic acid mist)	1333820	0.00E+00	
Chrysene	218019	0.00E+00	
Copper	7440508	0.00E+00	
Copper and Copper Compounds	7440508	0.00E+00	
Cresol Mixtures	1319773	0.00E+00	
Cupferron	135206	0.00E+00	
Cyanide	57125	0.00E+00	
Di(2-ethylhexyl)phthalate	117817	0.00E+00	
Dibenz(a-h)acridine	226368	0.00E+00	
Dibenz(a-h)anthracene	53703	0.00E+00	
Dibenz(a-j)acridine	224420	0.00E+00	
Dibenzo(a-e)pyrene	192654	0.00E+00	
Dibenzo(a-h)pyrene	189640	0.00E+00	
Dibenzo(a-i)pyrene	189559	0.00E+00	
Dibenzo(a-l)pyrene	191300	0.00E+00	
Diesel Exhaust Particulate	85105	0.00E+00	
Diethanolamine	111422	0.00E+00	
Dimethylformamide	68122	0.00E+00	
Direct Black 38 (Technical Grade)	1937377	0.00E+00	
Direct Blue 6 (Technical Grade)	2602462	0.00E+00	
Direct Brown 95 (Technical Grade)	16071866	0.00E+00	
Epichlorohydrin	106898	0.00E+00	
Ethylbenzene	100414	0.00E+00	
Ethylene Glycol	107211	0.00E+00	
Ethylene Glycol Monobutyl Ether	111762	0.00E+00	
Ethylene Glycol Monoethyl Ether	110805	0.00E+00	
Ethylene Glycol Monoethyl Ether Acetate	111159	0.00E+00	
Ethylene Glycol Monomethyl Ether	109864	0.00E+00	
Ethylene Glycol Monomethyl Ether Acetate	110496	0.00E+00	
Ethylene Oxide	75218	0.00E+00	

Ethylene Thiourea	96457	0.00E+00
Fluorides	1101	0.00E+00
Formaldehyde (gas)	50000	0.00E+00
Glutaraldehyde	111308	0.00E+00
Hexachlorobenzene	118741	0.00E+00
Hexachlorocyclohexane (Technical Grade)	608731	0.00E+00
Hexachlorocyclohexane- Alpha Isomer	319846	0.00E+00
Hexachlorocyclohexane- Beta Isomer	319857	0.00E+00
Hexachlorocyclohexane- Gamma Isomer	58899	0.00E+00
Hydrazine	302012	0.00E+00
Hydrogen Chloride	7647010	0.00E+00
Hydrogen Cyanide	74908	0.00E+00
Hydrogen Fluoride	7664393	0.00E+00
Hydrogen Selenide	7783075	0.00E+00
Hydrogen Sulfide	7783064	0.00E+00
Indeno(1-2-3-c-d)pyrene	193395	0.00E+00
Isophorone	78591	0.00E+00
Isopropyl Alcohol	67630	0.00E+00
Lead Acetate	301042	0.00E+00
Lead and Lead Compounds	7439921	0.00E+00
Lead Phosphate	7446277	0.00E+00
Lead Subacetate	1335326	0.00E+00
m-CRESOL	108394	0.00E+00
m-XYLENE	108383	0.00E+00
Maleic Anhydride	108316	0.00E+00
Manganese & Manganese Compounds	7439965	0.00E+00
Mercury (Inorganic)	7439976	0.00E+00
Mercuric chloride	7487947	0.00E+00
Methanol	67561	0.00E+00
Methyl Bromide	74839	0.00E+00
Methyl Ethyl Ketone	78933	0.00E+00
Methyl Isocyanate	624839	0.00E+00
Methyl Tertiary Butyl Ether	1634044	0.00E+00
Methylene Chloride (Dichloromethane)	75092	0.00E+00
Methylene Diphenyl Isocyanate (MDI)	101688	0.00E+00
Michlers Ketone	90948	0.00E+00
n-Hexane	110543	0.00E+00
n-Nitroso-n-methylethylamine	10595956	0.00E+00
n-Nitrosodi-n-Butylamine	924163	0.00E+00
n-Nitrosodi-n-Propylamine	621647	0.00E+00
n-Nitrosodiethylamine	55185	0.00E+00
n-Nitrosodimethylamine	62759	0.00E+00
n-Nitrosodiphenylamine	86306	0.00E+00
n-Nitrosomorpholine	59892	0.00E+00
n-Nitrosopiperidine	100754	0.00E+00
n-Nitrosopyrrolidine	930552	0.00E+00
Naphthalene	91203	0.00E+00
Nickel and Nickel Compounds	7440020	0.00E+00
Nickel acetate	373024	0.00E+00
Nickel carbonate	3333673	0.00E+00
Nickel carbonyl	13463393	0.00E+00
Nickel hydroxide	12054487	0.00E+00
Nickelocene	1271289	0.00E+00
Nickel Oxide	1313991	0.00E+00
Nickel Refinery Dust	1146	0.00E+00
Nickel Subsulfide	12035722	0.00E+00
Nitric Acid	7697372	0.00E+00
Nitrogen Dioxide	10102440	2.15E-02
o-CRESOL	95487	0.00E+00
o-XYLENE	95476	0.00E+00
Oleum	8014957	0.00E+00
Ozone	10028156	0.00E+00
p-Chloro-o-toluidine	95692	0.00E+00
p-Cresidine	120718	0.00E+00
p-CRESOL	106445	0.00E+00
p-Nitrosodiphenylamine	156105	0.00E+00
p-XYLENE	106423	0.00E+00
Pentachlorophenol	87865	0.00E+00
Perchloroethylene	127184	0.00E+00
Phenol	108952	0.00E+00
Phosgene	75445	0.00E+00
Phosphine	7803512	0.00E+00
Phosphoric Acid	7664382	0.00E+00
Phthalic Anhydride	85449	0.00E+00
Polychlorinated Biphenyls	1336363	0.00E+00
Potassium Bromate	7758012	0.00E+00
Propylene	115071	0.00E+00

Propylene Glycol Monomethyl Ether	107982	0.00E+00			
Propylene oxide	75569	0.00E+00			
Selenium	7782492	0.00E+00			
Selenium sulfide	7446346	0.00E+00			
Silica (crystalline, respirable)	7631869	0.00E+00			
Sodium hydroxide	1310732	0.00E+00			
Styrene	100425	0.00E+00			
Sulfates	9960	0.00E+00			
Sulfur Dioxide	7446095	2.40E-05			
Sulfuric Acid	7664939	0.00E+00			
Sulfur Trioxide	7446719	0.00E+00			
Tertiary-butyl acetate	540885	0.00E+00			
Tetrachloroethylene	127184	0.00E+00			
Thioacetamide	62555	0.00E+00			
Toluene	108883	0.00E+00			
Toluene Diisocyanates	26471625	0.00E+00			
Toluene Diisocyanates (2,4 and 2, 6)	584849	0.00E+00			
Toluene Diisocyanates (2,4 and 2, 6)	91087	0.00E+00			
Trichloroethylene	79016	0.00E+00			
Triethylamine	121448	0.00E+00			
Urethane	51796	0.00E+00			
Vanadium pentoxide	1314621	0.00E+00			
Vinyl acetate	108054	0.00E+00			
Vinyl chloride	75014	0.00E+00			
Xylenes (technical mixture of m, o, p-isomers)	1330207	0.00E+00			
Vanadium	7440622	0.00E+00			
		TOTAL UNADJUSTED Risk Values	**0.000**	**0.000**	**0.001**

Step 1:

Plant Name	California Dept of Forestry
Plant No.	100542

Step 2:
Estimate Distance

What is the distance (m) from the facility boundary to the MEI?	60

Step 4:
Specify Source Type

Does facility have only diesel backup generators?	no
Is this analysis for a gas station?	yes

Note: Default generic distance multiplier used if source is not a generator or gas station.

Step 5:
Read Estimates

Total Cancer Risk	0.132	per 1,000,000
Total Chronic Hazard	0.001	
Total PM2.5 Concentration	0.000	µg/m^3

Step 3:
Enter Emissions Data

Chemical Name	CAS No. (dashes removed)	Rate (lb/day)	Risk (# / 1,000,000)	Hazard (index)	Concentration (µg/m3)
Fine Particulate Matter (PM2.5)					
1,1,1-Trichloroethane	71556	0.00E+00			
1,1,2,2-Tetrachloroethane	79345	0.00E+00			
1,1,2-Trichloroethane	79005	0.00E+00			
1,1-Dichloroethane	75343	0.00E+00			
1,1-Dichloroethylene	75354	0.00E+00			
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268879	0.00E+00			
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001020	0.00E+00			
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822469	0.00E+00			
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562394	0.00E+00			
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673897	0.00E+00			
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227286	0.00E+00			
1,2,3,4,7,8-Hexachlorodibenzofuran	70648269	0.00E+00			
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653857	0.00E+00			
1,2,3,6,7,8-Hexachlorodibenzofuran	57117449	0.00E+00			
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408743	0.00E+00			
1,2,3,7,8,9-Hexachlorodibenzofuran	72918219	0.00E+00			
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321764	0.00E+00			
1,2,3,7,8-Pentachlorodibenzofuran	57117416	0.00E+00			
1,2-Dibromo-3-chloropropane	96128	0.00E+00			
1,2-Dibromoethane	106934	0.00E+00			
1,2-Dichloroethane	107062	0.00E+00			
1,2-Epoxybutane	106887	0.00E+00			
1,3-Butadiene	106990	0.00E+00			
1,3-Propane sultone	1120714	0.00E+00			
1,4-Dichlorobenzene	106467	0.00E+00			
1,4-Dioxane	123911	0.00E+00			
1,6-Dinitropyrene	42397648	0.00E+00			
1,8-Dinitropyrene	42397659	0.00E+00			
1-Nitropyrene	5522430	0.00E+00			
2',3,4,4',5-PeCB	65510443	0.00E+00			
2,3',4,4',5,5'-HxCB	52663726	0.00E+00			
2,3',4,4',5-PeCB	31508006	0.00E+00			
2,3,3',4,4',5'-HxCB	69782907	0.00E+00			
2,3,3',4,4',5,5'-HpCB	39635319	0.00E+00			
2,3,3',4,4',5-HxCB	38380084	0.00E+00			
2,3,3',4,4'-PeCB	32598144	0.00E+00			
2,3,4,4',5-PeCB	74472370	0.00E+00			
2,3,4,6,7,8-hexachlorodibenzofuran	60851345	0.00E+00			
2,3,4,7,8-Pentachlorodibenzofuran	57117314	0.00E+00			
2,3,7,8-Tetrachlorodibenzo-p-dioxin and related comp	1746016	0.00E+00			
2,3,7,8-Tetrachlorodibenzofuran	51207319	0.00E+00			
2,4,6-Trichlorophenol	88062	0.00E+00			
2,4-Diaminoanisole	615054	0.00E+00			
2,4-Diaminotoluene	95807	0.00E+00			
2,4-Dinitrotoluene	121142	0.00E+00			
2-Aminoanthraquinone	117793	0.00E+00			
2-Nitrofluorene	607578	0.00E+00			
3,3',4,4',5,5'-HxCB	32774166	0.00E+00			
3,3',4,4',5-PeCB	57465288	0.00E+00			
3,3',4,4'-TCB	32598133	0.00E+00			
3,3-Dichlorobenzidine	91941	0.00E+00			
3,4,4'5-TCB	70362504	0.00E+00			
3-Methylcholanthrene	56495	0.00E+00			
4,4-Methylene bis(2-chloroaniline)	101144	0.00E+00			
4,4-Methylenedianiline	101779	0.00E+00			
4-Chloro-ortho-phenylenediamine	95830	0.00E+00			
4-Dimethylaminoazobenzene	60117	0.00E+00			
4-Nitropyrene	57835924	0.00E+00			
5-Methylchrysene	3697243	0.00E+00			

5-Nitroacenaphthene	602879	0.00E+00				
6-Nitrochrysene	7496028	0.00E+00				
7,12-Dimethylbenz(a)anthracene	57976	0.00E+00				
7H-dibenzo(c,g)carbazole	194592	0.00E+00				
Acetaldehyde	75070	0.00E+00				
Acetamide	60355	0.00E+00				
Acrolein	107028	0.00E+00				
Acrylamide	79061	0.00E+00				
Acrylic Acid	79107	0.00E+00				
Acrylonitrile	107131	0.00E+00				
Allyl chloride	107051	0.00E+00				
Ammonia	7664417	0.00E+00				
Aniline	62533	0.00E+00				
Arsenic	7440382	0.00E+00				
Arsine	7784421	0.00E+00				
Asbestos [1/(100 PCM fibers/m^3)]^-1	1332214	0.00E+00				
Benz(a)anthracene	56553	0.00E+00				
Benzene	71432	4.68E-03	5.99E-01	2.95E-03		
Benzidine	92875	0.00E+00				
Benzo(a)pyrene	50328	0.00E+00				
Benzo(b)fluoranthene	205992	0.00E+00				
Benzo(j)fluoranthene	205823	0.00E+00				
Benzo(k)fluoranthene	207089	0.00E+00				
Benzyl Chloride	100447	0.00E+00				
Beryllium	7440417	0.00E+00				
Bis(2-chloroethyl) Ether	111444	0.00E+00				
Bis(2-chloromethyl) Ether	542881	0.00E+00				
Cadmium	7440439	0.00E+00				
Caprolactam	105602	0.00E+00				
Carbon Disulfide	75150	0.00E+00				
Carbon Monoxide	630080	0.00E+00				
Carbon Tetrachloride	56235	0.00E+00				
Carbonyl Sulfide	463581	0.00E+00				
Chlorinated paraffins (Avg. chain length C12; approx. 6	108171262	0.00E+00				
Chlorine	7782505	0.00E+00				
Chlorine Dioxide	10049044	0.00E+00				
Chlorite	7758192	0.00E+00				
Chlorobenzene	108907	0.00E+00				
Chlorodibromomethane	124481	0.00E+00				
Chloroethane (Ethyl Chloride)	75003	0.00E+00				
Chloroform	67663	0.00E+00				
Chloropicrin	76062	0.00E+00				
Chromic Trioxide	1333820	0.00E+00				
Chromium-hexavalent	18540299	0.00E+00				
Barium chromate2	10294403	0.00E+00				
Calcium chromate2	13765190	0.00E+00				
Lead chromate2	7758976	0.00E+00				
Sodium dichromate2	10588019	0.00E+00				
Strontium chromate2	7789062	0.00E+00				
CHROMIC TRIOXIDE (as chromic acid mist)	1333820	0.00E+00				
Chrysene	218019	0.00E+00				
Copper	7440508	0.00E+00				
Copper and Copper Compounds	7440508	0.00E+00				
Cresol Mixtures	1319773	0.00E+00				
Cupferron	135206	0.00E+00				
Cyanide	57125	0.00E+00				
Di(2-ethylhexyl)phthalate	117817	0.00E+00				
Dibenz(a-h)acridine	226368	0.00E+00				
Dibenz(a-h)anthracene	53703	0.00E+00				
Dibenz(a-j)acridine	224420	0.00E+00				
Dibenzo(a-e)pyrene	192654	0.00E+00				
Dibenzo(a-h)pyrene	189640	0.00E+00				
Dibenzo(a-i)pyrene	189559	0.00E+00				
Dibenzo(a-l)pyrene	191300	0.00E+00				
Diesel Exhaust Particulate	85105	0.00E+00				
Diethanolamine	111422	0.00E+00				
Dimethylformamide	68122	0.00E+00				
Direct Black 38 (Technical Grade)	1937377	0.00E+00				
Direct Blue 6 (Technical Grade)	2602462	0.00E+00				
Direct Brown 95 (Technical Grade)	16071866	0.00E+00				
Epichlorohydrin	106898	0.00E+00				
Ethylbenzene	100414	6.68E-03	7.43E-02	6.31E-06		
Ethylene Glycol	107211	0.00E+00				
Ethylene Glycol Monobutyl Ether	111762	0.00E+00				
Ethylene Glycol Monoethyl Ether	110805	0.00E+00				
Ethylene Glycol Monoethyl Ether Acetate	111159	0.00E+00				
Ethylene Glycol Monomethyl Ether	109864	0.00E+00				
Ethylene Glycol Monomethyl Ether Acetate	110496	0.00E+00				
Ethylene Oxide	75218	0.00E+00				

	Ethylene Thiourea	96457	0.00E+00		
	Fluorides	1101	0.00E+00		
	Formaldehyde (gas)	50000	0.00E+00		
	Glutaraldehyde	111308	0.00E+00		
	Hexachlorobenzene	118741	0.00E+00		
	Hexachlorocyclohexane (Technical Grade)	608731	0.00E+00		
	Hexachlorocyclohexane- Alpha Isomer	319846	0.00E+00		
	Hexachlorocyclohexane- Beta Isomer	319857	0.00E+00		
	Hexachlorocyclohexane- Gamma Isomer	58899	0.00E+00		
	Hydrazine	302012	0.00E+00		
	Hydrogen Chloride	7647010	0.00E+00		
	Hydrogen Cyanide	74908	0.00E+00		
	Hydrogen Fluoride	7664393	0.00E+00		
	Hydrogen Selenide	7783075	0.00E+00		
	Hydrogen Sulfide	7783064	0.00E+00		
	Indeno(1-2-3-c-d)pyrene	193395	0.00E+00		
	Isophorone	78591	0.00E+00		
	Isopropyl Alcohol	67630	0.00E+00		
	Lead Acetate	301042	0.00E+00		
	Lead and Lead Compounds	7439921	0.00E+00		
	Lead Phosphate	7446277	0.00E+00		
	Lead Subacetate	1335326	0.00E+00		
	m-CRESOL	108394	0.00E+00		
	m-XYLENE	108383	0.00E+00		
	Maleic Anhydride	108316	0.00E+00		
	Manganese & Manganese Compounds	7439965	0.00E+00		
	Mercury (Inorganic)	7439976	0.00E+00		
	Mercuric chloride	7487947	0.00E+00		
	Methanol	67561	0.00E+00		
	Methyl Bromide	74839	0.00E+00		
	Methyl Ethyl Ketone	78933	0.00E+00		
	Methyl Isocyanate	624839	0.00E+00		
	Methyl Tertiary Butyl Ether	1634044	0.00E+00		
	Methylene Chloride (Dichloromethane)	75092	0.00E+00		
	Methylene Diphenyl Isocyanate (MDI)	101688	0.00E+00		
	Michlers Ketone	90948	0.00E+00		
	n-Hexane	110543	1.85E-02	4.98E-06	
	n-Nitroso-n-methylethylamine	10595956	0.00E+00		
	n-Nitrosodi-n-Butylamine	924163	0.00E+00		
	n-Nitrosodi-n-Propylamine	621647	0.00E+00		
	n-Nitrosodiethylamine	55185	0.00E+00		
	n-Nitrosodimethylamine	62759	0.00E+00		
	n-Nitrosodiphenylamine	86306	0.00E+00		
	n-Nitrosomorpholine	59892	0.00E+00		
	n-Nitrosopiperidine	100754	0.00E+00		
	n-Nitrosopyrrolidine	930552	0.00E+00		
	Naphthalene	91203	0.00E+00		
	Nickel and Nickel Compounds	7440020	0.00E+00		
	Nickel acetate	373024	0.00E+00		
	Nickel carbonate	3333673	0.00E+00		
	Nickel carbonyl	13463393	0.00E+00		
	Nickel hydroxide	12054487	0.00E+00		
	Nickelocene	1271289	0.00E+00		
	Nickel Oxide	1313991	0.00E+00		
	Nickel Refinery Dust	1146	0.00E+00		
	Nickel Subsulfide	12035722	0.00E+00		
	Nitric Acid	7697372	0.00E+00		
	Nitrogen Dioxide	10102440	0.00E+00		
	o-CRESOL	95487	0.00E+00		
	o-XYLENE	95476	0.00E+00		
	Oleum	8014957	0.00E+00		
	Ozone	10028156	0.00E+00		
	p-Chloro-o-toluidine	95692	0.00E+00		
	p-Cresidine	120718	0.00E+00		
	p-CRESOL	106445	0.00E+00		
	p-Nitrosodiphenylamine	156105	0.00E+00		
	p-XYLENE	106423	0.00E+00		
	Pentachlorophenol	87865	0.00E+00		
	Perchloroethylene	127184	0.00E+00		
	Phenol	108952	0.00E+00		
	Phosgene	75445	0.00E+00		
	Phosphine	7803512	0.00E+00		
	Phosphoric Acid	7664382	0.00E+00		
	Phthalic Anhydride	85449	0.00E+00		
	Polychlorinated Biphenyls	1336363	0.00E+00		
	Potassium Bromate	7758012	0.00E+00		
	Propylene	115071	0.00E+00		

Propylene Glycol Monomethyl Ether	107982	0.00E+00			
Propylene oxide	75569	0.00E+00			
Selenium	7782492	0.00E+00			
Selenium sulfide	7446346	0.00E+00			
Silica (crystalline, respirable)	7631869	0.00E+00			
Sodium hydroxide	1310732	0.00E+00			
Styrene	100425	0.00E+00			
Sulfates	9960	0.00E+00			
Sulfur Dioxide	7446095	0.00E+00			
Sulfuric Acid	7664939	0.00E+00			
Sulfur Trioxide	7446719	0.00E+00			
Tertiary-butyl acetate	540885	0.00E+00			
Tetrachloroethylene	127184	0.00E+00			
Thioacetamide	62555	0.00E+00			
Toluene	108883	4.48E-02		2.82E-04	
Toluene Diisocyanates	26471625	0.00E+00			
Toluene Diisocyanates (2,4 and 2, 6)	584849	0.00E+00			
Toluene Diisocyanates (2,4 and 2, 6)	91087	0.00E+00			
Trichloroethylene	79016	0.00E+00			
Triethylamine	121448	0.00E+00			
Urethane	51796	0.00E+00			
Vanadium pentoxide	1314621	0.00E+00			
Vinyl acetate	108054	0.00E+00			
Vinyl chloride	75014	0.00E+00			
Xylenes (technical mixture of m, o, p-isomers)	1330207	3.74E-02		1.01E-04	
Vanadium	7440622	0.00E+00			
		TOTAL UNADJUSTED Risk Values	**0.673**	**0.003**	**0.000**

Odor Complaint Summary for the City of Santa Rosa for August 2016 through September 2019 (3-year period analyzed: September 2016 – September 2019)

Bay Area Air Quality Management District (BAAQMD) Public Record Request No. 2019-09-0301

C#	Date	Type	Description	Status	Site #	Siten Name	Address	City	Distance to project site
228821	11/16/16	Odor	asphalt, tar	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
231517	05/09/17	Odor	tar	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
239701	04/10/19	Odor	OLD OIL/ASPHALT	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
228586	10/02/16	Odor	tar	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
233116	10/20/17	Odor	burnt tires/asphalt	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
237134	08/29/18	Odor	burning tar	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
227525	08/22/16	Odor	asphalt	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
229509	01/13/17	Odor	bad	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
237114	08/27/18	Odor	burning tar	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
227911	09/23/16	Odor	toxic	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
229511	01/13/17	Odor	dark smoke	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
237133	08/29/18	Odor	burnt rubber	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
231215	04/22/17	Odor	asphalt	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
237116	08/27/18	Odor		Confirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
230179	02/18/17	Odor	asphalt	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
237138	08/29/18	Odor	tar	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
241248	09/18/19	Odor	asphalt	Pending	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
237141	08/29/18	Odor	burning tires	Confirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
241238	09/17/19	Odor	burning rubber	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
237142	08/29/18	Odor	asphalt	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
241247	09/18/19	Odor	asphalt	Pending	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
237208	09/06/18	Odor	toxic	Confirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
241261	09/19/19	Odor	asphalt	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
237696	10/09/18	Odor	asphalt	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
241163	09/11/19	Odor	burning tar	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
237638	10/05/18	Odor	bad tar smell	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
241249	09/18/19	Odor	burning rubber	Pending	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
237656	10/08/18	Odor	digusting tar	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
237659	10/06/18	Odor	asphalt	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
237678	10/09/18	Odor	tar	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
237728	10/12/18	Odor	concrete	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
237980	10/24/18	Odor	asphalt	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
238081	10/29/18	Odor	asphalt	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
238108	10/30/18	Odor	tar	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
238114	10/31/18	Odor	hot tar	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
238116	10/31/18	Odor	tar	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
238373	11/10/18	Odor	asphalt	Unconfirmed	A1641	BoDean Company Inc	1060 Maxwell Drive	Santa Rosa	1.28
230252	02/24/17	Odor	gas	Unconfirmed	C9334	Convenience Retailers LLC 270565	1950 Guerneville Road	Santa Rosa	0.48
237430	09/21/18	Odor	very bad	Unconfirmed	N4022	NONE	NONE	Santa Rosa	> 2
227623	09/01/16	Odor	manure	Unconfirmed	N4022	NONE	NONE	Santa Rosa	> 2
238994	01/26/19	Odor	toxic	Unconfirmed	P5167	NONE	NONE	Santa Rosa	> 2
233669	12/01/17	Odor	burning plastic	Unconfirmed	R8777	SFD	1128 Harvard Drive	Santa Rosa	> 2
235710	05/26/18	Odor	paint thinner	Unconfirmed	Y1170	Radrods of Norcal	1264 Lotus Ct	Santa Rosa	> 2
227534	08/22/16	Odor	manure	Unconfirmed	Y2127	NONE	NONE	Santa Rosa	> 2
227631	09/02/16	Odor	horrible stench	Unconfirmed	Y2398	NONE	NONE	Santa Rosa	> 2
227704	09/09/16	Odor	propane	Unconfirmed	Y2506	Business	3660 Copperhill Lane	Santa Rosa	> 2
230010	02/14/17	Odor	nail polish remover	Unconfirmed	Y5519	Piner Printing	997 Piner Rd	Santa Rosa	> 2
232457	08/17/17	Odor	paint	Unconfirmed	Y9685	Detail Werkz	2777 Corby Avenue	Santa Rosa	> 2
232479	08/18/17	Odor	paint	Unconfirmed	Y9685	Detail Werkz	2777 Corby Avenue	Santa Rosa	> 2
232898	10/03/17	Odor	chemical	Unconfirmed	Z0607	SFD	NONE	Santa Rosa	> 2
233860	12/19/17	Odor	burning trash	Unconfirmed	Z2128	NONE	NONE	Santa Rosa	> 2
234901	03/28/18	Odor	paint	Unconfirmed	Z3935	Design by Rick	2230 Northpoint Pkwy	Santa Rosa	2.00
235419	05/10/18	Odor	burning	Unconfirmed	Z4090	NONE	Guerneville Rd & Gamay	Santa Rosa	0.52
235237	04/25/18	Odor	burnt plastic	Unconfirmed	Z4090	NONE	Guerneville Rd & Gamay	Santa Rosa	0.52
235478	05/15/18	Odor	asphalt fumes	Unconfirmed	Z4182	NONE	NONE	Santa Rosa	> 2
236258	07/12/18	Odor	chemical	Unconfirmed	Z4541	MFD	3944 Mayette Ave	Santa Rosa	> 2
238216	11/02/18	Odor	fumes	Unconfirmed	Z5299	none	none	Santa Rosa	> 2
238419	11/15/18	Odor	cooking	Unconfirmed	Z5381	Santa Rosa Seafood	946 Santa Rosa Ave	Santa Rosa	> 2
238707	12/28/18	Odor	diesel	Unconfirmed	Z5621	Generator	Stony Circle	Santa Rosa	0.55
239000	01/26/19	Odor	chemical	Unconfirmed	Z5719	NONE	NEAR 2825 Elk Lane	Santa Rosa	> 2
239094	02/05/19	Odor	burning/smoke	Unconfirmed	Z5773	CalWest Transmission & Differential	258 Roseland Ave	Santa Rosa	1.48
239573	03/29/19	Odor	methane gas	Unconfirmed	Z5988	Honey Bucket	4119 Sebastopol Rd	Santa Rosa	1.47
239664	04/09/19	Odor	gas/propane	Unconfirmed	Z6021	SFD	4649 Hidden Oaks Rd	Santa Rosa	> 2
241195	09/13/19	Odor	rotten	Unconfirmed	Z6690	Cattlemens	2400 Midway Dr	Santa Rosa	> 2

Summary of Odor Complaint Records

Name of Facility	Location	Land Use/Type of Operation	Number of Complaints Over Most Recent 3-year Period[1]	Average Number of Unconfirmed Complaints per Year	Average Number of Confirmed Complaints per Year	Distance From the Project Site
BoDean Company Inc.	1060 Maxwell Drive	Aggregate supplier	37	3	1	1.28 miles east of project site
Convenience Retailers LLC.	1950 Guerneville Road	Convenience Retailers	1	0	0	0.48 miles north east of the project site
Design by Rick	2230 Northpoint Parkway	Countertop Store	1	0	0	2 miles south of project site
Not Available	Guerneville Road and Gamay	Not Available	2	0	0	0.52 north west of project site
Generator	Stony Circle	Generator	1	0	0	0.55 miles south east of project site
CalWest Transmission and Differential	258 Roseland Avenue	Auto Repair	1	0	0	1.48 miles south east of project site
Honey Bucket	4119 Sebastopol Road	Honey Bucket	1	0	0	1.47 miles south west of project site

Notes:
[1] September 2016–September 2019.
Source of facility information and number of complaints: BAAQMD Odor Complaints for the City of Santa Rosa September 2016–September 2019.

College Creek Apartments Project

PG&E Electricity Emissions Factors

Year	lbs CO_2e/MWh
2020-2029	390.65
2030	292.24

2008 Electricity Emissions Factor

Emissions Factors	t/kWh	Share of Portfolio	t/kWh	t/MWh	lbs/MWh
RPS sources	-	14%	-		
Natural Gas	0.000459	44%	0.00020174		
Nuclear	0.000002	22%	0.00000035		
Coal	0.001037	2%	0.00002075		
Other	0.000427	18%	0.00007695		
Total	-	100%	0.00029979	0.30	**660.91**

Power Content Label

PG&E 2008	%	Source
RPS sources	14%	https://ww2.energy.ca.gov/pcl/labels/2008_index.html
Natural Gas	44%	
Nuclear	22%	
Coal	2%	
Other	18%	
Total	100%	

Natural Gas Facility Emissions Factor Calculation

Natural Gas Emissions Factor

	CO_2	CH_4	N_2O	CO_2e	Source
kg per mmBtu	53.06	-	-	-	https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf
g per mmBtu	53,060	1.00	0.10	-	
t per mmBtu	0.05	0.00	0.00	-	Calculated
t CO_2e per mmBtu	0.05	0.00	0.00	0.05	Calculated
t CO_2e per GJ	-	-	-	0.06	Calculated

Heat Rates

Value	Units	Source	Notes
7,755	btu/kWh	http://www.energy.ca.gov/2017publications/CEC-200-2017-003/CEC-200-2017-003.pdf	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_2e per GJ
Natural gas facility heat rate	0.00818196	GJ/kWh
Natural Gas Facility Emissions Factor	0.000458507	t CO_2e per kWh

Nuclear Emissions Factor

Nuclear GHG Emissions	0.40	gCO2e/MJ	https://www.arb.ca.gov/fuels/lcfs/022709lcfs_elec.pdf
Nuclear Emissions Factor	0.00000159	t/kWh	

Unspecified Electricity Source Emissions Factor Calculation

ARB California GHG Inventory Unspecified Electricity Emissions Factors

2014	CO_2	CH_4	N_2O	CO_2e	Units	Source
Pacific Northwest (PNW)	427	0.008117	0.00094388	427.4774	g/kWh	https://www.arb.ca.gov/cc/inventory/doc/methods_00-14/annex_1b_electricity_production_imports.pdf
Pacific Southwest (PSW)	427	0.008117	0.00094388	427.4774	g/kWh	
PNW and PSW	-	-	-	0.000427	t/kWh	-

Other/Unspecified Emissions Factor

Unspecified Electricity Emissions Factor	0.000427	t CO_2e per kWh

Coal Electricity Source Emissions Factor Calculation

ARB California GHG Inventory Unspecified Electricity Emissions Factors

2007	CO_2	CH_4	N_2O	CO_2e	Units	Source
Coal Electricity Source Emissions Factor Calculation	1033	0.011	0.0153	1037.363	g/kWh	https://www.arb.ca.gov/cc/inventory/doc/methods_00-14/annex_1b_electricity_production_imports.pdf
Total	-	-	-	0.001037	t/kWh	-

Coal Emissions Factor

Unspecified Electricity Emissions Factor	0.001037	t CO_2e per kWh

2022 and 2030 Electricity Emissions Factors

Non-RPS Energy	Year	PG&E RPS Position	Notes	Source
89.0%	2008	11.0%		https://ww2.energy.ca.gov/pcl/labels/2009_index.html
67.0%	2022	33.0%		
50.0%	2030	50.0%		

Estimated Power Content Label Sources

PG&E	2008	Share of Non-RPS in 2008	2022	Share of Non-RPS in 2022	2030
RPS	14.0%	-	33.0%	-	50.0%
Natural Gas	44.0%	49%	20.0%	29.9%	14.9%
Nuclear	22.0%	25%	27.0%	40.3%	20.1%
Coal	2.0%	2%	0.0%	0.0%	0.0%
Other	18.0%	20%	20.0%	29.9%	14.9%
Total	100%	97%	100%	100.0%	100%

2022

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	-	50.0%	-		
Natural Gas	0.000459	14.9%	0.000068		
Nuclear	0.000002	20.1%	0.000000		
Coal	0.001037	0.0%	-		
Unspecified	0.000427	14.9%	0.000064		
Total	-	100.0%	0.000133	0.13	**292.24**

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_2O	265

APPENDIX E: CAP NEW DEVELOPMENT CHECKLIST

To ensure new development projects are compliant with the City's Climate Action Plan, the following checklist has been developed. This checklist should be filled out for each new project, subject to discretionary review, to allow new development to find a less than significant impact for greenhouse gas emissions in the environmental review process.

#	Description	Compliance			
		Complies	Does Not Comply	N/A	See Discussion
1.1.1	Comply with CALGreen Tier 1 standards*	◉	○	○	○
1.1.3	After 2020, all new development will utilize zero net electricity*	X			
1.3.1	Install real-time energy monitors to track energy use*	◉	○	○	○
1.4.2	Comply with the City's tree preservation ordinance*	◉	○	○	○
1.4.3	Provide public & private trees in compliance with the Zoning Code*	◉	○	○	○
1.5	Install new sidewalks and paving with high solar reflectivity materials*	○	○	◉	○
2.1.3	Pre-wire and pre-plumb for solar thermal or PV systems	◉	○	○	○
3.1.2	Support implementation of station plans and corridor plans	○	○	◉	○
3.2.1	Provide on-site services such as ATMs or dry cleaning to site users	○	○	◉	○
3.2.2	Improve non-vehicular network to promote walking, biking	◉	○	○	○
3.2.3	Support mixed-use, higher-density development near services	◉	○	○	○
3.3.1	Provide affordable housing near transit	◉	○	○	○
3.5.1	Unbundle parking from property cost	○	○	○	◉
3.6.1	Install calming features to improve ped/bike experience	◉	○	○	○
4.1.1	Implement the Bicycle and Pedestrian Master Plan	○	○	○	◉
4.1.2	Install bicycle parking consistent with regulations*	◉	○	○	○
4.1.3	Provide bicycle safety training to residents, employees, motorists	○	○	○	◉
4.2.2	Provide safe spaces to wait for bus arrival	○	○	○	◉

APPENDIX E NEW DEVELOPMENT CHECKLIST

#	Description	Compliance			
		Complies	Does Not Comply	N/A	See Discussion
4.3.2	Work with large employers to provide rideshare programs	○	○	◉	○
4.3.3	Consider expanding employee programs promoting transit use	○	○	◉	○
4.3.4	Provide awards for employee use of alternative commute options	○	○	◉	○
4.3.5	Encourage new employers of 50+ to provide subsidized transit passes*	○	○	◉	○
4.3.7	Provide space for additional park-and-ride lots	○	○	◉	○
4.5.1	Include facilities for employees that promote telecommuting	○	○	◉	○
5.1.2	Install electric vehicle charging equipment	◉	○	○	○
5.2.1	Provide alternative fuels at new refueling stations*	○	○	◉	○
6.1.3	Increase diversion of construction waste*	◉	○	○	○
7.1.1	Reduce potable water use for outdoor landscaping*	◉	○	○	○
7.1.3	Use water meters which track real-time water use*	◉	○	○	○
7.3.2	Meet on-site meter separation requirements in locations with current or future recycled water capabilities*	◉	○	○	○
8.1.3	Establish community gardens and urban farms	○	○	◉	○
9.1.2	Provide outdoor electrical outlets for charging lawn equipment	○	○	◉	○
9.1.3	Install low water use landscapes*	◉	○	○	○
9.2.1	Minimize construction equipment idling time to 5 minutes or less*	◉	○	○	○
9.2.2	Maintain construction equipment per manufacturer's specs*	◉	○	○	○
9.2.3	Limit GHG construction equipment emissions by using electrified equipment or alternative fuels*	◉	○	○	○

To be in compliance with the CAP, all measures denoted with an asterisk are required in all new development projects unless otherwise specified. If a project cannot meet one or more of the mandatory requirements, substitutions may be made from other measures listed at the discretion of the Community Development Director.

COLLEGE CREEK APARTMENTS
2150 W COLLEGE AVE, SANTA ROSA

APPENDIX E: CAP NEW DEVELOPMENT CHECKLIST
DISCUSSION ITEMS

#	Description	Compliance	Discussion
1.1.3	After 2020, all new development will utilize zero net electricity*	Complies	College Creek is being designed with all electric appliances and will include on site solar energy systems to achieve zero net electricity as required by City.
1.5	Install new sidewalks and paving with high solar reflectivity materials*	N/A	Not applicable to private drive aisles and pathways.
3.1.2	Support implementation of station plans and corridor plans	N/A	The project site is not located within a station or corridor plan.
3.2.1	Provide on-site services such as ATMs or dry cleaning to site users	N/A	The apartment community will not include any commercial services on site.
3.2.2	Improve non-vehicular network to promote walking, biking	Complies	College Creek Apts proposes to extend the existing Creekside trail out to W College Ave.
3.5.1	Unbundle parking from property cost	See Discussion	Low Income Housing financing programs do not allow charging for parking in addition to apartment rent.
3.6.1	Install calming features to improve ped/bike experience	See Discussion	Central parkway path from West College Ave through to the main building/clubhouse entry will include a raised walk across the drive aisle combining traffic calming features at high traffic area with enhanced pedestrian experience.
4.1.1	Implement the Bicycle and Pedestrian Master Plan	See Discussion	West College Avenue is equipped with a Bicycle Lane. The project will extend the existing multi-purpose trail along College Creek out to

			West College Avenue for improved access to the trail system.
4.1.3	Provide bicycle safety training to residents, employees, motorists	See Discussion	The clubhouse print-media station may include Bicycle Safety Tips brochures as well as the City's Map of Bicycle and Pedestrian Facilities.
4.2.2	Provide safe spaces to wait for bus arrival	See Discussion	The project is located approximately 400' from the West Side Bus Transfer Center. The clubhouse lobby may also be furnished to provide a comfortable waiting area for dial-a-ride and shared ride services.
7.1.1	Reduce potable water use for outdoor landscaping*	Complies	The project landscape will be irrigated with recycled water from the City's existing urban reuse main that serves the site.

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