

Appendix A

Emissions Modeling Results

Green Coast Industries - Phase 2 Construction - Yolo County, Annual

Green Coast Industries - Phase 2 Construction

Yolo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	178.72	1000sqft	4.10	178,715.00	0
Other Non-Asphalt Surfaces	15.66	1000sqft	0.36	15,657.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	6.8	Precipitation Freq (Days)	54
Climate Zone	2	Operational Year	2025		
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	152.6	CH4 Intensity (lb/MWhr)	0.018	N2O Intensity (lb/MWhr)	0.002

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Updated PG&E intensity factors to meet RPS requirements

Land Use - Research & Development include nursery, flower houses, ancillary structures; other non-asphalt surfaces include ground-mounted solar array

Construction Phase - Grading:60 days; BC: 12 months total

Off-road Equipment -

Off-road Equipment - No crane assumed; drill rig added for well construction

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT - 20 construction workers

Grading - 4 acres disturbed

Architectural Coating - No asphalt parking areas

Vehicle Trips - Construction only

Area Coating - No asphalt parking

Energy Use -

Water And Wastewater -

Land Use Change -

Energy Mitigation -

Water Mitigation -

Operational Off-Road Equipment -

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	939.00	0.00
tblAreaCoating	Area_Parking	939	0
tblConstructionPhase	NumDays	230.00	262.00
tblConstructionPhase	NumDays	8.00	60.00
tblGrading	AcresOfGrading	30.00	4.00
tblLandUse	LandUseSquareFeet	178,720.00	178,715.00
tblLandUse	LandUseSquareFeet	15,660.00	15,657.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	641.35	152.6
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.002
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	200.00
tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripLength	15.00	20.00

tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripNumber	18.00	40.00
tblTripsAndVMT	WorkerTripNumber	15.00	40.00
tblTripsAndVMT	WorkerTripNumber	64.00	40.00
tblTripsAndVMT	WorkerTripNumber	13.00	40.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	WD_TR	8.11	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	0.2022	1.9531	1.6331	3.7600e-003	6.7488	0.0890	6.8378	0.7858	0.0830	0.8688	0.0000	333.3344	333.3344	0.0687	0.0000	335.0524
2022	1.3910	1.3730	1.4584	3.6500e-003	6.8292	0.0571	6.8863	0.6930	0.0539	0.7469	0.0000	323.6492	323.6492	0.0556	0.0000	325.0384
Maximum	1.3910	1.9531	1.6331	3.7600e-003	6.8292	0.0890	6.8863	0.7858	0.0830	0.8688	0.0000	333.3344	333.3344	0.0687	0.0000	335.0524

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
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Year	tons/yr										MT/yr					
2021	0.2022	1.9531	1.6331	3.7600e-003	0.2904	0.0890	0.3795	0.1414	0.0830	0.2244	0.0000	333.3341	333.3341	0.0687	0.0000	335.0522
2022	1.3910	1.3730	1.4584	3.6500e-003	0.0663	0.0571	0.1234	0.0181	0.0539	0.0720	0.0000	323.6490	323.6490	0.0556	0.0000	325.0381
Maximum	1.3910	1.9531	1.6331	3.7600e-003	0.2904	0.0890	0.3795	0.1414	0.0830	0.2244	0.0000	333.3341	333.3341	0.0687	0.0000	335.0522

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	97.37	0.00	96.34	89.21	0.00	81.66	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	5-3-2021	8-2-2021	0.9102	0.9102
2	8-3-2021	11-2-2021	0.7287	0.7287
3	11-3-2021	2-2-2022	0.7025	0.7025
4	2-3-2022	5-2-2022	0.6291	0.6291
5	5-3-2022	8-2-2022	0.6482	0.6482
6	8-3-2022	9-30-2022	1.2002	1.2002
		Highest	1.2002	1.2002

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	5/3/2021	5/7/2021	5	5	
2	Grading	Grading	5/8/2021	7/30/2021	5	60	
3	Building Construction	Building Construction	8/2/2021	8/2/2022	5	262	
4	Architectural Coating	Architectural Coating	8/3/2022	8/26/2022	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0.36

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 268,073; Non-Residential Outdoor: 89,358; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
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	Bore/Drill Rigs	1	8.00	221	0.50
Building Construction	Cranes	0	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
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
Site Preparation	7	40.00	0.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	40.00	0.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	40.00	32.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	40.00	0.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1012	0.0529	1.0000e-004		5.1100e-003	5.1100e-003		4.7000e-003	4.7000e-003	0.0000	8.3589	8.3589	2.7000e-003	0.0000	8.4265
Total	9.7200e-003	0.1012	0.0529	1.0000e-004	0.0452	5.1100e-003	0.0503	0.0248	4.7000e-003	0.0295	0.0000	8.3589	8.3589	2.7000e-003	0.0000	8.4265

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	5.6000e-004	3.9000e-004	3.9600e-003	1.0000e-005	0.1519	1.0000e-005	0.1519	0.0154	1.0000e-005	0.0154	0.0000	1.2280	1.2280	3.0000e-005	0.0000	1.2287
Total	5.6000e-004	3.9000e-004	3.9600e-003	1.0000e-005	0.1519	1.0000e-005	0.1519	0.0154	1.0000e-005	0.0154	0.0000	1.2280	1.2280	3.0000e-005	0.0000	1.2287

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					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1012	0.0529	1.0000e-004		5.1100e-003	5.1100e-003		4.7000e-003	4.7000e-003	0.0000	8.3589	8.3589	2.7000e-003	0.0000	8.4265
Total	9.7200e-003	0.1012	0.0529	1.0000e-004	0.0452	5.1100e-003	0.0503	0.0248	4.7000e-003	0.0295	0.0000	8.3589	8.3589	2.7000e-003	0.0000	8.4265

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	5.6000e-004	3.9000e-004	3.9600e-003	1.0000e-005	1.4000e-003	1.0000e-005	1.4000e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.2280	1.2280	3.0000e-005	0.0000	1.2287
Total	5.6000e-004	3.9000e-004	3.9600e-003	1.0000e-005	1.4000e-003	1.0000e-005	1.4000e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.2280	1.2280	3.0000e-005	0.0000	1.2287

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1828	0.0000	0.1828	0.0995	0.0000	0.0995	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0687	0.7421	0.4757	8.9000e-004		0.0348	0.0348		0.0320	0.0320	0.0000	78.1611	78.1611	0.0253	0.0000	78.7931
Total	0.0687	0.7421	0.4757	8.9000e-004	0.1828	0.0348	0.2176	0.0995	0.0320	0.1316	0.0000	78.1611	78.1611	0.0253	0.0000	78.7931

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	6.6700e-003	4.7000e-003	0.0476	1.6000e-004	1.8224	1.1000e-004	1.8225	0.1847	1.0000e-004	0.1848	0.0000	14.7360	14.7360	3.2000e-004	0.0000	14.7441
Total	6.6700e-003	4.7000e-003	0.0476	1.6000e-004	1.8224	1.1000e-004	1.8225	0.1847	1.0000e-004	0.1848	0.0000	14.7360	14.7360	3.2000e-004	0.0000	14.7441

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					0.1828	0.0000	0.1828	0.0995	0.0000	0.0995	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0687	0.7421	0.4757	8.9000e-004		0.0348	0.0348		0.0320	0.0320	0.0000	78.1610	78.1610	0.0253	0.0000	78.7930
Total	0.0687	0.7421	0.4757	8.9000e-004	0.1828	0.0348	0.2176	0.0995	0.0320	0.1316	0.0000	78.1610	78.1610	0.0253	0.0000	78.7930

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	6.6700e-003	4.7000e-003	0.0476	1.6000e-004	0.0167	1.1000e-004	0.0169	4.4700e-003	1.0000e-004	4.5700e-003	0.0000	14.7360	14.7360	3.2000e-004	0.0000	14.7441
Total	6.6700e-003	4.7000e-003	0.0476	1.6000e-004	0.0167	1.1000e-004	0.0169	4.4700e-003	1.0000e-004	4.5700e-003	0.0000	14.7360	14.7360	3.2000e-004	0.0000	14.7441

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0989	0.8916	0.9303	1.7200e-003		0.0483	0.0483		0.0455	0.0455	0.0000	148.5144	148.5144	0.0376	0.0000	149.4536
Total	0.0989	0.8916	0.9303	1.7200e-003		0.0483	0.0483		0.0455	0.0455	0.0000	148.5144	148.5144	0.0376	0.0000	149.4536

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
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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	5.4600e-003	0.2044	0.0355	5.8000e-004	1.2054	5.2000e-004	1.2059	0.1229	4.9000e-004	0.1234	0.0000	55.3198	55.3198	2.2300e-003	0.0000	55.3756
Worker	0.0122	8.6200e-003	0.0872	3.0000e-004	3.3411	1.9000e-004	3.3413	0.3385	1.8000e-004	0.3387	0.0000	27.0161	27.0161	5.9000e-004	0.0000	27.0309
Total	0.0177	0.2131	0.1227	8.8000e-004	4.5465	7.1000e-004	4.5472	0.4614	6.7000e-004	0.4621	0.0000	82.3359	82.3359	2.8200e-003	0.0000	82.4065

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	0.0989	0.8916	0.9303	1.7200e-003		0.0483	0.0483		0.0455	0.0455	0.0000	148.5143	148.5143	0.0376	0.0000	149.4534
Total	0.0989	0.8916	0.9303	1.7200e-003		0.0483	0.0483		0.0455	0.0455	0.0000	148.5143	148.5143	0.0376	0.0000	149.4534

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	5.4600e-003	0.2044	0.0355	5.8000e-004	0.0137	5.2000e-004	0.0142	3.9700e-003	4.9000e-004	4.4600e-003	0.0000	55.3198	55.3198	2.2300e-003	0.0000	55.3756

Worker	0.0122	8.6200e-003	0.0872	3.0000e-004	0.0307	1.9000e-004	0.0309	8.1900e-003	1.8000e-004	8.3700e-003	0.0000	27.0161	27.0161	5.9000e-004	0.0000	27.0309
Total	0.0177	0.2131	0.1227	8.8000e-004	0.0443	7.1000e-004	0.0451	0.0122	6.7000e-004	0.0128	0.0000	82.3359	82.3359	2.8200e-003	0.0000	82.4065

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1219	1.0808	1.2729	2.3800e-003		0.0555	0.0555		0.0523	0.0523	0.0000	205.3846	205.3846	0.0517	0.0000	206.6761
Total	0.1219	1.0808	1.2729	2.3800e-003		0.0555	0.0555		0.0523	0.0523	0.0000	205.3846	205.3846	0.0517	0.0000	206.6761

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	7.0200e-003	0.2676	0.0453	8.0000e-004	1.6656	6.1000e-004	1.6663	0.1698	5.8000e-004	0.1704	0.0000	75.7194	75.7194	2.9300e-003	0.0000	75.7927
Worker	0.0158	0.0107	0.1108	4.0000e-004	4.6168	2.6000e-004	4.6171	0.4678	2.4000e-004	0.4680	0.0000	35.9858	35.9858	7.4000e-004	0.0000	36.0043
Total	0.0229	0.2783	0.1561	1.2000e-003	6.2825	8.7000e-004	6.2833	0.6376	8.2000e-004	0.6384	0.0000	111.7052	111.7052	3.6700e-003	0.0000	111.7970

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	0.1219	1.0808	1.2729	2.3800e-003		0.0555	0.0555		0.0523	0.0523	0.0000	205.3844	205.3844	0.0517	0.0000	206.6758
Total	0.1219	1.0808	1.2729	2.3800e-003		0.0555	0.0555		0.0523	0.0523	0.0000	205.3844	205.3844	0.0517	0.0000	206.6758

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	7.0200e-003	0.2676	0.0453	8.0000e-004	0.0189	6.1000e-004	0.0195	5.4800e-003	5.8000e-004	6.0600e-003	0.0000	75.7194	75.7194	2.9300e-003	0.0000	75.7927
Worker	0.0158	0.0107	0.1108	4.0000e-004	0.0424	2.6000e-004	0.0427	0.0113	2.4000e-004	0.0116	0.0000	35.9858	35.9858	7.4000e-004	0.0000	36.0043
Total	0.0229	0.2783	0.1561	1.2000e-003	0.0613	8.7000e-004	0.0621	0.0168	8.2000e-004	0.0176	0.0000	111.7052	111.7052	3.6700e-003	0.0000	111.7970

3.5 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
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Category	tons/yr										MT/yr					
Archit. Coating	1.2425					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0127	0.0163	3.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	2.2979	2.2979	1.5000e-004	0.0000	2.3017
Total	1.2444	0.0127	0.0163	3.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	2.2979	2.2979	1.5000e-004	0.0000	2.3017

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	1.8800e-003	1.2700e-003	0.0131	5.0000e-005	0.5467	3.0000e-005	0.5468	0.0554	3.0000e-005	0.0554	0.0000	4.2615	4.2615	9.0000e-005	0.0000	4.2637
Total	1.8800e-003	1.2700e-003	0.0131	5.0000e-005	0.5467	3.0000e-005	0.5468	0.0554	3.0000e-005	0.0554	0.0000	4.2615	4.2615	9.0000e-005	0.0000	4.2637

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	1.2425					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0127	0.0163	3.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	2.2979	2.2979	1.5000e-004	0.0000	2.3017

Total	1.2444	0.0127	0.0163	3.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	2.2979	2.2979	1.5000e-004	0.0000	2.3017
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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	1.8800e-003	1.2700e-003	0.0131	5.0000e-005	5.0200e-003	3.0000e-005	5.0500e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.2615	4.2615	9.0000e-005	0.0000	4.2637
Total	1.8800e-003	1.2700e-003	0.0131	5.0000e-005	5.0200e-003	3.0000e-005	5.0500e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.2615	4.2615	9.0000e-005	0.0000	4.2637

Green Coast Industries - Phase 2 Construction - Yolo County, Summer

Green Coast Industries - Phase 2 Construction

Yolo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	178.72	1000sqft	4.10	178,715.00	0
Other Non-Asphalt Surfaces	15.66	1000sqft	0.36	15,657.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	6.8	Precipitation Freq (Days)	54
Climate Zone	2	Operational Year	2025		
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	152.6	CH4 Intensity (lb/MWhr)	0.018	N2O Intensity (lb/MWhr)	0.002

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Updated PG&E intensity factors to meet RPS requirements

Land Use - Research & Development include nursery, flower houses, ancillary structures; other non-asphalt surfaces include ground-mounted solar array

Construction Phase - Grading:60 days; BC: 12 months total

Off-road Equipment -

Off-road Equipment - No crane assumed; drill rig added for well construction

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT - 20 construction workers

Grading - 4 acres disturbed

Architectural Coating - No asphalt parking areas

Vehicle Trips - Construction only

Area Coating - No asphalt parking

Energy Use -

Water And Wastewater -

Land Use Change -

Energy Mitigation -

Water Mitigation -

Operational Off-Road Equipment -

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	939.00	0.00
tblAreaCoating	Area_Parking	939	0
tblConstructionPhase	NumDays	230.00	262.00
tblConstructionPhase	NumDays	8.00	60.00
tblGrading	AcresOfGrading	30.00	4.00
tblLandUse	LandUseSquareFeet	178,720.00	178,715.00
tblLandUse	LandUseSquareFeet	15,660.00	15,657.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	641.35	152.6
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.002
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	200.00
tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripLength	15.00	20.00

tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripNumber	18.00	40.00
tblTripsAndVMT	WorkerTripNumber	15.00	40.00
tblTripsAndVMT	WorkerTripNumber	64.00	40.00
tblTripsAndVMT	WorkerTripNumber	13.00	40.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	WD_TR	8.11	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.1306	40.6387	23.0607	0.0480	96.9023	2.0480	97.7931	17.1332	1.8842	19.0174	0.0000	4,693.3235	4,693.3235	1.2055	0.0000	4,713.5429
2022	138.4892	17.8060	19.0605	0.0477	96.9023	0.7411	97.6434	9.8139	0.6989	10.5128	0.0000	4,663.6497	4,663.6497	0.8017	0.0000	4,683.6923
Maximum	138.4892	40.6387	23.0607	0.0480	96.9023	2.0480	97.7931	17.1332	1.8842	19.0174	0.0000	4,693.3235	4,693.3235	1.2055	0.0000	4,713.5429

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
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Year	lb/day										lb/day					
2021	4.1306	40.6387	23.0607	0.0480	18.6427	2.0480	20.6907	10.0842	1.8842	11.9683	0.0000	4,693.3235	4,693.3235	1.2055	0.0000	4,713.5429
2022	138.4892	17.8060	19.0605	0.0477	0.8311	0.7411	1.5722	0.2272	0.6989	0.9261	0.0000	4,663.6497	4,663.6497	0.8017	0.0000	4,683.6923
Maximum	138.4892	40.6387	23.0607	0.0480	18.6427	2.0480	20.6907	10.0842	1.8842	11.9683	0.0000	4,693.3235	4,693.3235	1.2055	0.0000	4,713.5429

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	89.95	0.00	88.61	61.73	0.00	56.33	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	5/3/2021	5/7/2021	5	5	
2	Grading	Grading	5/8/2021	7/30/2021	5	60	
3	Building Construction	Building Construction	8/2/2021	8/2/2022	5	262	
4	Architectural Coating	Architectural Coating	8/3/2022	8/26/2022	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0.36

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 268,073; Non-Residential Outdoor: 89,358; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
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	Bore/Drill Rigs	1	8.00	221	0.50
Building Construction	Cranes	0	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
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
Site Preparation	7	40.00	0.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	40.00	0.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	40.00	32.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	40.00	0.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000

Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.6569	3,685.6569	1.1920		3,715.4573

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.2424	0.1416	1.9064	5.9900e-003	71.2170	3.5300e-003	71.2205	7.2025	3.2500e-003	7.2058		597.0849	597.0849	0.0135		597.4217
Total	0.2424	0.1416	1.9064	5.9900e-003	71.2170	3.5300e-003	71.2205	7.2025	3.2500e-003	7.2058		597.0849	597.0849	0.0135		597.4217

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.2424	0.1416	1.9064	5.9900e-003	0.5764	3.5300e-003	0.5800	0.1535	3.2500e-003	0.1567		597.0849	597.0849	0.0135		597.4217
Total	0.2424	0.1416	1.9064	5.9900e-003	0.5764	3.5300e-003	0.5800	0.1535	3.2500e-003	0.1567		597.0849	597.0849	0.0135		597.4217

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0928	0.0000	6.0928	3.3179	0.0000	3.3179			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	2.2903	24.7367	15.8575	0.0296	6.0928	1.1599	7.2527	3.3179	1.0671	4.3850		2,871.9285	2,871.9285	0.9288		2,895.1495

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
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Category	lb/day										lb/day					
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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2424	0.1416	1.9064	5.9900e-003	71.2170	3.5300e-003	71.2205	7.2025	3.2500e-003	7.2058		597.0849	597.0849	0.0135		597.4217
Total	0.2424	0.1416	1.9064	5.9900e-003	71.2170	3.5300e-003	71.2205	7.2025	3.2500e-003	7.2058		597.0849	597.0849	0.0135		597.4217

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0928	0.0000	6.0928	3.3179	0.0000	3.3179			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	2.2903	24.7367	15.8575	0.0296	6.0928	1.1599	7.2527	3.3179	1.0671	4.3850	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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

Worker	0.2424	0.1416	1.9064	5.9900e-003	0.5764	3.5300e-003	0.5800	0.1535	3.2500e-003	0.1567		597.0849	597.0849	0.0135		597.4217
Total	0.2424	0.1416	1.9064	5.9900e-003	0.5764	3.5300e-003	0.5800	0.1535	3.2500e-003	0.1567		597.0849	597.0849	0.0135		597.4217

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7978	16.2117	16.9142	0.0313		0.8780	0.8780		0.8271	0.8271		2,976.5299	2,976.5299	0.7529		2,995.3518
Total	1.7978	16.2117	16.9142	0.0313		0.8780	0.8780		0.8271	0.8271		2,976.5299	2,976.5299	0.7529		2,995.3518

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0976	3.6462	0.6015	0.0107	25.6853	9.2200e-003	25.6946	2.6114	8.8200e-003	2.6202		1,119.7087	1,119.7087	0.0424		1,120.7694
Worker	0.2424	0.1416	1.9064	5.9900e-003	71.2170	3.5300e-003	71.2205	7.2025	3.2500e-003	7.2058		597.0849	597.0849	0.0135		597.4217
Total	0.3400	3.7878	2.5080	0.0167	96.9023	0.0128	96.9151	9.8139	0.0121	9.8260		1,716.7936	1,716.7936	0.0559		1,718.1911

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7978	16.2117	16.9142	0.0313		0.8780	0.8780		0.8271	0.8271	0.0000	2,976.5299	2,976.5299	0.7529		2,995.3518
Total	1.7978	16.2117	16.9142	0.0313		0.8780	0.8780		0.8271	0.8271	0.0000	2,976.5299	2,976.5299	0.7529		2,995.3518

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0976	3.6462	0.6015	0.0107	0.2547	9.2200e-003	0.2640	0.0737	8.8200e-003	0.0826		1,119.7087	1,119.7087	0.0424		1,120.7694
Worker	0.2424	0.1416	1.9064	5.9900e-003	0.5764	3.5300e-003	0.5800	0.1535	3.2500e-003	0.1567		597.0849	597.0849	0.0135		597.4217
Total	0.3400	3.7878	2.5080	0.0167	0.8312	0.0128	0.8439	0.2272	0.0121	0.2393		1,716.7936	1,716.7936	0.0559		1,718.1911

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day					
Off-Road	1.6040	14.2208	16.7488	0.0313		0.7298	0.7298		0.6882	0.6882		2,978.9179	2,978.9179	0.7493		2,997.6495
Total	1.6040	14.2208	16.7488	0.0313		0.7298	0.7298		0.6882	0.6882		2,978.9179	2,978.9179	0.7493		2,997.6495

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0907	3.4580	0.5553	0.0106	25.6853	7.8800e-003	25.6932	2.6114	7.5400e-003	2.6189		1,109.1888	1,109.1888	0.0403		1,110.1971
Worker	0.2269	0.1273	1.7565	5.7700e-003	71.2170	3.4300e-003	71.2204	7.2025	3.1600e-003	7.2057		575.5431	575.5431	0.0121		575.8458
Total	0.3176	3.5852	2.3118	0.0164	96.9023	0.0113	96.9136	9.8139	0.0107	9.8246		1,684.7319	1,684.7319	0.0524		1,686.0429

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6040	14.2208	16.7488	0.0313		0.7298	0.7298		0.6882	0.6882	0.0000	2,978.9179	2,978.9179	0.7493		2,997.6495
Total	1.6040	14.2208	16.7488	0.0313		0.7298	0.7298		0.6882	0.6882	0.0000	2,978.9179	2,978.9179	0.7493		2,997.6495

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0907	3.4580	0.5553	0.0106	0.2547	7.8800e-003	0.2626	0.0737	7.5400e-003	0.0813		1,109.1888	1,109.1888	0.0403		1,110.1971
Worker	0.2269	0.1273	1.7565	5.7700e-003	0.5764	3.4300e-003	0.5799	0.1535	3.1600e-003	0.1566		575.5431	575.5431	0.0121		575.8458
Total	0.3176	3.5852	2.3118	0.0164	0.8311	0.0113	0.8425	0.2272	0.0107	0.2379		1,684.7319	1,684.7319	0.0524		1,686.0429

3.5 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	138.0577					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	138.2623	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.2269	0.1273	1.7565	5.7700e-003	71.2170	3.4300e-003	71.2204	7.2025	3.1600e-003	7.2057		575.5431	575.5431	0.0121		575.8458
Total	0.2269	0.1273	1.7565	5.7700e-003	71.2170	3.4300e-003	71.2204	7.2025	3.1600e-003	7.2057		575.5431	575.5431	0.0121		575.8458

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	138.0577					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	138.2623	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	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
Worker	0.2269	0.1273	1.7565	5.7700e-003	0.5764	3.4300e-003	0.5799	0.1535	3.1600e-003	0.1566		575.5431	575.5431	0.0121		575.8458
Total	0.2269	0.1273	1.7565	5.7700e-003	0.5764	3.4300e-003	0.5799	0.1535	3.1600e-003	0.1566		575.5431	575.5431	0.0121		575.8458

Green Coast Industries - Phase 2 Construction - Yolo County, Winter

Green Coast Industries - Phase 2 Construction

Yolo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	178.72	1000sqft	4.10	178,715.00	0
Other Non-Asphalt Surfaces	15.66	1000sqft	0.36	15,657.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	6.8	Precipitation Freq (Days)	54
Climate Zone	2			Operational Year	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	152.6	CH4 Intensity (lb/MWhr)	0.018	N2O Intensity (lb/MWhr)	0.002

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Updated PG&E intensity factors to meet RPS requirements

Land Use - Research & Development include nursery, flower houses, ancillary structures; other non-asphalt surfaces include ground-mounted solar array

Construction Phase - Grading:60 days; BC: 12 months total

Off-road Equipment -

Off-road Equipment - No crane assumed; drill rig added for well construction

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT - 20 construction workers

Grading - 4 acres disturbed

Architectural Coating - No asphalt parking areas

Vehicle Trips - Construction only

Area Coating - No asphalt parking

Energy Use -

Water And Wastewater -

Land Use Change -

Energy Mitigation -

Water Mitigation -

Operational Off-Road Equipment -

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	939.00	0.00
tblAreaCoating	Area_Parking	939	0
tblConstructionPhase	NumDays	230.00	262.00
tblConstructionPhase	NumDays	8.00	60.00
tblGrading	AcresOfGrading	30.00	4.00
tblLandUse	LandUseSquareFeet	178,720.00	178,715.00
tblLandUse	LandUseSquareFeet	15,660.00	15,657.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	641.35	152.6
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.002
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	200.00
tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripLength	15.00	20.00

tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripNumber	18.00	40.00
tblTripsAndVMT	WorkerTripNumber	15.00	40.00
tblTripsAndVMT	WorkerTripNumber	64.00	40.00
tblTripsAndVMT	WorkerTripNumber	13.00	40.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	WD_TR	8.11	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.1341	40.6736	22.7265	0.0470	96.9023	2.0480	97.7935	17.1332	1.8842	19.0174	0.0000	4,596.4319	4,596.4319	1.2036	0.0000	4,616.7412
2022	138.4930	17.8959	18.8447	0.0468	96.9023	0.7414	97.6437	9.8139	0.6993	10.5132	0.0000	4,569.4314	4,569.4314	0.8052	0.0000	4,589.5625
Maximum	138.4930	40.6736	22.7265	0.0470	96.9023	2.0480	97.7935	17.1332	1.8842	19.0174	0.0000	4,596.4319	4,596.4319	1.2036	0.0000	4,616.7412

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
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Year	lb/day										lb/day					
2021	4.1341	40.6736	22.7265	0.0470	18.6427	2.0480	20.6907	10.0842	1.8842	11.9683	0.0000	4,596.4319	4,596.4319	1.2036	0.0000	4,616.7412
2022	138.4930	17.8959	18.8447	0.0468	0.8311	0.7414	1.5726	0.2272	0.6993	0.9265	0.0000	4,569.4314	4,569.4314	0.8052	0.0000	4,589.5625
Maximum	138.4930	40.6736	22.7265	0.0470	18.6427	2.0480	20.6907	10.0842	1.8842	11.9683	0.0000	4,596.4319	4,596.4319	1.2036	0.0000	4,616.7412

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	89.95	0.00	88.61	61.73	0.00	56.33	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	5/3/2021	5/7/2021	5	5	
2	Grading	Grading	5/8/2021	7/30/2021	5	60	
3	Building Construction	Building Construction	8/2/2021	8/2/2022	5	262	
4	Architectural Coating	Architectural Coating	8/3/2022	8/26/2022	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0.36

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 268,073; Non-Residential Outdoor: 89,358; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
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	Bore/Drill Rigs	1	8.00	221	0.50
Building Construction	Cranes	0	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
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
Site Preparation	7	40.00	0.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	40.00	0.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	40.00	32.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	40.00	0.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000

Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.6569	3,685.6569	1.1920		3,715.4573

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.2459	0.1765	1.5723	5.2800e-003	71.2170	3.5300e-003	71.2205	7.2025	3.2500e-003	7.2058		526.3482	526.3482	0.0116		526.6381
Total	0.2459	0.1765	1.5723	5.2800e-003	71.2170	3.5300e-003	71.2205	7.2025	3.2500e-003	7.2058		526.3482	526.3482	0.0116		526.6381

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.2459	0.1765	1.5723	5.2800e-003	0.5764	3.5300e-003	0.5800	0.1535	3.2500e-003	0.1567		526.3482	526.3482	0.0116		526.6381
Total	0.2459	0.1765	1.5723	5.2800e-003	0.5764	3.5300e-003	0.5800	0.1535	3.2500e-003	0.1567		526.3482	526.3482	0.0116		526.6381

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0928	0.0000	6.0928	3.3179	0.0000	3.3179			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	2.2903	24.7367	15.8575	0.0296	6.0928	1.1599	7.2527	3.3179	1.0671	4.3850		2,871.9285	2,871.9285	0.9288		2,895.1495

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
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Category	lb/day										lb/day					
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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2459	0.1765	1.5723	5.2800e-003	71.2170	3.5300e-003	71.2205	7.2025	3.2500e-003	7.2058		526.3482	526.3482	0.0116		526.6381
Total	0.2459	0.1765	1.5723	5.2800e-003	71.2170	3.5300e-003	71.2205	7.2025	3.2500e-003	7.2058		526.3482	526.3482	0.0116		526.6381

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0928	0.0000	6.0928	3.3179	0.0000	3.3179			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	2.2903	24.7367	15.8575	0.0296	6.0928	1.1599	7.2527	3.3179	1.0671	4.3850	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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

Worker	0.2459	0.1765	1.5723	5.2800e-003	0.5764	3.5300e-003	0.5800	0.1535	3.2500e-003	0.1567		526.3482	526.3482	0.0116		526.6381
Total	0.2459	0.1765	1.5723	5.2800e-003	0.5764	3.5300e-003	0.5800	0.1535	3.2500e-003	0.1567		526.3482	526.3482	0.0116		526.6381

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7978	16.2117	16.9142	0.0313		0.8780	0.8780		0.8271	0.8271		2,976.5299	2,976.5299	0.7529		2,995.3518
Total	1.7978	16.2117	16.9142	0.0313		0.8780	0.8780		0.8271	0.8271		2,976.5299	2,976.5299	0.7529		2,995.3518

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.1025	3.7146	0.7082	0.0104	25.6853	9.6200e-003	25.6950	2.6114	9.2000e-003	2.6206		1,093.5539	1,093.5539	0.0479		1,094.7513
Worker	0.2459	0.1765	1.5723	5.2800e-003	71.2170	3.5300e-003	71.2205	7.2025	3.2500e-003	7.2058		526.3482	526.3482	0.0116		526.6381
Total	0.3485	3.8911	2.2805	0.0157	96.9023	0.0132	96.9155	9.8139	0.0125	9.8264		1,619.9020	1,619.9020	0.0595		1,621.3894

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7978	16.2117	16.9142	0.0313		0.8780	0.8780		0.8271	0.8271	0.0000	2,976.5299	2,976.5299	0.7529		2,995.3518
Total	1.7978	16.2117	16.9142	0.0313		0.8780	0.8780		0.8271	0.8271	0.0000	2,976.5299	2,976.5299	0.7529		2,995.3518

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.1025	3.7146	0.7082	0.0104	0.2547	9.6200e-003	0.2644	0.0737	9.2000e-003	0.0829		1,093.5539	1,093.5539	0.0479		1,094.7513
Worker	0.2459	0.1765	1.5723	5.2800e-003	0.5764	3.5300e-003	0.5800	0.1535	3.2500e-003	0.1567		526.3482	526.3482	0.0116		526.6381
Total	0.3485	3.8911	2.2805	0.0157	0.8312	0.0132	0.8443	0.2272	0.0125	0.2397		1,619.9020	1,619.9020	0.0595		1,621.3894

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day					
Off-Road	1.6040	14.2208	16.7488	0.0313		0.7298	0.7298		0.6882	0.6882		2,978.9179	2,978.9179	0.7493		2,997.6495
Total	1.6040	14.2208	16.7488	0.0313		0.7298	0.7298		0.6882	0.6882		2,978.9179	2,978.9179	0.7493		2,997.6495

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0953	3.5165	0.6528	0.0103	25.6853	8.2500e-003	25.6936	2.6114	7.8900e-003	2.6193		1,083.1292	1,083.1292	0.0456		1,084.2686
Worker	0.2308	0.1585	1.4431	5.0900e-003	71.2170	3.4300e-003	71.2204	7.2025	3.1600e-003	7.2057		507.3844	507.3844	0.0104		507.6445
Total	0.3260	3.6750	2.0960	0.0154	96.9023	0.0117	96.9140	9.8139	0.0111	9.8250		1,590.5136	1,590.5136	0.0560		1,591.9131

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6040	14.2208	16.7488	0.0313		0.7298	0.7298		0.6882	0.6882	0.0000	2,978.9179	2,978.9179	0.7493		2,997.6495
Total	1.6040	14.2208	16.7488	0.0313		0.7298	0.7298		0.6882	0.6882	0.0000	2,978.9179	2,978.9179	0.7493		2,997.6495

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0953	3.5165	0.6528	0.0103	0.2547	8.2500e-003	0.2630	0.0737	7.8900e-003	0.0816		1,083.1292	1,083.1292	0.0456		1,084.2686
Worker	0.2308	0.1585	1.4431	5.0900e-003	0.5764	3.4300e-003	0.5799	0.1535	3.1600e-003	0.1566		507.3844	507.3844	0.0104		507.6445
Total	0.3260	3.6750	2.0960	0.0154	0.8311	0.0117	0.8428	0.2272	0.0111	0.2383		1,590.5136	1,590.5136	0.0560		1,591.9131

3.5 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	138.0577					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	138.2623	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.2308	0.1585	1.4431	5.0900e-003	71.2170	3.4300e-003	71.2204	7.2025	3.1600e-003	7.2057		507.3844	507.3844	0.0104		507.6445
Total	0.2308	0.1585	1.4431	5.0900e-003	71.2170	3.4300e-003	71.2204	7.2025	3.1600e-003	7.2057		507.3844	507.3844	0.0104		507.6445

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	138.0577					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	138.2623	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	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
Worker	0.2308	0.1585	1.4431	5.0900e-003	0.5764	3.4300e-003	0.5799	0.1535	3.1600e-003	0.1566		507.3844	507.3844	0.0104		507.6445
Total	0.2308	0.1585	1.4431	5.0900e-003	0.5764	3.4300e-003	0.5799	0.1535	3.1600e-003	0.1566		507.3844	507.3844	0.0104		507.6445

Green Coast Industries - Phase 3 Construction - Yolo County, Annual

Green Coast Industries - Phase 3 Construction

Yolo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	101.27	1000sqft	2.32	101,268.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	6.8	Precipitation Freq (Days)	54
Climate Zone	2			Operational Year	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	152.6	CH4 Intensity (lb/MW hr)	0.018	N2O Intensity (lb/MW hr)	0.002

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Updated PG&E intensity factors to meet RPS requirements

Land Use - Research & Development include greenhouse structures

Construction Phase - Grading:60 days; BC: 6 months

Off-road Equipment -

Off-road Equipment - No crane assumed; drill rig added for well construction

Trips and VMT - 20 construction workers

Vehicle Trips - Construction only

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	220.00	130.00
tblConstructionPhase	NumDays	6.00	60.00
tblGrading	AcresOfGrading	30.00	3.00
tblLandUse	LandUseSquareFeet	101,270.00	101,268.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	641.35	152.6
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.002
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripNumber	8.00	40.00
tblTripsAndVMT	WorkerTripNumber	10.00	40.00
tblTripsAndVMT	WorkerTripNumber	32.00	40.00
tblTripsAndVMT	WorkerTripNumber	6.00	40.00

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					
2022	0.0783	0.7053	0.5298	1.2300e-003	3.0755	0.0305	3.1060	0.3927	0.0284	0.4212	0.0000	107.1858	107.1858	0.0225	0.0000	107.7488

2023	0.7881	0.5973	0.7361	1.5700e-003	4.0319	0.0240	4.0559	0.4089	0.0234	0.4322	0.0000	134.5785	134.5785	0.0131	0.0000	134.9068
Maximum	0.7881	0.7053	0.7361	1.5700e-003	4.0319	0.0305	4.0559	0.4089	0.0284	0.4322	0.0000	134.5785	134.5785	0.0225	0.0000	134.9068

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					
2022	0.0783	0.7053	0.5298	1.2300e-003	0.2115	0.0305	0.2420	0.1070	0.0284	0.1354	0.0000	107.1857	107.1857	0.0225	0.0000	107.7487
2023	0.7881	0.5973	0.7361	1.5700e-003	0.0383	0.0240	0.0623	0.0104	0.0234	0.0337	0.0000	134.5784	134.5784	0.0131	0.0000	134.9067
Maximum	0.7881	0.7053	0.7361	1.5700e-003	0.2115	0.0305	0.2420	0.1070	0.0284	0.1354	0.0000	134.5784	134.5784	0.0225	0.0000	134.9067

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	96.48	0.00	95.75	85.36	0.00	80.18	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	8-29-2022	11-28-2022	0.6110	0.6110
2	11-29-2022	2-27-2023	0.4386	0.4386
3	2-28-2023	5-28-2023	0.6048	0.6048
4	5-29-2023	8-28-2023	0.5094	0.5094
		Highest	0.6110	0.6110

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	8/29/2022	8/31/2022	5	3
2	Grading	Grading	9/1/2022	11/23/2022	5	60
3	Building Construction	Building Construction	11/24/2022	5/24/2023	5	130
4	Architectural Coating	Architectural Coating	5/25/2023	6/7/2023	5	10

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 151,902; Non-Residential Outdoor: 50,634; Striped Parking Area: 0

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	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	0	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
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
Site Preparation	3	40.00	0.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT

Grading	4	40.00	0.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	40.00	17.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	40.00	0.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 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					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0235	0.0151	4.0000e-005		8.9000e-004	8.9000e-004		8.2000e-004	8.2000e-004	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
Total	2.0700e-003	0.0235	0.0151	4.0000e-005	2.3900e-003	8.9000e-004	3.2800e-003	2.6000e-004	8.2000e-004	1.0800e-003	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582

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	3.1000e-004	2.1000e-004	2.1900e-003	1.0000e-005	0.0911	1.0000e-005	0.0911	9.2300e-003	0.0000	9.2400e-003	0.0000	0.7103	0.7103	1.0000e-005	0.0000	0.7106

Total	3.1000e-004	2.1000e-004	2.1900e-003	1.0000e-005	0.0911	1.0000e-005	0.0911	9.2300e-003	0.0000	9.2400e-003	0.0000	0.7103	0.7103	1.0000e-005	0.0000	0.7106
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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					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0235	0.0151	4.0000e-005		8.9000e-004	8.9000e-004		8.2000e-004	8.2000e-004	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
Total	2.0700e-003	0.0235	0.0151	4.0000e-005	2.3900e-003	8.9000e-004	3.2800e-003	2.6000e-004	8.2000e-004	1.0800e-003	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582

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	3.1000e-004	2.1000e-004	2.1900e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.4000e-004	2.2000e-004	0.0000	2.3000e-004	0.0000	0.7103	0.7103	1.0000e-005	0.0000	0.7106
Total	3.1000e-004	2.1000e-004	2.1900e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.4000e-004	2.2000e-004	0.0000	2.3000e-004	0.0000	0.7103	0.7103	1.0000e-005	0.0000	0.7106

3.3 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					0.1823	0.0000	0.1823	0.0995	0.0000	0.0995	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0462	0.5095	0.2766	6.2000e-004		0.0223	0.0223		0.0205	0.0205	0.0000	54.3081	54.3081	0.0176	0.0000	54.7473
Total	0.0462	0.5095	0.2766	6.2000e-004	0.1823	0.0223	0.2045	0.0995	0.0205	0.1200	0.0000	54.3081	54.3081	0.0176	0.0000	54.7473

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	6.2500e-003	4.2300e-003	0.0438	1.6000e-004	1.8224	1.0000e-004	1.8225	0.1847	9.0000e-005	0.1848	0.0000	14.2049	14.2049	2.9000e-004	0.0000	14.2122
Total	6.2500e-003	4.2300e-003	0.0438	1.6000e-004	1.8224	1.0000e-004	1.8225	0.1847	9.0000e-005	0.1848	0.0000	14.2049	14.2049	2.9000e-004	0.0000	14.2122

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					0.1823	0.0000	0.1823	0.0995	0.0000	0.0995	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0462	0.5095	0.2766	6.2000e-004		0.0223	0.0223		0.0205	0.0205	0.0000	54.3081	54.3081	0.0176	0.0000	54.7472
Total	0.0462	0.5095	0.2766	6.2000e-004	0.1823	0.0223	0.2045	0.0995	0.0205	0.1200	0.0000	54.3081	54.3081	0.0176	0.0000	54.7472

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	6.2500e-003	4.2300e-003	0.0438	1.6000e-004	0.0167	1.0000e-004	0.0168	4.4700e-003	9.0000e-005	4.5600e-003	0.0000	14.2049	14.2049	2.9000e-004	0.0000	14.2122
Total	6.2500e-003	4.2300e-003	0.0438	1.6000e-004	0.0167	1.0000e-004	0.0168	4.4700e-003	9.0000e-005	4.5600e-003	0.0000	14.2049	14.2049	2.9000e-004	0.0000	14.2122

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0200	0.1407	0.1682	2.6000e-004		7.1300e-003	7.1300e-003		6.9300e-003	6.9300e-003	0.0000	21.1928	21.1928	3.2000e-003	0.0000	21.2727
Total	0.0200	0.1407	0.1682	2.6000e-004		7.1300e-003	7.1300e-003		6.9300e-003	6.9300e-003	0.0000	21.1928	21.1928	3.2000e-003	0.0000	21.2727

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	6.6000e-004	0.0253	4.2700e-003	8.0000e-005	0.1572	6.0000e-005	0.1572	0.0160	6.0000e-005	0.0161	0.0000	7.1454	7.1454	2.8000e-004	0.0000	7.1523
Worker	2.8100e-003	1.9000e-003	0.0197	7.0000e-005	0.8201	5.0000e-005	0.8201	0.0831	4.0000e-005	0.0831	0.0000	6.3922	6.3922	1.3000e-004	0.0000	6.3955
Total	3.4700e-003	0.0272	0.0240	1.5000e-004	0.9773	1.1000e-004	0.9774	0.0991	1.0000e-004	0.0992	0.0000	13.5376	13.5376	4.1000e-004	0.0000	13.5478

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	0.0200	0.1407	0.1682	2.6000e-004		7.1300e-003	7.1300e-003		6.9300e-003	6.9300e-003	0.0000	21.1928	21.1928	3.2000e-003	0.0000	21.2727
Total	0.0200	0.1407	0.1682	2.6000e-004		7.1300e-003	7.1300e-003		6.9300e-003	6.9300e-003	0.0000	21.1928	21.1928	3.2000e-003	0.0000	21.2727

Mitigated Construction Off-Site

Vendor	1.8600e-003	0.0785	0.0137	2.8000e-004	0.5996	9.0000e-005	0.5997	0.0611	8.0000e-005	0.0612	0.0000	26.7016	26.7016	7.8000e-004	0.0000	26.7211
Worker	0.0101	6.5200e-003	0.0690	2.6000e-004	3.1285	1.7000e-004	3.1287	0.3170	1.6000e-004	0.3172	0.0000	23.4637	23.4637	4.5000e-004	0.0000	23.4749
Total	0.0119	0.0850	0.0828	5.4000e-004	3.7281	2.6000e-004	3.7284	0.3781	2.4000e-004	0.3784	0.0000	50.1653	50.1653	1.2300e-003	0.0000	50.1960

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	0.0702	0.5051	0.6376	9.9000e-004		0.0234	0.0234		0.0227	0.0227	0.0000	80.8584	80.8584	0.0118	0.0000	81.1531
Total	0.0702	0.5051	0.6376	9.9000e-004		0.0234	0.0234		0.0227	0.0227	0.0000	80.8584	80.8584	0.0118	0.0000	81.1531

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	1.8600e-003	0.0785	0.0137	2.8000e-004	6.7900e-003	9.0000e-005	6.8700e-003	1.9700e-003	8.0000e-005	2.0600e-003	0.0000	26.7016	26.7016	7.8000e-004	0.0000	26.7211
Worker	0.0101	6.5200e-003	0.0690	2.6000e-004	0.0287	1.7000e-004	0.0289	7.6700e-003	1.6000e-004	7.8300e-003	0.0000	23.4637	23.4637	4.5000e-004	0.0000	23.4749
Total	0.0119	0.0850	0.0828	5.4000e-004	0.0355	2.6000e-004	0.0358	9.6400e-003	2.4000e-004	9.8900e-003	0.0000	50.1653	50.1653	1.2300e-003	0.0000	50.1960

3.5 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7041					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	0.7050	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785

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	9.8000e-004	6.3000e-004	6.7000e-003	3.0000e-005	0.3037	2.0000e-005	0.3038	0.0308	2.0000e-005	0.0308	0.0000	2.2780	2.2780	4.0000e-005	0.0000	2.2791
Total	9.8000e-004	6.3000e-004	6.7000e-003	3.0000e-005	0.3037	2.0000e-005	0.3038	0.0308	2.0000e-005	0.0308	0.0000	2.2780	2.2780	4.0000e-005	0.0000	2.2791

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7041					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	0.7050	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785

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	9.8000e-004	6.3000e-004	6.7000e-003	3.0000e-005	2.7900e-003	2.0000e-005	2.8100e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.2780	2.2780	4.0000e-005	0.0000	2.2791
Total	9.8000e-004	6.3000e-004	6.7000e-003	3.0000e-005	2.7900e-003	2.0000e-005	2.8100e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.2780	2.2780	4.0000e-005	0.0000	2.2791

Green Coast Industries - Phase 3 Construction - Yolo County, Summer

Green Coast Industries - Phase 3 Construction

Yolo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	101.27	1000sqft	2.32	101,268.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	6.8	Precipitation Freq (Days)	54
Climate Zone	2			Operational Year	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	152.6	CH4 Intensity (lb/MW hr)	0.018	N2O Intensity (lb/MW hr)	0.002

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Updated PG&E intensity factors to meet RPS requirements

Land Use - Research & Development include greenhouse structures

Construction Phase - Grading:60 days; BC: 6 months

Off-road Equipment -

Off-road Equipment - No crane assumed; drill rig added for well construction

Trips and VMT - 20 construction workers

Vehicle Trips - Construction only

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	220.00	130.00
tblConstructionPhase	NumDays	6.00	60.00
tblGrading	AcresOfGrading	30.00	3.00
tblLandUse	LandUseSquareFeet	101,270.00	101,268.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	641.35	152.6
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.002
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripNumber	8.00	40.00
tblTripsAndVMT	WorkerTripNumber	10.00	40.00
tblTripsAndVMT	WorkerTripNumber	32.00	40.00
tblTripsAndVMT	WorkerTripNumber	6.00	40.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.7673	17.1109	14.5124	0.0307	84.8623	0.7457	85.3984	10.5185	0.6861	11.2045	0.0000	2,950.7000	2,950.7000	0.7803	0.0000	2,970.2071

2023	141.2175	11.4257	14.2486	0.0303	84.8623	0.4593	85.3216	8.5898	0.4461	9.0359	0.0000	2,861.6665	2,861.6665	0.2790	0.0000	2,868.6406
Maximum	141.2175	17.1109	14.5124	0.0307	84.8623	0.7457	85.3984	10.5185	0.6861	11.2045	0.0000	2,950.7000	2,950.7000	0.7803	0.0000	2,970.2071

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.7673	17.1109	14.5124	0.0307	6.6515	0.7457	7.3973	3.4694	0.6861	4.1555	0.0000	2,950.7000	2,950.7000	0.7803	0.0000	2,970.2071
2023	141.2175	11.4257	14.2486	0.0303	0.7117	0.4593	1.1711	0.1926	0.4461	0.6388	0.0000	2,861.6665	2,861.6665	0.2790	0.0000	2,868.6406
Maximum	141.2175	17.1109	14.5124	0.0307	6.6515	0.7457	7.3973	3.4694	0.6861	4.1555	0.0000	2,950.7000	2,950.7000	0.7803	0.0000	2,970.2071

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	95.66	0.00	94.98	80.84	0.00	76.31	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	8/29/2022	8/31/2022	5	3	
2	Grading	Grading	9/1/2022	11/23/2022	5	60	
3	Building Construction	Building Construction	11/24/2022	5/24/2023	5	130	
4	Architectural Coating	Architectural Coating	5/25/2023	6/7/2023	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 151,902; Non-Residential Outdoor: 50,634; Striped Parking Area: 0

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	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	0	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
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
Site Preparation	3	40.00	0.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	40.00	0.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	40.00	17.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	40.00	0.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476		2,375.1569	2,375.1569	0.7682		2,394.3613
Total	1.3784	15.6673	10.0558	0.0245	1.5908	0.5952	2.1859	0.1718	0.5476	0.7193		2,375.1569	2,375.1569	0.7682		2,394.3613

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.2269	0.1273	1.7565	5.7700e-003	71.2170	3.4300e-003	71.2204	7.2025	3.1600e-003	7.2057		575.5431	575.5431	0.0121		575.8458
Total	0.2269	0.1273	1.7565	5.7700e-003	71.2170	3.4300e-003	71.2204	7.2025	3.1600e-003	7.2057		575.5431	575.5431	0.0121		575.8458

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613
Total	1.3784	15.6673	10.0558	0.0245	1.5908	0.5952	2.1859	0.1718	0.5476	0.7193	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.2269	0.1273	1.7565	5.7700e-003	0.5764	3.4300e-003	0.5799	0.1535	3.1600e-003	0.1566		575.5431	575.5431	0.0121		575.8458
Total	0.2269	0.1273	1.7565	5.7700e-003	0.5764	3.4300e-003	0.5799	0.1535	3.1600e-003	0.1566		575.5431	575.5431	0.0121		575.8458

3.3 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	lb/day										lb/day					
Fugitive Dust					6.0751	0.0000	6.0751	3.3160	0.0000	3.3160			0.0000			0.0000

Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	1.5403	16.9836	9.2202	0.0206	6.0751	0.7423	6.8174	3.3160	0.6829	3.9989		1,995.4825	1,995.4825	0.6454		2,011.6169

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.2269	0.1273	1.7565	5.7700e-003	71.2170	3.4300e-003	71.2204	7.2025	3.1600e-003	7.2057		575.5431	575.5431	0.0121		575.8458
Total	0.2269	0.1273	1.7565	5.7700e-003	71.2170	3.4300e-003	71.2204	7.2025	3.1600e-003	7.2057		575.5431	575.5431	0.0121		575.8458

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0751	0.0000	6.0751	3.3160	0.0000	3.3160			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	1.5403	16.9836	9.2202	0.0206	6.0751	0.7423	6.8174	3.3160	0.6829	3.9989	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.2269	0.1273	1.7565	5.7700e-003	0.5764	3.4300e-003	0.5799	0.1535	3.1600e-003	0.1566		575.5431	575.5431	0.0121		575.8458
Total	0.2269	0.1273	1.7565	5.7700e-003	0.5764	3.4300e-003	0.5799	0.1535	3.1600e-003	0.1566		575.5431	575.5431	0.0121		575.8458

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4825	10.4198	12.4609	0.0193		0.5285	0.5285		0.5133	0.5133		1,730.4509	1,730.4509	0.2609		1,736.9742
Total	1.4825	10.4198	12.4609	0.0193		0.5285	0.5285		0.5133	0.5133		1,730.4509	1,730.4509	0.2609		1,736.9742

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
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Category	lb/day										lb/day					
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
Vendor	0.0482	1.8371	0.2950	5.6300e-003	13.6453	4.1800e-003	13.6495	1.3873	4.0000e-003	1.3913		589.2566	589.2566	0.0214		589.7922
Worker	0.2269	0.1273	1.7565	5.7700e-003	71.2170	3.4300e-003	71.2204	7.2025	3.1600e-003	7.2057		575.5431	575.5431	0.0121		575.8458
Total	0.2751	1.9643	2.0515	0.0114	84.8623	7.6100e-003	84.8699	8.5898	7.1600e-003	8.5970		1,164.7996	1,164.7996	0.0335		1,165.6380

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4825	10.4198	12.4609	0.0193		0.5285	0.5285		0.5133	0.5133	0.0000	1,730.4509	1,730.4509	0.2609		1,736.9742
Total	1.4825	10.4198	12.4609	0.0193		0.5285	0.5285		0.5133	0.5133	0.0000	1,730.4509	1,730.4509	0.2609		1,736.9742

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0482	1.8371	0.2950	5.6300e-003	0.1353	4.1800e-003	0.1395	0.0392	4.0000e-003	0.0432		589.2566	589.2566	0.0214		589.7922

Worker	0.2269	0.1273	1.7565	5.7700e-003	0.5764	3.4300e-003	0.5799	0.1535	3.1600e-003	0.1566		575.5431	575.5431	0.0121		575.8458
Total	0.2751	1.9643	2.0515	0.0114	0.7117	7.6100e-003	0.7194	0.1927	7.1600e-003	0.1998		1,164.7996	1,164.7996	0.0335		1,165.6380

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3622	9.8084	12.3800	0.0193		0.4543	0.4543		0.4414	0.4414		1,730.7041	1,730.7041	0.2523		1,737.0103
Total	1.3622	9.8084	12.3800	0.0193		0.4543	0.4543		0.4414	0.4414		1,730.7041	1,730.7041	0.2523		1,737.0103

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0355	1.5028	0.2509	5.5100e-003	13.6453	1.6900e-003	13.6470	1.3873	1.6100e-003	1.3889		577.1906	577.1906	0.0159		577.5870
Worker	0.2127	0.1145	1.6177	5.5500e-003	71.2170	3.3500e-003	71.2204	7.2025	3.0900e-003	7.2056		553.7718	553.7718	0.0109		554.0433
Total	0.2481	1.6173	1.8686	0.0111	84.8623	5.0400e-003	84.8673	8.5898	4.7000e-003	8.5945		1,130.9624	1,130.9624	0.0267		1,131.6303

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3622	9.8084	12.3800	0.0193		0.4543	0.4543		0.4414	0.4414	0.0000	1,730.7041	1,730.7041	0.2523		1,737.0103
Total	1.3622	9.8084	12.3800	0.0193		0.4543	0.4543		0.4414	0.4414	0.0000	1,730.7041	1,730.7041	0.2523		1,737.0103

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0355	1.5028	0.2509	5.5100e-003	0.1353	1.6900e-003	0.1370	0.0392	1.6100e-003	0.0408		577.1906	577.1906	0.0159		577.5870
Worker	0.2127	0.1145	1.6177	5.5500e-003	0.5764	3.3500e-003	0.5798	0.1535	3.0900e-003	0.1566		553.7718	553.7718	0.0109		554.0433
Total	0.2481	1.6173	1.8686	0.0111	0.7117	5.0400e-003	0.7168	0.1926	4.7000e-003	0.1974		1,130.9624	1,130.9624	0.0267		1,131.6303

3.5 Architectural Coating - 2023

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
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Category	lb/day										lb/day				
Archit. Coating	140.8132					0.0000	0.0000		0.0000	0.0000			0.0000		0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168	281.8690
Total	141.0048	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168	281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.2127	0.1145	1.6177	5.5500e-003	71.2170	3.3500e-003	71.2204	7.2025	3.0900e-003	7.2056		553.7718	553.7718	0.0109		554.0433
Total	0.2127	0.1145	1.6177	5.5500e-003	71.2170	3.3500e-003	71.2204	7.2025	3.0900e-003	7.2056		553.7718	553.7718	0.0109		554.0433

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	140.8132					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Total	141.0048	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.2127	0.1145	1.6177	5.5500e-003	0.5764	3.3500e-003	0.5798	0.1535	3.0900e-003	0.1566		553.7718	553.7718	0.0109		554.0433
Total	0.2127	0.1145	1.6177	5.5500e-003	0.5764	3.3500e-003	0.5798	0.1535	3.0900e-003	0.1566		553.7718	553.7718	0.0109		554.0433

Green Coast Industries - Phase 3 Construction - Yolo County, Winter

Green Coast Industries - Phase 3 Construction

Yolo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	101.27	1000sqft	2.32	101,268.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	6.8	Precipitation Freq (Days)	54
Climate Zone	2			Operational Year	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	152.6	CH4 Intensity (lb/MW hr)	0.018	N2O Intensity (lb/MW hr)	0.002

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Updated PG&E intensity factors to meet RPS requirements

Land Use - Research & Development include greenhouse structures

Construction Phase - Grading:60 days; BC: 6 months

Off-road Equipment -

Off-road Equipment - No crane assumed; drill rig added for well construction

Trips and VMT - 20 construction workers

Vehicle Trips - Construction only

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	220.00	130.00
tblConstructionPhase	NumDays	6.00	60.00
tblGrading	AcresOfGrading	30.00	3.00
tblLandUse	LandUseSquareFeet	101,270.00	101,268.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	641.35	152.6
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.002
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripLength	15.00	20.00
tblTripsAndVMT	WorkerTripNumber	8.00	40.00
tblTripsAndVMT	WorkerTripNumber	10.00	40.00
tblTripsAndVMT	WorkerTripNumber	32.00	40.00
tblTripsAndVMT	WorkerTripNumber	6.00	40.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.7711	17.1421	14.2509	0.0298	84.8623	0.7457	85.3986	10.5185	0.6861	11.2045	0.0000	2,882.5413	2,882.5413	0.7786	0.0000	2,902.0058

2023	141.2218	11.4731	13.9927	0.0295	84.8623	0.4594	85.3217	8.5898	0.4462	9.0360	0.0000	2,782.6224	2,782.6224	0.2795	0.0000	2,789.6090
Maximum	141.2218	17.1421	14.2509	0.0298	84.8623	0.7457	85.3986	10.5185	0.6861	11.2045	0.0000	2,882.5413	2,882.5413	0.7786	0.0000	2,902.0058

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.7711	17.1421	14.2509	0.0298	6.6515	0.7457	7.3973	3.4694	0.6861	4.1555	0.0000	2,882.5413	2,882.5413	0.7786	0.0000	2,902.0058
2023	141.2218	11.4731	13.9927	0.0295	0.7117	0.4594	1.1711	0.1926	0.4462	0.6389	0.0000	2,782.6224	2,782.6224	0.2795	0.0000	2,789.6090
Maximum	141.2218	17.1421	14.2509	0.0298	6.6515	0.7457	7.3973	3.4694	0.6861	4.1555	0.0000	2,882.5413	2,882.5413	0.7786	0.0000	2,902.0058

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	95.66	0.00	94.98	80.84	0.00	76.31	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	8/29/2022	8/31/2022	5	3	
2	Grading	Grading	9/1/2022	11/23/2022	5	60	
3	Building Construction	Building Construction	11/24/2022	5/24/2023	5	130	
4	Architectural Coating	Architectural Coating	5/25/2023	6/7/2023	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 151,902; Non-Residential Outdoor: 50,634; Striped Parking Area: 0

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	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	0	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
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
Site Preparation	3	40.00	0.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	40.00	0.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	40.00	17.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	40.00	0.00	0.00	20.00	9.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476		2,375.1569	2,375.1569	0.7682		2,394.3613
Total	1.3784	15.6673	10.0558	0.0245	1.5908	0.5952	2.1859	0.1718	0.5476	0.7193		2,375.1569	2,375.1569	0.7682		2,394.3613

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.2308	0.1585	1.4431	5.0900e-003	71.2170	3.4300e-003	71.2204	7.2025	3.1600e-003	7.2057		507.3844	507.3844	0.0104		507.6445
Total	0.2308	0.1585	1.4431	5.0900e-003	71.2170	3.4300e-003	71.2204	7.2025	3.1600e-003	7.2057		507.3844	507.3844	0.0104		507.6445

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613
Total	1.3784	15.6673	10.0558	0.0245	1.5908	0.5952	2.1859	0.1718	0.5476	0.7193	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.2308	0.1585	1.4431	5.0900e-003	0.5764	3.4300e-003	0.5799	0.1535	3.1600e-003	0.1566		507.3844	507.3844	0.0104		507.6445
Total	0.2308	0.1585	1.4431	5.0900e-003	0.5764	3.4300e-003	0.5799	0.1535	3.1600e-003	0.1566		507.3844	507.3844	0.0104		507.6445

3.3 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	lb/day										lb/day					
Fugitive Dust					6.0751	0.0000	6.0751	3.3160	0.0000	3.3160			0.0000			0.0000

Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	1.5403	16.9836	9.2202	0.0206	6.0751	0.7423	6.8174	3.3160	0.6829	3.9989		1,995.4825	1,995.4825	0.6454		2,011.6169

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.2308	0.1585	1.4431	5.0900e-003	71.2170	3.4300e-003	71.2204	7.2025	3.1600e-003	7.2057		507.3844	507.3844	0.0104		507.6445
Total	0.2308	0.1585	1.4431	5.0900e-003	71.2170	3.4300e-003	71.2204	7.2025	3.1600e-003	7.2057		507.3844	507.3844	0.0104		507.6445

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0751	0.0000	6.0751	3.3160	0.0000	3.3160			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	1.5403	16.9836	9.2202	0.0206	6.0751	0.7423	6.8174	3.3160	0.6829	3.9989	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.2308	0.1585	1.4431	5.0900e-003	0.5764	3.4300e-003	0.5799	0.1535	3.1600e-003	0.1566		507.3844	507.3844	0.0104		507.6445
Total	0.2308	0.1585	1.4431	5.0900e-003	0.5764	3.4300e-003	0.5799	0.1535	3.1600e-003	0.1566		507.3844	507.3844	0.0104		507.6445

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4825	10.4198	12.4609	0.0193		0.5285	0.5285		0.5133	0.5133		1,730.4509	1,730.4509	0.2609		1,736.9742
Total	1.4825	10.4198	12.4609	0.0193		0.5285	0.5285		0.5133	0.5133		1,730.4509	1,730.4509	0.2609		1,736.9742

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
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Category	lb/day										lb/day				
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
Vendor	0.0506	1.8682	0.3468	5.4900e-003	13.6453	4.3800e-003	13.6497	1.3873	4.1900e-003	1.3915		575.4124	575.4124	0.0242	576.0177
Worker	0.2308	0.1585	1.4431	5.0900e-003	71.2170	3.4300e-003	71.2204	7.2025	3.1600e-003	7.2057		507.3844	507.3844	0.0104	507.6445
Total	0.2814	2.0267	1.7900	0.0106	84.8623	7.8100e-003	84.8701	8.5898	7.3500e-003	8.5972		1,082.7968	1,082.7968	0.0346	1,083.6622

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4825	10.4198	12.4609	0.0193		0.5285	0.5285		0.5133	0.5133	0.0000	1,730.4509	1,730.4509	0.2609		1,736.9742
Total	1.4825	10.4198	12.4609	0.0193		0.5285	0.5285		0.5133	0.5133	0.0000	1,730.4509	1,730.4509	0.2609		1,736.9742

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0506	1.8682	0.3468	5.4900e-003	0.1353	4.3800e-003	0.1397	0.0392	4.1900e-003	0.0434		575.4124	575.4124	0.0242		576.0177

Worker	0.2308	0.1585	1.4431	5.0900e-003	0.5764	3.4300e-003	0.5799	0.1535	3.1600e-003	0.1566		507.3844	507.3844	0.0104		507.6445
Total	0.2814	2.0267	1.7900	0.0106	0.7117	7.8100e-003	0.7196	0.1927	7.3500e-003	0.2000		1,082.7968	1,082.7968	0.0346		1,083.6622

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3622	9.8084	12.3800	0.0193		0.4543	0.4543		0.4414	0.4414		1,730.7041	1,730.7041	0.2523		1,737.0103
Total	1.3622	9.8084	12.3800	0.0193		0.4543	0.4543		0.4414	0.4414		1,730.7041	1,730.7041	0.2523		1,737.0103

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0372	1.5221	0.2892	5.3800e-003	13.6453	1.7500e-003	13.6471	1.3873	1.6800e-003	1.3890		563.6990	563.6990	0.0179		564.1466
Worker	0.2170	0.1426	1.3235	4.8900e-003	71.2170	3.3500e-003	71.2204	7.2025	3.0900e-003	7.2056		488.2194	488.2194	9.3100e-003		488.4521
Total	0.2542	1.6647	1.6127	0.0103	84.8623	5.1000e-003	84.8674	8.5898	4.7700e-003	8.5946		1,051.9184	1,051.9184	0.0272		1,052.5987

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3622	9.8084	12.3800	0.0193		0.4543	0.4543		0.4414	0.4414	0.0000	1,730.7041	1,730.7041	0.2523		1,737.0103
Total	1.3622	9.8084	12.3800	0.0193		0.4543	0.4543		0.4414	0.4414	0.0000	1,730.7041	1,730.7041	0.2523		1,737.0103

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0372	1.5221	0.2892	5.3800e-003	0.1353	1.7500e-003	0.1371	0.0392	1.6800e-003	0.0408		563.6990	563.6990	0.0179		564.1466
Worker	0.2170	0.1426	1.3235	4.8900e-003	0.5764	3.3500e-003	0.5798	0.1535	3.0900e-003	0.1566		488.2194	488.2194	9.3100e-003		488.4521
Total	0.2542	1.6647	1.6127	0.0103	0.7117	5.1000e-003	0.7168	0.1926	4.7700e-003	0.1974		1,051.9184	1,051.9184	0.0272		1,052.5987

3.5 Architectural Coating - 2023

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
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Category	lb/day										lb/day				
Archit. Coating	140.8132					0.0000	0.0000		0.0000	0.0000			0.0000		0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168	281.8690
Total	141.0048	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168	281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.2170	0.1426	1.3235	4.8900e-003	71.2170	3.3500e-003	71.2204	7.2025	3.0900e-003	7.2056		488.2194	488.2194	9.3100e-003		488.4521
Total	0.2170	0.1426	1.3235	4.8900e-003	71.2170	3.3500e-003	71.2204	7.2025	3.0900e-003	7.2056		488.2194	488.2194	9.3100e-003		488.4521

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	140.8132					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Total	141.0048	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.2170	0.1426	1.3235	4.8900e-003	0.5764	3.3500e-003	0.5798	0.1535	3.0900e-003	0.1566		488.2194	488.2194	9.3100e-003		488.4521
Total	0.2170	0.1426	1.3235	4.8900e-003	0.5764	3.3500e-003	0.5798	0.1535	3.0900e-003	0.1566		488.2194	488.2194	9.3100e-003		488.4521

Green Coast Industries - Operations - Yolo County, Annual

Green Coast Industries - Operations

Yolo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	279.98	1000sqft	6.43	279,983.00	0
Other Non-Asphalt Surfaces	15.66	1000sqft	0.36	15,657.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	6.8	Precipitation Freq (Days)	54
Climate Zone	2			Operational Year	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	152.6	CH4 Intensity (lb/MWhr)	0.018	N2O Intensity (lb/MWhr)	0.002

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Updated PG&E intensity factors to meet RPS requirements

Land Use - Research & Development include nursery, flower houses, ancillary structures, greenhouses; other non-asphalt surfaces include ground-mounted solar array

Construction Phase - Operational model only

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Operational model only

On-road Fugitive Dust - Operational model only

Grading - 4 acres disturbed

Architectural Coating - Operational model only

Vehicle Trips - 94 ADT, 10 mile average length

Road Dust - Driveway to GCI project site is unpaved with gravel. Defaults are conservative because they are based on dirt roads rather than gravel.

Area Coating - No asphalt parking

Energy Use - 30% reduction in energy consumption for 2019 Title 24 compliance.

Energy use would be typical of Research & Development facility. Approximately 74% of electricity would be offset with solar.

Water And Wastewater - Applicant provided water usage of 85,585,500 gal/year; all septic

Land Use Change -

Energy Mitigation - kWh estimated in PVWatt Calculator for a 1050 kW system size

Water Mitigation -

Operational Off-Road Equipment - 1 forklift per greenhouse.

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	939	0
tblEnergyUse	NT24NG	0.06	0.00
tblEnergyUse	T24E	1.65	1.16
tblEnergyUse	T24NG	18.58	0.00
tblLandUse	LandUseSquareFeet	279,980.00	279,983.00
tblLandUse	LandUseSquareFeet	15,660.00	15,657.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.44	0.44
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	22.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	641.35	152.6
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.002
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	94	93
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	200.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00

tblVehicleEF	LDA	0.46	0.46
tblVehicleEF	LDA	0.90	0.91
tblVehicleEF	LDA	222.92	232.99
tblVehicleEF	LDA	50.84	53.14
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	1.5790e-003	1.6030e-003
tblVehicleEF	LDA	2.2290e-003	2.2620e-003
tblVehicleEF	LDA	1.4550e-003	1.4770e-003
tblVehicleEF	LDA	2.0490e-003	2.0800e-003
tblVehicleEF	LDA	7.7760e-003	7.7830e-003
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	0.58	0.58
tblVehicleEF	LDA	0.74	0.74
tblVehicleEF	LDA	246.34	257.48
tblVehicleEF	LDA	50.84	53.14
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	1.5790e-003	1.6030e-003
tblVehicleEF	LDA	2.2290e-003	2.2620e-003
tblVehicleEF	LDA	1.4550e-003	1.4770e-003
tblVehicleEF	LDA	2.0490e-003	2.0800e-003
tblVehicleEF	LDA	8.9960e-003	9.0040e-003
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.01

tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.43	0.44
tblVehicleEF	LDA	1.13	1.14
tblVehicleEF	LDA	216.55	226.34
tblVehicleEF	LDA	50.84	53.14
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	1.5790e-003	1.6030e-003
tblVehicleEF	LDA	2.2290e-003	2.2620e-003
tblVehicleEF	LDA	1.4550e-003	1.4770e-003
tblVehicleEF	LDA	2.0490e-003	2.0800e-003
tblVehicleEF	LDA	7.3620e-003	7.3690e-003
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDT1	0.81	0.82
tblVehicleEF	LDT1	2.47	2.48
tblVehicleEF	LDT1	275.71	288.17
tblVehicleEF	LDT1	65.63	68.59
tblVehicleEF	LDT1	0.08	0.08
tblVehicleEF	LDT1	0.14	0.14
tblVehicleEF	LDT1	1.9860e-003	2.0160e-003
tblVehicleEF	LDT1	3.0620e-003	3.1080e-003
tblVehicleEF	LDT1	1.8290e-003	1.8560e-003
tblVehicleEF	LDT1	2.8160e-003	2.8580e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.16	0.16

tblVehicleEF	LDT1	0.16	0.16
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.16	0.16
tblVehicleEF	LDT1	0.18	0.18
tblVehicleEF	LDT1	1.01	1.01
tblVehicleEF	LDT1	2.01	2.02
tblVehicleEF	LDT1	303.84	317.58
tblVehicleEF	LDT1	65.63	68.59
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.13	0.13
tblVehicleEF	LDT1	1.9860e-003	2.0160e-003
tblVehicleEF	LDT1	3.0620e-003	3.1080e-003
tblVehicleEF	LDT1	1.8290e-003	1.8560e-003
tblVehicleEF	LDT1	2.8160e-003	2.8580e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	0.13	0.13
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	0.78	0.78
tblVehicleEF	LDT1	3.12	3.14
tblVehicleEF	LDT1	268.06	280.18
tblVehicleEF	LDT1	65.63	68.59
tblVehicleEF	LDT1	0.09	0.09
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	1.9860e-003	2.0160e-003
tblVehicleEF	LDT1	3.0620e-003	3.1080e-003
tblVehicleEF	LDT1	1.8290e-003	1.8560e-003
tblVehicleEF	LDT1	2.8160e-003	2.8580e-003

tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.19	0.19
tblVehicleEF	LDT1	0.20	0.20
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.19	0.19
tblVehicleEF	LDT1	0.22	0.22
tblVehicleEF	LDT2	0.59	0.59
tblVehicleEF	LDT2	1.35	1.36
tblVehicleEF	LDT2	311.68	325.77
tblVehicleEF	LDT2	73.15	76.46
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	1.6160e-003	1.6400e-003
tblVehicleEF	LDT2	2.3920e-003	2.4280e-003
tblVehicleEF	LDT2	1.4860e-003	1.5080e-003
tblVehicleEF	LDT2	2.1990e-003	2.2320e-003
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.08	0.08
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	0.74	0.75
tblVehicleEF	LDT2	1.11	1.12
tblVehicleEF	LDT2	343.86	359.40
tblVehicleEF	LDT2	73.15	76.46
tblVehicleEF	LDT2	0.05	0.05
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	1.6160e-003	1.6400e-003
tblVehicleEF	LDT2	2.3920e-003	2.4280e-003

tblVehicleEF	LDT2	1.4860e-003	1.5080e-003
tblVehicleEF	LDT2	2.1990e-003	2.2320e-003
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.56	0.56
tblVehicleEF	LDT2	1.70	1.71
tblVehicleEF	LDT2	302.94	316.64
tblVehicleEF	LDT2	73.15	76.46
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.11	0.11
tblVehicleEF	LDT2	1.6160e-003	1.6400e-003
tblVehicleEF	LDT2	2.3920e-003	2.4280e-003
tblVehicleEF	LDT2	1.4860e-003	1.5080e-003
tblVehicleEF	LDT2	2.1990e-003	2.2320e-003
tblVehicleEF	LDT2	9.5530e-003	9.5620e-003
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.11	0.11
tblVehicleEF	MDV	0.90	0.91
tblVehicleEF	MDV	2.53	2.55
tblVehicleEF	MDV	431.66	451.17
tblVehicleEF	MDV	100.07	104.59
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.22	0.22

tblVehicleEF	MDV	1.6640e-003	1.6890e-003
tblVehicleEF	MDV	2.3700e-003	2.4050e-003
tblVehicleEF	MDV	1.5340e-003	1.5570e-003
tblVehicleEF	MDV	2.1790e-003	2.2110e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.19	0.19
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.21	0.21
tblVehicleEF	MDV	1.13	1.14
tblVehicleEF	MDV	2.08	2.09
tblVehicleEF	MDV	474.90	496.37
tblVehicleEF	MDV	100.07	104.59
tblVehicleEF	MDV	0.10	0.10
tblVehicleEF	MDV	0.20	0.20
tblVehicleEF	MDV	1.6640e-003	1.6890e-003
tblVehicleEF	MDV	2.3700e-003	2.4050e-003
tblVehicleEF	MDV	1.5340e-003	1.5570e-003
tblVehicleEF	MDV	2.1790e-003	2.2110e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.15	0.15
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.17	0.17
tblVehicleEF	MDV	0.86	0.86
tblVehicleEF	MDV	3.18	3.20
tblVehicleEF	MDV	419.91	438.89
tblVehicleEF	MDV	100.07	104.59

tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.25	0.25
tblVehicleEF	MDV	1.6640e-003	1.6890e-003
tblVehicleEF	MDV	2.3700e-003	2.4050e-003
tblVehicleEF	MDV	1.5340e-003	1.5570e-003
tblVehicleEF	MDV	2.1790e-003	2.2110e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.23	0.23
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.25	0.25
tblVehicleTrips	CC_TL	8.00	15.00
tblVehicleTrips	CNW_TL	9.00	15.00
tblVehicleTrips	ST_TR	1.90	0.34
tblVehicleTrips	SU_TR	1.11	0.34
tblVehicleTrips	WD_TR	8.11	0.34
tblWater	AerobicPercent	87.46	0.00
tblWater	AnaDigestCombDigestGasPercent	100.00	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	137,664,471.34	88,585,500.00
tblWater	SepticTankPercent	10.33	100.00

2.0 Emissions Summary

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	1.2894	2.0000e-005	2.7100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2800e-003	5.2800e-003	1.0000e-005	0.0000	5.6300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	154.2642	154.2642	0.0182	2.0200e-003	155.3216
Mobile	0.0293	0.2334	0.3908	2.0400e-003	11.7719	1.3100e-003	11.7732	1.1997	1.2200e-003	1.2009	0.0000	193.7015	193.7015	5.6400e-003	0.0000	193.8426
Offroad	0.1243	1.1705	1.6213	2.1900e-003		0.0627	0.0627		0.0577	0.0577	0.0000	192.0366	192.0366	0.0621	0.0000	193.5893
Stationary	0.0000	0.0000	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	4.3197	0.0000	4.3197	0.2553	0.0000	10.7017
Water						0.0000	0.0000		0.0000	0.0000	0.0000	33.1788	33.1788	20.1238	0.0686	556.7153
Total	1.4429	1.4040	2.0148	4.2300e-003	11.7719	0.0640	11.8359	1.1997	0.0589	1.2585	4.3197	573.1863	577.5060	20.4651	0.0706	1,110.1762

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	1.2894	2.0000e-005	2.7100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2800e-003	5.2800e-003	1.0000e-005	0.0000	5.6300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	39.5991	39.5991	4.6700e-003	5.2000e-004	39.8705
Mobile	0.0293	0.2334	0.3908	2.0400e-003	11.7719	1.3100e-003	11.7732	1.1997	1.2200e-003	1.2009	0.0000	193.7015	193.7015	5.6400e-003	0.0000	193.8426
Offroad	0.1243	1.1705	1.6213	2.1900e-003		0.0627	0.0627		0.0577	0.0577	0.0000	192.0366	192.0366	0.0621	0.0000	193.5893
Stationary	0.0000	0.0000	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	4.3197	0.0000	4.3197	0.2553	0.0000	10.7017

Water						0.0000	0.0000		0.0000	0.0000	0.0000	33.1788	33.1788	20.1238	0.0686	556.7153
Total	1.4429	1.4040	2.0148	4.2300e-003	11.7719	0.0640	11.8359	1.1997	0.0589	1.2585	4.3197	458.5212	462.8409	20.4516	0.0691	994.7251

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	19.86	0.07	2.12	10.40

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	0.0293	0.2334	0.3908	2.0400e-003	11.7719	1.3100e-003	11.7732	1.1997	1.2200e-003	1.2009	0.0000	193.7015	193.7015	5.6400e-003	0.0000	193.8426
Unmitigated	0.0293	0.2334	0.3908	2.0400e-003	11.7719	1.3100e-003	11.7732	1.1997	1.2200e-003	1.2009	0.0000	193.7015	193.7015	5.6400e-003	0.0000	193.8426

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Research & Development	95.19	95.19	95.19	445,794	445,794
Total	95.19	95.19	95.19	445,794	445,794

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	15.00	8.00	9.00	0.00	0.00	0.00	0	0	0
Research & Development	15.00	15.00	15.00	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.500140	0.037139	0.211039	0.110788	0.018036	0.004853	0.065762	0.042724	0.001016	0.001558	0.005534	0.000732	0.000681
Research & Development	0.500140	0.037139	0.211039	0.110788	0.018036	0.004853	0.065762	0.042724	0.001016	0.001558	0.005534	0.000732	0.000681

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	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	39.5991	39.5991	4.6700e-003	5.2000e-004	39.8705
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	154.2642	154.2642	0.0182	2.0200e-003	155.3216
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
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Land Use	kBTU/yr	tons/yr										MT/yr					
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
Research & Development	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

	Natural Gas 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 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
Research & Development	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 Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Research & Development	2.22866e+006	154.2642	0.0182	2.0200e-003	155.3216
Total		154.2642	0.0182	2.0200e-003	155.3216

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	-828287	-57.3325	-0.0068	-0.0008	-57.7255
Research & Development	1.40038e+006	96.9316	0.0114	1.2700e-003	97.5960
Total		39.5991	4.6700e-003	5.2000e-004	39.8705

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	1.2894	2.0000e-005	2.7100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2800e-003	5.2800e-003	1.0000e-005	0.0000	5.6300e-003
Unmitigated	1.2894	2.0000e-005	2.7100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2800e-003	5.2800e-003	1.0000e-005	0.0000	5.6300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1947					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0945					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5000e-004	2.0000e-005	2.7100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2800e-003	5.2800e-003	1.0000e-005	0.0000	5.6300e-003
Total	1.2894	2.0000e-005	2.7100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2800e-003	5.2800e-003	1.0000e-005	0.0000	5.6300e-003

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	0.1947					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0945					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5000e-004	2.0000e-005	2.7100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2800e-003	5.2800e-003	1.0000e-005	0.0000	5.6300e-003
Total	1.2894	2.0000e-005	2.7100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2800e-003	5.2800e-003	1.0000e-005	0.0000	5.6300e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	33.1788	20.1238	0.0686	556.7153
Unmitigated	33.1788	20.1238	0.0686	556.7153

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	88.5855 / 0	33.1788	20.1238	0.0686	556.7153
Total		33.1788	20.1238	0.0686	556.7153

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
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Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	88.5855 / 0	33.1788	20.1238	0.0686	556.7153
Total		33.1788	20.1238	0.0686	556.7153

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.3197	0.2553	0.0000	10.7017
Unmitigated	4.3197	0.2553	0.0000	10.7017

8.2 Waste by Land Use

Unmitigated

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

Research & Development	21.28	4.3197	0.2553	0.0000	10.7017
Total		4.3197	0.2553	0.0000	10.7017

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Research & Development	21.28	4.3197	0.2553	0.0000	10.7017
Total		4.3197	0.2553	0.0000	10.7017

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	22	4.00	260	89	0.20	Diesel
Off-Highway Tractors	0	8.00	260	124	0.44	Diesel

UnMitigated/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
Equipment Type	tons/yr										MT/yr					
Forklifts	0.1243	1.1705	1.6213	2.1900e-003		0.0627	0.0627		0.0577	0.0577	0.0000	192.0366	192.0366	0.0621	0.0000	193.5893

Off-Highway Tractors	0.0000	0.0000	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	0.1243	1.1705	1.6213	2.1900e-003		0.0627	0.0627		0.0577	0.0577	0.0000	192.0366	192.0366	0.0621	0.0000	193.5893

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	0	0	200	50	0.73	Diesel

Boilers

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

Equipment Type	Number
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10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (50-75 HP)	0.0000	0.0000	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

11.0 Vegetation

Green Coast Industries - Operations - Yolo County, Summer

Green Coast Industries - Operations

Yolo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	279.98	1000sqft	6.43	279,983.00	0
Other Non-Asphalt Surfaces	15.66	1000sqft	0.36	15,657.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	6.8	Precipitation Freq (Days)	54
Climate Zone	2			Operational Year	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	152.6	CH4 Intensity (lb/MWhr)	0.018	N2O Intensity (lb/MWhr)	0.002

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Updated PG&E intensity factors to meet RPS requirements

Land Use - Research & Development include nursery, flower houses, ancillary structures, greenhouses; other non-asphalt surfaces include ground-mounted solar array

Construction Phase - Operational model only

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Operational model only

On-road Fugitive Dust - Operational model only

Grading - 4 acres disturbed

Architectural Coating - Operational model only

Vehicle Trips - 94 ADT, 10 mile average length

Road Dust - Driveway to GCI project site is unpaved with gravel. Defaults are conservative because they are based on dirt roads rather than gravel.

Area Coating - No asphalt parking

Energy Use - 30% reduction in energy consumption for 2019 Title 24 compliance.

Energy use would be typical of Research & Development facility. Approximately 74% of electricity would be offset with solar.

Water And Wastewater - Applicant provided water usage of 85,585,500 gal/year; all septic

Land Use Change -

Energy Mitigation - kWh estimated in PVWatt Calculator for a 1050 kW system size

Water Mitigation -

Operational Off-Road Equipment - 1 forklift per greenhouse.

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	939	0
tblEnergyUse	NT24NG	0.06	0.00
tblEnergyUse	T24E	1.65	1.16
tblEnergyUse	T24NG	18.58	0.00
tblLandUse	LandUseSquareFeet	279,980.00	279,983.00
tblLandUse	LandUseSquareFeet	15,660.00	15,657.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.44	0.44
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	22.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	641.35	152.6
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.002
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	94	93
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	200.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00

tblVehicleEF	LDA	0.46	0.46
tblVehicleEF	LDA	0.90	0.91
tblVehicleEF	LDA	222.92	232.99
tblVehicleEF	LDA	50.84	53.14
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	1.5790e-003	1.6030e-003
tblVehicleEF	LDA	2.2290e-003	2.2620e-003
tblVehicleEF	LDA	1.4550e-003	1.4770e-003
tblVehicleEF	LDA	2.0490e-003	2.0800e-003
tblVehicleEF	LDA	7.7760e-003	7.7830e-003
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	0.58	0.58
tblVehicleEF	LDA	0.74	0.74
tblVehicleEF	LDA	246.34	257.48
tblVehicleEF	LDA	50.84	53.14
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	1.5790e-003	1.6030e-003
tblVehicleEF	LDA	2.2290e-003	2.2620e-003
tblVehicleEF	LDA	1.4550e-003	1.4770e-003
tblVehicleEF	LDA	2.0490e-003	2.0800e-003
tblVehicleEF	LDA	8.9960e-003	9.0040e-003
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.01

tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.43	0.44
tblVehicleEF	LDA	1.13	1.14
tblVehicleEF	LDA	216.55	226.34
tblVehicleEF	LDA	50.84	53.14
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	1.5790e-003	1.6030e-003
tblVehicleEF	LDA	2.2290e-003	2.2620e-003
tblVehicleEF	LDA	1.4550e-003	1.4770e-003
tblVehicleEF	LDA	2.0490e-003	2.0800e-003
tblVehicleEF	LDA	7.3620e-003	7.3690e-003
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDT1	0.81	0.82
tblVehicleEF	LDT1	2.47	2.48
tblVehicleEF	LDT1	275.71	288.17
tblVehicleEF	LDT1	65.63	68.59
tblVehicleEF	LDT1	0.08	0.08
tblVehicleEF	LDT1	0.14	0.14
tblVehicleEF	LDT1	1.9860e-003	2.0160e-003
tblVehicleEF	LDT1	3.0620e-003	3.1080e-003
tblVehicleEF	LDT1	1.8290e-003	1.8560e-003
tblVehicleEF	LDT1	2.8160e-003	2.8580e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.16	0.16

tblVehicleEF	LDT1	0.16	0.16
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.16	0.16
tblVehicleEF	LDT1	0.18	0.18
tblVehicleEF	LDT1	1.01	1.01
tblVehicleEF	LDT1	2.01	2.02
tblVehicleEF	LDT1	303.84	317.58
tblVehicleEF	LDT1	65.63	68.59
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.13	0.13
tblVehicleEF	LDT1	1.9860e-003	2.0160e-003
tblVehicleEF	LDT1	3.0620e-003	3.1080e-003
tblVehicleEF	LDT1	1.8290e-003	1.8560e-003
tblVehicleEF	LDT1	2.8160e-003	2.8580e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	0.13	0.13
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	0.78	0.78
tblVehicleEF	LDT1	3.12	3.14
tblVehicleEF	LDT1	268.06	280.18
tblVehicleEF	LDT1	65.63	68.59
tblVehicleEF	LDT1	0.09	0.09
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	1.9860e-003	2.0160e-003
tblVehicleEF	LDT1	3.0620e-003	3.1080e-003
tblVehicleEF	LDT1	1.8290e-003	1.8560e-003
tblVehicleEF	LDT1	2.8160e-003	2.8580e-003

tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.19	0.19
tblVehicleEF	LDT1	0.20	0.20
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.19	0.19
tblVehicleEF	LDT1	0.22	0.22
tblVehicleEF	LDT2	0.59	0.59
tblVehicleEF	LDT2	1.35	1.36
tblVehicleEF	LDT2	311.68	325.77
tblVehicleEF	LDT2	73.15	76.46
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	1.6160e-003	1.6400e-003
tblVehicleEF	LDT2	2.3920e-003	2.4280e-003
tblVehicleEF	LDT2	1.4860e-003	1.5080e-003
tblVehicleEF	LDT2	2.1990e-003	2.2320e-003
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.08	0.08
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	0.74	0.75
tblVehicleEF	LDT2	1.11	1.12
tblVehicleEF	LDT2	343.86	359.40
tblVehicleEF	LDT2	73.15	76.46
tblVehicleEF	LDT2	0.05	0.05
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	1.6160e-003	1.6400e-003
tblVehicleEF	LDT2	2.3920e-003	2.4280e-003

tblVehicleEF	LDT2	1.4860e-003	1.5080e-003
tblVehicleEF	LDT2	2.1990e-003	2.2320e-003
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.56	0.56
tblVehicleEF	LDT2	1.70	1.71
tblVehicleEF	LDT2	302.94	316.64
tblVehicleEF	LDT2	73.15	76.46
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.11	0.11
tblVehicleEF	LDT2	1.6160e-003	1.6400e-003
tblVehicleEF	LDT2	2.3920e-003	2.4280e-003
tblVehicleEF	LDT2	1.4860e-003	1.5080e-003
tblVehicleEF	LDT2	2.1990e-003	2.2320e-003
tblVehicleEF	LDT2	9.5530e-003	9.5620e-003
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.11	0.11
tblVehicleEF	MDV	0.90	0.91
tblVehicleEF	MDV	2.53	2.55
tblVehicleEF	MDV	431.66	451.17
tblVehicleEF	MDV	100.07	104.59
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.22	0.22

tblVehicleEF	MDV	1.6640e-003	1.6890e-003
tblVehicleEF	MDV	2.3700e-003	2.4050e-003
tblVehicleEF	MDV	1.5340e-003	1.5570e-003
tblVehicleEF	MDV	2.1790e-003	2.2110e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.19	0.19
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.21	0.21
tblVehicleEF	MDV	1.13	1.14
tblVehicleEF	MDV	2.08	2.09
tblVehicleEF	MDV	474.90	496.37
tblVehicleEF	MDV	100.07	104.59
tblVehicleEF	MDV	0.10	0.10
tblVehicleEF	MDV	0.20	0.20
tblVehicleEF	MDV	1.6640e-003	1.6890e-003
tblVehicleEF	MDV	2.3700e-003	2.4050e-003
tblVehicleEF	MDV	1.5340e-003	1.5570e-003
tblVehicleEF	MDV	2.1790e-003	2.2110e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.15	0.15
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.17	0.17
tblVehicleEF	MDV	0.86	0.86
tblVehicleEF	MDV	3.18	3.20
tblVehicleEF	MDV	419.91	438.89
tblVehicleEF	MDV	100.07	104.59

tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.25	0.25
tblVehicleEF	MDV	1.6640e-003	1.6890e-003
tblVehicleEF	MDV	2.3700e-003	2.4050e-003
tblVehicleEF	MDV	1.5340e-003	1.5570e-003
tblVehicleEF	MDV	2.1790e-003	2.2110e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.23	0.23
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.25	0.25
tblVehicleTrips	CC_TL	8.00	15.00
tblVehicleTrips	CNW_TL	9.00	15.00
tblVehicleTrips	ST_TR	1.90	0.34
tblVehicleTrips	SU_TR	1.11	0.34
tblVehicleTrips	WD_TR	8.11	0.34
tblWater	AerobicPercent	87.46	0.00
tblWater	AnaDigestCombDigestGasPercent	100.00	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	137,664,471.34	88,585,500.00
tblWater	SepticTankPercent	10.33	100.00

2.0 Emissions Summary

2.2 Overall Operational Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.0666	2.7000e-004	0.0301	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0647	0.0647	1.7000e-004		0.0689
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
Mobile	0.1918	1.2382	2.4435	0.0119	64.7086	7.2000e-003	64.7158	6.5984	6.7300e-003	6.6051		1,245.9831	1,245.9831	0.0350		1,246.8571
Offroad	0.9558	9.0039	12.4713	0.0168		0.4820	0.4820		0.4435	0.4435		1,628.3391	1,628.3391	0.5266		1,641.5051
Stationary	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	8.2142	10.2424	14.9449	0.0287	64.7086	0.4893	65.1979	6.5984	0.4503	7.0486		2,874.3869	2,874.3869	0.5618	0.0000	2,888.4311

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.0666	2.7000e-004	0.0301	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0647	0.0647	1.7000e-004		0.0689
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
Mobile	0.1918	1.2382	2.4435	0.0119	64.7086	7.2000e-003	64.7158	6.5984	6.7300e-003	6.6051		1,245.9831	1,245.9831	0.0350		1,246.8571
Offroad	0.9558	9.0039	12.4713	0.0168		0.4820	0.4820		0.4435	0.4435		1,628.3391	1,628.3391	0.5266		1,641.5051
Stationary	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	8.2142	10.2424	14.9449	0.0287	64.7086	0.4893	65.1979	6.5984	0.4503	7.0486		2,874.3869	2,874.3869	0.5618	0.0000	2,888.4311

	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
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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
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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	lb/day										lb/day					
Mitigated	0.1918	1.2382	2.4435	0.0119	64.7086	7.2000e-003	64.7158	6.5984	6.7300e-003	6.6051		1,245.9831	1,245.9831	0.0350		1,246.8571
Unmitigated	0.1918	1.2382	2.4435	0.0119	64.7086	7.2000e-003	64.7158	6.5984	6.7300e-003	6.6051		1,245.9831	1,245.9831	0.0350		1,246.8571

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Research & Development	95.19	95.19	95.19	445,794	445,794
Total	95.19	95.19	95.19	445,794	445,794

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	15.00	8.00	9.00	0.00	0.00	0.00	0	0	0
Research & Development	15.00	15.00	15.00	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.500140	0.037139	0.211039	0.110788	0.018036	0.004853	0.065762	0.042724	0.001016	0.001558	0.005534	0.000732	0.000681
Research & Development	0.500140	0.037139	0.211039	0.110788	0.018036	0.004853	0.065762	0.042724	0.001016	0.001558	0.005534	0.000732	0.000681

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	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

5.2 Energy by Land Use - NaturalGas
Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	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

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	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	lb/day										lb/day					
Mitigated	7.0666	2.7000e-004	0.0301	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0647	0.0647	1.7000e-004		0.0689
Unmitigated	7.0666	2.7000e-004	0.0301	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0647	0.0647	1.7000e-004		0.0689

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.0666					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.9972					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.7700e-003	2.7000e-004	0.0301	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0647	0.0647	1.7000e-004		0.0689
Total	7.0666	2.7000e-004	0.0301	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0647	0.0647	1.7000e-004		0.0689

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.0666					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.9972					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.7700e-003	2.7000e-004	0.0301	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0647	0.0647	1.7000e-004		0.0689
Total	7.0666	2.7000e-004	0.0301	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0647	0.0647	1.7000e-004		0.0689

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	22	4.00	260	89	0.20	Diesel
Off-Highway Tractors	0	8.00	260	124	0.44	Diesel

UnMitigated/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
Equipment Type	lb/day										lb/day					
Forklifts	0.9558	9.0039	12.4713	0.0168		0.4820	0.4820		0.4435	0.4435		1,628.3391	1,628.3391	0.5266		1,641.5051
Off-Highway Tractors	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	0.9558	9.0039	12.4713	0.0168		0.4820	0.4820		0.4435	0.4435		1,628.3391	1,628.3391	0.5266		1,641.5051

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	0	0	200	50	0.73	Diesel

Boilers

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

Equipment Type	Number
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10.1 Stationary Sources

Unmitigated/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
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (50 - 75 HP)	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

11.0 Vegetation

Green Coast Industries - Operations - Yolo County, Winter

Green Coast Industries - Operations

Yolo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	279.98	1000sqft	6.43	279,983.00	0
Other Non-Asphalt Surfaces	15.66	1000sqft	0.36	15,657.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	6.8	Precipitation Freq (Days)	54
Climate Zone	2			Operational Year	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	152.6	CH4 Intensity (lb/MW hr)	0.018	N2O Intensity (lb/MW hr)	0.002

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Updated PG&E intensity factors to meet RPS requirements

Land Use - Research & Development include nursery, flower houses, ancillary structures, greenhouses; other non-asphalt surfaces include ground-mounted solar arrays

Construction Phase - Operational model only

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Operational model only

On-road Fugitive Dust - Operational model only

Grading - 4 acres disturbed

Architectural Coating - Operational model only

Vehicle Trips - 94 ADT, 10 mile average length

Road Dust - Driveway to GCI project site is unpaved with gravel. Defaults are conservative because they are based on dirt roads rather than gravel.

Area Coating - No asphalt parking

Energy Use - 30% reduction in energy consumption for 2019 Title 24 compliance.

Energy use would be typical of Research & Development facility. Approximately 74% of electricity would be offset with solar.

Water And Wastewater - Applicant provided water usage of 85,585,500 gal/year; all septic

Land Use Change -

Energy Mitigation - kWh estimated in PVWatt Calculator for a 1050 kW system size

Water Mitigation -

Operational Off-Road Equipment - 1 forklift per greenhouse.

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	939	0
tblEnergyUse	NT24NG	0.06	0.00
tblEnergyUse	T24E	1.65	1.16
tblEnergyUse	T24NG	18.58	0.00
tblLandUse	LandUseSquareFeet	279,980.00	279,983.00
tblLandUse	LandUseSquareFeet	15,660.00	15,657.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.44	0.44
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	22.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	641.35	152.6
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.002
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	94	93
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	200.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00

tblVehicleEF	LDA	0.46	0.46
tblVehicleEF	LDA	0.90	0.91
tblVehicleEF	LDA	222.92	232.99
tblVehicleEF	LDA	50.84	53.14
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	1.5790e-003	1.6030e-003
tblVehicleEF	LDA	2.2290e-003	2.2620e-003
tblVehicleEF	LDA	1.4550e-003	1.4770e-003
tblVehicleEF	LDA	2.0490e-003	2.0800e-003
tblVehicleEF	LDA	7.7760e-003	7.7830e-003
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	0.58	0.58
tblVehicleEF	LDA	0.74	0.74
tblVehicleEF	LDA	246.34	257.48
tblVehicleEF	LDA	50.84	53.14
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	1.5790e-003	1.6030e-003
tblVehicleEF	LDA	2.2290e-003	2.2620e-003
tblVehicleEF	LDA	1.4550e-003	1.4770e-003
tblVehicleEF	LDA	2.0490e-003	2.0800e-003
tblVehicleEF	LDA	8.9960e-003	9.0040e-003
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.01

tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.43	0.44
tblVehicleEF	LDA	1.13	1.14
tblVehicleEF	LDA	216.55	226.34
tblVehicleEF	LDA	50.84	53.14
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	1.5790e-003	1.6030e-003
tblVehicleEF	LDA	2.2290e-003	2.2620e-003
tblVehicleEF	LDA	1.4550e-003	1.4770e-003
tblVehicleEF	LDA	2.0490e-003	2.0800e-003
tblVehicleEF	LDA	7.3620e-003	7.3690e-003
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDT1	0.81	0.82
tblVehicleEF	LDT1	2.47	2.48
tblVehicleEF	LDT1	275.71	288.17
tblVehicleEF	LDT1	65.63	68.59
tblVehicleEF	LDT1	0.08	0.08
tblVehicleEF	LDT1	0.14	0.14
tblVehicleEF	LDT1	1.9860e-003	2.0160e-003
tblVehicleEF	LDT1	3.0620e-003	3.1080e-003
tblVehicleEF	LDT1	1.8290e-003	1.8560e-003
tblVehicleEF	LDT1	2.8160e-003	2.8580e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.16	0.16

tblVehicleEF	LDT1	0.16	0.16
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.16	0.16
tblVehicleEF	LDT1	0.18	0.18
tblVehicleEF	LDT1	1.01	1.01
tblVehicleEF	LDT1	2.01	2.02
tblVehicleEF	LDT1	303.84	317.58
tblVehicleEF	LDT1	65.63	68.59
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.13	0.13
tblVehicleEF	LDT1	1.9860e-003	2.0160e-003
tblVehicleEF	LDT1	3.0620e-003	3.1080e-003
tblVehicleEF	LDT1	1.8290e-003	1.8560e-003
tblVehicleEF	LDT1	2.8160e-003	2.8580e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	0.13	0.13
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	0.78	0.78
tblVehicleEF	LDT1	3.12	3.14
tblVehicleEF	LDT1	268.06	280.18
tblVehicleEF	LDT1	65.63	68.59
tblVehicleEF	LDT1	0.09	0.09
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	1.9860e-003	2.0160e-003
tblVehicleEF	LDT1	3.0620e-003	3.1080e-003
tblVehicleEF	LDT1	1.8290e-003	1.8560e-003
tblVehicleEF	LDT1	2.8160e-003	2.8580e-003

tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.19	0.19
tblVehicleEF	LDT1	0.20	0.20
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.19	0.19
tblVehicleEF	LDT1	0.22	0.22
tblVehicleEF	LDT2	0.59	0.59
tblVehicleEF	LDT2	1.35	1.36
tblVehicleEF	LDT2	311.68	325.77
tblVehicleEF	LDT2	73.15	76.46
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	1.6160e-003	1.6400e-003
tblVehicleEF	LDT2	2.3920e-003	2.4280e-003
tblVehicleEF	LDT2	1.4860e-003	1.5080e-003
tblVehicleEF	LDT2	2.1990e-003	2.2320e-003
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.08	0.08
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	0.74	0.75
tblVehicleEF	LDT2	1.11	1.12
tblVehicleEF	LDT2	343.86	359.40
tblVehicleEF	LDT2	73.15	76.46
tblVehicleEF	LDT2	0.05	0.05
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	1.6160e-003	1.6400e-003
tblVehicleEF	LDT2	2.3920e-003	2.4280e-003

tblVehicleEF	LDT2	1.4860e-003	1.5080e-003
tblVehicleEF	LDT2	2.1990e-003	2.2320e-003
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.56	0.56
tblVehicleEF	LDT2	1.70	1.71
tblVehicleEF	LDT2	302.94	316.64
tblVehicleEF	LDT2	73.15	76.46
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.11	0.11
tblVehicleEF	LDT2	1.6160e-003	1.6400e-003
tblVehicleEF	LDT2	2.3920e-003	2.4280e-003
tblVehicleEF	LDT2	1.4860e-003	1.5080e-003
tblVehicleEF	LDT2	2.1990e-003	2.2320e-003
tblVehicleEF	LDT2	9.5530e-003	9.5620e-003
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.11	0.11
tblVehicleEF	MDV	0.90	0.91
tblVehicleEF	MDV	2.53	2.55
tblVehicleEF	MDV	431.66	451.17
tblVehicleEF	MDV	100.07	104.59
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.22	0.22

tblVehicleEF	MDV	1.6640e-003	1.6890e-003
tblVehicleEF	MDV	2.3700e-003	2.4050e-003
tblVehicleEF	MDV	1.5340e-003	1.5570e-003
tblVehicleEF	MDV	2.1790e-003	2.2110e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.19	0.19
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.21	0.21
tblVehicleEF	MDV	1.13	1.14
tblVehicleEF	MDV	2.08	2.09
tblVehicleEF	MDV	474.90	496.37
tblVehicleEF	MDV	100.07	104.59
tblVehicleEF	MDV	0.10	0.10
tblVehicleEF	MDV	0.20	0.20
tblVehicleEF	MDV	1.6640e-003	1.6890e-003
tblVehicleEF	MDV	2.3700e-003	2.4050e-003
tblVehicleEF	MDV	1.5340e-003	1.5570e-003
tblVehicleEF	MDV	2.1790e-003	2.2110e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.15	0.15
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.17	0.17
tblVehicleEF	MDV	0.86	0.86
tblVehicleEF	MDV	3.18	3.20
tblVehicleEF	MDV	419.91	438.89
tblVehicleEF	MDV	100.07	104.59

tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.25	0.25
tblVehicleEF	MDV	1.6640e-003	1.6890e-003
tblVehicleEF	MDV	2.3700e-003	2.4050e-003
tblVehicleEF	MDV	1.5340e-003	1.5570e-003
tblVehicleEF	MDV	2.1790e-003	2.2110e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.23	0.23
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.25	0.25
tblVehicleTrips	CC_TL	8.00	15.00
tblVehicleTrips	CNW_TL	9.00	15.00
tblVehicleTrips	ST_TR	1.90	0.34
tblVehicleTrips	SU_TR	1.11	0.34
tblVehicleTrips	WD_TR	8.11	0.34
tblWater	AerobicPercent	87.46	0.00
tblWater	AnaDigestCombDigestGasPercent	100.00	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	137,664,471.34	88,585,500.00
tblWater	SepticTankPercent	10.33	100.00

2.0 Emissions Summary

2.2 Overall Operational Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.0666	2.7000e-004	0.0301	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0647	0.0647	1.7000e-004		0.0689
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
Mobile	0.1548	1.3098	2.1924	0.0110	64.7086	7.2200e-003	64.7158	6.5984	6.7500e-003	6.6051		1,152.1913	1,152.1913	0.0349		1,153.0628
Offroad	0.9558	9.0039	12.4713	0.0168		0.4820	0.4820		0.4435	0.4435		1,628.3391	1,628.3391	0.5266		1,641.5051
Stationary	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	8.1772	10.3140	14.6938	0.0278	64.7086	0.4893	65.1979	6.5984	0.4503	7.0487		2,780.5951	2,780.5951	0.5617	0.0000	2,794.6367

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.0666	2.7000e-004	0.0301	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0647	0.0647	1.7000e-004		0.0689
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
Mobile	0.1548	1.3098	2.1924	0.0110	64.7086	7.2200e-003	64.7158	6.5984	6.7500e-003	6.6051		1,152.1913	1,152.1913	0.0349		1,153.0628
Offroad	0.9558	9.0039	12.4713	0.0168		0.4820	0.4820		0.4435	0.4435		1,628.3391	1,628.3391	0.5266		1,641.5051
Stationary	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	8.1772	10.3140	14.6938	0.0278	64.7086	0.4893	65.1979	6.5984	0.4503	7.0487		2,780.5951	2,780.5951	0.5617	0.0000	2,794.6367

	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
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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
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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	lb/day										lb/day					
Mitigated	0.1548	1.3098	2.1924	0.0110	64.7086	7.2200e-003	64.7158	6.5984	6.7500e-003	6.6051		1,152.1913	1,152.1913	0.0349		1,153.0628
Unmitigated	0.1548	1.3098	2.1924	0.0110	64.7086	7.2200e-003	64.7158	6.5984	6.7500e-003	6.6051		1,152.1913	1,152.1913	0.0349		1,153.0628

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Research & Development	95.19	95.19	95.19	445,794	445,794
Total	95.19	95.19	95.19	445,794	445,794

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	15.00	8.00	9.00	0.00	0.00	0.00	0	0	0
Research & Development	15.00	15.00	15.00	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.500140	0.037139	0.211039	0.110788	0.018036	0.004853	0.065762	0.042724	0.001016	0.001558	0.005534	0.000732	0.000681
Research & Development	0.500140	0.037139	0.211039	0.110788	0.018036	0.004853	0.065762	0.042724	0.001016	0.001558	0.005534	0.000732	0.000681

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	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

5.2 Energy by Land Use - NaturalGas
Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	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

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	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	lb/day										lb/day					
Mitigated	7.0666	2.7000e-004	0.0301	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0647	0.0647	1.7000e-004		0.0689
Unmitigated	7.0666	2.7000e-004	0.0301	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0647	0.0647	1.7000e-004		0.0689

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.0666					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.9972					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.7700e-003	2.7000e-004	0.0301	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0647	0.0647	1.7000e-004		0.0689
Total	7.0666	2.7000e-004	0.0301	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0647	0.0647	1.7000e-004		0.0689

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.0666					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.9972					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.7700e-003	2.7000e-004	0.0301	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0647	0.0647	1.7000e-004		0.0689
Total	7.0666	2.7000e-004	0.0301	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0647	0.0647	1.7000e-004		0.0689

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	22	4.00	260	89	0.20	Diesel
Off-Highway Tractors	0	8.00	260	124	0.44	Diesel

UnMitigated/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
Equipment Type	lb/day										lb/day					
Forklifts	0.9558	9.0039	12.4713	0.0168		0.4820	0.4820		0.4435	0.4435		1,628.3391	1,628.3391	0.5266		1,641.5051
Off-Highway Tractors	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	0.9558	9.0039	12.4713	0.0168		0.4820	0.4820		0.4435	0.4435		1,628.3391	1,628.3391	0.5266		1,641.5051

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	0	0	200	50	0.73	Diesel

Boilers

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

Equipment Type	Number
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10.1 Stationary Sources

Unmitigated/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
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (50 - 75 HP)	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

11.0 Vegetation

Electricity Emission Factors						
Conversion Factors		Value	Source/notes			
g/MT		1000000				
g/ton		907184.74				
g/lb		453.592				
lb/ton		2000				
lb/MT		2204.622622				
kg/MT		1000				
lb/kg		2.20462				
kWh/MWh		1000				
MWh/GWh		1000				
Btu/therm		100000				
kBTU/MMBTU		1000				
MMBTU/therm		0.1				
MMBTU/MWh		3.41214148	Onlineconversion.com			
gal/cubic foot		7.480519481	Onlineconversion.com			
gal/Liter		3.785411784	Onlineconversion.com			
gallon/acrefoot		325851.429	Onlineconversion.com			
million gal/acre-feet		0.325851429	Onlineconversion.com			
gal/barrel		42	Onlineconversion.com			
kBTU/MJ		0.947817078	Onlineconversion.com			
GWP Factors		Value	Comment			
CO2		1				
CH4		34	IPCC Fifth Assessment Report			
N2O		298				
Average California Electricity Emissions Factors						
Year	State annual CO2 combustion output emission rate (lb/MWh)	State annual CH4 combustion output emission rate (lb/GWh)	State annual N2O combustion output emission rate (lb/GWh)	Zero Carbon Sources*	GHG-Emitting Generation Sources	Source
2009	906.9	50.6	7.3			https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid
2010	874.9	52.5	7.6	45%	55%	https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid
2011	874.9	52.5	7.6			2010 values
2012	881.5	50.9	6.9	38%	62%	https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid
2013	881.5	50.9	6.9			2012 values
2014	844.8	51.7	6.3	38%	62%	https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid
2015	844.8	51.7	6.3			2014 values
2016	452.5	26.0	3.0	50%	50%	https://www.epa.gov/sites/production/files/2018-02/egrid2016_summarytables.xlsx
2017	436.9	25.1	2.9	48%	52%	
2018	421.3	24.2	2.8	46%	54%	
2019	405.7	23.3	2.7	44%	56%	
2020	390.1	22.4	2.6	43%	57%	
2021	374.5	21.5	2.5	41%	59%	
2022	358.9	20.6	2.4	39%	61%	
2023	343.3	19.7	2.3	38%	62%	
2024	327.7	18.8	2.2	36%	64%	
2025	312.1	17.9	2.1	34%	66%	
2026	296.5	17.0	2.0	32%	68%	
2027	280.9	16.1	1.9	31%	69%	
2028	265.3	15.2	1.8	29%	71%	
2029	249.7	14.3	1.7	27%	73%	
2030	234.1	13.4	1.6	26%	74%	
2031	218.4	12.6	1.4	24%	76%	
2032	202.8	11.7	1.3	22%	78%	
2033	187.2	10.8	1.2	21%	79%	
2034	171.6	9.9	1.1	19%	81%	
2035	156.0	9.0	1.0	17%	83%	
2036	140.4	8.1	0.9	15%	85%	
2037	124.8	7.2	0.8	14%	86%	
2038	109.2	6.3	0.7	12%	88%	
2039	93.6	5.4	0.6	10%	90%	
2040	78.0	4.5	0.5	9%	91%	
2041	62.4	3.6	0.4	7%	93%	
2042	46.8	2.7	0.3	5%	95%	
2043	31.2	1.8	0.2	3%	97%	
2044	15.6	0.9	0.1	2%	98%	
2045	0.0	0.0	0.0	100%	0%	

Note: Projections from 2017 – 2045 based upon state legislative requirements under SB100 for all retail electricity generation to be zero-carbon by 2045. Projections can be replaced with actual reported figures from eGrid in future updates to this inventory.

* Averages used in projections to normalize for year-to-year variability in hydropower production

** Zero-Carbon Sources include all GHG neutral sources of electricity generation including nuclear, hydropower, biomass, wind, solar and geothermal

Electricity emission factors - by utility							
Utility	Year	GHG-free mix*	lb CO2/MWh	lb CH4/MWh	lb N2O/MWh	lb CO2e/MWh	Notes
PG&E	2008	not available	641.000	0.051	0.007	644.9	GHG-Free percentage not available. CH4 and N2O emission factors from eGrid average.
PG&E	2009	not available	575.000	0.051	0.007	578.9	2010 values - no PCL for 2009
PG&E	2010	55%	445.000	0.051	0.008	449.0	http://ww2.energy.ca.gov/pcl/labels/2010_labels/PG&E_PCL.pdf
PG&E	2011	59%	393.000	0.053	0.008	397.0	http://ww2.energy.ca.gov/pcl/labels/2011_labels/PG&E_PCL.pdf
PG&E	2012	51%	445.000	0.051	0.007	448.8	http://ww2.energy.ca.gov/pcl/labels/2012_labels/PG&E_PCL.pdf
PG&E	2013	54%	427.000	0.051	0.007	430.8	http://ww2.energy.ca.gov/pcl/labels/2013_labels/PG&E_PCL.pdf
PG&E	2014	56%	435.000	0.052	0.006	438.6	http://ww2.energy.ca.gov/pcl/labels/2014_labels/PG&E_PCL.pdf
PG&E	2015	59%	405.000	0.052	0.006	408.6	http://ww2.energy.ca.gov/pcl/labels/2015_labels/PG&E_PCL.pdf
PG&E	2016	69%	294.000	0.026	0.003	295.8	http://ww2.energy.ca.gov/pcl/labels/2016_labels/PG&E_PCL.pdf
PG&E	2017	78%	210.0	0.025	0.003	211.7	http://ww2.energy.ca.gov/pcl/labels/2017_labels/PG&E_PCL.pdf
PG&E	2018	78%	206.0	0.024	0.003	207.7	Assume power mix same as in 2017. PCL not yet available as of 3/2020.
PG&E	2019	75%	198.4	0.023	0.003	200.0	GHG-Free percentage interpolated based on 2017 PCL
PG&E	2020	80%	190.7	0.022	0.003	192.3	
PG&E	2021	80%	183.1	0.022	0.002	184.6	
PG&E	2022	81%	175.5	0.021	0.002	176.9	
PG&E	2023	82%	167.9	0.020	0.002	169.2	
PG&E	2024	83%	160.2	0.019	0.002	161.5	
PG&E	2025	84%	152.6	0.018	0.002	153.8	
PG&E	2026	85%	145.0	0.017	0.002	146.1	
PG&E	2027	85%	137.3	0.016	0.002	138.4	
PG&E	2028	86%	129.7	0.015	0.002	130.7	
PG&E	2029	87%	122.1	0.014	0.002	123.1	
PG&E	2030	88%	114.4	0.013	0.002	115.4	
PG&E	2031	89%	106.8	0.013	0.001	107.7	
PG&E	2032	89%	99.2	0.012	0.001	100.0	
PG&E	2033	90%	91.6	0.011	0.001	92.3	
PG&E	2034	91%	83.9	0.010	0.001	84.6	
PG&E	2035	92%	76.3	0.009	0.001	76.9	
PG&E	2036	93%	68.7	0.008	0.001	69.2	
PG&E	2037	93%	61.0	0.007	0.001	61.5	
PG&E	2038	94%	53.4	0.006	0.001	53.8	
PG&E	2039	95%	45.8	0.005	0.001	46.1	
PG&E	2040	96%	38.1	0.004	0.001	38.5	
PG&E	2041	97%	30.5	0.004	0.000	30.8	
PG&E	2042	98%	22.9	0.003	0.000	23.1	
PG&E	2043	98%	15.3	0.002	0.000	15.4	
PG&E	2044	99%	7.6	0.001	0.000	7.7	
PG&E	2045	100%	0.0	0.000	0.000	0.0	

* This is the percentage of power provided by large hydro, renewables, and nuclear, and other resources that emit either no GHGs or a negligible amount of GHGs. Percentage based on published power mix from CEC's Power Content Label for each utility.

Propane Combustion

Estimated Propane Consumption for each Phase of CGI Project

<u>Month</u>	<u>Consumption Level</u>	<u>units</u>
January	7,876.30	gallons
February	8,838.30	gallons
March	6,543.90	gallons
April	6,344.40	gallons
May	3,580.30	gallons
June	2,125.70	gallons
July	980.40	gallons
August	2,200.80	gallons
September	1,017.70	gallons
October	2,070.20	gallons
November	5,780.70	gallons
December	6,230.50	gallons
Annual Total of single phase	53,589.20	gallons

Source: Email from Fred Barnum, Green Capital Investments

	<u>value</u>	<u>units</u>	<u>source</u>
Number of phases	2	phases	Email from Fred Barnum, Green Capital Investments
Total, all phases	107,178	gal/year	cacluation
volume conversion rate	1,000	gal/1,000 gal	math
Total, all phases	107.1784	1,000 gal/year	conversion calculation
volume conversion rate	3.79	L/gal	https://www.onlineconversion.com/volume.htm
Total, all phases	405,714	L/year	conversion calculation

NOx Emission Factor Conversion

	<u>value</u>	<u>units</u>	<u>source</u>
Emission Factor for NOx	0.0232	lb/MMBtu	Finnell, pers. comm., 2020 (Source3)
heat conversion rate	1,000,000	Btu/MMBtu	math
heat content of propane	2,516	Btu/scf	EPA 2015 (Source 1)
volume conversion rate	35.65	scf/gal	Source 2
volume conversion rate	1,000	gal/1,000 gal	math
Emission Factor for NOx	2.08	lb/1,000 gal	conversion calculation

Emission Factors for Criteria Air Pollutants and Precursors

<u>CAP or Precursor</u>	<u>emission factor</u>	<u>units</u>	<u>source</u>
NOx	2.08	lb/1,000 gal	above calculation for NOx Emission Factor Conversion
ROG	1.0	lb/1,000 gal	EPA 2008 (Source 4)
PM10	0.2	lb/1,000 gal	EPA 2008 (Source 4)
PM2.5	0.2	lb/1,000 gal	EPA 2008 (Source 4)

	<u>value</u>	<u>units</u>	<u>source</u>
Mass Conversion Rate	2,000	lb/ton	https://www.onlineconversion.com/weight_common.htm

Annual Emissions of Criteria Air Pollutants and Precursors

<u>CAP or Precursor</u>	<u>emissions</u>	<u>units</u>	<u>source</u>
NOx	0.11	tons/year	calculation
ROG	0.05	tons/year	calculation
PM10	0.01	tons/year	calculation
PM2.5	0.01	tons/year	calculation

Maximum Daily Consumption of Propane

	<u>value</u>	<u>units</u>	<u>source</u>
Peak month of consumption	February	month	Email from Fred Barnum, Green Capital Investments
Peak month consumption level	8,838	gal/month	computation above
Days in peak month	28	days/month	calendar
maximum daily consumption	315.7	gal/day	calculation
volume conversion rate	1,000	gal/1,000 gal	math
maximum daily consumption	0.316	1,000 gal/day	conversion calculation

Maximum Daily Emissions of Criteria Air Pollutants and Precursors

<u>CAP or Precursor</u>	<u>emissions</u>	<u>units</u>	<u>source</u>
NOx	0.66	lb/day	calculation
ROG	0.32	lb/day	calculation
PM10	0.06	lb/day	calculation
PM2.5	0.06	lb/day	calculation

Sources

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- 5 The Climate Registry. 2019 (May). Default Emission Factors. Available: <https://www.theclimateregistry.org/wp-content/uploads/2019/05/The-Climate-Registry-2019-Default-Emission-Factor-Document.pdf>. Accessed: December 1, 2020.
- 6 Barnum, Fred. Managing Member, Green Capital Investments. January 26, 2021 email to Marianne Lowenthal of Ascent Environmental regarding propane use.

GHG Emissions from Propane Combustion

	<u>CO2</u>	<u>CH4</u>	<u>N2O</u>	<u>units</u>	<u>source</u>
GHG emission factors	1515	0.027	0.108	g/L	The Climate Registry. 2019 (Source 5)
GHG emissions at full operation	615	0.011	0.044	MT/year	calculation
global warming potential (100 year)	1	28	265	unitless	The Climate Registry. 2019 (Source 5)

	<u>value</u>	<u>units</u>	<u>source</u>
mass conversion rate	1,000	kg/MT	https://www.onlineconversion.com/weight_common.htm
mass conversion rate	1,000,000	g/MT	https://www.onlineconversion.com/weight_common.htm
Annual CO2e emissions @ full buildout	627	MT/year	sumproduct calculation