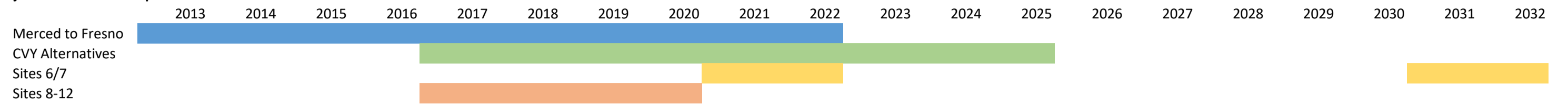
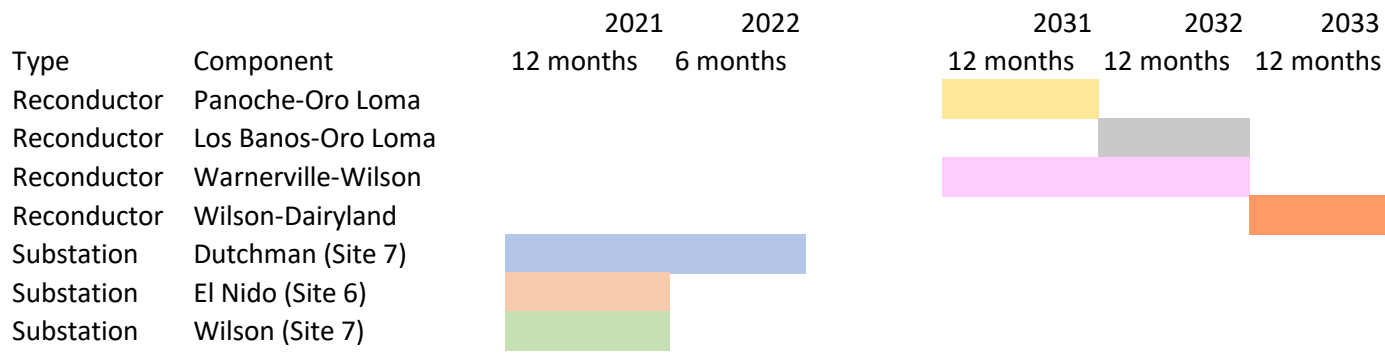


APPENDIX 2-D.2: AIR QUALITY MODELING

Overall Project Schedule Assumptions



EINU Construction Schedule for CalEEMod Modeling



Assumptions

All runs will be summed on an annual basis independent of each other and then combined where they overlap
 Updated runs for Los Banos-Oro Loma; Wilson-Dairyland; El Nido Substation

Runs

- Run 1
 - Panoche-Oro Loma
 - Land Disturbance
 - Equipment Use
- Run 2
 - Los Banos-Oro Loma
 - Land Disturbance
 - Equipment Use
- Run 3
 - Warnerville-Wilson
 - Land Disturbance
 - Equipment Use
- Run 4
 - Wilson-Dairyland
 - Land Disturbance
 - Equipment Use
- Run 5
 - Dutchman
 - Land Disturbance
 - Construction Vendor Trips (exhaust and dust)
 - Soil Import/Export
 - Equipment Use
 - Water Use
- Run 6
 - El Nido
 - Land Disturbance
 - Construction Vendor Trips (exhaust and dust)
 - Soil Import/Export
 - Equipment Use
 - Water Use
- Run 7
 - Wilson
 - Land Disturbance
 - Construction Vendor Trips (exhaust and dust)
 - Soil Import/Export
 - Equipment Use
 - Water Use
- Run 8
 - Worker Commute
 - Assumed 45 workers per day
 - Commute emissions (exhaust and dust)

Equipment List Used in CalEEMod Modeling Based on PD

Reconductoring

Site Prep/Grading

CalEEMod

Diesel

1 backhoe	Backhoe
1 small dozer	Rubber Tired Dozer
1 truck trailer	Off-Highway Truck
1 water truck	Off-Highway Truck

Non Diesel/Light Duty Trucks

1 pick up truck

Reconductoring

Diesel trucks

4 water trucks
3 cement trucks
1 dump truck

Other Diesel Equipment

4 backhoe	backhoe
4 cranes	crane
2 tractors	tractor

Non Diesel/Light Duty Trucks

10 pick up truck
10 small/cab trucks
14 line/bucket trucks

Substation Work

Grading

Diesel

1 grader
1 semi truck trailer
1 water truck

Non Diesel

1 pick up truck
1 pick up truck
1 LD pickup truck

Construction

1 aerial lift
1 bore/drill rig
1 cement/mortar mixer
1 concrete saw
1 crane
2 off-highway trucks
2 forklift
1 generator
1 paver
1 paving equipment
1 plate compactor
1 pump
1 roller
1 surfacing equipment
1 sweeper/scrubber
3 tractor/loader/backhoe
1 trencher
1 welder

EINU Unmitigated Emissions from CalEEMod Modeling

	VOC	CO	Nox	SO2	PM10	PM2.5
Year 1 (2021)						
Option 1	0.91	7.71	8.19	0.02	27.91	3.14
Dutchman Substation	0.35	2.97	3.10	0.01	11.25	1.25
El Nido Substation	0.56	4.74	5.09	0.01	16.66	1.89
Option 2	1.13	9.53	10.24	0.02	33.61	3.79
Wilson Substation	0.57	4.79	5.15	0.01	16.95	1.90
El Nido Substation	0.56	4.74	5.09	0.01	16.66	1.89
Year 2 (2022)						
Option 1	0.17	1.48	1.55	0.00	5.63	0.63
Dutchman	0.17	1.48	1.55	0.00	5.63	0.63
Option 2						
Year 3 (2031)						
Option 1	0.46	3.19	1.52	0.01	7.20	0.95
Panoche Oro Loma	0.46	3.19	1.52	0.01	7.20	0.95
Option 2	0.70	4.79	2.29	0.02	10.90	1.44
Panoche Oro Loma	0.46	3.19	1.52	0.01	7.20	0.95
Warnerville Wilson	0.23	1.60	0.76	0.01	3.70	0.49
Year 4 (2032)						
Option 1	0.46	3.20	1.53	0.01	7.22	0.96
Los Banos Oro Loma	0.46	3.20	1.53	0.01	7.22	0.96
Option 2	0.70	4.79	2.29	0.02	10.92	1.44
Los Banos Oro Loma	0.46	3.20	1.53	0.01	7.22	0.96
Warnerville Wilson	0.23	1.60	0.76	0.01	3.70	0.49
Year 5 (2033)						
Option 1						
Option 2	0.46	3.19	1.53	0.01	7.22	0.96
Wilson Dairyland	0.46	3.19	1.53	0.01	7.22	0.96

Note

All caleemod runs were conducted in a 1-year time frame. Therefore, for components that span beyond 1 year (Dutchman, warnerville-wilson), emissions were adjusted based on the estimated length of construction shown in the "schedule" tab.

EINU Mitigated Emissions from CalEEMod Modeling

	VOC	CO	Nox	SO2	PM10	PM2.5
Year 1 (2021)						
Option 1	0.26	9.34	1.48	0.02	10.85	1.11
Dutchman Substation	0.10	3.62	0.58	0.01	4.34	0.45
El Nido Substation	0.16	5.72	0.90	0.01	6.51	0.66
Option 2	0.35	11.51	1.78	0.02	13.06	1.35
Wilson Substation	0.19	5.79	0.88	0.01	6.55	0.69
El Nido Substation	0.16	5.72	0.90	0.01	6.51	0.66
Year 2 (2022)						
Option 1	0.05	1.81	0.29	0.00	2.17	0.22
Dutchman Substation	0.05	1.81	0.29	0.00	2.17	0.22
Option 2						
Year 3 (2031)						
Option 1	0.15	4.90	0.64	0.01	2.81	0.37
Panoche Oro Loma	0.15	4.90	0.64	0.01	2.81	0.37
Option 2	0.22	7.35	0.96	0.02	4.25	0.56
Panoche Oro Loma	0.15	4.90	0.64	0.01	2.81	0.37
Warnerville Wilson	0.07	2.45	0.32	0.01	1.44	0.19
Year 4 (2032)						
Option 1	0.13	4.85	0.57	0.01	2.81	0.37
Los Banos Oro Loma	0.13	4.85	0.57	0.01	2.81	0.37
Option 2	0.21	7.30	0.89	0.02	4.26	0.56
Los Banos Oro Loma	0.13	4.85	0.57	0.01	2.81	0.37
Warnerville Wilson	0.07	2.45	0.32	0.01	1.44	0.19
Year 5 (2033)						
Option 1						
Option 2	0.13	4.85	0.57	0.01	2.81	0.37
Wilson Dairyland	0.13	4.85	0.57	0.01	2.81	0.37

Mitigation includes mitigation in adopted EIS/EIR- Tier 4 engines and dust suppression of 61%.

EINU Greenhouse Gas Emissions from CalEEMod Modeling

Year	Component	<u>Total MT CO2e/phase</u>	<u>MT CO2e/Year (25 year amortization)</u>	
2021	Wilson	935	37	option 2
2021	Dutchman	577	23	option 1
2021	El Nido	921	37	both
2022	Dutchman	289	12	option 1
2031	Panoche Oro Loma	1063	43	both
2031	Warnerville Wilson	532	21	option 1
2032	Los Banos Oro Loma	1066	43	both
2032	Warnerville Wilson	532	21	option 1
2033	Wilson Dairyland	1066	43	option 1

Year	Variation	Option 1	
			Amortized
2021	1498.48		59.94
2022	288.74		11.55
2031	1063.23		42.53
2032	1066.17		42.65
Total	3916.61		
Amortized	156.66		
Combined with EINU	202,883		8115.30

Year	Variation	Option 2	
			Amortized
2021	935.10		37.40
2031	2515.84		100.63
2032	1597.78		63.91
2033	1065.99		42.64
Total	6114.71		
Amortized	244.59		
Combined with EINU	205080.71		8203.23

ElNidoSubstation
San Joaquin Valley Unified APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	2.99	1000sqft	2.97	2,990.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - this run is used for construction related activities associated with the expansion of the El Nido Substation.

Land Use - light industry is used to represent vegetation clearing/site prep and land disturbance associated with substation expansion. Total land Disturbance from PD

Construction Phase - construction would involve site prep/grading and reconductoring activities. No arch coating/demo.

Off-road Equipment - off-road diesel equipment from PD.

Off-road Equipment - off-road diesel equipment based on PD

Off-road Equipment - off-road diesel equipment based on PD.

Trips and VMT - max 90 worker trips based on a max of 45 workers per day and an average of 20 during less intense work. vendor trips based on a total of 75 truck trips per day from PD.

On-road Fugitive Dust - 40% unpaved based on % mileage of paved vs dirt/temporary road provided in PD.

Grading - disturbance from PD

Vehicle Trips - construction only

Area Coating - no operational arch. coatings

Energy Use -

Water And Wastewater - 27000 gallons for dust suppressants

Solid Waste -

Construction Off-road Equipment Mitigation - Tier 4 for all diesel

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	220.00	130.00
tblConstructionPhase	NumDays	6.00	45.00
tblConstructionPhase	NumDays	3.00	85.00
tblGrading	AcresOfGrading	22.50	2.97
tblGrading	AcresOfGrading	127.50	0.00
tblGrading	MaterialExported	0.00	6,100.00
tblGrading	MaterialImported	0.00	19,800.00
tblLandUse	LotAcreage	0.07	2.97
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblProjectCharacteristics	OperationalYear	2014	2021
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	3,238.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	75.00

tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	8.00	20.00
tblTripsAndVMT	WorkerTripNumber	1.00	20.00
tblWater	IndoorWaterUseRate	691,437.50	0.00
tblWater	OutdoorWaterUseRate	0.00	27,000.00

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	0.0138	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Energy	3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	11.8745	11.8745	4.5000e-004	1.4000e-004	11.9280
Mobile	8.3200e-003	0.0283	0.1077	4.1000e-004	0.0231	7.4000e-004	0.0239	6.2200e-003	6.8000e-004	6.9000e-003	0.0000	28.2401	28.2401	5.8000e-004	0.0000	28.2523
Waste						0.0000	0.0000		0.0000	0.0000	0.7531	0.0000	0.7531	0.0445	0.0000	1.6877
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0275	0.0275	0.0000	0.0000	0.0276
Total	0.0224	0.0315	0.1104	4.3000e-004	0.0231	9.8000e-004	0.0241	6.2200e-003	9.2000e-004	7.1400e-003	0.7531	40.1421	40.8952	0.0455	1.4000e-004	41.8957

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0138	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Energy	3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	11.8745	11.8745	4.5000e-004	1.4000e-004	11.9280
Mobile	8.3200e-003	0.0283	0.1077	4.1000e-004	0.0231	7.4000e-004	0.0239	6.2200e-003	6.8000e-004	6.9000e-003	0.0000	28.2401	28.2401	5.8000e-004	0.0000	28.2523
Waste						0.0000	0.0000		0.0000	0.0000	0.7531	0.0000	0.7531	0.0445	0.0000	1.6877
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0275	0.0275	0.0000	0.0000	0.0276
Total	0.0224	0.0315	0.1104	4.3000e-004	0.0231	9.8000e-004	0.0241	6.2200e-003	9.2000e-004	7.1400e-003	0.7531	40.1421	40.8952	0.0455	1.4000e-004	41.8957

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	4/29/2021	5	85	
2	Grading	Grading	4/30/2021	7/1/2021	5	45	
3	Building Construction	Building Construction	7/2/2021	12/30/2021	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2.97

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating - sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Off-Highway Trucks	2	8.00	400	0.38
Site Preparation	Scrapers	1	8.00	361	0.48
Site Preparation	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	400	0.38
Grading	Rubber Tired Dozers	0	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Aerial Lifts	1	8.00	62	0.31
Building Construction	Bore/Drill Rigs	1	8.00	205	0.50
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Off-Highway Trucks	2	8.00	400	0.38
Building Construction	Pavers	1	8.00	125	0.42
Building Construction	Paving Equipment	1	8.00	130	0.36
Building Construction	Plate Compactors	1	8.00	8	0.43
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Rollers	1	8.00	80	0.38
Building Construction	Surfacing Equipment	1	8.00	253	0.30
Building Construction	Sweepers/Scrubbers	1	8.00	64	0.46
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Trenchers	1	8.00	80	0.50
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	4	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	22	20.00	75.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1171	1.1514	0.7880	2.0100e-003		0.0482	0.0482		0.0443	0.0443	0.0000	176.9819	176.9819	0.0572	0.0000	178.1839
Total	0.1171	1.1514	0.7880	2.0100e-003	0.0000	0.0482	0.0482	0.0000	0.0443	0.0443	0.0000	176.9819	176.9819	0.0572	0.0000	178.1839

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	0.0000
Worker	2.1700e-003	3.7000e-003	0.0352	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8700e-003	0.0000	7.8963	7.8963	3.5000e-004	0.0000	7.9035	7.9035
Total	2.1700e-003	3.7000e-003	0.0352	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8700e-003	0.0000	7.8963	7.8963	3.5000e-004	0.0000	7.9035	7.9035

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0247	0.1069	0.9849	2.0100e-003		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	176.9817	176.9817	0.0572	0.0000	178.1837
Total	0.0247	0.1069	0.9849	2.0100e-003	0.0000	3.2900e-003	3.2900e-003	0.0000	3.2900e-003	3.2900e-003	0.0000	176.9817	176.9817	0.0572	0.0000	178.1837

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1700e-003	3.7000e-003	0.0352	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8700e-003	0.0000	7.8963	7.8963	3.5000e-004	0.0000	7.9035
Total	2.1700e-003	3.7000e-003	0.0352	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8700e-003	0.0000	7.8963	7.8963	3.5000e-004	0.0000	7.9035

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					3.4900e-003	0.0000	3.4900e-003	4.6000e-004	0.0000	4.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0414	0.3727	0.2621	7.3000e-004		0.0163	0.0163		0.0150	0.0150	0.0000	64.2237	64.2237	0.0208	0.0000	64.6598
Total	0.0414	0.3727	0.2621	7.3000e-004	3.4900e-003	0.0163	0.0198	4.6000e-004	0.0150	0.0154	0.0000	64.2237	64.2237	0.0208	0.0000	64.6598

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1500e-003	1.9600e-003	0.0187	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	4.1804	4.1804	1.8000e-004	0.0000	4.1842
Total	1.1500e-003	1.9600e-003	0.0187	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	4.1804	4.1804	1.8000e-004	0.0000	4.1842

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					3.4900e-003	0.0000	3.4900e-003	4.6000e-004	0.0000	4.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.9400e-003	0.0387	0.3702	7.3000e-004		1.1900e-003	1.1900e-003		1.1900e-003	1.1900e-003	0.0000	64.2236	64.2236	0.0208	0.0000	64.6598
Total	8.9400e-003	0.0387	0.3702	7.3000e-004	3.4900e-003	1.1900e-003	4.6800e-003	4.6000e-004	1.1900e-003	1.6500e-003	0.0000	64.2236	64.2236	0.0208	0.0000	64.6598

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1500e-003	1.9600e-003	0.0187	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	4.1804	4.1804	1.8000e-004	0.0000	4.1842
Total	1.1500e-003	1.9600e-003	0.0187	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	4.1804	4.1804	1.8000e-004	0.0000	4.1842

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	0.3598	3.3302	3.0476	6.4800e-003		0.1662	0.1662		0.1561	0.1561	0.0000	562.4835	562.4835	0.1493	0.0000	565.6187
Total	0.3598	3.3302	3.0476	6.4800e-003		0.1662	0.1662		0.1561	0.1561	0.0000	562.4835	562.4835	0.1493	0.0000	565.6187

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	0.0359	0.2236	0.5397	1.0500e-003	16.6271	4.2300e-003	16.6313	1.6632	3.8900e-003	1.6671	0.0000	88.6197	88.6197	6.9000e-004	0.0000	88.6342	
Worker	3.3100e-003	5.6600e-003	0.0539	1.9000e-004	0.0162	1.1000e-004	0.0163	4.2900e-003	1.0000e-004	4.4000e-003	0.0000	12.0766	12.0766	5.3000e-004	0.0000	12.0878	
Total	0.0392	0.2293	0.5936	1.2400e-003	16.6432	4.3400e-003	16.6476	1.6675	3.9900e-003	1.6715	0.0000	100.6963	100.6963	1.2200e-003	0.0000	100.7220	

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	0.0799	0.5229	3.7136	6.4800e-003		0.0100	0.0100		0.0100	0.0100	0.0000	562.4829	562.4829	0.1493	0.0000	565.6181
Total	0.0799	0.5229	3.7136	6.4800e-003		0.0100	0.0100		0.0100	0.0100	0.0000	562.4829	562.4829	0.1493	0.0000	565.6181

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	0.0359	0.2236	0.5397	1.0500e-003	16.6271	4.2300e-003	16.6313	1.6632	3.8900e-003	1.6671	0.0000	88.6197	88.6197	6.9000e-004	0.0000	88.6342
Worker	3.3100e-003	5.6600e-003	0.0539	1.9000e-004	0.0162	1.1000e-004	0.0163	4.2900e-003	1.0000e-004	4.4000e-003	0.0000	12.0766	12.0766	5.3000e-004	0.0000	12.0878
Total	0.0392	0.2293	0.5936	1.2400e-003	16.6432	4.3400e-003	16.6476	1.6675	3.9900e-003	1.6715	0.0000	100.6963	100.6963	1.2200e-003	0.0000	100.7220

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	8.3200e-003	0.0283	0.1077	4.1000e-004	0.0231	7.4000e-004	0.0239	6.2200e-003	6.8000e-004	6.9000e-003	0.0000	28.2401	28.2401	5.8000e-004	0.0000	28.2523
Unmitigated	8.3200e-003	0.0283	0.1077	4.1000e-004	0.0231	7.4000e-004	0.0239	6.2200e-003	6.8000e-004	6.9000e-003	0.0000	28.2401	28.2401	5.8000e-004	0.0000	28.2523

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	20.84	3.95	2.03	60,812	60,812
Total	20.84	3.95	2.03	60,812	60,812

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
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.412644	0.063380	0.154149	0.172864	0.050991	0.007853	0.020339	0.104512	0.001773	0.001608	0.006849	0.000757	0.002282

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	8.4025	8.4025	3.8000e-004	8.0000e-005	8.4349
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	8.4025	8.4025	3.8000e-004	8.0000e-005	8.4349
NaturalGas Mitigated	3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4720	3.4720	7.0000e-005	6.0000e-005	3.4931
NaturalGas Unmitigated	3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4720	3.4720	7.0000e-005	6.0000e-005	3.4931

5.2 Energy by Land Use - NaturalGas
Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	65062.4	3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4720	3.4720	7.0000e-005	6.0000e-005	3.4931
Total		3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4720	3.4720	7.0000e-005	6.0000e-005	3.4931

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	65062.4	3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4720	3.4720	7.0000e-005	6.0000e-005	3.4931
Total		3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4720	3.4720	7.0000e-005	6.0000e-005	3.4931

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	28883.4	8.4025	3.8000e-004	8.0000e-005	8.4349
Total		8.4025	3.8000e-004	8.0000e-005	8.4349

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	28883.4	8.4025	3.8000e-004	8.0000e-005	8.4349
Total		8.4025	3.8000e-004	8.0000e-005	8.4349

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	0.0138	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Unmitigated	0.0138	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.0800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0117					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Total	0.0138	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005

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	2.0800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0117					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Total	0.0138	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0275	0.0000	0.0000	0.0276
Unmitigated	0.0275	0.0000	0.0000	0.0276

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0.027	0.0275	0.0000	0.0000	0.0276
Total		0.0275	0.0000	0.0000	0.0276

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0.027	0.0275	0.0000	0.0000	0.0276
Total		0.0275	0.0000	0.0000	0.0276

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.7531	0.0445	0.0000	1.6877
Unmitigated	0.7531	0.0445	0.0000	1.6877

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	3.71	0.7531	0.0445	0.0000	1.6877
Total		0.7531	0.0445	0.0000	1.6877

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	3.71	0.7531	0.0445	0.0000	1.6877
Total		0.7531	0.0445	0.0000	1.6877

9.0 Operational Offroad

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

Warnerville_Wilson_Reconductoring
San Joaquin Valley Unified APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	400.60	Acre	400.60	17,450,136.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - this run is used for construction related activities associated with the reconductoring of the Warnerville-Wilson line only.

Land Use - A city park is used to represent vegetation clearing/site prep and land disturbance. Total land Disturbance from PD

Construction Phase - construction would involve site prep/grading and reconductoring activities. No arch coating, paving, or demo.

Off-road Equipment - off-road diesel equipment from PD.

Off-road Equipment - off-road diesel equipment based on PD

Off-road Equipment - off-road diesel equipment based on PD.

Trips and VMT - max 90 worker trips based on a max of 45 workers per day and an average of 20 during less intense work. vendor trips based on a total of 14 delivery trucks (i.e., line/bucket trucks) and rounded up to 30.

On-road Fugitive Dust - 40% unpaved based on % mileage of paved vs dirt/temporary road provided in PD.

Grading - disturbance from PD

Vehicle Trips - construction only

Area Coating - no operational arch. coatings

Energy Use -

Water And Wastewater - this page is used for construction-related GHG emissions associated with water used for dust suppression. assumed the same amount of water as would be required for the substation work.

Solid Waste - Same waste generation rate as Borden-Gregg reconductoring model run.

Construction Off-road Equipment Mitigation - Tier 4 for all diesel

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	7,750.00	130.00
tblConstructionPhase	NumDays	775.00	45.00

tblConstructionPhase	NumDays	300.00	85.00
tblGrading	AcresOfGrading	0.00	400.60
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblProjectCharacteristics	OperationalYear	2014	2030
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	34.45	4.30
tblTripsAndVMT	VendorTripNumber	2,860.00	30.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	7,329.00	90.00
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	SU_TR	1.59	0.00

tblVehicleTrips	WD_TR	1.59	0.00
tblWater	OutdoorWaterUseRate	477,307,428.67	27,000.00

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					
2031	0.4640	1.5248	3.1949	0.0114	7.3436	0.0472	7.3908	0.9270	0.0470	0.9740	0.0000	1,062.4326	1,062.4326	0.0379	0.0000	1,063.2282
Total	0.4640	1.5248	3.1949	0.0114	7.3436	0.0472	7.3908	0.9270	0.0470	0.9740	0.0000	1,062.4326	1,062.4326	0.0379	0.0000	1,063.2282

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					
2031	0.1454	0.6407	4.9008	0.0114	7.3436	0.0198	7.3634	0.9270	0.0196	0.9466	0.0000	1,062.4314	1,062.4314	0.0379	0.0000	1,063.2271
Total	0.1454	0.6407	4.9008	0.0114	7.3436	0.0198	7.3634	0.9270	0.0196	0.9466	0.0000	1,062.4314	1,062.4314	0.0379	0.0000	1,063.2271

	ROG	NOx	CO	SO2	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	68.66	57.98	-53.40	0.00	0.00	58.03	0.37	0.00	58.24	2.81	0.00	0.00	0.00	0.00	0.00	0.00

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	80.2840	3.0000e-005	3.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1600e-003	7.1600e-003	2.0000e-005	0.0000	7.5500e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.8729	0.0000	0.8729	0.0516	0.0000	1.9561
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0275	0.0275	0.0000	0.0000	0.0276
Total	80.2840	3.0000e-005	3.6600e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.8729	0.0347	0.9075	0.0516	0.0000	1.9913

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	80.2840	3.0000e-005	3.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1600e-003	7.1600e-003	2.0000e-005	0.0000	7.5500e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.8729	0.0000	0.8729	0.0516	0.0000	1.9561
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0275	0.0275	0.0000	0.0000	0.0276
Total	80.2840	3.0000e-005	3.6600e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.8729	0.0347	0.9075	0.0516	0.0000	1.9913

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2031	4/29/2031	5	85	
2	Grading	Grading	4/30/2031	7/1/2031	5	45	
3	Building Construction	Building Construction	7/2/2031	12/30/2031	5	130	

Acres of Grading (Site Preparation Phase): 400.6

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating - sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Off-Highway Trucks	2	8.00	400	0.38
Site Preparation	Rubber Tired Dozers	1	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	0	8.00	162	0.38
Grading	Graders	0	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	400	0.38
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	0	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cement and Mortar Mixers	3	8.00	9	0.56
Building Construction	Cranes	4	7.00	226	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Off-Highway Trucks	5	8.00	400	0.38
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	4	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	90.00	30.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2031

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					0.4684	0.0000	0.4684	0.1636	0.0000	0.1636	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0812	0.2748	0.4584	1.6800e-003		9.5700e-003	9.5700e-003		9.5700e-003	9.5700e-003	0.0000	170.7654	170.7654	6.5200e-003	0.0000	170.9025
Total	0.0812	0.2748	0.4584	1.6800e-003	0.4684	9.5700e-003	0.4779	0.1636	9.5700e-003	0.1732	0.0000	170.7654	170.7654	6.5200e-003	0.0000	170.9025

3.2 Site Preparation - 2031

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	1.3500e-003	2.3300e-003	0.0233	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8800e-003	0.0000	7.2321	7.2321	2.6000e-004	0.0000	7.2377
Total	1.3500e-003	2.3300e-003	0.0233	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8800e-003	0.0000	7.2321	7.2321	2.6000e-004	0.0000	7.2377

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					0.4684	0.0000	0.4684	0.1636	0.0000	0.1636	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0199	0.0861	0.7691	1.6800e-003		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	170.7652	170.7652	6.5200e-003	0.0000	170.9023
Total	0.0199	0.0861	0.7691	1.6800e-003	0.4684	2.6500e-003	0.4710	0.1636	2.6500e-003	0.1663	0.0000	170.7652	170.7652	6.5200e-003	0.0000	170.9023

3.2 Site Preparation - 2031

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	1.3500e-003	2.3300e-003	0.0233	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8800e-003	0.0000	7.2321	7.2321	2.6000e-004	0.0000	7.2377
Total	1.3500e-003	2.3300e-003	0.0233	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8800e-003	0.0000	7.2321	7.2321	2.6000e-004	0.0000	7.2377

3.3 Grading - 2031

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					0.1355	0.0000	0.1355	0.0745	0.0000	0.0745	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0430	0.1455	0.2427	8.9000e-004		5.0700e-003	5.0700e-003		5.0700e-003	5.0700e-003	0.0000	90.4052	90.4052	3.4500e-003	0.0000	90.4778
Total	0.0430	0.1455	0.2427	8.9000e-004	0.1355	5.0700e-003	0.1406	0.0745	5.0700e-003	0.0796	0.0000	90.4052	90.4052	3.4500e-003	0.0000	90.4778

3.3 Grading - 2031

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	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	0.0000
Worker	7.1000e-004	1.2300e-003	0.0123	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	3.8288	3.8288	1.4000e-004	0.0000	3.8317	
Total	7.1000e-004	1.2300e-003	0.0123	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	3.8288	3.8288	1.4000e-004	0.0000	3.8317	

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					0.1355	0.0000	0.1355	0.0745	0.0000	0.0745	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0105	0.0456	0.4072	8.9000e-004		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003	0.0000	90.4051	90.4051	3.4500e-003	0.0000	90.4777
Total	0.0105	0.0456	0.4072	8.9000e-004	0.1355	1.4000e-003	0.1369	0.0745	1.4000e-003	0.0759	0.0000	90.4051	90.4051	3.4500e-003	0.0000	90.4777

3.3 Grading - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1000e-004	1.2300e-003	0.0123	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	3.8288	3.8288	1.4000e-004	0.0000	3.8317
Total	7.1000e-004	1.2300e-003	0.0123	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	3.8288	3.8288	1.4000e-004	0.0000	3.8317

3.4 Building Construction - 2031

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	0.3173	1.0183	2.1240	7.3700e-003		0.0304	0.0304		0.0304	0.0304	0.0000	705.0600	705.0600	0.0254	0.0000	705.5939
Total	0.3173	1.0183	2.1240	7.3700e-003		0.0304	0.0304		0.0304	0.0304	0.0000	705.0600	705.0600	0.0254	0.0000	705.5939

3.4 Building Construction - 2031

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	0.0112	0.0666	0.1742	4.2000e-004	6.6508	1.5400e-003	6.6524	0.6653	1.4200e-003	0.6667	0.0000	35.3669	35.3669	2.6000e-004	0.0000	35.3723
Worker	9.2900e-003	0.0160	0.1602	8.7000e-004	0.0727	5.1000e-004	0.0732	0.0193	4.7000e-004	0.0198	0.0000	49.7741	49.7741	1.8200e-003	0.0000	49.8124
Total	0.0205	0.0826	0.3343	1.2900e-003	6.7236	2.0500e-003	6.7256	0.6846	1.8900e-003	0.6865	0.0000	85.1410	85.1410	2.0800e-003	0.0000	85.1847

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	0.0925	0.4229	3.3547	7.3700e-003		0.0136	0.0136		0.0136	0.0136	0.0000	705.0592	705.0592	0.0254	0.0000	705.5930
Total	0.0925	0.4229	3.3547	7.3700e-003		0.0136	0.0136		0.0136	0.0136	0.0000	705.0592	705.0592	0.0254	0.0000	705.5930

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
City Park	14.70	6.60	6.60	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.413413	0.063073	0.155160	0.173397	0.051093	0.007959	0.020021	0.102512	0.001779	0.001618	0.006843	0.000803	0.002329

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
City Park	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	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	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	80.2840	3.0000e-005	3.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1600e-003	7.1600e-003	2.0000e-005	0.0000	7.5500e-003
Unmitigated	80.2840	3.0000e-005	3.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1600e-003	7.1600e-003	2.0000e-005	0.0000	7.5500e-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	12.1322					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	68.1515					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	3.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1600e-003	7.1600e-003	2.0000e-005	0.0000	7.5500e-003
Total	80.2840	3.0000e-005	3.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1600e-003	7.1600e-003	2.0000e-005	0.0000	7.5500e-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	12.1322					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	68.1515					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	3.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1600e-003	7.1600e-003	2.0000e-005	0.0000	7.5500e-003
Total	80.2840	3.0000e-005	3.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1600e-003	7.1600e-003	2.0000e-005	0.0000	7.5500e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0275	0.0000	0.0000	0.0276
Unmitigated	0.0275	0.0000	0.0000	0.0276

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.027	0.0275	0.0000	0.0000	0.0276
Total		0.0275	0.0000	0.0000	0.0276

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.027	0.0275	0.0000	0.0000	0.0276
Total		0.0275	0.0000	0.0000	0.0276

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.8729	0.0516	0.0000	1.9561
Unmitigated	0.8729	0.0516	0.0000	1.9561

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	4.3	0.8729	0.0516	0.0000	1.9561
Total		0.8729	0.0516	0.0000	1.9561

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	4.3	0.8729	0.0516	0.0000	1.9561
Total		0.8729	0.0516	0.0000	1.9561

9.0 Operational Offroad

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

Los Banos Oro Loma_Reconductoring
San Joaquin Valley Unified APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	78.60	Acre	78.60	3,423,816.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - this run is used for construction related activities associated with the reconductoring of the Los Banos-Oro Loma line only.

Land Use - A city park is used to represent vegetation clearing/site prep and land disturbance. Total land Disturbance from PD

Construction Phase - construction would involve site prep/grading and reconductoring activities. No arch coating, paving, or demo.

Off-road Equipment - off-road diesel equipment from PD.

Off-road Equipment - off-road diesel equipment from PD.

Off-road Equipment - off-road diesel equipment from PD.

Grading - disturbance from PD

Trips and VMT - max 90 worker trips based on a max of 45 workers per day and an average of 20 during less intense work. vendor trips based on a total of 14 delivery trucks (i.e., line/bucket trucks) and rounded up to 30.

On-road Fugitive Dust - 40% unpaved based on % mileage of paved vs dirt/temporary road provided in PD.

Vehicle Trips - construction only

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4 for all diesel

Solid Waste - Same solid waste generation rate as Borden-Gregg construction model run

Water And Wastewater - this page is used for construction-related GHG emissions associated with water used for dust suppression. assumed the same amount of water as would be required for the substation work.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	1,550.00	130.00

tblConstructionPhase	NumDays	155.00	45.00
tblConstructionPhase	NumDays	60.00	85.00
tblGrading	AcresOfGrading	0.00	78.60
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblProjectCharacteristics	OperationalYear	2014	2035

tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	6.76	4.30
tblTripsAndVMT	VendorTripNumber	561.00	30.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	1,438.00	90.00
tblWater	OutdoorWaterUseRate	93,650,434.08	27,000.00

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	15.7522	1.0000e-005	7.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-003	1.4000e-003	0.0000	0.0000	1.4800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0553	0.1601	0.6870	2.1000e-003	0.1173	3.8500e-003	0.1211	0.0315	3.5500e-003	0.0351	0.0000	145.1836	145.1836	3.0600e-003	0.0000	145.2480
Waste						0.0000	0.0000		0.0000	0.0000	0.8729	0.0000	0.8729	0.0516	0.0000	1.9561
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0275	0.0275	0.0000	0.0000	0.0276
Total	15.8075	0.1601	0.6877	2.1000e-003	0.1173	3.8500e-003	0.1211	0.0315	3.5500e-003	0.0351	0.8729	145.2125	146.0854	0.0546	0.0000	147.2332

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	15.7522	1.0000e-005	7.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-003	1.4000e-003	0.0000	0.0000	1.4800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0553	0.1601	0.6870	2.1000e-003	0.1173	3.8500e-003	0.1211	0.0315	3.5500e-003	0.0351	0.0000	145.1836	145.1836	3.0600e-003	0.0000	145.2480
Waste						0.0000	0.0000		0.0000	0.0000	0.8729	0.0000	0.8729	0.0516	0.0000	1.9561
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0275	0.0275	0.0000	0.0000	0.0276
Total	15.8075	0.1601	0.6877	2.1000e-003	0.1173	3.8500e-003	0.1211	0.0315	3.5500e-003	0.0351	0.8729	145.2125	146.0854	0.0546	0.0000	147.2332

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2032	4/28/2032	5	85	
2	Grading	Grading	4/29/2032	6/30/2032	5	45	
3	Building Construction	Building Construction	7/1/2032	12/29/2032	5	130	

Acres of Grading (Site Preparation Phase): 78.6

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating - sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Off-Highway Trucks	2	8.00	400	0.38
Grading	Off-Highway Trucks	2	8.00	400	0.38
Building Construction	Cement and Mortar Mixers	3	8.00	9	0.56
Grading	Excavators	0	8.00	162	0.38
Building Construction	Cranes	4	7.00	226	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Off-Highway Trucks	5	8.00	400	0.38
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Grading	Graders	0	8.00	174	0.41
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	0	8.00	361	0.48
Building Construction	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	4	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	90.00	30.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Clean Paved Roads

3.2 Site Preparation - 2032

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					0.2976	0.0000	0.2976	0.1452	0.0000	0.1452	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0814	0.2753	0.4596	1.6900e-003		9.5900e-003	9.5900e-003		9.5900e-003	9.5900e-003	0.0000	171.3528	171.3528	6.5400e-003	0.0000	171.4903
Total	0.0814	0.2753	0.4596	1.6900e-003	0.2976	9.5900e-003	0.3072	0.1452	9.5900e-003	0.1548	0.0000	171.3528	171.3528	6.5400e-003	0.0000	171.4903

3.2 Site Preparation - 2032

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	1.3000e-003	2.2600e-003	0.0228	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8800e-003	0.0000	7.2071	7.2071	2.6000e-004	0.0000	7.2125
Total	1.3000e-003	2.2600e-003	0.0228	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8800e-003	0.0000	7.2071	7.2071	2.6000e-004	0.0000	7.2125

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					0.2976	0.0000	0.2976	0.1452	0.0000	0.1452	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0199	0.0864	0.7716	1.6900e-003		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	171.3526	171.3526	6.5400e-003	0.0000	171.4901
Total	0.0199	0.0864	0.7716	1.6900e-003	0.2976	2.6600e-003	0.3003	0.1452	2.6600e-003	0.1478	0.0000	171.3526	171.3526	6.5400e-003	0.0000	171.4901

3.2 Site Preparation - 2032

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	1.3000e-003	2.2600e-003	0.0228	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8800e-003	0.0000	7.2071	7.2071	2.6000e-004	0.0000	7.2125
Total	1.3000e-003	2.2600e-003	0.0228	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8800e-003	0.0000	7.2071	7.2071	2.6000e-004	0.0000	7.2125

3.3 Grading - 2032

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					0.1355	0.0000	0.1355	0.0745	0.0000	0.0745	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0431	0.1458	0.2433	8.9000e-004		5.0800e-003	5.0800e-003		5.0800e-003	5.0800e-003	0.0000	90.7162	90.7162	3.4600e-003	0.0000	90.7890
Total	0.0431	0.1458	0.2433	8.9000e-004	0.1355	5.0800e-003	0.1406	0.0745	5.0800e-003	0.0796	0.0000	90.7162	90.7162	3.4600e-003	0.0000	90.7890

3.3 Grading - 2032

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	6.9000e-004	1.2000e-003	0.0121	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	3.8155	3.8155	1.4000e-004	0.0000	3.8184
Total	6.9000e-004	1.2000e-003	0.0121	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	3.8155	3.8155	1.4000e-004	0.0000	3.8184

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					0.1355	0.0000	0.1355	0.0745	0.0000	0.0745	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0106	0.0458	0.4085	8.9000e-004		1.4100e-003	1.4100e-003		1.4100e-003	1.4100e-003	0.0000	90.7161	90.7161	3.4600e-003	0.0000	90.7889
Total	0.0106	0.0458	0.4085	8.9000e-004	0.1355	1.4100e-003	0.1369	0.0745	1.4100e-003	0.0759	0.0000	90.7161	90.7161	3.4600e-003	0.0000	90.7889

3.3 Grading - 2032

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	6.9000e-004	1.2000e-003	0.0121	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	3.8155	3.8155	1.4000e-004	0.0000	3.8184
Total	6.9000e-004	1.2000e-003	0.0121	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	3.8155	3.8155	1.4000e-004	0.0000	3.8184

3.4 Building Construction - 2032

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	0.3183	1.0203	2.1288	7.3900e-003		0.0305	0.0305		0.0305	0.0305	0.0000	707.3060	707.3060	0.0255	0.0000	707.8414
Total	0.3183	1.0203	2.1288	7.3900e-003		0.0305	0.0305		0.0305	0.0305	0.0000	707.3060	707.3060	0.0255	0.0000	707.8414

3.4 Building Construction - 2032

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	0.0000
Vendor	0.0111	0.0665	0.1740	4.2000e-004	6.6508	1.5400e-003	6.6524	0.6653	1.4200e-003	0.6667	0.0000	35.3719	35.3719	2.6000e-004	0.0000	0.0000	35.3774
Worker	8.9600e-003	0.0156	0.1566	8.7000e-004	0.0727	5.1000e-004	0.0732	0.0193	4.7000e-004	0.0198	0.0000	49.6015	49.6015	1.7900e-003	0.0000	0.0000	49.6391
Total	0.0201	0.0821	0.3307	1.2900e-003	6.7236	2.0500e-003	6.7256	0.6846	1.8900e-003	0.6865	0.0000	84.9734	84.9734	2.0500e-003	0.0000	0.0000	85.0165

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	0.0813	0.3522	3.3041	7.3900e-003		0.0108	0.0108		0.0108	0.0108	0.0000	707.3051	707.3051	0.0255	0.0000	707.8405
Total	0.0813	0.3522	3.3041	7.3900e-003		0.0108	0.0108		0.0108	0.0108	0.0000	707.3051	707.3051	0.0255	0.0000	707.8405

3.4 Building Construction - 2032

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	0.0111	0.0665	0.1740	4.2000e-004	6.6508	1.5400e-003	6.6524	0.6653	1.4200e-003	0.6667	0.0000	35.3719	35.3719	2.6000e-004	0.0000	35.3774
Worker	8.9600e-003	0.0156	0.1566	8.7000e-004	0.0727	5.1000e-004	0.0732	0.0193	4.7000e-004	0.0198	0.0000	49.6015	49.6015	1.7900e-003	0.0000	49.6391
Total	0.0201	0.0821	0.3307	1.2900e-003	6.7236	2.0500e-003	6.7256	0.6846	1.8900e-003	0.6865	0.0000	84.9734	84.9734	2.0500e-003	0.0000	85.0165

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	0.0553	0.1601	0.6870	2.1000e-003	0.1173	3.8500e-003	0.1211	0.0315	3.5500e-003	0.0351	0.0000	145.1836	145.1836	3.0600e-003	0.0000	145.2480
Unmitigated	0.0553	0.1601	0.6870	2.1000e-003	0.1173	3.8500e-003	0.1211	0.0315	3.5500e-003	0.0351	0.0000	145.1836	145.1836	3.0600e-003	0.0000	145.2480

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	124.97	124.97	124.97	308,212	308,212
Total	124.97	124.97	124.97	308,212	308,212

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
City Park	14.70	6.60	6.60	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.412644	0.063380	0.154149	0.172864	0.050991	0.007853	0.020339	0.104512	0.001773	0.001608	0.006849	0.000757	0.002282

5.0 Energy Detail

~~4.4 Fleet Mix~~

Historical Energy Use: N

5.1 Mitigation Measures Energy

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
City Park	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	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	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	15.7522	1.0000e-005	7.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-003	1.4000e-003	0.0000	0.0000	1.4800e-003
Unmitigated	15.7522	1.0000e-005	7.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-003	1.4000e-003	0.0000	0.0000	1.4800e-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	2.3804					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	13.3717					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-003	1.4000e-003	0.0000	0.0000	1.4800e-003
Total	15.7522	1.0000e-005	7.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-003	1.4000e-003	0.0000	0.0000	1.4800e-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	2.3804					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	13.3717					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-003	1.4000e-003	0.0000	0.0000	1.4800e-003
Total	15.7522	1.0000e-005	7.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-003	1.4000e-003	0.0000	0.0000	1.4800e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0275	0.0000	0.0000	0.0276
Unmitigated	0.0275	0.0000	0.0000	0.0276

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.027	0.0275	0.0000	0.0000	0.0276
Total		0.0275	0.0000	0.0000	0.0276

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.027	0.0275	0.0000	0.0000	0.0276
Total		0.0275	0.0000	0.0000	0.0276

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.8729	0.0516	0.0000	1.9561
Unmitigated	0.8729	0.0516	0.0000	1.9561

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	4.3	0.8729	0.0516	0.0000	1.9561
Total		0.8729	0.0516	0.0000	1.9561

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	4.3	0.8729	0.0516	0.0000	1.9561
Total		0.8729	0.0516	0.0000	1.9561

9.0 Operational Offroad

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

Wilson_Dairyland_Reconductoring
San Joaquin Valley Unified APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	70.15	Acre	70.15	3,055,734.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - this run is used for construction related activities associated with the reconductoring of the Wilson-Dairyland line only.

Land Use - A city park is used to represent vegetation clearing/site prep and land disturbance. Total land Disturbance from PD. Includes Dairyland-Le Grand and Dutchman Tie Line

Construction Phase - construction would involve site prep/grading and reconductoring activities. No arch coating, paving, or demo.

Off-road Equipment - off-road diesel equipment from PD.

Off-road Equipment - off-road diesel equipment based on PD

Off-road Equipment - off-road diesel equipment based on PD.

Trips and VMT - max 90 worker trips based on a max of 45 workers per day and an average of 20 during less intense work. vendor trips based on a total of 14 delivery trucks (i.e., line/bucket trucks) and rounded up to 30.

On-road Fugitive Dust - 40% unpaved based on % mileage of paved vs dirt/temporary road provided in PD.

Grading - disturbance from PD

Vehicle Trips - construction only

Area Coating - no operational arch. coatings

Energy Use -

Water And Wastewater - this page is used for construction-related GHG emissions associated with water used for dust suppression. assumed the same amount of water as would be required for the substation work.

Solid Waste - Same waste generation rate as Borden-Gregg reconductoring model run.

Construction Off-road Equipment Mitigation - Tier 4 for all diesel

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstructionPhase	NumDays	1,110.00	130.00
tblConstructionPhase	NumDays	110.00	45.00
tblConstructionPhase	NumDays	40.00	85.00
tblGrading	AcresOfGrading	0.00	43.31
tblGrading	AcresOfGrading	0.00	26.84
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00

tblOnRoadDust	VendorPercentPave	100.00	60.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	6.03	4.30
tblTripsAndVMT	VendorTripNumber	501.00	30.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	1,283.00	90.00
tblWater	OutdoorWaterUseRate	83,582,416.68	27,000.00

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	14.0587	1.0000e-005	6.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2500e-003	1.2500e-003	0.0000	0.0000	1.3200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0494	0.1429	0.6132	1.8700e-003	0.1047	3.4400e-003	0.1081	0.0281	3.1700e-003	0.0313	0.0000	129.5754	129.5754	2.7400e-003	0.0000	129.6329
Waste						0.0000	0.0000		0.0000	0.0000	0.8729	0.0000	0.8729	0.0516	0.0000	1.9561
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0275	0.0275	0.0000	0.0000	0.0276
Total	14.1081	0.1429	0.6138	1.8700e-003	0.1047	3.4400e-003	0.1081	0.0281	3.1700e-003	0.0313	0.8729	129.6042	130.4770	0.0543	0.0000	131.6179

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	14.0587	1.0000e-005	6.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2500e-003	1.2500e-003	0.0000	0.0000	1.3200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0494	0.1429	0.6132	1.8700e-003	0.1047	3.4400e-003	0.1081	0.0281	3.1700e-003	0.0313	0.0000	129.5754	129.5754	2.7400e-003	0.0000	129.6329
Waste						0.0000	0.0000		0.0000	0.0000	0.8729	0.0000	0.8729	0.0516	0.0000	1.9561
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0275	0.0275	0.0000	0.0000	0.0276
Total	14.1081	0.1429	0.6138	1.8700e-003	0.1047	3.4400e-003	0.1081	0.0281	3.1700e-003	0.0313	0.8729	129.6042	130.4770	0.0543	0.0000	131.6179

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2033	4/29/2033	5	85	
2	Grading	Grading	4/30/2033	7/1/2033	5	45	
3	Building Construction	Building Construction	7/2/2033	12/30/2033	5	130	

Acres of Grading (Site Preparation Phase): 26.84

Acres of Grading (Grading Phase): 43.31

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating - sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Off-Highway Trucks	2	8.00	400	0.38
Site Preparation	Rubber Tired Dozers	1	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	0	8.00	162	0.38
Grading	Graders	0	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	400	0.38
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	0	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cement and Mortar Mixers	3	8.00	9	0.56
Building Construction	Cranes	4	7.00	226	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Off-Highway Trucks	5	8.00	400	0.38
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	4	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	90.00	30.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Clean Paved Roads

3.2 Site Preparation - 2033

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					0.2702	0.0000	0.2702	0.1422	0.0000	0.1422	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0814	0.2753	0.4596	1.6900e-003	9.5900e-003	9.5900e-003	9.5900e-003	9.5900e-003	9.5900e-003	9.5900e-003	0.0000	171.3528	171.3528	6.5400e-003	0.0000	171.4903
Total	0.0814	0.2753	0.4596	1.6900e-003	0.2702	9.5900e-003	0.2798	0.1422	9.5900e-003	0.1518	0.0000	171.3528	171.3528	6.5400e-003	0.0000	171.4903

3.2 Site Preparation - 2033

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	1.2600e-003	2.2100e-003	0.0223	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8800e-003	0.0000	7.1861	7.1861	2.6000e-004	0.0000	7.1915
Total	1.2600e-003	2.2100e-003	0.0223	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8800e-003	0.0000	7.1861	7.1861	2.6000e-004	0.0000	7.1915

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					0.2702	0.0000	0.2702	0.1422	0.0000	0.1422	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0199	0.0864	0.7716	1.6900e-003		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	171.3526	171.3526	6.5400e-003	0.0000	171.4901
Total	0.0199	0.0864	0.7716	1.6900e-003	0.2702	2.6600e-003	0.2728	0.1422	2.6600e-003	0.1449	0.0000	171.3526	171.3526	6.5400e-003	0.0000	171.4901

3.2 Site Preparation - 2033

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	1.2600e-003	2.2100e-003	0.0223	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8800e-003	0.0000	7.1861	7.1861	2.6000e-004	0.0000	7.1915
Total	1.2600e-003	2.2100e-003	0.0223	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8800e-003	0.0000	7.1861	7.1861	2.6000e-004	0.0000	7.1915

3.3 Grading - 2033

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					0.1585	0.0000	0.1585	0.0770	0.0000	0.0770	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0431	0.1458	0.2433	8.9000e-004		5.0800e-003	5.0800e-003		5.0800e-003	5.0800e-003	0.0000	90.7162	90.7162	3.4600e-003	0.0000	90.7890
Total	0.0431	0.1458	0.2433	8.9000e-004	0.1585	5.0800e-003	0.1635	0.0770	5.0800e-003	0.0820	0.0000	90.7162	90.7162	3.4600e-003	0.0000	90.7890

3.3 Grading - 2033

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	6.7000e-004	1.1700e-003	0.0118	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	3.8044	3.8044	1.4000e-004	0.0000	3.8073
Total	6.7000e-004	1.1700e-003	0.0118	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	3.8044	3.8044	1.4000e-004	0.0000	3.8073

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					0.1585	0.0000	0.1585	0.0770	0.0000	0.0770	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0106	0.0458	0.4085	8.9000e-004		1.4100e-003	1.4100e-003		1.4100e-003	1.4100e-003	0.0000	90.7161	90.7161	3.4600e-003	0.0000	90.7889
Total	0.0106	0.0458	0.4085	8.9000e-004	0.1585	1.4100e-003	0.1599	0.0770	1.4100e-003	0.0784	0.0000	90.7161	90.7161	3.4600e-003	0.0000	90.7889

3.3 Grading - 2033

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	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	0.0000
Worker	6.7000e-004	1.1700e-003	0.0118	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	3.8044	3.8044	1.4000e-004	0.0000	3.8073	
Total	6.7000e-004	1.1700e-003	0.0118	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	3.8044	3.8044	1.4000e-004	0.0000	3.8073	

3.4 Building Construction - 2033

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	0.3183	1.0203	2.1288	7.3900e-003		0.0305	0.0305		0.0305	0.0305	0.0000	707.3060	707.3060	0.0255	0.0000	707.8414
Total	0.3183	1.0203	2.1288	7.3900e-003		0.0305	0.0305		0.0305	0.0305	0.0000	707.3060	707.3060	0.0255	0.0000	707.8414

3.4 Building Construction - 2033

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	0.0000
Vendor	0.0111	0.0664	0.1740	4.2000e-004	6.6508	1.5400e-003	6.6524	0.6653	1.4200e-003	0.6667	0.0000	35.3757	35.3757	2.6000e-004	0.0000	0.0000	35.3812
Worker	8.6600e-003	0.0152	0.1537	8.7000e-004	0.0727	5.1000e-004	0.0732	0.0193	4.7000e-004	0.0198	0.0000	49.4572	49.4572	1.7700e-003	0.0000	0.0000	49.4944
Total	0.0198	0.0816	0.3277	1.2900e-003	6.7236	2.0500e-003	6.7256	0.6846	1.8900e-003	0.6865	0.0000	84.8329	84.8329	2.0300e-003	0.0000	0.0000	84.8755

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	0.0813	0.3522	3.3041	7.3900e-003		0.0108	0.0108		0.0108	0.0108	0.0000	707.3051	707.3051	0.0255	0.0000	707.8405
Total	0.0813	0.3522	3.3041	7.3900e-003		0.0108	0.0108		0.0108	0.0108	0.0000	707.3051	707.3051	0.0255	0.0000	707.8405

3.4 Building Construction - 2033

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	0.0111	0.0664	0.1740	4.2000e-004	6.6508	1.5400e-003	6.6524	0.6653	1.4200e-003	0.6667	0.0000	35.3757	35.3757	2.6000e-004	0.0000	35.3812
Worker	8.6600e-003	0.0152	0.1537	8.7000e-004	0.0727	5.1000e-004	0.0732	0.0193	4.7000e-004	0.0198	0.0000	49.4572	49.4572	1.7700e-003	0.0000	49.4944
Total	0.0198	0.0816	0.3277	1.2900e-003	6.7236	2.0500e-003	6.7256	0.6846	1.8900e-003	0.6865	0.0000	84.8329	84.8329	2.0300e-003	0.0000	84.8755

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	0.0494	0.1429	0.6132	1.8700e-003	0.1047	3.4400e-003	0.1081	0.0281	3.1700e-003	0.0313	0.0000	129.5754	129.5754	2.7400e-003	0.0000	129.6329
Unmitigated	0.0494	0.1429	0.6132	1.8700e-003	0.1047	3.4400e-003	0.1081	0.0281	3.1700e-003	0.0313	0.0000	129.5754	129.5754	2.7400e-003	0.0000	129.6329

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	111.54	111.54	111.54	275,077	275,077
Total	111.54	111.54	111.54	275,077	275,077

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
City Park	14.70	6.60	6.60	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.412644	0.063380	0.154149	0.172864	0.050991	0.007853	0.020339	0.104512	0.001773	0.001608	0.006849	0.000757	0.002282

5.0 Energy Detail

~~4.4 Fleet Mix~~

Historical Energy Use: N

5.1 Mitigation Measures Energy

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
City Park	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	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	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	14.0587	1.0000e-005	6.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2500e-003	1.2500e-003	0.0000	0.0000	1.3200e-003
Unmitigated	14.0587	1.0000e-005	6.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2500e-003	1.2500e-003	0.0000	0.0000	1.3200e-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	2.1245					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	11.9342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2500e-003	1.2500e-003	0.0000	0.0000	1.3200e-003
Total	14.0587	1.0000e-005	6.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2500e-003	1.2500e-003	0.0000	0.0000	1.3200e-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	2.1245					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	11.9342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2500e-003	1.2500e-003	0.0000	0.0000	1.3200e-003
Total	14.0587	1.0000e-005	6.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2500e-003	1.2500e-003	0.0000	0.0000	1.3200e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0275	0.0000	0.0000	0.0276
Unmitigated	0.0275	0.0000	0.0000	0.0276

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.027	0.0275	0.0000	0.0000	0.0276
Total		0.0275	0.0000	0.0000	0.0276

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.027	0.0275	0.0000	0.0000	0.0276
Total		0.0275	0.0000	0.0000	0.0276

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.8729	0.0516	0.0000	1.9561
Unmitigated	0.8729	0.0516	0.0000	1.9561

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	4.3	0.8729	0.0516	0.0000	1.9561
Total		0.8729	0.0516	0.0000	1.9561

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	4.3	0.8729	0.0516	0.0000	1.9561
Total		0.8729	0.0516	0.0000	1.9561

9.0 Operational Offroad

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

DutchmanSubstation
San Joaquin Valley Unified APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	2.99	1000sqft	5.52	2,990.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - this run is used for construction related activities associated with the expansion of the Dutchman Substation.

Land Use - light industry is used to represent vegetation clearing/site prep and land disturbance associated with substation expansion. Total land Disturbance from PD

Construction Phase - construction would involve site prep/grading and reconductoring activities. No arch coating/demo.

Off-road Equipment - off-road diesel equipment from PD.

Off-road Equipment - off-road diesel equipment based on PD

Off-road Equipment - off-road diesel equipment based on PD.

Trips and VMT - max 90 worker trips based on a max of 45 workers per day and an average of 20 during less intense work. vendor trips based on a total of 75 truck trips per day from PD.

On-road Fugitive Dust - 40% unpaved based on % mileage of paved vs dirt/temporary road provided in PD.

Grading - disturbance from PD

Vehicle Trips - construction only

Area Coating - no operational arch. coatings

Energy Use -

Water And Wastewater - 27000 gallons for dust suppressants

Construction Off-road Equipment Mitigation - Tier 4 for all diesel

Solid Waste -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstructionPhase	NumDays	230.00	130.00
tblConstructionPhase	NumDays	20.00	45.00
tblConstructionPhase	NumDays	10.00	85.00
tblGrading	AcresOfGrading	22.50	5.52
tblGrading	AcresOfGrading	42.50	0.00
tblLandUse	LotAcreage	0.07	5.52
tblOffRoadEquipment	LoadFactor	0.41	0.41
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.31	0.31
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.42	0.42
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.30	0.30
tblOffRoadEquipment	LoadFactor	0.46	0.46
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Pavers
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment

tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Surfacing Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Sweepers/Scrubbers
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblProjectCharacteristics	OperationalYear	2014	2021
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripNumber	0.00	75.00
tblTripsAndVMT	WorkerTripNumber	8.00	20.00
tblTripsAndVMT	WorkerTripNumber	8.00	20.00
tblTripsAndVMT	WorkerTripNumber	1.00	20.00
tblVehicleTrips	CC_TL	6.60	0.00
tblVehicleTrips	CNW_TL	6.60	0.00
tblVehicleTrips	CW_TL	14.70	0.00
tblVehicleTrips	ST_TR	1.32	0.00

tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	691,437.50	0.00
tblWater	OutdoorWaterUseRate	0.00	27,000.00

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	0.0138	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Energy	3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	11.8745	11.8745	4.5000e-004	1.4000e-004	11.9280
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.7531	0.0000	0.7531	0.0445	0.0000	1.6877
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0275	0.0275	0.0000	0.0000	0.0276
Total	0.0141	3.1900e-003	2.7100e-003	2.0000e-005	0.0000	2.4000e-004	2.4000e-004	0.0000	2.4000e-004	2.4000e-004	0.7531	11.9020	12.6551	0.0450	1.4000e-004	13.6434

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0138	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Energy	3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	11.8745	11.8745	4.5000e-004	1.4000e-004	11.9280
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.7531	0.0000	0.7531	0.0445	0.0000	1.6877
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0275	0.0275	0.0000	0.0000	0.0276
Total	0.0141	3.1900e-003	2.7100e-003	2.0000e-005	0.0000	2.4000e-004	2.4000e-004	0.0000	2.4000e-004	2.4000e-004	0.7531	11.9020	12.6551	0.0450	1.4000e-004	13.6434

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	4/29/2021	5	85	
2	Grading	Grading	4/30/2021	7/1/2021	5	45	
3	Building Construction	Building Construction	7/2/2021	12/30/2021	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 5.52

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating - sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	0	8.00	162	0.38
Site Preparation	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Off-Highway Trucks	2	8.00	400	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	400	0.38
Grading	Rubber Tired Dozers	0	8.00	255	0.40
Building Construction	Aerial Lifts	1	8.00	62	0.31
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Bore/Drill Rigs	1	8.00	205	0.50
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Off-Highway Trucks	2	8.00	400	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Pavers	1	8.00	125	0.42
Building Construction	Paving Equipment	1	8.00	130	0.36
Building Construction	Plate Compactors	1	8.00	8	0.43
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Rollers	1	8.00	80	0.38
Building Construction	Surfacing Equipment	1	8.00	253	0.30
Building Construction	Sweepers/Scrubbers	1	8.00	64	0.46
Building Construction	Trenchers	1	8.00	80	0.50
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	22	20.00	75.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Clean Paved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0784	0.7054	0.4961	1.3900e-003		0.0308	0.0308		0.0283	0.0283	0.0000	121.7282	121.7282	0.0394	0.0000	122.5550
Total	0.0784	0.7054	0.4961	1.3900e-003	0.0000	0.0308	0.0308	0.0000	0.0283	0.0283	0.0000	121.7282	121.7282	0.0394	0.0000	122.5550

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1700e-003	3.7000e-003	0.0352	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8700e-003	0.0000	7.8963	7.8963	3.5000e-004	0.0000	7.9035
Total	2.1700e-003	3.7000e-003	0.0352	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8700e-003	0.0000	7.8963	7.8963	3.5000e-004	0.0000	7.9035

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.0734	0.7011	1.3900e-003		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	121.7281	121.7281	0.0394	0.0000	122.5548
Total	0.0169	0.0734	0.7011	1.3900e-003	0.0000	2.2600e-003	2.2600e-003	0.0000	2.2600e-003	2.2600e-003	0.0000	121.7281	121.7281	0.0394	0.0000	122.5548

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1700e-003	3.7000e-003	0.0352	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8700e-003	0.0000	7.8963	7.8963	3.5000e-004	0.0000	7.9035
Total	2.1700e-003	3.7000e-003	0.0352	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8700e-003	0.0000	7.8963	7.8963	3.5000e-004	0.0000	7.9035

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					2.9300e-003	0.0000	2.9300e-003	3.2000e-004	0.0000	3.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0416	0.3739	0.2630	7.3000e-004		0.0163	0.0163		0.0150	0.0150	0.0000	64.4833	64.4833	0.0209	0.0000	64.9213
Total	0.0416	0.3739	0.2630	7.3000e-004	2.9300e-003	0.0163	0.0193	3.2000e-004	0.0150	0.0153	0.0000	64.4833	64.4833	0.0209	0.0000	64.9213

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1500e-003	1.9600e-003	0.0187	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	4.1804	4.1804	1.8000e-004	0.0000	4.1842
Total	1.1500e-003	1.9600e-003	0.0187	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	4.1804	4.1804	1.8000e-004	0.0000	4.1842

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					2.9300e-003	0.0000	2.9300e-003	3.2000e-004	0.0000	3.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.9700e-003	0.0389	0.3715	7.3000e-004		1.2000e-003	1.2000e-003		1.2000e-003	1.2000e-003	0.0000	64.4832	64.4832	0.0209	0.0000	64.9212
Total	8.9700e-003	0.0389	0.3715	7.3000e-004	2.9300e-003	1.2000e-003	4.1300e-003	3.2000e-004	1.2000e-003	1.5200e-003	0.0000	64.4832	64.4832	0.0209	0.0000	64.9212

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1500e-003	1.9600e-003	0.0187	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	4.1804	4.1804	1.8000e-004	0.0000	4.1842
Total	1.1500e-003	1.9600e-003	0.0187	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	4.1804	4.1804	1.8000e-004	0.0000	4.1842

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	0.3598	3.3299	3.0446	6.4800e-003		0.1661	0.1661		0.1560	0.1560	0.0000	562.7909	562.7909	0.1494	0.0000	565.9282
Total	0.3598	3.3299	3.0446	6.4800e-003		0.1661	0.1661		0.1560	0.1560	0.0000	562.7909	562.7909	0.1494	0.0000	565.9282

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	0.0359	0.2236	0.5397	1.0500e-003	16.6271	4.2300e-003	16.6313	1.6632	3.8900e-003	1.6671	0.0000	88.6197	88.6197	6.9000e-004	0.0000	88.6342
Worker	3.3100e-003	5.6600e-003	0.0539	1.9000e-004	0.0162	1.1000e-004	0.0163	4.2900e-003	1.0000e-004	4.4000e-003	0.0000	12.0766	12.0766	5.3000e-004	0.0000	12.0878
Total	0.0392	0.2293	0.5936	1.2400e-003	16.6432	4.3400e-003	16.6476	1.6675	3.9900e-003	1.6715	0.0000	100.6963	100.6963	1.2200e-003	0.0000	100.7220

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	0.0799	0.5220	3.7121	6.4800e-003		0.0100	0.0100		0.0100	0.0100	0.0000	562.7902	562.7902	0.1494	0.0000	565.9275
Total	0.0799	0.5220	3.7121	6.4800e-003		0.0100	0.0100		0.0100	0.0100	0.0000	562.7902	562.7902	0.1494	0.0000	565.9275

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
General Light Industry	0.00	0.00	0.00	59.00	28.00	13.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.409403	0.062545	0.156224	0.176363	0.050982	0.007863	0.019891	0.103627	0.001777	0.001579	0.006540	0.000887	0.002320

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	8.4025	8.4025	3.8000e-004	8.0000e-005	8.4349
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	8.4025	8.4025	3.8000e-004	8.0000e-005	8.4349
NaturalGas Mitigated	3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4720	3.4720	7.0000e-005	6.0000e-005	3.4931
NaturalGas Unmitigated	3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4720	3.4720	7.0000e-005	6.0000e-005	3.4931

5.2 Energy by Land Use - NaturalGas
Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	65062.4	3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4720	3.4720	7.0000e-005	6.0000e-005	3.4931
Total		3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4720	3.4720	7.0000e-005	6.0000e-005	3.4931

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	65062.4	3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4720	3.4720	7.0000e-005	6.0000e-005	3.4931
Total		3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4720	3.4720	7.0000e-005	6.0000e-005	3.4931

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	28883.4	8.4025	3.8000e-004	8.0000e-005	8.4349
Total		8.4025	3.8000e-004	8.0000e-005	8.4349

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	28883.4	8.4025	3.8000e-004	8.0000e-005	8.4349
Total		8.4025	3.8000e-004	8.0000e-005	8.4349

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	0.0138	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Unmitigated	0.0138	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.0800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0117					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Total	0.0138	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005

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	2.0800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0117					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Total	0.0138	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0275	0.0000	0.0000	0.0276
Unmitigated	0.0275	0.0000	0.0000	0.0276

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0.027	0.0275	0.0000	0.0000	0.0276
Total		0.0275	0.0000	0.0000	0.0276

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0.027	0.0275	0.0000	0.0000	0.0276
Total		0.0275	0.0000	0.0000	0.0276

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.7531	0.0445	0.0000	1.6877
Unmitigated	0.7531	0.0445	0.0000	1.6877

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	3.71	0.7531	0.0445	0.0000	1.6877
Total		0.7531	0.0445	0.0000	1.6877

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	3.71	0.7531	0.0445	0.0000	1.6877
Total		0.7531	0.0445	0.0000	1.6877

9.0 Operational Offroad

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

Panoche_Oro_Loma_Reconductoring
San Joaquin Valley Unified APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	46.68	Acre	46.68	2,033,380.80	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - this run is used for construction related activities associated with the reconductoring of the Panoche-Oro Loma line only.

Land Use - A city park is used to represent vegetation clearing/site prep and land disturbance. Total land Disturbance from PD

Construction Phase - construction would involve site prep/grading and reconductoring activities. No arch coating, paving, or demo.

Off-road Equipment - off-road diesel equipment from PD.

Off-road Equipment - off-road diesel equipment based on PD

Off-road Equipment - off-road diesel equipment based on PD.

Trips and VMT - max 90 worker trips based on a max of 45 workers per day and an average of 20 during less intense work. vendor trips based on a total of 14 delivery trucks (i.e., line/bucket trucks) and rounded up to 30.

On-road Fugitive Dust - 40% unpaved based on % mileage of paved vs dirt/temporary road provided in PD.

Grading - disturbance from PD

Vehicle Trips - construction only

Area Coating - no operational arch. coatings

Energy Use -

Water And Wastewater - this page is used for construction-related GHG emissions associated with water used for dust suppression. assumed the same amount of water as would be required for the substation work.

Solid Waste - Same waste generation rate as Borden-Gregg reconductoring model run.

Construction Off-road Equipment Mitigation - Tier 4 for all diesel

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	740.00	130.00
tblConstructionPhase	NumDays	75.00	45.00

tblConstructionPhase	NumDays	30.00	85.00
tblGrading	AcresOfGrading	0.00	46.68
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblProjectCharacteristics	OperationalYear	2014	2030
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	4.01	4.30
tblTripsAndVMT	VendorTripNumber	333.00	30.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	854.00	90.00
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	SU_TR	1.59	0.00

tblVehicleTrips	WD_TR	1.59	0.00
tblWater	OutdoorWaterUseRate	55,618,349.40	27,000.00

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					
2031	0.4640	1.5248	3.1949	0.0114	7.1559	0.0472	7.2031	0.9067	0.0470	0.9538	0.0000	1,062.4326	1,062.4326	0.0379	0.0000	1,063.2282
Total	0.4640	1.5248	3.1949	0.0114	7.1559	0.0472	7.2031	0.9067	0.0470	0.9538	0.0000	1,062.4326	1,062.4326	0.0379	0.0000	1,063.2282

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					
2031	0.1454	0.6407	4.9008	0.0114	7.1559	0.0198	7.1757	0.9067	0.0196	0.9264	0.0000	1,062.4314	1,062.4314	0.0379	0.0000	1,063.2271
Total	0.1454	0.6407	4.9008	0.0114	7.1559	0.0198	7.1757	0.9067	0.0196	0.9264	0.0000	1,062.4314	1,062.4314	0.0379	0.0000	1,063.2271

	ROG	NOx	CO	SO2	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	68.66	57.98	-53.40	0.00	0.00	58.03	0.38	0.00	58.24	2.87	0.00	0.00	0.00	0.00	0.00	0.00

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	9.3551	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.3000e-004	8.3000e-004	0.0000	0.0000	8.8000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.8729	0.0000	0.8729	0.0516	0.0000	1.9561
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0275	0.0275	0.0000	0.0000	0.0276
Total	9.3551	0.0000	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.8729	0.0283	0.9012	0.0516	0.0000	1.9846

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.3551	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.3000e-004	8.3000e-004	0.0000	0.0000	8.8000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.8729	0.0000	0.8729	0.0516	0.0000	1.9561
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0275	0.0275	0.0000	0.0000	0.0276
Total	9.3551	0.0000	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.8729	0.0283	0.9012	0.0516	0.0000	1.9846

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2031	4/29/2031	5	85	
2	Grading	Grading	4/30/2031	7/1/2031	5	45	
3	Building Construction	Building Construction	7/2/2031	12/30/2031	5	130	

Acres of Grading (Site Preparation Phase): 46.68

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating - sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Off-Highway Trucks	2	8.00	400	0.38
Site Preparation	Rubber Tired Dozers	1	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	0	8.00	162	0.38
Grading	Graders	0	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	400	0.38
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	0	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cement and Mortar Mixers	3	8.00	9	0.56
Building Construction	Cranes	4	7.00	226	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Off-Highway Trucks	5	8.00	400	0.38
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	4	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	90.00	30.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Clean Paved Roads

3.2 Site Preparation - 2031

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					0.2807	0.0000	0.2807	0.1434	0.0000	0.1434	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0812	0.2748	0.4584	1.6800e-003	9.5700e-003	9.5700e-003	9.5700e-003	9.5700e-003	9.5700e-003	9.5700e-003	0.0000	170.7654	170.7654	6.5200e-003	0.0000	170.9025
Total	0.0812	0.2748	0.4584	1.6800e-003	0.2807	9.5700e-003	0.2903	0.1434	9.5700e-003	0.1529	0.0000	170.7654	170.7654	6.5200e-003	0.0000	170.9025

3.2 Site Preparation - 2031

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	1.3500e-003	2.3300e-003	0.0233	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8800e-003	0.0000	7.2321	7.2321	2.6000e-004	0.0000	7.2377
Total	1.3500e-003	2.3300e-003	0.0233	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8800e-003	0.0000	7.2321	7.2321	2.6000e-004	0.0000	7.2377

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					0.2807	0.0000	0.2807	0.1434	0.0000	0.1434	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0199	0.0861	0.7691	1.6800e-003		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	170.7652	170.7652	6.5200e-003	0.0000	170.9023
Total	0.0199	0.0861	0.7691	1.6800e-003	0.2807	2.6500e-003	0.2833	0.1434	2.6500e-003	0.1460	0.0000	170.7652	170.7652	6.5200e-003	0.0000	170.9023

3.2 Site Preparation - 2031

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	1.3500e-003	2.3300e-003	0.0233	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8800e-003	0.0000	7.2321	7.2321	2.6000e-004	0.0000	7.2377
Total	1.3500e-003	2.3300e-003	0.0233	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8800e-003	0.0000	7.2321	7.2321	2.6000e-004	0.0000	7.2377

3.3 Grading - 2031

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					0.1355	0.0000	0.1355	0.0745	0.0000	0.0745	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0430	0.1455	0.2427	8.9000e-004		5.0700e-003	5.0700e-003		5.0700e-003	5.0700e-003	0.0000	90.4052	90.4052	3.4500e-003	0.0000	90.4778
Total	0.0430	0.1455	0.2427	8.9000e-004	0.1355	5.0700e-003	0.1406	0.0745	5.0700e-003	0.0796	0.0000	90.4052	90.4052	3.4500e-003	0.0000	90.4778

3.3 Grading - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1000e-004	1.2300e-003	0.0123	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	3.8288	3.8288	1.4000e-004	0.0000	3.8317
Total	7.1000e-004	1.2300e-003	0.0123	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	3.8288	3.8288	1.4000e-004	0.0000	3.8317

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					0.1355	0.0000	0.1355	0.0745	0.0000	0.0745	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0105	0.0456	0.4072	8.9000e-004		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003	0.0000	90.4051	90.4051	3.4500e-003	0.0000	90.4777
Total	0.0105	0.0456	0.4072	8.9000e-004	0.1355	1.4000e-003	0.1369	0.0745	1.4000e-003	0.0759	0.0000	90.4051	90.4051	3.4500e-003	0.0000	90.4777

3.3 Grading - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1000e-004	1.2300e-003	0.0123	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	3.8288	3.8288	1.4000e-004	0.0000	3.8317
Total	7.1000e-004	1.2300e-003	0.0123	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	3.8288	3.8288	1.4000e-004	0.0000	3.8317

3.4 Building Construction - 2031

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	0.3173	1.0183	2.1240	7.3700e-003		0.0304	0.0304		0.0304	0.0304	0.0000	705.0600	705.0600	0.0254	0.0000	705.5939
Total	0.3173	1.0183	2.1240	7.3700e-003		0.0304	0.0304		0.0304	0.0304	0.0000	705.0600	705.0600	0.0254	0.0000	705.5939

3.4 Building Construction - 2031

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	0.0000
Vendor	0.0112	0.0666	0.1742	4.2000e-004	6.6508	1.5400e-003	6.6524	0.6653	1.4200e-003	0.6667	0.0000	35.3669	35.3669	2.6000e-004	0.0000	0.0000	35.3723
Worker	9.2900e-003	0.0160	0.1602	8.7000e-004	0.0727	5.1000e-004	0.0732	0.0193	4.7000e-004	0.0198	0.0000	49.7741	49.7741	1.8200e-003	0.0000	0.0000	49.8124
Total	0.0205	0.0826	0.3343	1.2900e-003	6.7236	2.0500e-003	6.7256	0.6846	1.8900e-003	0.6865	0.0000	85.1410	85.1410	2.0800e-003	0.0000	0.0000	85.1847

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	0.0925	0.4229	3.3547	7.3700e-003		0.0136	0.0136		0.0136	0.0136	0.0000	705.0592	705.0592	0.0254	0.0000	705.5930
Total	0.0925	0.4229	3.3547	7.3700e-003		0.0136	0.0136		0.0136	0.0136	0.0000	705.0592	705.0592	0.0254	0.0000	705.5930

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
City Park	14.70	6.60	6.60	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.413413	0.063073	0.155160	0.173397	0.051093	0.007959	0.020021	0.102512	0.001779	0.001618	0.006843	0.000803	0.002329

5.0 Energy Detail

~~4.4 Fleet Mix~~

Historical Energy Use: N

5.1 Mitigation Measures Energy

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
City Park	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	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	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.3551	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.3000e-004	8.3000e-004	0.0000	0.0000	8.8000e-004
Unmitigated	9.3551	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.3000e-004	8.3000e-004	0.0000	0.0000	8.8000e-004

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	1.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.9414					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.3000e-004	8.3000e-004	0.0000	0.0000	8.8000e-004
Total	9.3551	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.3000e-004	8.3000e-004	0.0000	0.0000	8.8000e-004

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	1.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.9414					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.3000e-004	8.3000e-004	0.0000	0.0000	8.8000e-004
Total	9.3551	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.3000e-004	8.3000e-004	0.0000	0.0000	8.8000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0275	0.0000	0.0000	0.0276
Unmitigated	0.0275	0.0000	0.0000	0.0276

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.027	0.0275	0.0000	0.0000	0.0276
Total		0.0275	0.0000	0.0000	0.0276

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.027	0.0275	0.0000	0.0000	0.0276
Total		0.0275	0.0000	0.0000	0.0276

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.8729	0.0516	0.0000	1.9561
Unmitigated	0.8729	0.0516	0.0000	1.9561

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	4.3	0.8729	0.0516	0.0000	1.9561
Total		0.8729	0.0516	0.0000	1.9561

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	4.3	0.8729	0.0516	0.0000	1.9561
Total		0.8729	0.0516	0.0000	1.9561

9.0 Operational Offroad

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

Wilson Substation
San Joaquin Valley Unified APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	2.99	1000sqft	102.17	2,990.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - this run is used for construction related activities associated with the expansion of the Wilson Substation.

Land Use - light industry is used to represent vegetation clearing/site prep and land disturbance associated with substation expansion. Total land Disturbance from PD

Construction Phase - construction would involve site prep/grading and reconductoring activities. No arch coating/demo.

Off-road Equipment - off-road diesel equipment from PD.

Off-road Equipment - off-road diesel equipment based on PD

Off-road Equipment - off-road diesel equipment based on PD.

Trips and VMT - max 90 worker trips based on a max of 45 workers per day and an average of 20 during less intense work. vendor trips based on a total of 75 truck trips per day from PD.

On-road Fugitive Dust - 40% unpaved based on % mileage of paved vs dirt/temporary road provided in PD.

Grading - disturbance from PD

Vehicle Trips - construction only

Area Coating - no operational arch. coatings

Energy Use -

Water And Wastewater - 27000 gallons for dust suppressants

Solid Waste -

Construction Off-road Equipment Mitigation - Tier 4 for all diesel

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	HaulingPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblProjectCharacteristics	OperationalYear	2014	2021
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripNumber	0.00	75.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	8.00	20.00

tblTripsAndVMT	WorkerTripNumber	1.00	20.00
tblVehicleTrips	CC_TL	6.60	0.00
tblVehicleTrips	CNW_TL	6.60	0.00
tblVehicleTrips	CW_TL	14.70	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	691,437.50	0.00
tblWater	OutdoorWaterUseRate	0.00	27,000.00

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	0.0138	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Energy	3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	11.8745	11.8745	4.5000e-004	1.4000e-004	11.9280
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.7531	0.0000	0.7531	0.0445	0.0000	1.6877
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0275	0.0275	0.0000	0.0000	0.0276
Total	0.0141	3.1900e-003	2.7100e-003	2.0000e-005	0.0000	2.4000e-004	2.4000e-004	0.0000	2.4000e-004	2.4000e-004	0.7531	11.9020	12.6551	0.0450	1.4000e-004	13.6434

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0138	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Energy	3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	11.8745	11.8745	4.5000e-004	1.4000e-004	11.9280
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.7531	0.0000	0.7531	0.0445	0.0000	1.6877
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0275	0.0275	0.0000	0.0000	0.0276
Total	0.0141	3.1900e-003	2.7100e-003	2.0000e-005	0.0000	2.4000e-004	2.4000e-004	0.0000	2.4000e-004	2.4000e-004	0.7531	11.9020	12.6551	0.0450	1.4000e-004	13.6434

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	4/29/2021	5	85	
2	Grading	Grading	4/30/2021	7/1/2021	5	45	
3	Building Construction	Building Construction	7/2/2021	12/30/2021	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 102.17

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating - sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Off-Highway Trucks	2	8.00	361	0.48
Site Preparation	Scrapers	1	8.00	361	0.48
Site Preparation	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	400	0.38
Grading	Rubber Tired Dozers	0	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Aerial Lifts	1	8.00	62	0.31
Building Construction	Bore/Drill Rigs	1	8.00	205	0.50
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Off-Highway Trucks	2	8.00	400	0.38
Building Construction	Pavers	1	8.00	125	0.42
Building Construction	Paving Equipment	1	8.00	130	0.36
Building Construction	Plate Compactors	1	8.00	8	0.43
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Rollers	1	8.00	80	0.38
Building Construction	Surfacing Equipment	1	8.00	253	0.30
Building Construction	Sweepers/Scrubbers	1	8.00	64	0.46
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Trenchers	1	8.00	80	0.50
Building Construction	Welders	1	8.00	46	0.45
Building Construction	Concrete/Industrial Saws	1	8.00	81	0.73

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	4	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	21	20.00	75.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Clean Paved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1243	1.2137	0.8307	2.1700e-003		0.0505	0.0505		0.0464	0.0464	0.0000	190.7155	190.7155	0.0617	0.0000	192.0108
Total	0.1243	1.2137	0.8307	2.1700e-003	0.0000	0.0505	0.0505	0.0000	0.0464	0.0464	0.0000	190.7155	190.7155	0.0617	0.0000	192.0108

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1700e-003	3.7000e-003	0.0352	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8700e-003	0.0000	7.8963	7.8963	3.5000e-004	0.0000	7.9035
Total	2.1700e-003	3.7000e-003	0.0352	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8700e-003	0.0000	7.8963	7.8963	3.5000e-004	0.0000	7.9035

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0577	0.0814	1.0622	2.1700e-003		0.0199	0.0199		0.0185	0.0185	0.0000	190.7153	190.7153	0.0617	0.0000	192.0106
Total	0.0577	0.0814	1.0622	2.1700e-003	0.0000	0.0199	0.0199	0.0000	0.0185	0.0185	0.0000	190.7153	190.7153	0.0617	0.0000	192.0106

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1700e-003	3.7000e-003	0.0352	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8700e-003	0.0000	7.8963	7.8963	3.5000e-004	0.0000	7.9035
Total	2.1700e-003	3.7000e-003	0.0352	1.3000e-004	0.0106	7.0000e-005	0.0106	2.8100e-003	7.0000e-005	2.8700e-003	0.0000	7.8963	7.8963	3.5000e-004	0.0000	7.9035

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					0.0542	0.0000	0.0542	5.8500e-003	0.0000	5.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0414	0.3727	0.2621	7.3000e-004		0.0163	0.0163		0.0150	0.0150	0.0000	64.2237	64.2237	0.0208	0.0000	64.6598
Total	0.0414	0.3727	0.2621	7.3000e-004	0.0542	0.0163	0.0705	5.8500e-003	0.0150	0.0208	0.0000	64.2237	64.2237	0.0208	0.0000	64.6598

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1500e-003	1.9600e-003	0.0187	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	4.1804	4.1804	1.8000e-004	0.0000	4.1842
Total	1.1500e-003	1.9600e-003	0.0187	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	4.1804	4.1804	1.8000e-004	0.0000	4.1842

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					0.0542	0.0000	0.0542	5.8500e-003	0.0000	5.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.9400e-003	0.0387	0.3702	7.3000e-004		1.1900e-003	1.1900e-003		1.1900e-003	1.1900e-003	0.0000	64.2236	64.2236	0.0208	0.0000	64.6598
Total	8.9400e-003	0.0387	0.3702	7.3000e-004	0.0542	1.1900e-003	0.0554	5.8500e-003	1.1900e-003	7.0400e-003	0.0000	64.2236	64.2236	0.0208	0.0000	64.6598

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1500e-003	1.9600e-003	0.0187	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	4.1804	4.1804	1.8000e-004	0.0000	4.1842
Total	1.1500e-003	1.9600e-003	0.0187	7.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	4.1804	4.1804	1.8000e-004	0.0000	4.1842

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	0.3598	3.3302	3.0476	6.4800e-003		0.1662	0.1662		0.1561	0.1561	0.0000	562.4835	562.4835	0.1493	0.0000	565.6187
Total	0.3598	3.3302	3.0476	6.4800e-003		0.1662	0.1662		0.1561	0.1561	0.0000	562.4835	562.4835	0.1493	0.0000	565.6187

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	0.0359	0.2236	0.5397	1.0500e-003	16.6271	4.2300e-003	16.6313	1.6632	3.8900e-003	1.6671	0.0000	88.6197	88.6197	6.9000e-004	0.0000	88.6342	
Worker	3.3100e-003	5.6600e-003	0.0539	1.9000e-004	0.0162	1.1000e-004	0.0163	4.2900e-003	1.0000e-004	4.4000e-003	0.0000	12.0766	12.0766	5.3000e-004	0.0000	12.0878	
Total	0.0392	0.2293	0.5936	1.2400e-003	16.6432	4.3400e-003	16.6476	1.6675	3.9900e-003	1.6715	0.0000	100.6963	100.6963	1.2200e-003	0.0000	100.7220	

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	0.0799	0.5229	3.7136	6.4800e-003		0.0100	0.0100		0.0100	0.0100	0.0000	562.4829	562.4829	0.1493	0.0000	565.6181	
Total	0.0799	0.5229	3.7136	6.4800e-003		0.0100	0.0100		0.0100	0.0100	0.0000	562.4829	562.4829	0.1493	0.0000	565.6181	

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
General Light Industry	0.00	0.00	0.00	59.00	28.00	13.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.409403	0.062545	0.156224	0.176363	0.050982	0.007863	0.019891	0.103627	0.001777	0.001579	0.006540	0.000887	0.002320

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	8.4025	8.4025	3.8000e-004	8.0000e-005	8.4349
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	8.4025	8.4025	3.8000e-004	8.0000e-005	8.4349
NaturalGas Mitigated	3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4720	3.4720	7.0000e-005	6.0000e-005	3.4931
NaturalGas Unmitigated	3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4720	3.4720	7.0000e-005	6.0000e-005	3.4931

5.2 Energy by Land Use - NaturalGas
Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	65062.4	3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4720	3.4720	7.0000e-005	6.0000e-005	3.4931
Total		3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4720	3.4720	7.0000e-005	6.0000e-005	3.4931

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	65062.4	3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4720	3.4720	7.0000e-005	6.0000e-005	3.4931
Total		3.5000e-004	3.1900e-003	2.6800e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4720	3.4720	7.0000e-005	6.0000e-005	3.4931

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	28883.4	8.4025	3.8000e-004	8.0000e-005	8.4349
Total		8.4025	3.8000e-004	8.0000e-005	8.4349

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	28883.4	8.4025	3.8000e-004	8.0000e-005	8.4349
Total		8.4025	3.8000e-004	8.0000e-005	8.4349

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	0.0138	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Unmitigated	0.0138	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.0800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0117					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Total	0.0138	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005

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	2.0800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0117					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Total	0.0138	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0275	0.0000	0.0000	0.0276
Unmitigated	0.0275	0.0000	0.0000	0.0276

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0.027	0.0275	0.0000	0.0000	0.0276
Total		0.0275	0.0000	0.0000	0.0276

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0.027	0.0275	0.0000	0.0000	0.0276
Total		0.0275	0.0000	0.0000	0.0276

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.7531	0.0445	0.0000	1.6877
Unmitigated	0.7531	0.0445	0.0000	1.6877

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	3.71	0.7531	0.0445	0.0000	1.6877
Total		0.7531	0.0445	0.0000	1.6877

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	3.71	0.7531	0.0445	0.0000	1.6877
Total		0.7531	0.0445	0.0000	1.6877

9.0 Operational Offroad

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

Pole Installation - San Joaquin Valley Unified APCD Air District, Annual

Pole Installation
San Joaquin Valley Unified APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - no actualy building construction would occur.
- Construction Phase - anticipated 33 days for pole installation
- Off-road Equipment - equipment assumptions from PD
- Grading - from project description
- Trips and VMT -
- On-road Fugitive Dust - assumption per previous analysis
- Vehicle Trips -
- Construction Off-road Equipment Mitigation - assumed compliance with air district dust control measures

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	2.00	33.00
tblConstructionPhase	PhaseEndDate	1/18/2023	2/15/2023
tblConstructionPhase	PhaseStartDate	1/17/2023	1/2/2023
tblGrading	AcresOfGrading	0.00	1.37
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOnRoadDust	WorkerPercentPave	100.00	60.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

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					
2023	0.0370	0.2654	0.2999	8.9000e-004	2.5907	0.0108	2.6015	0.2645	0.0101	0.2746	0.0000	78.4514	78.4514	0.0230	0.0000	79.0265
Maximum	0.0370	0.2654	0.2999	8.9000e-004	2.5907	0.0108	2.6015	0.2645	0.0101	0.2746	0.0000	78.4514	78.4514	0.0230	0.0000	79.0265

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					
2023	0.0370	0.2654	0.2999	8.9000e-004	1.1744	0.0108	1.1852	0.1232	0.0101	0.1333	0.0000	78.4513	78.4513	0.0230	0.0000	79.0265
Maximum	0.0370	0.2654	0.2999	8.9000e-004	1.1744	0.0108	1.1852	0.1232	0.0101	0.1333	0.0000	78.4513	78.4513	0.0230	0.0000	79.0265

	ROG	NOx	CO	SO2	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	54.67	0.00	54.44	53.42	0.00	51.47	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	1-2-2023	4-1-2023	0.2947	0.2947
		Highest	0.2947	0.2947

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/2/2023	2/15/2023	5	33	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.37

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Off-Highway Trucks	3	8.00	402	0.38
Grading	Air Compressors	1	8.00	78	0.48
Grading	Excavators	1	8.00	158	0.38
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

3.2 Grading - 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					
Fugitive Dust					0.0132	0.0000	0.0132	6.9100e-003	0.0000	6.9100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0356	0.2645	0.2904	8.6000e-004		0.0108	0.0108		0.0101	0.0101	0.0000	75.5102	75.5102	0.0229	0.0000	76.0838

Total	0.0356	0.2645	0.2904	8.6000e-004	0.0132	0.0108	0.0239	6.9100e-003	0.0101	0.0170	0.0000	75.5102	75.5102	0.0229	0.0000	76.0838
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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	1.3900e-003	9.0000e-004	9.4900e-003	3.0000e-005	2.5775	2.0000e-005	2.5776	0.2576	2.0000e-005	0.2577	0.0000	2.9412	2.9412	6.0000e-005	0.0000	2.9428
Total	1.3900e-003	9.0000e-004	9.4900e-003	3.0000e-005	2.5775	2.0000e-005	2.5776	0.2576	2.0000e-005	0.2577	0.0000	2.9412	2.9412	6.0000e-005	0.0000	2.9428

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					0.0132	0.0000	0.0132	6.9100e-003	0.0000	6.9100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0356	0.2645	0.2904	8.6000e-004		0.0108	0.0108		0.0101	0.0101	0.0000	75.5101	75.5101	0.0229	0.0000	76.0837
Total	0.0356	0.2645	0.2904	8.6000e-004	0.0132	0.0108	0.0239	6.9100e-003	0.0101	0.0170	0.0000	75.5101	75.5101	0.0229	0.0000	76.0837

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	1.3900e-003	9.0000e-004	9.4900e-003	3.0000e-005	1.1612	2.0000e-005	1.1612	0.1163	2.0000e-005	0.1163	0.0000	2.9412	2.9412	6.0000e-005	0.0000	2.9428
Total	1.3900e-003	9.0000e-004	9.4900e-003	3.0000e-005	1.1612	2.0000e-005	1.1612	0.1163	2.0000e-005	0.1163	0.0000	2.9412	2.9412	6.0000e-005	0.0000	2.9428

2.5 mile trenching - San Joaquin Valley Unified APCD Air District, Annual

2.5 mile trenching
San Joaquin Valley Unified APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	13.20	1000sqft	0.30	13,200.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2.5 miles of trenching for fiber optic...assumed 4 foot deep trench by 1 foot wide

Construction Phase - assumed 1 ft/min for trenching so 13,200 feet/60min=220 hrs/8hr days= 27.5days

Off-road Equipment - based on equipment in PD, 3 trucks = 2 dump and 1 water....2 dump trucks accounted for in vendor trips

Trips and VMT - 2 dump trucks per day

On-road Fugitive Dust - same assumption previously used

Vehicle Trips - run is for construction only

Construction Off-road Equipment Mitigation - Tier 4 included per IAMF and water truck included

Fleet Mix - run is for construction only

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblOnRoadDust	VendorPercentPave	100.00	60.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	10.00	15.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	WD_TR	6.97	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					
2023	0.0170	0.1303	0.1479	3.1000e-004	0.0981	6.8800e-003	0.1050	0.0103	6.5900e-003	0.0168	0.0000	27.1937	27.1937	4.5300e-003	0.0000	27.3070
Maximum	0.0170	0.1303	0.1479	3.1000e-004	0.0981	6.8800e-003	0.1050	0.0103	6.5900e-003	0.0168	0.0000	27.1937	27.1937	4.5300e-003	0.0000	27.3070

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					
2023	6.5500e-003	0.0364	0.1523	3.1000e-004	0.0457	1.1900e-003	0.0468	5.0100e-003	1.1100e-003	6.1300e-003	0.0000	27.1936	27.1936	4.5300e-003	0.0000	27.3070
Maximum	6.5500e-003	0.0364	0.1523	3.1000e-004	0.0457	1.1900e-003	0.0468	5.0100e-003	1.1100e-003	6.1300e-003	0.0000	27.1936	27.1936	4.5300e-003	0.0000	27.3070

	ROG	NOx	CO	SO2	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	61.43	72.07	-3.02	0.00	53.47	82.70	55.39	51.12	83.16	63.58	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	2-1-2023	4-30-2023	0.1429	0.0418
		Highest	0.1429	0.0418

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	Trenching	2/1/2023	3/10/2023	5	28	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Air Compressors	1	8.00	78	0.48
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38
Site Preparation	Pumps	1	8.00	84	0.74
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Trenchers	1	7.00	78	0.50

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	4	15.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

3.2 Site Preparation - 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					
Off-Road	0.0159	0.1274	0.1407	2.8000e-004	6.8600e-003	6.8600e-003	6.8600e-003	6.5700e-003	6.5700e-003	6.5700e-003	0.0000	24.4428	24.4428	4.4500e-003	0.0000	24.5541
Total	0.0159	0.1274	0.1407	2.8000e-004	6.8600e-003	6.8600e-003	6.8600e-003	6.5700e-003	6.5700e-003	6.5700e-003	0.0000	24.4428	24.4428	4.4500e-003	0.0000	24.5541

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	6.0000e-005	2.1900e-003	4.1000e-004	1.0000e-005	0.0955	0.0000	0.0955	9.5500e-003	0.0000	9.5600e-003	0.0000	0.6712	0.6712	4.0000e-005	0.0000	0.6722
Worker	9.8000e-004	6.4000e-004	6.7100e-003	2.0000e-005	2.6100e-003	2.0000e-005	2.6300e-003	6.9000e-004	1.0000e-005	7.1000e-004	0.0000	2.0796	2.0796	5.0000e-005	0.0000	2.0808
Total	1.0400e-003	2.8300e-003	7.1200e-003	3.0000e-005	0.0981	2.0000e-005	0.0981	0.0102	1.0000e-005	0.0103	0.0000	2.7508	2.7508	9.0000e-005	0.0000	2.7529

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	5.5100e-003	0.0336	0.1452	2.8000e-004		1.1700e-003	1.1700e-003		1.0900e-003	1.0900e-003	0.0000	24.4428	24.4428	4.4500e-003	0.0000	24.5541
Total	5.5100e-003	0.0336	0.1452	2.8000e-004		1.1700e-003	1.1700e-003		1.0900e-003	1.0900e-003	0.0000	24.4428	24.4428	4.4500e-003	0.0000	24.5541

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	6.0000e-005	2.1900e-003	4.1000e-004	1.0000e-005	0.0430	0.0000	0.0430	4.3200e-003	0.0000	4.3200e-003	0.0000	0.6712	0.6712	4.0000e-005	0.0000	0.6722
Worker	9.8000e-004	6.4000e-004	6.7100e-003	2.0000e-005	2.6100e-003	2.0000e-005	2.6300e-003	6.9000e-004	1.0000e-005	7.1000e-004	0.0000	2.0796	2.0796	5.0000e-005	0.0000	2.0808
Total	1.0400e-003	2.8300e-003	7.1200e-003	3.0000e-005	0.0457	2.0000e-005	0.0457	5.0100e-003	1.0000e-005	5.0300e-003	0.0000	2.7508	2.7508	9.0000e-005	0.0000	2.7529