

Appendix D
CalEEMod Outputs

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Samoa Peninsula - Operation 2021 - Humboldt County, Annual

**Samoa Peninsula - Operation 2021
Humboldt County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	2.00	1000sqft	0.20	2,000.00	0
Other Asphalt Surfaces	3.00	Acre	3.00	130,680.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	103
Climate Zone	1			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	401	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E EI Changed to 2012-2018 AVG actuals
 Land Use - 3 Acre for repaving. 0.2 acre for improvements to Approved Samoa WWTF
 Construction Phase - Operational Solids Handling and Hauling
 Off-road Equipment - Project-Specific
 Trips and VMT - Four 5 CY truckloads to Anderson (162 miles). Assumes contracted hauler (not two-way trips)
 Grading - 20 CY solids
 Off-road Equipment - Front End Loader Or Backhoe to load cake into truck
 Vehicle Trips - 2 operational trips per day
 Fleet Mix - Assumes Mix 0.5 LDA, 0.25 LDT1, 0.25 LDT2

Consumer Products - No Consumer Products

Energy Use - Total 52,595 kWh/yr

Water And Wastewater - Total Onsite Aerobic processing of 8,266,520 gallons/year

Solid Waste - No Solid Waste Generation

Stationary Sources - Emergency Generators and Fire Pumps - 4 Emergency Backup Generators, Assumed 500 hp ea, 1h per testing, 50h max year

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	8.00	4.00
tblEnergyUse	LightingElect	1.81	0.00
tblEnergyUse	NT24E	1.85	26.30
tblEnergyUse	NT24NG	0.31	0.00
tblEnergyUse	T24E	0.62	0.00
tblEnergyUse	T24NG	3.20	0.00
tblFleetMix	HHD	0.05	0.00
tblFleetMix	LDA	0.48	0.50
tblFleetMix	LDT1	0.05	0.25
tblFleetMix	LDT2	0.21	0.25
tblFleetMix	LHD1	0.04	0.00
tblFleetMix	LHD2	7.2380e-003	0.00
tblFleetMix	MCY	5.7460e-003	0.00
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	9.3300e-004	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	3.2920e-003	0.00
tblFleetMix	SBUS	1.5150e-003	0.00
tblFleetMix	UBUS	1.6180e-003	0.00
tblGrading	MaterialExported	0.00	20.00
tblLandUse	LotAcreage	0.05	0.20
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00

tblProjectCharacteristics	CO2IntensityFactor	641.35	401
tblSolidWaste	SolidWasteGenerationRate	2.48	0.00
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	500.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	4.00
tblTripsAndVMT	HaulingTripLength	20.00	162.00
tblTripsAndVMT	HaulingTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	3.00	0.00
tblVehicleTrips	ST_TR	1.32	1.00
tblVehicleTrips	SU_TR	0.68	1.00
tblVehicleTrips	WD_TR	6.97	1.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToSupply	2,117.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	IndoorWaterUseRate	462,500.00	4,133,260.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	4.8000e-004	7.3600e-003	5.1100e-003	2.0000e-005	2.7000e-004	2.4000e-004	5.1000e-004	7.0000e-005	2.3000e-004	3.0000e-004	0.0000	1.6192	1.6192	1.9000e-004	0.0000	1.6239
Maximum	4.8000e-004	7.3600e-003	5.1100e-003	2.0000e-005	2.7000e-004	2.4000e-004	5.1000e-004	7.0000e-005	2.3000e-004	3.0000e-004	0.0000	1.6192	1.6192	1.9000e-004	0.0000	1.6239

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	0.0231	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.5665	9.5665	6.9000e-004	1.4000e-004	9.6265
Mobile	1.1100e-003	1.8700e-003	0.0157	2.0000e-005	2.0800e-003	2.0000e-005	2.1000e-003	5.5000e-004	2.0000e-005	5.7000e-004	0.0000	1.8695	1.8695	1.3000e-004	0.0000	1.8728
Stationary	0.0820	0.2293	0.2092	3.9000e-004		0.0121	0.0121		0.0121	0.0121	0.0000	38.0797	38.0797	5.3400e-003	0.0000	38.2132
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	1.4624	0.0000	1.4624	5.0300e-003	3.1800e-003	2.5359
Total	0.1063	0.2312	0.2249	4.1000e-004	2.0800e-003	0.0121	0.0142	5.5000e-004	0.0121	0.0126	1.4624	49.5159	50.9782	0.0112	3.3200e-003	52.2484

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Soilds Handling and Hauling	Grading	5/4/2021	5/7/2021	5	4	Operational Solids Handling and Hauling

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 3

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
Soilds Handling and Hauling	Excavators	0	8.00	158	0.38
Soilds Handling and Hauling	Graders	0	8.00	187	0.41
Soilds Handling and Hauling	Rubber Tired Dozers	0	8.00	247	0.40
Soilds Handling and Hauling	Tractors/Loaders/Backhoes	1	8.00	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
Soilds Handling and Hauling	1	0.00	0.00	4.00	10.80	7.30	162.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Solids Handling and Hauling - 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	3.7000e-004	3.7900e-003	4.5200e-003	1.0000e-005		2.2000e-004	2.2000e-004		2.1000e-004	2.1000e-004	0.0000	0.5459	0.5459	1.8000e-004	0.0000	0.5504
Total	3.7000e-004	3.7900e-003	4.5200e-003	1.0000e-005	0.0000	2.2000e-004	2.2000e-004	0.0000	2.1000e-004	2.1000e-004	0.0000	0.5459	0.5459	1.8000e-004	0.0000	0.5504

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	3.5700e-003	5.9000e-004	1.0000e-005	2.7000e-004	2.0000e-005	2.9000e-004	7.0000e-005	2.0000e-005	9.0000e-005	0.0000	1.0733	1.0733	1.0000e-005	0.0000	1.0735
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	0.0000	0.0000	0.0000	0.0000	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	1.1000e-004	3.5700e-003	5.9000e-004	1.0000e-005	2.7000e-004	2.0000e-005	2.9000e-004	7.0000e-005	2.0000e-005	9.0000e-005	0.0000	1.0733	1.0733	1.0000e-005	0.0000	1.0735

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	1.1100e-003	1.8700e-003	0.0157	2.0000e-005	2.0800e-003	2.0000e-005	2.1000e-003	5.5000e-004	2.0000e-005	5.7000e-004	0.0000	1.8695	1.8695	1.3000e-004	0.0000	1.8728
Unmitigated	1.1100e-003	1.8700e-003	0.0157	2.0000e-005	2.0800e-003	2.0000e-005	2.1000e-003	5.5000e-004	2.0000e-005	5.7000e-004	0.0000	1.8695	1.8695	1.3000e-004	0.0000	1.8728

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	2.00	2.00	2.00	5,839	5,839
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	2.00	2.00	2.00	5,839	5,839

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.500000	0.250000	0.250000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.479770	0.048374	0.208987	0.137651	0.044565	0.007238	0.014792	0.045519	0.003292	0.001618	0.005746	0.001515	0.000933

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	9.5665	9.5665	6.9000e-004	1.4000e-004	9.6265
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	9.5665	9.5665	6.9000e-004	1.4000e-004	9.6265
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	52595	9.5665	6.9000e-004	1.4000e-004	9.6265
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		9.5665	6.9000e-004	1.4000e-004	9.6265

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	0.0231	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004
Unmitigated	0.0231	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-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	6.8600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0163					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	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004
Total	0.0231	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.4624	5.0300e-003	3.1800e-003	2.5359
Unmitigated	1.4624	5.0300e-003	3.1800e-003	2.5359

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.13326 / 0	1.4624	5.0300e-003	3.1800e-003	2.5359
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		1.4624	5.0300e-003	3.1800e-003	2.5359

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	4	1	50	500	0.73	Diesel

Boilers

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

Equipment Type	Number
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10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel	0.0820	0.2293	0.2092	3.9000e-004		0.0121	0.0121		0.0121	0.0121	0.0000	38.0797	38.0797	5.3400e-003	0.0000	38.2132
Total	0.0820	0.2293	0.2092	3.9000e-004		0.0121	0.0121		0.0121	0.0121	0.0000	38.0797	38.0797	5.3400e-003	0.0000	38.2132

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	2.00	1000sqft	0.20	2,000.00	0
Other Asphalt Surfaces	3.00	Acre	3.00	130,680.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	103
Climate Zone	1			Operational Year	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	401	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E EI Changed to 2012-2018 AVG actuals
 Land Use - 3 Acre for repaving. 0.2 acre for improvements to Approved Samoa WWTF
 Construction Phase - Operational Solids Handling and Hauling
 Off-road Equipment - Project-Specific
 Off-road Equipment - Front End Loader Or Backhoe to load cake into truck
 Trips and VMT - Four 5 CY truckloads to Anderson (162 miles). Assumes contracted hauler (not two-way trips)
 Grading - 20 CY solids
 Vehicle Trips - 2 operational trips per day
 Consumer Products - No Consumer Products

Energy Use - Total 99,090 kWh/yr

Water And Wastewater - Total Onsite Aerobic processing of 24,427,260 gallons/year

Solid Waste - No Solid Waste Generation

Fleet Mix - Assumes Mix 0.5 LDA, 0.25 LDT1, 0.25 LDT2

Stationary Sources - Emergency Generators and Fire Pumps - 4 Emergency Backup Generators, Assumed 500 hp ea, 1h per testing, 50h max year

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	8.00	4.00
tblEnergyUse	LightingElect	1.81	0.00
tblEnergyUse	NT24E	1.85	49.55
tblEnergyUse	NT24NG	0.31	0.00
tblEnergyUse	T24E	0.62	0.00
tblEnergyUse	T24NG	3.20	0.00
tblFleetMix	HHD	0.05	0.00
tblFleetMix	LDA	0.54	0.50
tblFleetMix	LDT1	0.03	0.25
tblFleetMix	LDT2	0.21	0.25
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	3.7140e-003	0.00
tblFleetMix	MCY	4.4000e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	4.6600e-004	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	3.9810e-003	0.00
tblFleetMix	SBUS	1.4210e-003	0.00
tblFleetMix	UBUS	1.0170e-003	0.00
tblGrading	MaterialExported	0.00	20.00
tblLandUse	LotAcreage	0.05	0.20
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00

tblProjectCharacteristics	CO2IntensityFactor	641.35	401
tblSolidWaste	SolidWasteGenerationRate	2.48	0.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	500.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	4.00
tblTripsAndVMT	HaulingTripLength	20.00	162.00
tblTripsAndVMT	HaulingTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	3.00	0.00
tblVehicleTrips	ST_TR	1.32	1.00
tblVehicleTrips	SU_TR	0.68	1.00
tblVehicleTrips	WD_TR	6.97	1.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToSupply	2,117.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	IndoorWaterUseRate	462,500.00	12,213,630.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	4.8000e-004	7.3600e-003	5.1100e-003	2.0000e-005	2.7000e-004	2.4000e-004	5.1000e-004	7.0000e-005	2.3000e-004	3.0000e-004	0.0000	1.6192	1.6192	1.9000e-004	0.0000	1.6239
Maximum	4.8000e-004	7.3600e-003	5.1100e-003	2.0000e-005	2.7000e-004	2.4000e-004	5.1000e-004	7.0000e-005	2.3000e-004	3.0000e-004	0.0000	1.6192	1.6192	1.9000e-004	0.0000	1.6239

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	0.0231	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	18.0235	18.0235	1.3000e-003	2.7000e-004	18.1365
Mobile	5.7000e-004	7.9000e-004	7.1400e-003	2.0000e-005	2.0800e-003	1.0000e-005	2.0900e-003	5.5000e-004	1.0000e-005	5.7000e-004	0.0000	1.4036	1.4036	5.0000e-005	0.0000	1.4049
Stationary	0.0821	0.2293	0.2092	3.9000e-004		0.0121	0.0121		0.0121	0.0121	0.0000	38.0797	38.0797	5.3400e-003	0.0000	38.2132
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	4.3212	0.0000	4.3212	0.0149	9.4000e-003	7.4934
Total	0.1057	0.2301	0.2164	4.1000e-004	2.0800e-003	0.0121	0.0142	5.5000e-004	0.0121	0.0126	4.3212	57.5070	61.8282	0.0216	9.6700e-003	65.2481

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Soilds Handling and Hauling	Grading	5/4/2021	5/7/2021	5	4	Operational Solids Handling and Hauling

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 3

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
Soilds Handling and Hauling	Excavators	0	8.00	158	0.38
Soilds Handling and Hauling	Graders	0	8.00	187	0.41
Soilds Handling and Hauling	Rubber Tired Dozers	0	8.00	247	0.40
Soilds Handling and Hauling	Tractors/Loaders/Backhoes	1	8.00	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
Soilds Handling and Hauling	1	0.00	0.00	4.00	10.80	7.30	162.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Solids Handling and Hauling - 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	3.7000e-004	3.7900e-003	4.5200e-003	1.0000e-005		2.2000e-004	2.2000e-004		2.1000e-004	2.1000e-004	0.0000	0.5459	0.5459	1.8000e-004	0.0000	0.5504
Total	3.7000e-004	3.7900e-003	4.5200e-003	1.0000e-005	0.0000	2.2000e-004	2.2000e-004	0.0000	2.1000e-004	2.1000e-004	0.0000	0.5459	0.5459	1.8000e-004	0.0000	0.5504

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	3.5700e-003	5.9000e-004	1.0000e-005	2.7000e-004	2.0000e-005	2.9000e-004	7.0000e-005	2.0000e-005	9.0000e-005	0.0000	1.0733	1.0733	1.0000e-005	0.0000	1.0735
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	0.0000	0.0000	0.0000	0.0000	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	1.1000e-004	3.5700e-003	5.9000e-004	1.0000e-005	2.7000e-004	2.0000e-005	2.9000e-004	7.0000e-005	2.0000e-005	9.0000e-005	0.0000	1.0733	1.0733	1.0000e-005	0.0000	1.0735

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	5.7000e-004	7.9000e-004	7.1400e-003	2.0000e-005	2.0800e-003	1.0000e-005	2.0900e-003	5.5000e-004	1.0000e-005	5.7000e-004	0.0000	1.4036	1.4036	5.0000e-005	0.0000	1.4049
Unmitigated	5.7000e-004	7.9000e-004	7.1400e-003	2.0000e-005	2.0800e-003	1.0000e-005	2.0900e-003	5.5000e-004	1.0000e-005	5.7000e-004	0.0000	1.4036	1.4036	5.0000e-005	0.0000	1.4049

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	2.00	2.00	2.00	5,839	5,839
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	2.00	2.00	2.00	5,839	5,839

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.500000	0.250000	0.250000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.540583	0.031873	0.213590	0.119676	0.019621	0.003714	0.012904	0.046753	0.003981	0.001017	0.004400	0.001421	0.000466

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	18.0235	18.0235	1.3000e-003	2.7000e-004	18.1365
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	18.0235	18.0235	1.3000e-003	2.7000e-004	18.1365
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	99090	18.0235	1.3000e-003	2.7000e-004	18.1365
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		18.0235	1.3000e-003	2.7000e-004	18.1365

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	0.0231	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004
Unmitigated	0.0231	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-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	6.8600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0163					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	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004
Total	0.0231	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.3212	0.0149	9.4000e-003	7.4934
Unmitigated	4.3212	0.0149	9.4000e-003	7.4934

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	12.2136 / 0	4.3212	0.0149	9.4000e-003	7.4934
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		4.3212	0.0149	9.4000e-003	7.4934

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	4	1	50	500	0.73	Diesel

Boilers

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

Equipment Type	Number
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10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel	0.0821	0.2293	0.2092	3.9000e-004		0.0121	0.0121		0.0121	0.0121	0.0000	38.0797	38.0797	5.3400e-003	0.0000	38.2132
Total	0.0821	0.2293	0.2092	3.9000e-004		0.0121	0.0121		0.0121	0.0121	0.0000	38.0797	38.0797	5.3400e-003	0.0000	38.2132