

# **Appendix B**

## **CalEEMod Modeling Results**

Nordic Aquafarms - CONST Kramer Dock - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Nordic Aquafarms - CONST Kramer Dock  
Humboldt County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	1.00	User Defined Unit	2.30	0.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1			<b>Operational Year</b>	2022
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Kramer Dock Pile Removal. PG&E 2019

Land Use - Pile Removal at Kramer Dock

Construction Phase - Pile Removal and Hauling

Off-road Equipment - Project-specific Fleet and Activity

Trips and VMT - 48 total haul trips. 254 miles inside NCUAQMD, 76 miles outside of NCUAQMD (per trip)

Demolition - Unkown Weight of Piles.

Vehicle Trips - Construction Only

Off-road Equipment - 2 Excavators

Off-road Equipment - 2 Excavators

Off-road Equipment - Hauling Only

Off-road Equipment - Hauling Only

Nordic Aquafarms - CONST Kramer Dock - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	12.00
tblConstructionPhase	NumDays	20.00	24.00
tblConstructionPhase	NumDays	20.00	36.00
tblConstructionPhase	NumDays	20.00	36.00
tblConstructionPhase	PhaseEndDate	7/28/2021	7/18/2023
tblConstructionPhase	PhaseStartDate	7/1/2021	7/1/2023
tblLandUse	LotAcreage	0.00	2.30
tblOffRoadEquipment	HorsePower	158.00	270.00
tblOffRoadEquipment	HorsePower	158.00	270.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0

Nordic Aquafarms - CONST Kramer Dock - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblProjectCharacteristics	CO2IntensityFactor	203.98	2.68
tblProjectCharacteristics	N2OIntensityFactor	0.004	0
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripLength	20.00	254.00
tblTripsAndVMT	HaulingTripLength	20.00	76.00
tblTripsAndVMT	HaulingTripNumber	0.00	48.00
tblTripsAndVMT	HaulingTripNumber	0.00	48.00

**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	8.7900e-003	0.1190	0.1031	5.0000e-004	7.6100e-003	2.9400e-003	0.0106	2.0900e-003	2.7300e-003	4.8100e-003	0.0000	45.4413	45.4413	7.2300e-003	3.5500e-003	46.6801
<b>Maximum</b>	<b>8.7900e-003</b>	<b>0.1190</b>	<b>0.1031</b>	<b>5.0000e-004</b>	<b>7.6100e-003</b>	<b>2.9400e-003</b>	<b>0.0106</b>	<b>2.0900e-003</b>	<b>2.7300e-003</b>	<b>4.8100e-003</b>	<b>0.0000</b>	<b>45.4413</b>	<b>45.4413</b>	<b>7.2300e-003</b>	<b>3.5500e-003</b>	<b>46.6801</b>

Nordic Aquafarms - CONST Kramer Dock - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	1 Land-Based Pile Removal	Demolition	7/1/2023	7/18/2023	5	12	Land-Based Pile Removal
2	2 Barge-Based Pile Removal	Demolition	7/19/2023	8/21/2023	5	24	Barge-Based Pile Removal
3	3 Pile Hauling (in NCUAQMD)	Demolition	7/1/2023	8/21/2023	5	36	Hauling within NCUAQMD
4	4 Pile Hauling (outside NCUAQMD)	Demolition	7/1/2023	8/21/2023	5	36	Hauling outside NCUAQMD

**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 (Architectural Coating –**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
1 Land-Based Pile Removal	Excavators	1	8.00	158	0.38
1 Land-Based Pile Removal	Excavators	1	8.00	270	0.38
2 Barge-Based Pile Removal	Excavators	1	8.00	158	0.38
2 Barge-Based Pile Removal	Excavators	1	8.00	270	0.38

**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
1 Land-Based Pile Removal	2	5.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
2 Barge-Based Pile Removal	2	5.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
3 Pile Hauling (in NCUAQMD)	0	0.00	0.00	48.00	16.80	6.60	254.00	LD_Mix	HDT_Mix	HHDT
4 Pile Hauling (outside NCUAQMD)	0	0.00	0.00	48.00	16.80	6.60	76.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Nordic Aquafarms - CONST Kramer Dock - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 1 Land-Based Pile Removal - 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4700e-003	0.0191	0.0311	8.0000e-005		7.9000e-004	7.9000e-004		7.2000e-004	7.2000e-004	0.0000	7.3871	7.3871	2.3900e-003	0.0000	7.4468
<b>Total</b>	<b>2.4700e-003</b>	<b>0.0191</b>	<b>0.0311</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>7.9000e-004</b>	<b>7.9000e-004</b>	<b>0.0000</b>	<b>7.2000e-004</b>	<b>7.2000e-004</b>	<b>0.0000</b>	<b>7.3871</b>	<b>7.3871</b>	<b>2.3900e-003</b>	<b>0.0000</b>	<b>7.4468</b>

**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	2.1000e-004	1.5000e-004	1.4400e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2985	0.2985	1.0000e-005	1.0000e-005	0.3020
<b>Total</b>	<b>2.1000e-004</b>	<b>1.5000e-004</b>	<b>1.4400e-003</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.2985</b>	<b>0.2985</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.3020</b>

**3.3 2 Barge-Based Pile Removal - 2023**

**Unmitigated Construction On-Site**

Nordic Aquafarms - CONST Kramer Dock - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive 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	0.0000	0.0000	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	4.9400e-003	0.0382	0.0622	1.7000e-004		1.5700e-003	1.5700e-003		1.4500e-003	1.4500e-003	0.0000	14.7742	14.7742	4.7800e-003	0.0000	14.8937
<b>Total</b>	<b>4.9400e-003</b>	<b>0.0382</b>	<b>0.0622</b>	<b>1.7000e-004</b>		<b>1.5700e-003</b>	<b>1.5700e-003</b>		<b>1.4500e-003</b>	<b>1.4500e-003</b>	<b>0.0000</b>	<b>14.7742</b>	<b>14.7742</b>	<b>4.7800e-003</b>	<b>0.0000</b>	<b>14.8937</b>

**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	4.2000e-004	3.0000e-004	2.8900e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5969	0.5969	2.0000e-005	2.0000e-005	0.6040
<b>Total</b>	<b>4.2000e-004</b>	<b>3.0000e-004</b>	<b>2.8900e-003</b>	<b>1.0000e-005</b>	<b>7.2000e-004</b>	<b>0.0000</b>	<b>7.2000e-004</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.5969</b>	<b>0.5969</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.6040</b>

Nordic Aquafarms - CONST Kramer Dock - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.4 3 Pile Hauling (in NCUAQMD) - 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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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	5.6000e-004	0.0469	3.9400e-003	1.8000e-004	5.0300e-003	4.4000e-004	5.4700e-003	1.3800e-003	4.2000e-004	1.8100e-003	0.0000	17.1922	17.1922	2.0000e-005	2.7000e-003	17.9979
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
<b>Total</b>	<b>5.6000e-004</b>	<b>0.0469</b>	<b>3.9400e-003</b>	<b>1.8000e-004</b>	<b>5.0300e-003</b>	<b>4.4000e-004</b>	<b>5.4700e-003</b>	<b>1.3800e-003</b>	<b>4.2000e-004</b>	<b>1.8100e-003</b>	<b>0.0000</b>	<b>17.1922</b>	<b>17.1922</b>	<b>2.0000e-005</b>	<b>2.7000e-003</b>	<b>17.9979</b>



Nordic Aquafarms - CONST Kramer Dock - Humboldt County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 4 Pile Hauling (outside NCUAQMD) - 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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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	1.9000e-004	0.0144	1.4600e-003	5.0000e-005	1.5000e-003	1.3000e-004	1.6400e-003	4.1000e-004	1.3000e-004	5.4000e-004	0.0000	5.1924	5.1924	1.0000e-005	8.2000e-004	5.4358
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
<b>Total</b>	<b>1.9000e-004</b>	<b>0.0144</b>	<b>1.4600e-003</b>	<b>5.0000e-005</b>	<b>1.5000e-003</b>	<b>1.3000e-004</b>	<b>1.6400e-003</b>	<b>4.1000e-004</b>	<b>1.3000e-004</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>5.1924</b>	<b>5.1924</b>	<b>1.0000e-005</b>	<b>8.2000e-004</b>	<b>5.4358</b>

## Kramer Dock Removal - Tug Boat Emissions Estimates

### Tug Use Estimate

Working Days	24
Hours/Day	4
total hours	96

### Conversion Factors

1 gram	1 US Ton
0.00220462 lb	0.907185 Metric Ton

### Engine Assumptions

Pre-1971 Age  
400 HP  
5 Gallons diesel/hour typical use

### Criteria Pollutant Estimates

	NOX	PM	ROG	CO	Parameter
Emission Factor	16.52	0.7	1.26	3.07	(grams/hour)
Hours Use	96	96	96	96	Total Hours
Total Grams	1585.92	67.2	120.96	294.72	Total Grams
Conversion	3.50	0.15	0.27	0.65	Total Lbs
Conversion	0.00	0.00	0.00	0.00	Total tons

### Greenhouse Gas Emissions

Emission Factor	22.46 pounds CO2 per gallon
Fuel Consumption Rate	5 gallons/hour
Hours Use	96 Total Hours
Total Fuel Consumption	480 Total Gallons
Total lbs Emissions	10,780.80 Total pounds
Conversion	5.39 Total Tons
Conversion	4.89 MTCO2e

### Sources

*Criteria Pollutant Emission Factor:* ARB's Appendix B, Emissions Estimation Methodology for Commercial Harbor Craft Operating in California. (<https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions->

*Greenhouse Gase Emission Factor:* US Energy Information Administration. Carbon Dioxide Emissions Coefficients. Release Date: September 16, 2021. Website:

Nordic - Humboldt Bay Water Intakes Construction - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Nordic - Humboldt Bay Water Intakes Construction  
Humboldt County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.20	0.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1			<b>Operational Year</b>	2025
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - PG&E 2019 Data

Land Use - User Defined Industrial, Construction Only

Construction Phase - Project-Specific Phasing

Off-road Equipment - Project-Specific Equipment and Activity

Grading - Site Prep 32 cy export. Construction 5,500 cy import, 16,000 cy export

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	60.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	1.00	10.00
tblConstructionPhase	PhaseEndDate	8/3/2022	11/4/2022
tblConstructionPhase	PhaseEndDate	8/10/2022	11/18/2022
tblConstructionPhase	PhaseEndDate	8/1/2022	8/12/2022

Nordic - Humboldt Bay Water Intakes Construction - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblConstructionPhase	PhaseStartDate	8/2/2022	8/15/2022
tblConstructionPhase	PhaseStartDate	8/4/2022	11/7/2022
tblGrading	MaterialExported	0.00	16,000.00
tblGrading	MaterialImported	0.00	5,500.00
tblGrading	MaterialImported	0.00	32.00
tblLandUse	LotAcreage	0.00	0.20
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	97.00	64.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0
tblProjectCharacteristics	CO2IntensityFactor	203.98	2.68
tblProjectCharacteristics	N2OIntensityFactor	0.004	0
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

**2.0 Emissions Summary**

Nordic - Humboldt Bay Water Intakes Construction - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0223	0.3564	0.2796	1.0200e-003	0.0205	9.7700e-003	0.0303	5.4700e-003	9.0500e-003	0.0145	0.0000	94.8265	94.8265	0.0103	9.7400e-003	97.9862
<b>Maximum</b>	<b>0.0223</b>	<b>0.3564</b>	<b>0.2796</b>	<b>1.0200e-003</b>	<b>0.0205</b>	<b>9.7700e-003</b>	<b>0.0303</b>	<b>5.4700e-003</b>	<b>9.0500e-003</b>	<b>0.0145</b>	<b>0.0000</b>	<b>94.8265</b>	<b>94.8265</b>	<b>0.0103</b>	<b>9.7400e-003</b>	<b>97.9862</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	1 Site Preparation	Site Preparation	8/1/2022	8/12/2022	5	10	
2	2 Construction	Grading	8/15/2022	11/4/2022	5	60	
3	3 Surface Restoration	Paving	11/7/2022	11/18/2022	5	10	

**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 (Architectural Coating –**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
3 Surface Restoration	Cement and Mortar Mixers	0	6.00	9	0.56
2 Construction	Graders	0	6.00	187	0.41
1 Site Preparation	Graders	0	8.00	187	0.41
3 Surface Restoration	Pavers	0	7.00	130	0.42
3 Surface Restoration	Rollers	1	8.00	80	0.38
2 Construction	Rubber Tired Dozers	0	6.00	247	0.40
2 Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
3 Surface Restoration	Tractors/Loaders/Backhoes	1	8.00	97	0.37
1 Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
1 Site Preparation	Excavators	1	8.00	162	0.38
1 Site Preparation	Tractors/Loaders/Backhoes	1	8.00	64	0.37
2 Construction	Excavators	1	8.00	162	0.38
3 Surface Restoration	Paving Equipment	1	8.00	132	0.36

**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
1 Site Preparation	3	8.00	0.00	4.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
2 Construction	2	5.00	0.00	2,000.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
3 Surface Restoration	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 1 Site Preparation - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					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	2.4100e-003	0.0230	0.0353	5.0000e-005		1.1900e-003	1.1900e-003		1.0900e-003	1.0900e-003	0.0000	4.6014	4.6014	1.4900e-003	0.0000	4.6386
<b>Total</b>	<b>2.4100e-003</b>	<b>0.0230</b>	<b>0.0353</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.1900e-003</b>	<b>1.1900e-003</b>	<b>0.0000</b>	<b>1.0900e-003</b>	<b>1.0900e-003</b>	<b>0.0000</b>	<b>4.6014</b>	<b>4.6014</b>	<b>1.4900e-003</b>	<b>0.0000</b>	<b>4.6386</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.0000e-004	6.0000e-005	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1225	0.1225	0.0000	2.0000e-005	0.1282
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.3000e-004	2.1200e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4100	0.4100	2.0000e-005	2.0000e-005	0.4152
<b>Total</b>	<b>3.1000e-004</b>	<b>6.3000e-004</b>	<b>2.1800e-003</b>	<b>0.0000</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>5.2000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.5325</b>	<b>0.5325</b>	<b>2.0000e-005</b>	<b>4.0000e-005</b>	<b>0.5434</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.3 2 Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2200e-003	0.0000	1.2200e-003	1.8000e-004	0.0000	1.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0112	0.1052	0.1678	2.5000e-004		5.3600e-003	5.3600e-003		4.9300e-003	4.9300e-003	0.0000	22.2208	22.2208	7.1900e-003	0.0000	22.4005
<b>Total</b>	<b>0.0112</b>	<b>0.1052</b>	<b>0.1678</b>	<b>2.5000e-004</b>	<b>1.2200e-003</b>	<b>5.3600e-003</b>	<b>6.5800e-003</b>	<b>1.8000e-004</b>	<b>4.9300e-003</b>	<b>5.1100e-003</b>	<b>0.0000</b>	<b>22.2208</b>	<b>22.2208</b>	<b>7.1900e-003</b>	<b>0.0000</b>	<b>22.4005</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.4300e-003	0.2009	0.0312	6.4000e-004	0.0165	1.8300e-003	0.0183	4.5500e-003	1.7500e-003	6.3000e-003	0.0000	61.2403	61.2403	1.9000e-004	9.6200e-003	64.1131
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	1.1200e-003	8.6000e-004	7.9600e-003	2.0000e-005	1.8000e-003	1.0000e-005	1.8100e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5376	1.5376	6.0000e-005	6.0000e-005	1.5569
<b>Total</b>	<b>5.5500e-003</b>	<b>0.2017</b>	<b>0.0392</b>	<b>6.6000e-004</b>	<b>0.0183</b>	<b>1.8400e-003</b>	<b>0.0202</b>	<b>5.0300e-003</b>	<b>1.7600e-003</b>	<b>6.7900e-003</b>	<b>0.0000</b>	<b>62.7779</b>	<b>62.7779</b>	<b>2.5000e-004</b>	<b>9.6800e-003</b>	<b>65.6700</b>



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.4 3 Surface Restoration - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.5300e-003	0.0256	0.0331	5.0000e-005		1.3700e-003	1.3700e-003		1.2600e-003	1.2600e-003	0.0000	4.2839	4.2839	1.3900e-003	0.0000	4.3186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.5300e-003</b>	<b>0.0256</b>	<b>0.0331</b>	<b>5.0000e-005</b>		<b>1.3700e-003</b>	<b>1.3700e-003</b>		<b>1.2600e-003</b>	<b>1.2600e-003</b>	<b>0.0000</b>	<b>4.2839</b>	<b>4.2839</b>	<b>1.3900e-003</b>	<b>0.0000</b>	<b>4.3186</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.3000e-004	2.1200e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4100	0.4100	2.0000e-005	2.0000e-005	0.4152
<b>Total</b>	<b>3.0000e-004</b>	<b>2.3000e-004</b>	<b>2.1200e-003</b>	<b>0.0000</b>	<b>4.8000e-004</b>	<b>0.0000</b>	<b>4.8000e-004</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>0.4100</b>	<b>0.4100</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.4152</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Nordic Aquafarms - CONST Phase 0 - 2022  
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**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	1,568.00	1000sqft	36.00	1,568,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1			<b>Operational Year</b>	2022
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Construction Phase 0 - 2022. PG&E 2019  
 Land Use - 36-acre site (1,568,000 sf)  
 Construction Phase - 173 Working Days  
 Off-road Equipment - Project-specific Fleet and Activity  
 Demolition - 1,750 Tons Demo (3,500 CY Demo Material, 0.5 ton/CY)  
 Vehicle Trips - Construction Only

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	50.00	173.00
tblEnergyUse	T24E	0.56	0.62
tblEnergyUse	T24NG	3.17	3.20
tblFleetMix	HHD	0.00	0.05
tblFleetMix	LDA	0.00	0.49
tblFleetMix	LDT1	0.00	0.05

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblFleetMix	LDT2	0.00	0.21
tblFleetMix	LHD1	0.00	0.04
tblFleetMix	LHD2	0.00	6.6740e-003
tblFleetMix	MCY	0.00	5.5530e-003
tblFleetMix	MDV	0.00	0.13
tblFleetMix	MH	0.00	8.4600e-004
tblFleetMix	MHD	0.00	0.01
tblFleetMix	OBUS	0.00	3.3980e-003
tblFleetMix	SBUS	0.00	1.5050e-003
tblFleetMix	UBUS	0.00	1.5290e-003
tblProjectCharacteristics	CH4IntensityFactor	0.033	0
tblProjectCharacteristics	CO2IntensityFactor	203.98	2.68
tblProjectCharacteristics	N2OIntensityFactor	0.004	0
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	WD_TR	3.93	0.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**2.0 Emissions Summary**

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**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.6335	5.4375	5.3113	9.4100e-003	0.0524	0.2756	0.3279	0.0126	0.2625	0.2751	0.0000	819.4119	819.4119	0.1517	1.8500e-003	823.7544
2023	0.3234	2.7057	2.9542	5.3800e-003	0.0300	0.1294	0.1594	7.2100e-003	0.1234	0.1306	0.0000	468.7256	468.7256	0.0856	9.8000e-004	471.1592
<b>Maximum</b>	<b>0.6335</b>	<b>5.4375</b>	<b>5.3113</b>	<b>9.4100e-003</b>	<b>0.0524</b>	<b>0.2756</b>	<b>0.3279</b>	<b>0.0126</b>	<b>0.2625</b>	<b>0.2751</b>	<b>0.0000</b>	<b>819.4119</b>	<b>819.4119</b>	<b>0.1517</b>	<b>1.8500e-003</b>	<b>823.7544</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/1/2022	3/29/2023	5	173	

**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 (Architectural Coating –**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	6	10.00	81	0.73
Demolition	Crushing/Proc. Equipment	6	6.70	85	0.78
Demolition	Excavators	3	10.00	158	0.38
Demolition	Rubber Tired Dozers	4	10.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	5	10.00	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
Demolition	24	60.00	0.00	173.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 Demolition - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0119	0.0000	0.0119	1.8000e-003	0.0000	1.8000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6086	5.4076	5.1344	9.0000e-003		0.2752	0.2752		0.2621	0.2621	0.0000	782.2177	782.2177	0.1503	0.0000	785.9756
<b>Total</b>	<b>0.6086</b>	<b>5.4076</b>	<b>5.1344</b>	<b>9.0000e-003</b>	<b>0.0119</b>	<b>0.2752</b>	<b>0.2871</b>	<b>1.8000e-003</b>	<b>0.2621</b>	<b>0.2639</b>	<b>0.0000</b>	<b>782.2177</b>	<b>782.2177</b>	<b>0.1503</b>	<b>0.0000</b>	<b>785.9756</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.4000e-004	0.0111	1.7200e-003	4.0000e-005	9.1000e-004	1.0000e-004	1.0100e-003	2.5000e-004	1.0000e-004	3.5000e-004	0.0000	3.3682	3.3682	1.0000e-005	5.3000e-004	3.5262
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	0.0246	0.0190	0.1752	3.7000e-004	0.0396	2.8000e-004	0.0398	0.0105	2.5000e-004	0.0108	0.0000	33.8260	33.8260	1.3300e-003	1.3200e-003	34.2526
<b>Total</b>	<b>0.0249</b>	<b>0.0300</b>	<b>0.1769</b>	<b>4.1000e-004</b>	<b>0.0405</b>	<b>3.8000e-004</b>	<b>0.0409</b>	<b>0.0108</b>	<b>3.5000e-004</b>	<b>0.0112</b>	<b>0.0000</b>	<b>37.1942</b>	<b>37.1942</b>	<b>1.3400e-003</b>	<b>1.8500e-003</b>	<b>37.7788</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 Demolition - 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					6.8200e-003	0.0000	6.8200e-003	1.0300e-003	0.0000	1.0300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3100	2.6907	2.8623	5.1600e-003		0.1292	0.1292		0.1232	0.1232	0.0000	448.0627	448.0627	0.0849	0.0000	450.1861
<b>Total</b>	<b>0.3100</b>	<b>2.6907</b>	<b>2.8623</b>	<b>5.1600e-003</b>	<b>6.8200e-003</b>	<b>0.1292</b>	<b>0.1360</b>	<b>1.0300e-003</b>	<b>0.1232</b>	<b>0.1242</b>	<b>0.0000</b>	<b>448.0627</b>	<b>448.0627</b>	<b>0.0849</b>	<b>0.0000</b>	<b>450.1861</b>

**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	9.0000e-005	5.4600e-003	9.0000e-004	2.0000e-005	5.2000e-004	5.0000e-005	5.7000e-004	1.4000e-004	4.0000e-005	1.9000e-004	0.0000	1.8601	1.8601	0.0000	2.9000e-004	1.9473
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	0.0133	9.5900e-003	0.0910	2.1000e-004	0.0227	1.5000e-004	0.0228	6.0400e-003	1.4000e-004	6.1700e-003	0.0000	18.8028	18.8028	6.8000e-004	6.9000e-004	19.0259
<b>Total</b>	<b>0.0134</b>	<b>0.0151</b>	<b>0.0919</b>	<b>2.3000e-004</b>	<b>0.0232</b>	<b>2.0000e-004</b>	<b>0.0234</b>	<b>6.1800e-003</b>	<b>1.8000e-004</b>	<b>6.3600e-003</b>	<b>0.0000</b>	<b>20.6629</b>	<b>20.6629</b>	<b>6.8000e-004</b>	<b>9.8000e-004</b>	<b>20.9731</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Nordic Aquafarms - CONST Phase 1A - 2024**

**Humboldt County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	1,568.00	1000sqft	36.00	1,568,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1			<b>Operational Year</b>	2023
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Construction Phase 1A - 2024. PG&E 2019 Data.

Land Use - 36-acre site (1,568,160 sf)

Construction Phase - Site Prep 107d, Grading, 85d, Bldg Const 196d

Off-road Equipment - Project-Specific Fleet and Activity

Grading - Grading 5,000cy Import, 5,000cy Export

Vehicle Trips - Construction Only

Off-road Equipment - Project-specific Fleet and Activity

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	740.00	196.00
tblConstructionPhase	NumDays	75.00	85.00
tblConstructionPhase	NumDays	30.00	107.00
tblConstructionPhase	PhaseEndDate	3/28/2025	2/28/2025
tblConstructionPhase	PhaseEndDate	5/27/2022	6/27/2024



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblConstructionPhase	PhaseEndDate	2/11/2022	7/29/2024
tblConstructionPhase	PhaseStartDate	5/28/2022	5/31/2024
tblConstructionPhase	PhaseStartDate	2/12/2022	3/1/2024
tblConstructionPhase	PhaseStartDate	1/3/2022	3/1/2024
tblGrading	MaterialExported	0.00	5,000.00
tblGrading	MaterialImported	0.00	5,000.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	65.00	64.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	UsageHours	7.00	6.70
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblOffRoadEquipment	UsageHours	7.00	6.70
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	3.30
tblProjectCharacteristics	CH4IntensityFactor	0.033	0
tblProjectCharacteristics	CO2IntensityFactor	203.98	2.68
tblProjectCharacteristics	N2OIntensityFactor	0.004	0
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	WD_TR	3.93	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					
2024	1.0957	7.7448	11.6147	0.0249	0.8070	0.2884	1.0954	0.2088	0.2744	0.4832	0.0000	2,212.3970	2,212.3970	0.3016	0.0714	2,241.2179
2025	0.2406	1.5823	2.5264	5.6800e-003	0.2020	0.0539	0.2559	0.0546	0.0515	0.1061	0.0000	505.7346	505.7346	0.0576	0.0184	512.6503
<b>Maximum</b>	<b>1.0957</b>	<b>7.7448</b>	<b>11.6147</b>	<b>0.0249</b>	<b>0.8070</b>	<b>0.2884</b>	<b>1.0954</b>	<b>0.2088</b>	<b>0.2744</b>	<b>0.4832</b>	<b>0.0000</b>	<b>2,212.3970</b>	<b>2,212.3970</b>	<b>0.3016</b>	<b>0.0714</b>	<b>2,241.2179</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	2 Site Preparation	Site Preparation	3/1/2024	7/29/2024	5	107	
2	3 Grading	Grading	3/1/2024	6/27/2024	5	85	
3	4 Building Construction	Building Construction	5/31/2024	2/28/2025	5	196	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 106.25**

**Acres of Paving: 0**

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

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
2 Site Preparation	Excavators	2	8.30	162	0.38
2 Site Preparation	Generator Sets	2	10.00	84	0.74
2 Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
2 Site Preparation	Skid Steer Loaders	4	5.00	64	0.37
2 Site Preparation	Tractors/Loaders/Backhoes	5	10.00	97	0.37
3 Grading	Excavators	2	10.00	158	0.38
3 Grading	Graders	2	10.00	187	0.41
3 Grading	Rubber Tired Dozers	0	8.00	247	0.40
3 Grading	Scrapers	0	8.00	367	0.48
3 Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
4 Building Construction	Aerial Lifts	8	6.70	63	0.31
4 Building Construction	Cement and Mortar Mixers	4	6.70	9	0.56
4 Building Construction	Cranes	3	6.70	231	0.29
4 Building Construction	Forklifts	6	10.00	89	0.20
4 Building Construction	Generator Sets	4	10.00	84	0.74

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

4 Building Construction	Off-Highway Tractors	5	10.00	124	0.44
4 Building Construction	Pumps	5	6.70	84	0.74
4 Building Construction	Tractors/Loaders/Backhoes	4	6.70	97	0.37
4 Building Construction	Welders	8	3.30	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
2 Site Preparation	13	33.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
3 Grading	4	10.00	0.00	625.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
4 Building Construction	47	659.00	257.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 2 Site Preparation - 2024**

**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	0.1150	1.0931	1.7915	2.7800e-003		0.0484	0.0484		0.0457	0.0457	0.0000	242.7526	242.7526	0.0571	0.0000	244.1807
<b>Total</b>	<b>0.1150</b>	<b>1.0931</b>	<b>1.7915</b>	<b>2.7800e-003</b>	<b>0.0000</b>	<b>0.0484</b>	<b>0.0484</b>	<b>0.0000</b>	<b>0.0457</b>	<b>0.0457</b>	<b>0.0000</b>	<b>242.7526</b>	<b>242.7526</b>	<b>0.0571</b>	<b>0.0000</b>	<b>244.1807</b>

**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	0.0117	7.9300e-003	0.0775	1.9000e-004	0.0212	1.3000e-004	0.0213	5.6400e-003	1.2000e-004	5.7600e-003	0.0000	17.0281	17.0281	5.7000e-004	5.9000e-004	17.2188
<b>Total</b>	<b>0.0117</b>	<b>7.9300e-003</b>	<b>0.0775</b>	<b>1.9000e-004</b>	<b>0.0212</b>	<b>1.3000e-004</b>	<b>0.0213</b>	<b>5.6400e-003</b>	<b>1.2000e-004</b>	<b>5.7600e-003</b>	<b>0.0000</b>	<b>17.0281</b>	<b>17.0281</b>	<b>5.7000e-004</b>	<b>5.9000e-004</b>	<b>17.2188</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.3 3 Grading - 2024**

**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					0.0569	0.0000	0.0569	6.1700e-003	0.0000	6.1700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0568	0.5906	0.5229	1.2500e-003		0.0217	0.0217		0.0199	0.0199	0.0000	109.9572	109.9572	0.0356	0.0000	110.8463
<b>Total</b>	<b>0.0568</b>	<b>0.5906</b>	<b>0.5229</b>	<b>1.2500e-003</b>	<b>0.0569</b>	<b>0.0217</b>	<b>0.0786</b>	<b>6.1700e-003</b>	<b>0.0199</b>	<b>0.0261</b>	<b>0.0000</b>	<b>109.9572</b>	<b>109.9572</b>	<b>0.0356</b>	<b>0.0000</b>	<b>110.8463</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.9000e-004	0.0523	8.9800e-003	1.9000e-004	5.1600e-003	4.5000e-004	5.6100e-003	1.4200e-003	4.3000e-004	1.8500e-003	0.0000	18.0757	18.0757	4.0000e-005	2.8400e-003	18.9232
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	2.8100e-003	1.9100e-003	0.0187	4.0000e-005	5.1000e-003	3.0000e-005	5.1300e-003	1.3600e-003	3.0000e-005	1.3900e-003	0.0000	4.0991	4.0991	1.4000e-004	1.4000e-004	4.1450
<b>Total</b>	<b>3.7000e-003</b>	<b>0.0543</b>	<b>0.0276</b>	<b>2.3000e-004</b>	<b>0.0103</b>	<b>4.8000e-004</b>	<b>0.0107</b>	<b>2.7800e-003</b>	<b>4.6000e-004</b>	<b>3.2400e-003</b>	<b>0.0000</b>	<b>22.1748</b>	<b>22.1748</b>	<b>1.8000e-004</b>	<b>2.9800e-003</b>	<b>23.0682</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.4 4 Building Construction - 2024**

**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	0.5380	4.7518	6.6613	0.0114		0.2075	0.2075		0.1985	0.1985	0.0000	974.2353	974.2353	0.1902	0.0000	978.9910
<b>Total</b>	<b>0.5380</b>	<b>4.7518</b>	<b>6.6613</b>	<b>0.0114</b>		<b>0.2075</b>	<b>0.2075</b>		<b>0.1985</b>	<b>0.1985</b>	<b>0.0000</b>	<b>974.2353</b>	<b>974.2353</b>	<b>0.1902</b>	<b>0.0000</b>	<b>978.9910</b>

**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	0.0368	1.0206	0.3214	3.7700e-003	0.1142	6.5800e-003	0.1208	0.0331	6.2900e-003	0.0394	0.0000	360.0155	360.0155	1.6000e-003	0.0509	375.2343
Worker	0.3337	0.2266	2.2125	5.3000e-003	0.6044	3.6500e-003	0.6081	0.1611	3.3600e-003	0.1644	0.0000	486.2334	486.2334	0.0164	0.0169	491.6788
<b>Total</b>	<b>0.3704</b>	<b>1.2471</b>	<b>2.5339</b>	<b>9.0700e-003</b>	<b>0.7187</b>	<b>0.0102</b>	<b>0.7289</b>	<b>0.1942</b>	<b>9.6500e-003</b>	<b>0.2039</b>	<b>0.0000</b>	<b>846.2489</b>	<b>846.2489</b>	<b>0.0180</b>	<b>0.0678</b>	<b>866.9130</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.4 4 Building Construction - 2025**

**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	0.1422	1.2463	1.8680	3.1900e-003		0.0512	0.0512		0.0489	0.0489	0.0000	273.8486	273.8486	0.0530	0.0000	275.1733
<b>Total</b>	<b>0.1422</b>	<b>1.2463</b>	<b>1.8680</b>	<b>3.1900e-003</b>		<b>0.0512</b>	<b>0.0512</b>		<b>0.0489</b>	<b>0.0489</b>	<b>0.0000</b>	<b>273.8486</b>	<b>273.8486</b>	<b>0.0530</b>	<b>0.0000</b>	<b>275.1733</b>

**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	0.0101	0.2793	0.0884	1.0400e-003	0.0321	1.8000e-003	0.0339	9.3100e-003	1.7200e-003	0.0110	0.0000	99.5400	99.5400	4.3000e-004	0.0140	103.7227
Worker	0.0883	0.0567	0.5700	1.4400e-003	0.1699	9.6000e-004	0.1708	0.0453	8.9000e-004	0.0462	0.0000	132.3460	132.3460	4.1500e-003	4.3800e-003	133.7543
<b>Total</b>	<b>0.0984</b>	<b>0.3360</b>	<b>0.6584</b>	<b>2.4800e-003</b>	<b>0.2020</b>	<b>2.7600e-003</b>	<b>0.2048</b>	<b>0.0546</b>	<b>2.6100e-003</b>	<b>0.0572</b>	<b>0.0000</b>	<b>231.8861</b>	<b>231.8861</b>	<b>4.5800e-003</b>	<b>0.0184</b>	<b>237.4770</b>



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

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**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	1,568.00	1000sqft	36.00	1,568,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1			<b>Operational Year</b>	2023
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Construction Phase 1A - 2025. PG&E 2019 Data

Land Use - 36-acre site (1,568,160 sf)

Construction Phase - Grading 39d, Bldg Const 104d, Paving 65d

Off-road Equipment - Project-Specific Fleet and Activity

Grading - 1,000 cy import

Vehicle Trips - Construction Only

Off-road Equipment - Project-specific Fleet and Activity

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	740.00	104.00
tblConstructionPhase	NumDays	75.00	39.00
tblConstructionPhase	NumDays	55.00	65.00
tblGrading	MaterialImported	0.00	1,000.00
tblGrading	PhaseName	Grading	5 Grading

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName	Building Construction	6 Building Construction
tblOffRoadEquipment	PhaseName	Grading	5 Grading
tblOffRoadEquipment	PhaseName	Building Construction	6 Building Construction
tblOffRoadEquipment	PhaseName	Building Construction	6 Building Construction
tblOffRoadEquipment	PhaseName	Grading	5 Grading
tblOffRoadEquipment	PhaseName	Paving	7 Paving
tblOffRoadEquipment	PhaseName	Paving	7 Paving
tblOffRoadEquipment	PhaseName	Paving	7 Paving
tblOffRoadEquipment	PhaseName	Grading	5 Grading
tblOffRoadEquipment	PhaseName	Grading	5 Grading
tblOffRoadEquipment	PhaseName	Building Construction	6 Building Construction
tblOffRoadEquipment	PhaseName	Grading	5 Grading
tblOffRoadEquipment	PhaseName	Building Construction	6 Building Construction
tblOffRoadEquipment	PhaseName		6 Building Construction
tblOffRoadEquipment	PhaseName		6 Building Construction
tblOffRoadEquipment	PhaseName		7 Paving
tblOffRoadEquipment	PhaseName		7 Paving
tblOnRoadDust	PhaseName	Building Construction	6 Building Construction
tblOnRoadDust	PhaseName	Grading	5 Grading
tblOnRoadDust	PhaseName	Paving	7 Paving

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblProjectCharacteristics	CH4IntensityFactor	0.033	0
tblProjectCharacteristics	CO2IntensityFactor	203.98	2.68
tblProjectCharacteristics	N2OIntensityFactor	0.004	0
tblProjectCharacteristics	PrecipitationFrequency	0	103
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblProjectCharacteristics	WindSpeed	0	2.2
tblTripsAndVMT	PhaseName	Building Construction	6 Building Construction
tblTripsAndVMT	PhaseName	Grading	5 Grading
tblTripsAndVMT	PhaseName	Paving	7 Paving
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	WD_TR	3.93	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					
2025	0.4944	3.2182	5.8052	0.0126	0.5184	0.1054	0.6237	0.1454	0.0991	0.2445	0.0000	1,137.1380	1,137.1380	0.1520	0.0453	1,154.4237
<b>Maximum</b>	<b>0.4944</b>	<b>3.2182</b>	<b>5.8052</b>	<b>0.0126</b>	<b>0.5184</b>	<b>0.1054</b>	<b>0.6237</b>	<b>0.1454</b>	<b>0.0991</b>	<b>0.2445</b>	<b>0.0000</b>	<b>1,137.1380</b>	<b>1,137.1380</b>	<b>0.1520</b>	<b>0.0453</b>	<b>1,154.4237</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	5 Grading	Grading	5/30/2025	7/23/2025	5	39	
2	6 Building Construction	Building Construction	3/1/2025	7/24/2025	5	104	
3	7 Paving	Paving	8/29/2025	11/27/2025	5	65	

**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 (Architectural Coating –**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
6 Building Construction	Aerial Lifts	8	10.00	63	0.31
6 Building Construction	Cranes	0	7.00	231	0.29
6 Building Construction	Forklifts	6	10.00	89	0.20
6 Building Construction	Generator Sets	4	10.00	84	0.74
6 Building Construction	Off-Highway Tractors	5	10.00	124	0.44
6 Building Construction	Tractors/Loaders/Backhoes	4	10.00	97	0.37
6 Building Construction	Welders	0	8.00	46	0.45
5 Grading	Excavators	0	8.00	158	0.38
5 Grading	Graders	0	8.00	187	0.41
5 Grading	Rubber Tired Dozers	1	1.30	247	0.40
5 Grading	Scrapers	0	8.00	367	0.48
5 Grading	Tractors/Loaders/Backhoes	2	1.30	97	0.37
7 Paving	Pavers	0	8.00	130	0.42
7 Paving	Paving Equipment	2	5.00	132	0.36
7 Paving	Rollers	2	5.00	80	0.38

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

7 Paving	Tractors/Loaders/Backhoes	2	5.00	97	0.37
7 Paving	Tractors/Loaders/Backhoes	2	20.00	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
6 Building Construction	27	659.00	257.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
5 Grading	3	8.00	0.00	125.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
7 Paving	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 5 Grading - 2025**

**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					0.0191	0.0000	0.0191	0.0105	0.0000	0.0105	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8900e-003	0.0295	0.0236	5.0000e-005		1.2600e-003	1.2600e-003		1.1600e-003	1.1600e-003	0.0000	4.1138	4.1138	1.3300e-003	0.0000	4.1471
<b>Total</b>	<b>2.8900e-003</b>	<b>0.0295</b>	<b>0.0236</b>	<b>5.0000e-005</b>	<b>0.0191</b>	<b>1.2600e-003</b>	<b>0.0204</b>	<b>0.0105</b>	<b>1.1600e-003</b>	<b>0.0117</b>	<b>0.0000</b>	<b>4.1138</b>	<b>4.1138</b>	<b>1.3300e-003</b>	<b>0.0000</b>	<b>4.1471</b>

**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	1.7000e-004	0.0101	1.8000e-003	4.0000e-005	1.0300e-003	9.0000e-005	1.1200e-003	2.8000e-004	8.0000e-005	3.7000e-004	0.0000	3.5307	3.5307	1.0000e-005	5.5000e-004	3.6962
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	6.2000e-004	6.2800e-003	2.0000e-005	1.8700e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.4572	1.4572	5.0000e-005	5.0000e-005	1.4727
<b>Total</b>	<b>1.1400e-003</b>	<b>0.0107</b>	<b>8.0800e-003</b>	<b>6.0000e-005</b>	<b>2.9000e-003</b>	<b>1.0000e-004</b>	<b>3.0000e-003</b>	<b>7.8000e-004</b>	<b>9.0000e-005</b>	<b>8.8000e-004</b>	<b>0.0000</b>	<b>4.9879</b>	<b>4.9879</b>	<b>6.0000e-005</b>	<b>6.0000e-004</b>	<b>5.1689</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.3 6 Building Construction - 2025**

**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	0.2100	1.9815	3.5234	5.5200e-003		0.0808	0.0808		0.0763	0.0763	0.0000	481.5680	481.5680	0.1137	0.0000	484.4093
<b>Total</b>	<b>0.2100</b>	<b>1.9815</b>	<b>3.5234</b>	<b>5.5200e-003</b>		<b>0.0808</b>	<b>0.0808</b>		<b>0.0763</b>	<b>0.0763</b>	<b>0.0000</b>	<b>481.5680</b>	<b>481.5680</b>	<b>0.1137</b>	<b>0.0000</b>	<b>484.4093</b>

**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	0.0243	0.6755	0.2138	2.5200e-003	0.0777	4.3400e-003	0.0820	0.0225	4.1500e-003	0.0267	0.0000	240.7480	240.7480	1.0500e-003	0.0339	250.8641
Worker	0.2136	0.1372	1.3787	3.4900e-003	0.4109	2.3300e-003	0.4132	0.1095	2.1400e-003	0.1116	0.0000	320.0927	320.0927	0.0100	0.0106	323.4988
<b>Total</b>	<b>0.2380</b>	<b>0.8127</b>	<b>1.5925</b>	<b>6.0100e-003</b>	<b>0.4885</b>	<b>6.6700e-003</b>	<b>0.4952</b>	<b>0.1320</b>	<b>6.2900e-003</b>	<b>0.1383</b>	<b>0.0000</b>	<b>560.8407</b>	<b>560.8407</b>	<b>0.0111</b>	<b>0.0445</b>	<b>574.3630</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.4 7 Paving - 2025**

**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	0.0384	0.3812	0.6314	9.1000e-004		0.0165	0.0165		0.0152	0.0152	0.0000	79.5560	79.5560	0.0257	0.0000	80.1993
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0384</b>	<b>0.3812</b>	<b>0.6314</b>	<b>9.1000e-004</b>		<b>0.0165</b>	<b>0.0165</b>		<b>0.0152</b>	<b>0.0152</b>	<b>0.0000</b>	<b>79.5560</b>	<b>79.5560</b>	<b>0.0257</b>	<b>0.0000</b>	<b>80.1993</b>

**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	4.0500e-003	2.6000e-003	0.0262	7.0000e-005	7.7900e-003	4.0000e-005	7.8400e-003	2.0800e-003	4.0000e-005	2.1200e-003	0.0000	6.0716	6.0716	1.9000e-004	2.0000e-004	6.1362
<b>Total</b>	<b>4.0500e-003</b>	<b>2.6000e-003</b>	<b>0.0262</b>	<b>7.0000e-005</b>	<b>7.7900e-003</b>	<b>4.0000e-005</b>	<b>7.8400e-003</b>	<b>2.0800e-003</b>	<b>4.0000e-005</b>	<b>2.1200e-003</b>	<b>0.0000</b>	<b>6.0716</b>	<b>6.0716</b>	<b>1.9000e-004</b>	<b>2.0000e-004</b>	<b>6.1362</b>



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Nordic Aquafarms - CONST Phase 1B - 2024**

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**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	1,568.00	1000sqft	36.00	1,568,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1			<b>Operational Year</b>	2023
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Construction Phase 1B - 2024. PG&E 2019 Data

Land Use - 36-acre site (1,568,160 sf)

Construction Phase - Bldg Const 152d

Off-road Equipment - Project-Specific Fleet and Activity

Vehicle Trips - Construction Only

Off-road Equipment - Project-specific Fleet and Activity

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	740.00	152.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName	Building Construction	8 Building Construction
tblOffRoadEquipment	PhaseName	Building Construction	8 Building Construction
tblOffRoadEquipment	PhaseName	Building Construction	8 Building Construction
tblOffRoadEquipment	PhaseName	Building Construction	8 Building Construction
tblOffRoadEquipment	PhaseName	Building Construction	8 Building Construction
tblOffRoadEquipment	PhaseName		8 Building Construction
tblOffRoadEquipment	PhaseName		8 Building Construction
tblOffRoadEquipment	PhaseName		8 Building Construction
tblOffRoadEquipment	PhaseName		8 Building Construction
tblOnRoadDust	PhaseName	Building Construction	8 Building Construction
tblProjectCharacteristics	CH4IntensityFactor	0.033	0
tblProjectCharacteristics	CO2IntensityFactor	203.98	2.68
tblProjectCharacteristics	N2OIntensityFactor	0.004	0
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	WD_TR	3.93	0.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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					
2024	0.3189	2.9517	4.1630	6.9800e-003		0.1265	0.1265		0.1209	0.1209	0.0000	600.0885	600.0885	0.1195	0.0000	603.0763
2025	0.0965	0.8904	1.3361	2.2500e-003		0.0355	0.0355		0.0340	0.0340	0.0000	193.1050	193.1050	0.0382	0.0000	194.0589
<b>Maximum</b>	<b>0.3189</b>	<b>2.9517</b>	<b>4.1630</b>	<b>6.9800e-003</b>		<b>0.1265</b>	<b>0.1265</b>		<b>0.1209</b>	<b>0.1209</b>	<b>0.0000</b>	<b>600.0885</b>	<b>600.0885</b>	<b>0.1195</b>	<b>0.0000</b>	<b>603.0763</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	8 Building Construction	Building Construction	8/20/2024	2/12/2025	6	152	

**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 (Architectural Coating –**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
8 Building Construction	Aerial Lifts	8	10.00	63	0.31
8 Building Construction	Cement and Mortar Mixers	4	10.00	9	0.56
8 Building Construction	Cranes	2	6.70	231	0.29

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

8 Building Construction	Forklifts	6	10.00	89	0.20
8 Building Construction	Generator Sets	4	10.00	84	0.74
8 Building Construction	Off-Highway Tractors	2	10.00	124	0.44
8 Building Construction	Pumps	2	10.00	84	0.74
8 Building Construction	Tractors/Loaders/Backhoes	4	10.00	97	0.37
8 Building Construction	Welders	4	2.50	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
Building Construction		659.00	257.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 8 Building Construction - 2024**

**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	0.3189	2.9517	4.1630	6.9800e-003		0.1265	0.1265		0.1209	0.1209	0.0000	600.0885	600.0885	0.1195	0.0000	603.0763
<b>Total</b>	<b>0.3189</b>	<b>2.9517</b>	<b>4.1630</b>	<b>6.9800e-003</b>		<b>0.1265</b>	<b>0.1265</b>		<b>0.1209</b>	<b>0.1209</b>	<b>0.0000</b>	<b>600.0885</b>	<b>600.0885</b>	<b>0.1195</b>	<b>0.0000</b>	<b>603.0763</b>

**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	0.3189	2.9517	4.1630	6.9800e-003		0.1265	0.1265		0.1209	0.1209	0.0000	600.0878	600.0878	0.1195	0.0000	603.0756
<b>Total</b>	<b>0.3189</b>	<b>2.9517</b>	<b>4.1630</b>	<b>6.9800e-003</b>		<b>0.1265</b>	<b>0.1265</b>		<b>0.1209</b>	<b>0.1209</b>	<b>0.0000</b>	<b>600.0878</b>	<b>600.0878</b>	<b>0.1195</b>	<b>0.0000</b>	<b>603.0756</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 8 Building Construction - 2025**

**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	0.0965	0.8904	1.3361	2.2500e-003		0.0355	0.0355		0.0340	0.0340	0.0000	193.1050	193.1050	0.0382	0.0000	194.0589
<b>Total</b>	<b>0.0965</b>	<b>0.8904</b>	<b>1.3361</b>	<b>2.2500e-003</b>		<b>0.0355</b>	<b>0.0355</b>		<b>0.0340</b>	<b>0.0340</b>	<b>0.0000</b>	<b>193.1050</b>	<b>193.1050</b>	<b>0.0382</b>	<b>0.0000</b>	<b>194.0589</b>

**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	0.0965	0.8904	1.3361	2.2500e-003		0.0355	0.0355		0.0340	0.0340	0.0000	193.1048	193.1048	0.0382	0.0000	194.0587
<b>Total</b>	<b>0.0965</b>	<b>0.8904</b>	<b>1.3361</b>	<b>2.2500e-003</b>		<b>0.0355</b>	<b>0.0355</b>		<b>0.0340</b>	<b>0.0340</b>	<b>0.0000</b>	<b>193.1048</b>	<b>193.1048</b>	<b>0.0382</b>	<b>0.0000</b>	<b>194.0587</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Nordic Aquafarms - CONST Phase 1B - 2025  
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**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	1,568.00	1000sqft	36.00	1,568,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1			<b>Operational Year</b>	2023
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Construction Phase 1B - 2025. PG&E 2019 Data

Land Use - 36-acre site (1,568,160 sf)

Construction Phase - Bldg Const 260d

Off-road Equipment - Project-Specific Fleet and Activity

Vehicle Trips - Construction Only

Off-road Equipment - Project-specific Fleet and Activity

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	740.00	260.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0
tblProjectCharacteristics	CO2IntensityFactor	203.98	2.68
tblProjectCharacteristics	N2OIntensityFactor	0.004	0
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	WD_TR	3.93	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					
2025	0.9441	5.8348	10.0159	0.0232	1.0240	0.1751	1.1991	0.2767	0.1665	0.4432	0.0000	2,090.2485	2,090.2485	0.2191	0.0932	2,123.4896
2026	0.1770	1.1109	1.8853	4.4100e-003	0.1973	0.0336	0.2309	0.0533	0.0320	0.0853	0.0000	397.1503	397.1503	0.0418	0.0173	403.3552
<b>Maximum</b>	<b>0.9441</b>	<b>5.8348</b>	<b>10.0159</b>	<b>0.0232</b>	<b>1.0240</b>	<b>0.1751</b>	<b>1.1991</b>	<b>0.2767</b>	<b>0.1665</b>	<b>0.4432</b>	<b>0.0000</b>	<b>2,090.2485</b>	<b>2,090.2485</b>	<b>0.2191</b>	<b>0.0932</b>	<b>2,123.4896</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	9 Building Construction	Building Construction	3/1/2025	2/27/2026	5	260	

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 (Architectural Coating –

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
9 Building Construction	Aerial Lifts	8	10.00	63	0.31
9 Building Construction	Cranes	1	3.30	231	0.29
9 Building Construction	Forklifts	6	10.00	89	0.20
9 Building Construction	Generator Sets	4	10.00	84	0.74
9 Building Construction	Off-Highway Tractors	2	10.00	124	0.44
9 Building Construction	Tractors/Loaders/Backhoes	4	10.00	97	0.37
9 Building Construction	Welders	4	5.00	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
9 Building Construction	29	659.00	257.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 9 Building Construction - 2025**

**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	0.4452	4.1313	6.6778	0.0106		0.1612	0.1612		0.1533	0.1533	0.0000	914.6401	914.6401	0.1959	0.0000	919.5365
<b>Total</b>	<b>0.4452</b>	<b>4.1313</b>	<b>6.6778</b>	<b>0.0106</b>		<b>0.1612</b>	<b>0.1612</b>		<b>0.1533</b>	<b>0.1533</b>	<b>0.0000</b>	<b>914.6401</b>	<b>914.6401</b>	<b>0.1959</b>	<b>0.0000</b>	<b>919.5365</b>

**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	0.0510	1.4160	0.4482	5.2800e-003	0.1628	9.1000e-003	0.1719	0.0472	8.7100e-003	0.0559	0.0000	504.6448	504.6448	2.2000e-003	0.0710	525.8498
Worker	0.4478	0.2876	2.8899	7.3200e-003	0.8612	4.8800e-003	0.8661	0.2295	4.4900e-003	0.2340	0.0000	670.9636	670.9636	0.0210	0.0222	678.1033
<b>Total</b>	<b>0.4988</b>	<b>1.7036</b>	<b>3.3381</b>	<b>0.0126</b>	<b>1.0240</b>	<b>0.0140</b>	<b>1.0380</b>	<b>0.2767</b>	<b>0.0132</b>	<b>0.2899</b>	<b>0.0000</b>	<b>1,175.6084</b>	<b>1,175.6084</b>	<b>0.0232</b>	<b>0.0932</b>	<b>1,203.9531</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 9 Building Construction - 2026**

**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	0.0858	0.7959	1.2866	2.0400e-003		0.0311	0.0311		0.0295	0.0295	0.0000	176.2151	176.2151	0.0377	0.0000	177.1584
<b>Total</b>	<b>0.0858</b>	<b>0.7959</b>	<b>1.2866</b>	<b>2.0400e-003</b>		<b>0.0311</b>	<b>0.0311</b>		<b>0.0295</b>	<b>0.0295</b>	<b>0.0000</b>	<b>176.2151</b>	<b>176.2151</b>	<b>0.0377</b>	<b>0.0000</b>	<b>177.1584</b>

**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	9.6300e-003	0.2652	0.0848	1.0000e-003	0.0314	1.7000e-003	0.0331	9.1000e-003	1.6200e-003	0.0107	0.0000	95.5278	95.5278	4.1000e-004	0.0134	99.5151
Worker	0.0816	0.0497	0.5140	1.3700e-003	0.1659	8.8000e-004	0.1668	0.0442	8.1000e-004	0.0450	0.0000	125.4074	125.4074	3.6700e-003	3.9700e-003	126.6818
<b>Total</b>	<b>0.0912</b>	<b>0.3149</b>	<b>0.5988</b>	<b>2.3700e-003</b>	<b>0.1973</b>	<b>2.5800e-003</b>	<b>0.1999</b>	<b>0.0533</b>	<b>2.4300e-003</b>	<b>0.0558</b>	<b>0.0000</b>	<b>220.9352</b>	<b>220.9352</b>	<b>4.0800e-003</b>	<b>0.0173</b>	<b>226.1968</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Nordic Aquafarms - CONST Phase 1B - 2026  
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**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	1,568.00	1000sqft	36.00	1,568,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1			<b>Operational Year</b>	2025
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Construction Phase 1B - 2026. PG&E 2019 Data

Land Use - 36-acre site (1,568,160 sf)

Construction Phase - Grading, 26d, Bldg Const 26d, Paving 26d

Off-road Equipment - Project-Specific Fleet and Activity

Grading - 400 cy import

Vehicle Trips - Construction Only

Off-road Equipment - Project-specific Fleet and Activity

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	740.00	26.00
tblConstructionPhase	NumDays	75.00	26.00
tblConstructionPhase	NumDays	55.00	26.00
tblConstructionPhase	PhaseEndDate	2/16/2027	4/6/2026
tblConstructionPhase	PhaseEndDate	4/16/2024	4/6/2026

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblConstructionPhase	PhaseEndDate	5/4/2027	4/21/2026
tblConstructionPhase	PhaseStartDate	4/17/2024	3/1/2026
tblConstructionPhase	PhaseStartDate	1/3/2024	3/1/2026
tblConstructionPhase	PhaseStartDate	2/17/2027	3/17/2026
tblGrading	MaterialImported	0.00	400.00
tblGrading	PhaseName	Grading	10 Grading
tblOffRoadEquipment	LoadFactor	0.37	0.42
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName	Building Construction	11 Building Construction
tblOffRoadEquipment	PhaseName	Grading	10 Grading
tblOffRoadEquipment	PhaseName	Building Construction	11 Building Construction
tblOffRoadEquipment	PhaseName	Building Construction	11 Building Construction
tblOffRoadEquipment	PhaseName	Grading	10 Grading
tblOffRoadEquipment	PhaseName	Paving	12 Paving
tblOffRoadEquipment	PhaseName	Paving	12 Paving
tblOffRoadEquipment	PhaseName	Paving	12 Paving
tblOffRoadEquipment	PhaseName	Grading	10 Grading
tblOffRoadEquipment	PhaseName	Grading	10 Grading
tblOffRoadEquipment	PhaseName	Building Construction	11 Building Construction
tblOffRoadEquipment	PhaseName	Grading	10 Grading
tblOffRoadEquipment	PhaseName	Building Construction	11 Building Construction

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblOffRoadEquipment	PhaseName		11 Building Construction
tblOffRoadEquipment	PhaseName		11 Building Construction
tblOffRoadEquipment	PhaseName		12 Paving
tblOffRoadEquipment	PhaseName		12 Paving
tblOnRoadDust	PhaseName	Grading	10 Grading
tblOnRoadDust	PhaseName	Building Construction	11 Building Construction
tblOnRoadDust	PhaseName	Paving	12 Paving
tblProjectCharacteristics	CH4IntensityFactor	0.033	0
tblProjectCharacteristics	CO2IntensityFactor	203.983	2.68
tblProjectCharacteristics	N2OIntensityFactor	0.004	0
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	PhaseName	Building Construction	11 Building Construction
tblTripsAndVMT	PhaseName	Grading	10 Grading
tblTripsAndVMT	PhaseName	Paving	12 Paving
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	WD_TR	3.93	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					
2026	0.1348	0.9207	1.6084	3.3600e-003	0.1382	0.0338	0.1720	0.0406	0.0314	0.0720	0.0000	302.7426	302.7426	0.0496	0.0110	307.2697
<b>Maximum</b>	<b>0.1348</b>	<b>0.9207</b>	<b>1.6084</b>	<b>3.3600e-003</b>	<b>0.1382</b>	<b>0.0338</b>	<b>0.1720</b>	<b>0.0406</b>	<b>0.0314</b>	<b>0.0720</b>	<b>0.0000</b>	<b>302.7426</b>	<b>302.7426</b>	<b>0.0496</b>	<b>0.0110</b>	<b>307.2697</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	10 Grading	Grading	3/1/2026	4/6/2026	5	26	
2	11 Building Construction	Building Construction	3/1/2026	4/6/2026	5	26	
3	12 Paving	Paving	3/17/2026	4/21/2026	5	26	

**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 (Architectural Coating –**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
10 Grading	Excavators	0	8.00	158	0.38
10 Grading	Graders	0	8.00	187	0.41
10 Grading	Rubber Tired Dozers	1	1.20	247	0.40
10 Grading	Scrapers	0	8.00	367	0.48
10 Grading	Tractors/Loaders/Backhoes	1	1.20	97	0.37
11 Building Construction	Aerial Lifts	4	6.70	63	0.31
11 Building Construction	Cranes	0	6.70	231	0.29
11 Building Construction	Forklifts	6	10.00	89	0.20
11 Building Construction	Generator Sets	2	10.00	84	0.74
11 Building Construction	Off-Highway Tractors	5	10.00	124	0.44
11 Building Construction	Tractors/Loaders/Backhoes	4	6.70	97	0.37
11 Building Construction	Welders	0	6.70	46	0.45
12 Paving	Pavers	0	8.00	130	0.42
12 Paving	Paving Equipment	2	20.00	132	0.36
12 Paving	Rollers	2	20.00	80	0.38



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

12 Paving	Tractors/Loaders/Backhoes	2	20.00	97	0.42
12 Paving	Tractors/Loaders/Backhoes	2	20.00	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
10 Grading	2	5.00	0.00	50.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
11 Building Construction	21	659.00	257.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
12 Paving	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 10 Grading - 2026**

**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					0.0118	0.0000	0.0118	6.4600e-003	0.0000	6.4600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5200e-003	0.0155	0.0102	2.0000e-005		6.7000e-004	6.7000e-004		6.2000e-004	6.2000e-004	0.0000	1.9972	1.9972	6.5000e-004	0.0000	2.0134
<b>Total</b>	<b>1.5200e-003</b>	<b>0.0155</b>	<b>0.0102</b>	<b>2.0000e-005</b>	<b>0.0118</b>	<b>6.7000e-004</b>	<b>0.0124</b>	<b>6.4600e-003</b>	<b>6.2000e-004</b>	<b>7.0800e-003</b>	<b>0.0000</b>	<b>1.9972</b>	<b>1.9972</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>2.0134</b>

**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	7.0000e-005	3.8900e-003	7.2000e-004	1.0000e-005	4.1000e-004	3.0000e-005	4.5000e-004	1.1000e-004	3.0000e-005	1.5000e-004	0.0000	1.3769	1.3769	0.0000	2.2000e-004	1.4414
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.3000e-004	2.4100e-003	1.0000e-005	7.8000e-004	0.0000	7.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.5890	0.5890	2.0000e-005	2.0000e-005	0.5950
<b>Total</b>	<b>4.5000e-004</b>	<b>4.1200e-003</b>	<b>3.1300e-003</b>	<b>2.0000e-005</b>	<b>1.1900e-003</b>	<b>3.0000e-005</b>	<b>1.2300e-003</b>	<b>3.2000e-004</b>	<b>3.0000e-005</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>1.9659</b>	<b>1.9659</b>	<b>2.0000e-005</b>	<b>2.4000e-004</b>	<b>2.0364</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.3 11 Building Construction - 2026**

**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	0.0381	0.3439	0.6198	9.5000e-004		0.0152	0.0152		0.0142	0.0142	0.0000	83.3914	83.3914	0.0217	0.0000	83.9341
<b>Total</b>	<b>0.0381</b>	<b>0.3439</b>	<b>0.6198</b>	<b>9.5000e-004</b>		<b>0.0152</b>	<b>0.0152</b>		<b>0.0142</b>	<b>0.0142</b>	<b>0.0000</b>	<b>83.3914</b>	<b>83.3914</b>	<b>0.0217</b>	<b>0.0000</b>	<b>83.9341</b>

**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	5.9600e-003	0.1642	0.0525	6.2000e-004	0.0194	1.0500e-003	0.0205	5.6300e-003	1.0100e-003	6.6400e-003	0.0000	59.1363	59.1363	2.5000e-004	8.2600e-003	61.6046
Worker	0.0505	0.0308	0.3182	8.5000e-004	0.1027	5.5000e-004	0.1033	0.0274	5.0000e-004	0.0279	0.0000	77.6332	77.6332	2.2700e-003	2.4600e-003	78.4220
<b>Total</b>	<b>0.0565</b>	<b>0.1950</b>	<b>0.3707</b>	<b>1.4700e-003</b>	<b>0.1221</b>	<b>1.6000e-003</b>	<b>0.1237</b>	<b>0.0330</b>	<b>1.5100e-003</b>	<b>0.0345</b>	<b>0.0000</b>	<b>136.7694</b>	<b>136.7694</b>	<b>2.5200e-003</b>	<b>0.0107</b>	<b>140.0266</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.4 12 Paving - 2026**

**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	0.0368	0.3613	0.5950	8.7000e-004		0.0163	0.0163		0.0150	0.0150	0.0000	76.2626	76.2626	0.0247	0.0000	76.8792
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0368</b>	<b>0.3613</b>	<b>0.5950</b>	<b>8.7000e-004</b>		<b>0.0163</b>	<b>0.0163</b>		<b>0.0150</b>	<b>0.0150</b>	<b>0.0000</b>	<b>76.2626</b>	<b>76.2626</b>	<b>0.0247</b>	<b>0.0000</b>	<b>76.8792</b>

**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	1.5300e-003	9.3000e-004	9.6600e-003	3.0000e-005	3.1200e-003	2.0000e-005	3.1300e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.3561	2.3561	7.0000e-005	7.0000e-005	2.3800
<b>Total</b>	<b>1.5300e-003</b>	<b>9.3000e-004</b>	<b>9.6600e-003</b>	<b>3.0000e-005</b>	<b>3.1200e-003</b>	<b>2.0000e-005</b>	<b>3.1300e-003</b>	<b>8.3000e-004</b>	<b>2.0000e-005</b>	<b>8.5000e-004</b>	<b>0.0000</b>	<b>2.3561</b>	<b>2.3561</b>	<b>7.0000e-005</b>	<b>7.0000e-005</b>	<b>2.3800</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Nordic Aquafarms - CONST Phase 2 - 2026**

**Humboldt County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	1,568.00	1000sqft	36.00	1,568,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1			<b>Operational Year</b>	2025
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Construction Phase 2 - 2026. PG&E 2019 Data

Land Use - 36-acre site (1,568,160 sf)

Construction Phase - Site Prep 130d, Bldg Const 152d

Off-road Equipment - Project-Specific Fleet and Activity

Vehicle Trips - Construction Only

Off-road Equipment - Project-specific Fleet and Activity

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	740.00	152.00
tblConstructionPhase	NumDays	30.00	130.00
tblGrading	PhaseName	Site Preparation	13 Site Preparation
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	65.00	64.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	PhaseName		13 Site Preparation
tblOffRoadEquipment	PhaseName		13 Site Preparation
tblOffRoadEquipment	PhaseName	Site Preparation	13 Site Preparation
tblOffRoadEquipment	PhaseName		13 Site Preparation
tblOffRoadEquipment	PhaseName	Site Preparation	13 Site Preparation
tblOffRoadEquipment	PhaseName		14 Building Construction
tblOffRoadEquipment	PhaseName		14 Building Construction
tblOffRoadEquipment	PhaseName	Building Construction	14 Building Construction
tblOffRoadEquipment	PhaseName	Building Construction	14 Building Construction
tblOffRoadEquipment	PhaseName	Building Construction	14 Building Construction
tblOffRoadEquipment	PhaseName		14 Building Construction
tblOffRoadEquipment	PhaseName		14 Building Construction
tblOffRoadEquipment	PhaseName	Building Construction	14 Building Construction
tblOffRoadEquipment	PhaseName	Building Construction	14 Building Construction
tblOnRoadDust	PhaseName	Site Preparation	13 Site Preparation
tblOnRoadDust	PhaseName	Building Construction	14 Building Construction
tblProjectCharacteristics	CH4IntensityFactor	0.033	0
tblProjectCharacteristics	CO2IntensityFactor	203.98	2.68
tblProjectCharacteristics	N2OIntensityFactor	0.004	0

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	PhaseName	Building Construction	14 Building Construction
tblTripsAndVMT	PhaseName	Site Preparation	13 Site Preparation
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	WD_TR	3.93	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					
2026	0.6293	4.3069	7.2901	0.0155	0.5352	0.1517	0.6869	0.1446	0.1438	0.2884	0.0000	1,385.7132	1,385.7132	0.1855	0.0458	1,403.9951
2027	0.2131	1.4328	2.3732	5.2600e-003	0.2007	0.0499	0.2506	0.0542	0.0474	0.1016	0.0000	471.2730	471.2730	0.0588	0.0168	477.7439
<b>Maximum</b>	<b>0.6293</b>	<b>4.3069</b>	<b>7.2901</b>	<b>0.0155</b>	<b>0.5352</b>	<b>0.1517</b>	<b>0.6869</b>	<b>0.1446</b>	<b>0.1438</b>	<b>0.2884</b>	<b>0.0000</b>	<b>1,385.7132</b>	<b>1,385.7132</b>	<b>0.1855</b>	<b>0.0458</b>	<b>1,403.9951</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	13 Site Preparation	Site Preparation	7/31/2026	1/28/2027	5	130	
2	14 Building Construction	Building Construction	7/31/2026	3/1/2027	5	152	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Acres of Paving: 0**

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

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
13 Site Preparation	Excavators	2	10.00	162	0.38
13 Site Preparation	Generator Sets	2	10.00	84	0.74
13 Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
13 Site Preparation	Skid Steer Loaders	4	10.00	64	0.37
13 Site Preparation	Tractors/Loaders/Backhoes	3	10.00	97	0.37
14 Building Construction	Aerial Lifts	6	2.50	63	0.31
14 Building Construction	Cement and Mortar Mixers	2	10.00	9	0.56
14 Building Construction	Cranes	1	10.00	231	0.29
14 Building Construction	Forklifts	6	10.00	89	0.20
14 Building Construction	Generator Sets	4	10.00	84	0.74
14 Building Construction	Off-Highway Tractors	4	10.00	124	0.44
14 Building Construction	Pumps	1	10.00	84	0.74
14 Building Construction	Tractors/Loaders/Backhoes	6	10.00	97	0.37
14 Building Construction	Welders	4	2.50	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
13 Site Preparation	11	28.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
14 Building Construction	34	659.00	257.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

**3.2 13 Site Preparation - 2026**

**Unmitigated Construction On-Site**



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive 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	0.1035	0.9914	1.7960	2.8400e-003		0.0392	0.0392		0.0371	0.0371	0.0000	247.4681	247.4681	0.0578	0.0000	248.9124
<b>Total</b>	<b>0.1035</b>	<b>0.9914</b>	<b>1.7960</b>	<b>2.8400e-003</b>	<b>0.0000</b>	<b>0.0392</b>	<b>0.0392</b>	<b>0.0000</b>	<b>0.0371</b>	<b>0.0371</b>	<b>0.0000</b>	<b>247.4681</b>	<b>247.4681</b>	<b>0.0578</b>	<b>0.0000</b>	<b>248.9124</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0800e-003	5.5300e-003	0.0572	1.5000e-004	0.0185	1.0000e-004	0.0186	4.9200e-003	9.0000e-005	5.0100e-003	0.0000	13.9553	13.9553	4.1000e-004	4.4000e-004	14.0971
<b>Total</b>	<b>9.0800e-003</b>	<b>5.5300e-003</b>	<b>0.0572</b>	<b>1.5000e-004</b>	<b>0.0185</b>	<b>1.0000e-004</b>	<b>0.0186</b>	<b>4.9200e-003</b>	<b>9.0000e-005</b>	<b>5.0100e-003</b>	<b>0.0000</b>	<b>13.9553</b>	<b>13.9553</b>	<b>4.1000e-004</b>	<b>4.4000e-004</b>	<b>14.0971</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 13 Site Preparation - 2027**

**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	0.0188	0.1803	0.3266	5.2000e-004		7.1300e-003	7.1300e-003		6.7500e-003	6.7500e-003	0.0000	44.9942	44.9942	0.0105	0.0000	45.2568
<b>Total</b>	<b>0.0188</b>	<b>0.1803</b>	<b>0.3266</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>7.1300e-003</b>	<b>7.1300e-003</b>	<b>0.0000</b>	<b>6.7500e-003</b>	<b>6.7500e-003</b>	<b>0.0000</b>	<b>44.9942</b>	<b>44.9942</b>	<b>0.0105</b>	<b>0.0000</b>	<b>45.2568</b>

**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	1.5600e-003	9.0000e-004	9.6400e-003	3.0000e-005	3.3600e-003	2.0000e-005	3.3700e-003	8.9000e-004	2.0000e-005	9.1000e-004	0.0000	2.4644	2.4644	7.0000e-005	7.0000e-005	2.4884
<b>Total</b>	<b>1.5600e-003</b>	<b>9.0000e-004</b>	<b>9.6400e-003</b>	<b>3.0000e-005</b>	<b>3.3600e-003</b>	<b>2.0000e-005</b>	<b>3.3700e-003</b>	<b>8.9000e-004</b>	<b>2.0000e-005</b>	<b>9.1000e-004</b>	<b>0.0000</b>	<b>2.4644</b>	<b>2.4644</b>	<b>7.0000e-005</b>	<b>7.0000e-005</b>	<b>2.4884</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.3 14 Building Construction - 2026**

**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	0.2779	2.4851	3.8686	6.3200e-003		0.1056	0.1056		0.1002	0.1002	0.0000	545.6500	545.6500	0.1166	0.0000	548.5653
<b>Total</b>	<b>0.2779</b>	<b>2.4851</b>	<b>3.8686</b>	<b>6.3200e-003</b>		<b>0.1056</b>	<b>0.1056</b>		<b>0.1002</b>	<b>0.1002</b>	<b>0.0000</b>	<b>545.6500</b>	<b>545.6500</b>	<b>0.1166</b>	<b>0.0000</b>	<b>548.5653</b>

**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	0.0252	0.6946	0.2221	2.6200e-003	0.0822	4.4500e-003	0.0866	0.0238	4.2500e-003	0.0281	0.0000	250.1918	250.1918	1.0700e-003	0.0350	260.6347
Worker	0.2137	0.1302	1.3461	3.5800e-003	0.4346	2.3100e-003	0.4369	0.1158	2.1300e-003	0.1179	0.0000	328.4480	328.4480	9.6000e-003	0.0104	331.7856
<b>Total</b>	<b>0.2389</b>	<b>0.8248</b>	<b>1.5683</b>	<b>6.2000e-003</b>	<b>0.5167</b>	<b>6.7600e-003</b>	<b>0.5235</b>	<b>0.1396</b>	<b>6.3800e-003</b>	<b>0.1460</b>	<b>0.0000</b>	<b>578.6398</b>	<b>578.6398</b>	<b>0.0107</b>	<b>0.0453</b>	<b>592.4203</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.3 14 Building Construction - 2027**

**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	0.1061	0.9489	1.4771	2.4100e-003		0.0403	0.0403		0.0383	0.0383	0.0000	208.3391	208.3391	0.0445	0.0000	209.4522
<b>Total</b>	<b>0.1061</b>	<b>0.9489</b>	<b>1.4771</b>	<b>2.4100e-003</b>		<b>0.0403</b>	<b>0.0403</b>		<b>0.0383</b>	<b>0.0383</b>	<b>0.0000</b>	<b>208.3391</b>	<b>208.3391</b>	<b>0.0445</b>	<b>0.0000</b>	<b>209.4522</b>

**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	9.4600e-003	0.2580	0.0835	9.8000e-004	0.0314	1.6500e-003	0.0330	9.1000e-003	1.5800e-003	0.0107	0.0000	93.6722	93.6722	4.0000e-004	0.0130	97.5578
Worker	0.0772	0.0447	0.4764	1.3300e-003	0.1659	8.2000e-004	0.1667	0.0442	7.6000e-004	0.0450	0.0000	121.8031	121.8031	3.3300e-003	3.7000e-003	122.9888
<b>Total</b>	<b>0.0866</b>	<b>0.3028</b>	<b>0.5599</b>	<b>2.3100e-003</b>	<b>0.1973</b>	<b>2.4700e-003</b>	<b>0.1998</b>	<b>0.0533</b>	<b>2.3400e-003</b>	<b>0.0557</b>	<b>0.0000</b>	<b>215.4753</b>	<b>215.4753</b>	<b>3.7300e-003</b>	<b>0.0167</b>	<b>220.5465</b>

Nordic Aquafarms - CONST Phase 2 - 2027 - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Nordic Aquafarms - CONST Phase 2 - 2027**

**Humboldt County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	1,568.00	1000sqft	36.00	1,568,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1			<b>Operational Year</b>	2026
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Construction Phase 2 - 2027. PG&E 2019 Data

Land Use - 36-acre site (1,568,160 sf)

Construction Phase - Bldg Const 260d

Off-road Equipment - Project-Specific Fleet and Activity

Vehicle Trips - Construction Only

Off-road Equipment - Project-specific Fleet and Activity

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	740.00	260.00
tblConstructionPhase	PhaseEndDate	11/2/2027	2/28/2028
tblConstructionPhase	PhaseStartDate	1/1/2025	3/2/2027
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00

## Nordic Aquafarms - CONST Phase 2 - 2027 - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName	Building Construction	15 Building Construction
tblOffRoadEquipment	PhaseName	Building Construction	15 Building Construction
tblOffRoadEquipment	PhaseName	Building Construction	15 Building Construction
tblOffRoadEquipment	PhaseName	Building Construction	15 Building Construction
tblOffRoadEquipment	PhaseName	Building Construction	15 Building Construction
tblOffRoadEquipment	PhaseName		15 Building Construction
tblOffRoadEquipment	PhaseName		15 Building Construction
tblOffRoadEquipment	PhaseName		15 Building Construction
tblOffRoadEquipment	PhaseName		15 Building Construction
tblOnRoadDust	PhaseName	Building Construction	15 Building Construction
tblProjectCharacteristics	CH4IntensityFactor	0.033	0
tblProjectCharacteristics	CO2IntensityFactor	203.983	2.68
tblProjectCharacteristics	N2OIntensityFactor	0.004	0
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	PhaseName	Building Construction	15 Building Construction
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	WD_TR	3.93	0.00

Nordic Aquafarms - CONST Phase 2 - 2027 - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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					
2027	0.9293	5.7618	9.6398	0.0229	1.0287	0.1873	1.2160	0.2780	0.1781	0.4561	0.0000	2,058.4878	2,058.4878	0.2132	0.0871	2,089.7764
2028	0.1699	1.0680	1.7724	4.2300e-003	0.1926	0.0350	0.2276	0.0521	0.0333	0.0853	0.0000	380.3958	380.3958	0.0396	0.0158	386.0826
<b>Maximum</b>	<b>0.9293</b>	<b>5.7618</b>	<b>9.6398</b>	<b>0.0229</b>	<b>1.0287</b>	<b>0.1873</b>	<b>1.2160</b>	<b>0.2780</b>	<b>0.1781</b>	<b>0.4561</b>	<b>0.0000</b>	<b>2,058.4878</b>	<b>2,058.4878</b>	<b>0.2132</b>	<b>0.0871</b>	<b>2,089.7764</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	15 Building Construction	Building Construction	3/2/2027	2/28/2028	5	260	

**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 (Architectural Coating –**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
15 Building Construction	Aerial Lifts	6	5.00	63	0.31
15 Building Construction	Cement and Mortar Mixers	2	3.30	9	0.56
15 Building Construction	Cranes	1	5.00	231	0.29

Nordic Aquafarms - CONST Phase 2 - 2027 - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

15 Building Construction	Forklifts	6	10.00	89	0.20
15 Building Construction	Generator Sets	4	10.00	84	0.74
15 Building Construction	Off-Highway Tractors	4	10.00	124	0.44
15 Building Construction	Pumps	1	3.30	84	0.74
15 Building Construction	Tractors/Loaders/Backhoes	6	5.00	97	0.37
15 Building Construction	Welders	4	5.00	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
15 Building Construction	34	659.00	257.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**



Nordic Aquafarms - CONST Phase 2 - 2027 - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 15 Building Construction - 2027**

**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	0.4776	4.1832	6.7205	0.0109		0.1744	0.1744		0.1660	0.1660	0.0000	934.9382	934.9382	0.1938	0.0000	939.7839
<b>Total</b>	<b>0.4776</b>	<b>4.1832</b>	<b>6.7205</b>	<b>0.0109</b>		<b>0.1744</b>	<b>0.1744</b>		<b>0.1660</b>	<b>0.1660</b>	<b>0.0000</b>	<b>934.9382</b>	<b>934.9382</b>	<b>0.1938</b>	<b>0.0000</b>	<b>939.7839</b>

**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	0.0493	1.3455	0.4352	5.1200e-003	0.1636	8.5900e-003	0.1722	0.0475	8.2100e-003	0.0557	0.0000	488.4334	488.4334	2.0700e-003	0.0678	508.6940
Worker	0.4024	0.2332	2.4841	6.9300e-003	0.8652	4.2800e-003	0.8695	0.2306	3.9400e-003	0.2345	0.0000	635.1162	635.1162	0.0173	0.0193	641.2985
<b>Total</b>	<b>0.4518</b>	<b>1.5787</b>	<b>2.9193</b>	<b>0.0121</b>	<b>1.0287</b>	<b>0.0129</b>	<b>1.0416</b>	<b>0.2780</b>	<b>0.0122</b>	<b>0.2902</b>	<b>0.0000</b>	<b>1,123.5497</b>	<b>1,123.5497</b>	<b>0.0194</b>	<b>0.0871</b>	<b>1,149.9925</b>

Nordic Aquafarms - CONST Phase 2 - 2027 - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 15 Building Construction - 2028**

**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	0.0894	0.7832	1.2582	2.0300e-003		0.0327	0.0327		0.0311	0.0311	0.0000	175.0341	175.0341	0.0363	0.0000	175.9413
<b>Total</b>	<b>0.0894</b>	<b>0.7832</b>	<b>1.2582</b>	<b>2.0300e-003</b>		<b>0.0327</b>	<b>0.0327</b>		<b>0.0311</b>	<b>0.0311</b>	<b>0.0000</b>	<b>175.0341</b>	<b>175.0341</b>	<b>0.0363</b>	<b>0.0000</b>	<b>175.9413</b>

**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	9.0800e-003	0.2454	0.0803	9.4000e-004	0.0306	1.5600e-003	0.0322	8.8800e-003	1.4900e-003	0.0104	0.0000	89.6972	89.6972	3.8000e-004	0.0124	93.3945
Worker	0.0714	0.0394	0.4339	1.2600e-003	0.1620	7.5000e-004	0.1627	0.0432	6.9000e-004	0.0439	0.0000	115.6646	115.6646	2.9600e-003	3.3800e-003	116.7469
<b>Total</b>	<b>0.0804</b>	<b>0.2848</b>	<b>0.5142</b>	<b>2.2000e-003</b>	<b>0.1926</b>	<b>2.3100e-003</b>	<b>0.1949</b>	<b>0.0520</b>	<b>2.1800e-003</b>	<b>0.0542</b>	<b>0.0000</b>	<b>205.3618</b>	<b>205.3618</b>	<b>3.3400e-003</b>	<b>0.0158</b>	<b>210.1414</b>

Nordic Aquafarms - CONST Phase 2 - 2028 - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Nordic Aquafarms - CONST Phase 2 - 2028**

**Humboldt County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	1,568.00	1000sqft	36.00	1,568,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1			<b>Operational Year</b>	2027
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Construction Phase 2 - 2026. PG&E 2019 data.

Land Use - 36-acre site (1,568,160 sf)

Construction Phase - Bldg Const 26d, Grading 26d, Paving 26d

Off-road Equipment - Project-Specific Fleet and Activity

Grading - 400 cy import

Vehicle Trips - Construction Only

Off-road Equipment - Project-specific Fleet and Activity

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	740.00	26.00
tblConstructionPhase	NumDays	75.00	26.00
tblConstructionPhase	NumDays	55.00	26.00
tblConstructionPhase	PhaseEndDate	2/14/2029	4/5/2028
tblConstructionPhase	PhaseEndDate	4/15/2026	4/5/2028

Nordic Aquafarms - CONST Phase 2 - 2028 - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblConstructionPhase	PhaseEndDate	5/2/2029	4/5/2028
tblConstructionPhase	PhaseStartDate	4/16/2026	3/1/2028
tblConstructionPhase	PhaseStartDate	1/1/2026	3/1/2028
tblConstructionPhase	PhaseStartDate	2/15/2029	3/1/2028
tblGrading	MaterialImported	0.00	400.00
tblGrading	PhaseName	Grading	16 Grading
tblOffRoadEquipment	HorsePower	97.00	130.00
tblOffRoadEquipment	LoadFactor	0.37	0.42
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	7.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName	Building Construction	17 Building Construction
tblOffRoadEquipment	PhaseName	Grading	16 Grading
tblOffRoadEquipment	PhaseName	Building Construction	17 Building Construction
tblOffRoadEquipment	PhaseName	Building Construction	17 Building Construction
tblOffRoadEquipment	PhaseName	Grading	16 Grading
tblOffRoadEquipment	PhaseName	Paving	18 Paving
tblOffRoadEquipment	PhaseName	Paving	18 Paving
tblOffRoadEquipment	PhaseName	Paving	18 Paving
tblOffRoadEquipment	PhaseName	Grading	16 Grading
tblOffRoadEquipment	PhaseName	Grading	16 Grading
tblOffRoadEquipment	PhaseName	Building Construction	17 Building Construction
tblOffRoadEquipment	PhaseName	Grading	16 Grading

## Nordic Aquafarms - CONST Phase 2 - 2028 - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblOffRoadEquipment	PhaseName	Building Construction	17 Building Construction
tblOffRoadEquipment	PhaseName		17 Building Construction
tblOffRoadEquipment	PhaseName		17 Building Construction
tblOffRoadEquipment	PhaseName		18 Paving
tblOffRoadEquipment	PhaseName		18 Paving
tblOnRoadDust	PhaseName	Grading	16 Grading
tblOnRoadDust	PhaseName	Building Construction	17 Building Construction
tblOnRoadDust	PhaseName	Paving	18 Paving
tblProjectCharacteristics	CH4IntensityFactor	0.033	0
tblProjectCharacteristics	CO2IntensityFactor	203.983	2.68
tblProjectCharacteristics	N2OIntensityFactor	0.004	0
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	PhaseName	Building Construction	17 Building Construction
tblTripsAndVMT	PhaseName	Grading	16 Grading
tblTripsAndVMT	PhaseName	Paving	18 Paving
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	WD_TR	3.93	0.00

Nordic Aquafarms - CONST Phase 2 - 2028 - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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					
2028	0.1820	1.3760	2.3735	4.6500e-003	0.1382	0.0531	0.1913	0.0406	0.0501	0.0907	0.0000	413.8167	413.8167	0.0663	0.0103	418.5369
<b>Maximum</b>	<b>0.1820</b>	<b>1.3760</b>	<b>2.3735</b>	<b>4.6500e-003</b>	<b>0.1382</b>	<b>0.0531</b>	<b>0.1913</b>	<b>0.0406</b>	<b>0.0501</b>	<b>0.0907</b>	<b>0.0000</b>	<b>413.8167</b>	<b>413.8167</b>	<b>0.0663</b>	<b>0.0103</b>	<b>418.5369</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	16 Grading	Grading	3/1/2028	4/5/2028	5	26	
2	17 Building Construction	Building Construction	3/1/2028	4/5/2028	5	26	
3	18 Paving	Paving	3/1/2028	4/5/2028	5	26	

**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 (Architectural Coating –**

Nordic Aquafarms - CONST Phase 2 - 2028 - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
16 Grading	Excavators	0	8.00	158	0.38
16 Grading	Graders	0	8.00	187	0.41
16 Grading	Rubber Tired Dozers	1	1.20	247	0.40
16 Grading	Scrapers	0	8.00	367	0.48
16 Grading	Tractors/Loaders/Backhoes	1	1.20	97	0.37
17 Building Construction	Aerial Lifts	4	10.00	63	0.31
17 Building Construction	Cranes	0	6.70	231	0.29
17 Building Construction	Forklifts	7	10.00	89	0.20
17 Building Construction	Generator Sets	10	10.00	84	0.74
17 Building Construction	Off-Highway Tractors	5	10.00	124	0.44
17 Building Construction	Tractors/Loaders/Backhoes	10	10.00	97	0.37
17 Building Construction	Welders	0	6.70	46	0.45
18 Paving	Pavers	0	8.00	130	0.42
18 Paving	Paving Equipment	2	20.00	132	0.36
18 Paving	Rollers	2	20.00	80	0.38
18 Paving	Tractors/Loaders/Backhoes	2	20.00	97	0.37
18 Paving	Tractors/Loaders/Backhoes	2	20.00	130	0.42

**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
16 Grading	2	5.00	0.00	50.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
17 Building Construction	36	659.00	257.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
18 Paving	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

**3.2 16 Grading - 2028**

**Unmitigated Construction On-Site**

Nordic Aquafarms - CONST Phase 2 - 2028 - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive 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					0.0118	0.0000	0.0118	6.4600e-003	0.0000	6.4600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5200e-003	0.0155	0.0102	2.0000e-005		6.7000e-004	6.7000e-004		6.2000e-004	6.2000e-004	0.0000	1.9972	1.9972	6.5000e-004	0.0000	2.0134
<b>Total</b>	<b>1.5200e-003</b>	<b>0.0155</b>	<b>0.0102</b>	<b>2.0000e-005</b>	<b>0.0118</b>	<b>6.7000e-004</b>	<b>0.0124</b>	<b>6.4600e-003</b>	<b>6.2000e-004</b>	<b>7.0800e-003</b>	<b>0.0000</b>	<b>1.9972</b>	<b>1.9972</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>2.0134</b>

**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	6.0000e-005	3.6400e-003	7.2000e-004	1.0000e-005	4.1000e-004	3.0000e-005	4.4000e-004	1.1000e-004	3.0000e-005	1.4000e-004	0.0000	1.3031	1.3031	0.0000	2.0000e-004	1.3641
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	1.9000e-004	2.0900e-003	1.0000e-005	7.8000e-004	0.0000	7.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.5565	0.5565	1.0000e-005	2.0000e-005	0.5617
<b>Total</b>	<b>4.0000e-004</b>	<b>3.8300e-003</b>	<b>2.8100e-003</b>	<b>2.0000e-005</b>	<b>1.1900e-003</b>	<b>3.0000e-005</b>	<b>1.2200e-003</b>	<b>3.2000e-004</b>	<b>3.0000e-005</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>1.8596</b>	<b>1.8596</b>	<b>1.0000e-005</b>	<b>2.2000e-004</b>	<b>1.9259</b>



Nordic Aquafarms - CONST Phase 2 - 2028 - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.3 17 Building Construction - 2028**

**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	0.0906	0.8386	1.4026	2.2400e-003		0.0349	0.0349		0.0334	0.0334	0.0000	194.8098	194.8098	0.0367	0.0000	195.7271
<b>Total</b>	<b>0.0906</b>	<b>0.8386</b>	<b>1.4026</b>	<b>2.2400e-003</b>		<b>0.0349</b>	<b>0.0349</b>		<b>0.0334</b>	<b>0.0334</b>	<b>0.0000</b>	<b>194.8098</b>	<b>194.8098</b>	<b>0.0367</b>	<b>0.0000</b>	<b>195.7271</b>

**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	5.7600e-003	0.1556	0.0509	6.0000e-004	0.0194	9.9000e-004	0.0204	5.6300e-003	9.5000e-004	6.5800e-003	0.0000	56.8811	56.8811	2.4000e-004	7.8500e-003	59.2258
Worker	0.0453	0.0250	0.2751	8.0000e-004	0.1027	4.7000e-004	0.1032	0.0274	4.4000e-004	0.0278	0.0000	73.3483	73.3483	1.8800e-003	2.1500e-003	74.0346
<b>Total</b>	<b>0.0510</b>	<b>0.1806</b>	<b>0.3261</b>	<b>1.4000e-003</b>	<b>0.1221</b>	<b>1.4600e-003</b>	<b>0.1236</b>	<b>0.0330</b>	<b>1.3900e-003</b>	<b>0.0344</b>	<b>0.0000</b>	<b>130.2294</b>	<b>130.2294</b>	<b>2.1200e-003</b>	<b>1.0000e-002</b>	<b>133.2604</b>

Nordic Aquafarms - CONST Phase 2 - 2028 - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.4 18 Paving - 2028**

**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	0.0372	0.3367	0.6235	9.4000e-004		0.0160	0.0160		0.0147	0.0147	0.0000	82.6947	82.6947	0.0268	0.0000	83.3633
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0372</b>	<b>0.3367</b>	<b>0.6235</b>	<b>9.4000e-004</b>		<b>0.0160</b>	<b>0.0160</b>		<b>0.0147</b>	<b>0.0147</b>	<b>0.0000</b>	<b>82.6947</b>	<b>82.6947</b>	<b>0.0268</b>	<b>0.0000</b>	<b>83.3633</b>

**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	1.3700e-003	7.6000e-004	8.3500e-003	2.0000e-005	3.1200e-003	1.0000e-005	3.1300e-003	8.3000e-004	1.0000e-005	8.4000e-004	0.0000	2.2261	2.2261	6.0000e-005	7.0000e-005	2.2469
<b>Total</b>	<b>1.3700e-003</b>	<b>7.6000e-004</b>	<b>8.3500e-003</b>	<b>2.0000e-005</b>	<b>3.1200e-003</b>	<b>1.0000e-005</b>	<b>3.1300e-003</b>	<b>8.3000e-004</b>	<b>1.0000e-005</b>	<b>8.4000e-004</b>	<b>0.0000</b>	<b>2.2261</b>	<b>2.2261</b>	<b>6.0000e-005</b>	<b>7.0000e-005</b>	<b>2.2469</b>

Nordic - 2025 Operations Mobile Employee - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Nordic - 2025 Operations Mobile Employee  
Humboldt County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	1.00	1000sqft	36.00	1,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1			<b>Operational Year</b>	2025
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

**1.3 User Entered Comments & Non-Default Data**

Road Dust -  
 Project Characteristics - PG&E 2019 Data  
 Land Use - 36 acre site, 1 Unit for Calculation Purposes  
 Construction Phase - Operations Mobile Employee Only  
 Vehicle Trips - 205 Employee/Visitor Trips/day. 7.71 mi per trip, Annual VMT 575,839  
 Fleet Mix - 50/50 mix LDA/LDT1

Table Name	Column Name	Default Value	New Value
tbIFleetMix	HHD	8.7460e-003	0.00
tbIFleetMix	LDA	0.46	0.50
tbIFleetMix	LDT1	0.07	0.50
tbIFleetMix	LDT2	0.21	0.00
tbIFleetMix	LHD1	0.05	0.00
tbIFleetMix	LHD2	0.01	0.00

## Nordic - 2025 Operations Mobile Employee - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.15	0.00
tblFleetMix	MH	3.6120e-003	0.00
tblFleetMix	MHD	6.6080e-003	0.00
tblFleetMix	OBUS	1.0070e-003	0.00
tblFleetMix	SBUS	1.4460e-003	0.00
tblFleetMix	UBUS	2.1700e-004	0.00
tblLandUse	LotAcreage	0.02	36.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0
tblProjectCharacteristics	CO2IntensityFactor	203.98	2.68
tblProjectCharacteristics	N2OIntensityFactor	0.004	0
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	CC_TL	6.60	7.71
tblVehicleTrips	CNW_TL	6.60	7.71
tblVehicleTrips	CW_TL	14.70	7.71
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	6.42	205.00
tblVehicleTrips	SU_TR	5.09	205.00
tblVehicleTrips	WD_TR	3.93	205.00

Nordic - 2025 Operations Mobile Employee - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.0 Emissions Summary**

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**2.1 Overall Construction**

Not Applicable

**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					
Mobile	0.0918	0.0877	0.8841	1.7300e-003	0.2051	1.4000e-003	0.2065	0.0546	1.2900e-003	0.0559	0.0000	163.4305	163.4305	8.7500e-003	6.7900e-003	165.6735

**3.0 Construction Detail**

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Not Applicable



Nordic - 2025 Operations Mobile Hauling - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Nordic - 2025 Operations Mobile Hauling  
Humboldt County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	1.00	1000sqft	36.00	1,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1	<b>Operational Year</b>	2025		
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - PG&E 2019 data

Land Use - 36 acre site, 1 Unit for Calculation Purposes

Construction Phase - Operational Mobile Only

Vehicle Trips - 100 trips/day, 18.5 miles/trip, 100 percent C-W Trips. Op Mobile Hualign within NCUAQMD. Annual VMT of 673,314

Fleet Mix - 100 percent HHD Trucks

Table Name	Column Name	Default Value	New Value
tbIFleetMix	HHD	8.7460e-003	1.00
tbIFleetMix	LDA	0.46	0.00
tbIFleetMix	LDT1	0.07	0.00
tbIFleetMix	LDT2	0.21	0.00
tbIFleetMix	LHD1	0.05	0.00
tbIFleetMix	LHD2	0.01	0.00
tbIFleetMix	MCY	0.03	0.00

## Nordic - 2025 Operations Mobile Hauling - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblFleetMix	MDV	0.15	0.00
tblFleetMix	MH	3.6120e-003	0.00
tblFleetMix	MHD	6.6080e-003	0.00
tblFleetMix	OBUS	1.0070e-003	0.00
tblFleetMix	SBUS	1.4460e-003	0.00
tblFleetMix	UBUS	2.1700e-004	0.00
tblLandUse	LotAcreage	0.02	36.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0
tblProjectCharacteristics	CO2IntensityFactor	203.98	2.68
tblProjectCharacteristics	N2OIntensityFactor	0.004	0
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	14.70	18.50
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	6.42	100.00
tblVehicleTrips	SU_TR	5.09	100.00
tblVehicleTrips	WD_TR	3.93	100.00



Nordic - 2025 Operations Mobile Hauling - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.0 Emissions Summary**

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**2.1 Overall Construction**

Not Applicable

**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					
Mobile	0.0483	2.7328	0.5064	9.8800e-003	0.2777	0.0233	0.3010	0.0765	0.0223	0.0987	0.0000	948.9032	948.9032	2.0500e-003	0.1491	993.3915

**3.0 Construction Detail**

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Not Applicable

Nordic - 2025 Operations Mobile Hauling - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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	0.0483	2.7328	0.5064	9.8800e-003	0.2777	0.0233	0.3010	0.0765	0.0223	0.0987	0.0000	948.9032	948.9032	2.0500e-003	0.1491	993.3915
Unmitigated	0.0483	2.7328	0.5064	9.8800e-003	0.2777	0.0233	0.3010	0.0765	0.0223	0.0987	0.0000	948.9032	948.9032	2.0500e-003	0.1491	993.3915

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	100.00	100.00	100.00	673,400	673,400
Total	100.00	100.00	100.00	673,400	673,400

**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
Manufacturing	18.50	6.60	6.60	100.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Nordic - 2025 Operations Mobile Hauling Outside of NCUAQMD - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Nordic - 2025 Operations Mobile Hauling Outside of NCUAQMD  
Humboldt County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	1.00	1000sqft	36.00	1,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1	<b>Operational Year</b>	2025		
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - PG&E 2019 data

Land Use - 36 acre site, 1 Unit for Calculation Purposes

Construction Phase - Operational Mobile Only

Vehicle Trips - 100 trips/day, 28 miles/trip, 100 percent C-W Trips. Op Mobile Hualign within NCUAQMD. Annual VMT of 1,019,754

Fleet Mix - 100 percent HHD Trucks

Road Dust - Default Values

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.00	1.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	MaterialMoistureContent	0	0.5
tblRoadDust	MaterialSiltContent	0	4.3
tblRoadDust	MeanVehicleSpeed	0	40
tblRoadDust	MobileAverageVehicleWeight	0	2.4

Nordic - 2025 Operations Mobile Hauling Outside of NCUAQMD - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblRoadDust	RoadPercentPave	0	100
tblRoadDust	RoadSiltLoading	0	0.1
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	14.70	28.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	6.42	100.00
tblVehicleTrips	SU_TR	5.09	100.00
tblVehicleTrips	WD_TR	3.93	100.00

**2.0 Emissions Summary**

**2.1 Overall Construction**

Not Applicable

**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					
Mobile	0.0619	3.9463	0.6033	0.0147	0.4203	0.0352	0.4555	0.1158	0.0336	0.1494	0.0000	1,412.1339	1,412.1339	2.6200e-003	0.2219	1,478.3291

**3.0 Construction Detail**

Not Applicable

**4.0 Operational Detail - Mobile**

Nordic - 2025 Operations Mobile Hauling Outside of NCUAQMD - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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	0.0619	3.9463	0.6033	0.0147	0.4203	0.0352	0.4555	0.1158	0.0336	0.1494	0.0000	1,412.1339	1,412.1339	2.6200e-003	0.2219	1,478.3291
Unmitigated	0.0619	3.9463	0.6033	0.0147	0.4203	0.0352	0.4555	0.1158	0.0336	0.1494	0.0000	1,412.1339	1,412.1339	2.6200e-003	0.2219	1,478.3291

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	100.00	100.00	100.00	1,019,200	1,019,200
Total	100.00	100.00	100.00	1,019,200	1,019,200

**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
Manufacturing	28.00	6.60	6.60	100.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Nordic - 2025 Operations Non Mobile - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Nordic - 2025 Operations Non Mobile  
Humboldt County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	580.00	1000sqft	13.31	580,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1			<b>Operational Year</b>	2025
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	2.68	<b>CH4 Intensity (lb/MW hr)</b>	0	<b>N2O Intensity (lb/MW hr)</b>	0

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - PG&E 2019 data

Land Use - 36 acre site, 580ksf Modules

Construction Phase - Operational Non Mobile Only

Vehicle Trips - Non-Mobile Only

Energy Use - Default Title 24 (0.56 KWh/size/yr) and Lighting Energy (1.81KWh/size/yr) Non-Title 24 adjusted to 72.59 KWh/size/yr (Total Process Demand of 42,103,000 KWh/year)

Water And Wastewater - 912 million galls/yr freshwater use. Default Indoor (134,125 mg/yr), balance of 777,875 mg/yr as "Outdoor" use

Solid Waste - Default Waste. Trips for hauling assessed in Mobile Runs

Energy Mitigation - 5,553,000 kWh energy produced onsite solar

Operational Off-Road Equipment - 2 Forklifts, 8 hr each per day

Fleet Mix - 100 percent HHD Trucks

Stationary Sources - Emergency Generators and Fire Pumps - 2 Emergency Generators, 18,400 hp each. Max Use 24 h/day during power outages, or 10 hr/mo for testing (non-outage). Es. Max Annual 500 hours

## Nordic - 2025 Operations Non Mobile - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

## Stationary Sources - User Defined -

Table Name	Column Name	Default Value	New Value
tblEnergyUse	NT24E	1.85	72.59
tblFleetMix	HHD	0.00	8.7460e-003
tblFleetMix	LDA	0.00	0.46
tblFleetMix	LDT1	0.00	0.07
tblFleetMix	LDT2	0.00	0.21
tblFleetMix	LHD1	0.00	0.05
tblFleetMix	LHD2	0.00	0.01
tblFleetMix	MCY	0.00	0.03
tblFleetMix	MDV	0.00	0.15
tblFleetMix	MH	0.00	3.6120e-003
tblFleetMix	MHD	0.00	6.6080e-003
tblFleetMix	OBUS	0.00	1.0070e-003
tblFleetMix	SBUS	0.00	1.4460e-003
tblFleetMix	UBUS	0.00	2.1700e-004
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	0	2.68
tblProjectCharacteristics	PrecipitationFrequency	0	103
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblProjectCharacteristics	WindSpeed	0	2.2
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	WD_TR	3.93	0.00
tblWater	OutdoorWaterUseRate	0.00	777,875,000.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.0 Emissions Summary**

**2.1 Overall Construction**

Not Applicable

**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	2.9378	5.0000e-005	5.3200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0110
Energy	0.0109	0.0989	0.0831	5.9000e-004		7.5200e-003	7.5200e-003		7.5200e-003	7.5200e-003	0.0000	160.5611	160.5611	2.0600e-003	1.9700e-003	161.2012
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
Offroad	0.0226	0.2128	0.2948	4.0000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	34.9157	34.9157	0.0113	0.0000	35.1980
Waste						0.0000	0.0000		0.0000	0.0000	145.9911	0.0000	145.9911	8.6278	0.0000	361.6868
Water						0.0000	0.0000		0.0000	0.0000	42.5517	4.1919	46.7435	4.3705	0.1032	186.7576
<b>Total</b>	<b>2.9712</b>	<b>0.3118</b>	<b>0.3832</b>	<b>9.9000e-004</b>	<b>0.0000</b>	<b>0.0189</b>	<b>0.0189</b>	<b>0.0000</b>	<b>0.0180</b>	<b>0.0180</b>	<b>188.5428</b>	<b>199.6790</b>	<b>388.2218</b>	<b>13.0117</b>	<b>0.1052</b>	<b>744.8546</b>



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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	2.9378	5.0000e-005	5.3200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0110
Energy	0.0109	0.0989	0.0831	5.9000e-004		7.5200e-003	7.5200e-003		7.5200e-003	7.5200e-003	0.0000	153.8107	153.8107	2.0600e-003	1.9700e-003	154.4508
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
Offroad	0.0226	0.2128	0.2948	4.0000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	34.9157	34.9157	0.0113	0.0000	35.1980
Waste						0.0000	0.0000		0.0000	0.0000	145.9911	0.0000	145.9911	8.6278	0.0000	361.6868
Water						0.0000	0.0000		0.0000	0.0000	42.5517	4.1919	46.7435	4.3705	0.1032	186.7576
<b>Total</b>	<b>2.9712</b>	<b>0.3118</b>	<b>0.3832</b>	<b>9.9000e-004</b>	<b>0.0000</b>	<b>0.0189</b>	<b>0.0189</b>	<b>0.0000</b>	<b>0.0180</b>	<b>0.0180</b>	<b>188.5428</b>	<b>192.9287</b>	<b>381.4714</b>	<b>13.0117</b>	<b>0.1052</b>	<b>738.1042</b>

	ROG	NOx	CO	SO2	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	3.38	1.74	0.00	0.00	0.91

**3.0 Construction Detail**

**Not Applicable**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

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

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	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
Manufacturing	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.459775	0.066560	0.206943	0.149801	0.051328	0.010428	0.006608	0.008746	0.001007	0.000217	0.033530	0.001446	0.003612

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	46.1012	46.1012	0.0000	0.0000	46.1012
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	52.8516	52.8516	0.0000	0.0000	52.8516
NaturalGas Mitigated	0.0109	0.0989	0.0831	5.9000e-004		7.5200e-003	7.5200e-003		7.5200e-003	7.5200e-003	0.0000	107.7095	107.7095	2.0600e-003	1.9700e-003	108.3496
NaturalGas Unmitigated	0.0109	0.0989	0.0831	5.9000e-004		7.5200e-003	7.5200e-003		7.5200e-003	7.5200e-003	0.0000	107.7095	107.7095	2.0600e-003	1.9700e-003	108.3496

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - Natural Gas**

**Unmitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	2.0184e+06	0.0109	0.0989	0.0831	5.9000e-004		7.5200e-003	7.5200e-003		7.5200e-003	7.5200e-003	0.0000	107.7095	107.7095	2.0600e-003	1.9700e-003	108.3496
<b>Total</b>		<b>0.0109</b>	<b>0.0989</b>	<b>0.0831</b>	<b>5.9000e-004</b>		<b>7.5200e-003</b>	<b>7.5200e-003</b>		<b>7.5200e-003</b>	<b>7.5200e-003</b>	<b>0.0000</b>	<b>107.7095</b>	<b>107.7095</b>	<b>2.0600e-003</b>	<b>1.9700e-003</b>	<b>108.3496</b>

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	2.0184e+06	0.0109	0.0989	0.0831	5.9000e-004		7.5200e-003	7.5200e-003		7.5200e-003	7.5200e-003	0.0000	107.7095	107.7095	2.0600e-003	1.9700e-003	108.3496
<b>Total</b>		<b>0.0109</b>	<b>0.0989</b>	<b>0.0831</b>	<b>5.9000e-004</b>		<b>7.5200e-003</b>	<b>7.5200e-003</b>		<b>7.5200e-003</b>	<b>7.5200e-003</b>	<b>0.0000</b>	<b>107.7095</b>	<b>107.7095</b>	<b>2.0600e-003</b>	<b>1.9700e-003</b>	<b>108.3496</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	4.35E+07	52.8516	0.0000	0.0000	52.8516
<b>Total</b>		<b>52.8516</b>	<b>0.0000</b>	<b>0.0000</b>	<b>52.8516</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	3.79238e+07	46.1012	0.0000	0.0000	46.1012
<b>Total</b>		<b>46.1012</b>	<b>0.0000</b>	<b>0.0000</b>	<b>46.1012</b>

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	2.9378	5.0000e-005	5.3200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0110
Unmitigated	2.9378	5.0000e-005	5.3200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0110

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6721					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2652					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.9000e-004	5.0000e-005	5.3200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0110
<b>Total</b>	<b>2.9378</b>	<b>5.0000e-005</b>	<b>5.3200e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0104</b>	<b>0.0104</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0110</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6721					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2652					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.9000e-004	5.0000e-005	5.3200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0110
<b>Total</b>	<b>2.9378</b>	<b>5.0000e-005</b>	<b>5.3200e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0104</b>	<b>0.0104</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0110</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	46.7435	4.3705	0.1032	186.7576
Unmitigated	46.7435	4.3705	0.1032	186.7576

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	134.125 / 777.875	46.7435	4.3705	0.1032	186.7576
<b>Total</b>		<b>46.7435</b>	<b>4.3705</b>	<b>0.1032</b>	<b>186.7576</b>

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	134.125 / 777.875	46.7435	4.3705	0.1032	186.7576
<b>Total</b>		<b>46.7435</b>	<b>4.3705</b>	<b>0.1032</b>	<b>186.7576</b>



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	145.9911	8.6278	0.0000	361.6868
Unmitigated	145.9911	8.6278	0.0000	361.6868

**8.2 Waste by Land Use**

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	719.2	145.9911	8.6278	0.0000	361.6868
<b>Total</b>		<b>145.9911</b>	<b>8.6278</b>	<b>0.0000</b>	<b>361.6868</b>

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	719.2	145.9911	8.6278	0.0000	361.6868
<b>Total</b>		<b>145.9911</b>	<b>8.6278</b>	<b>0.0000</b>	<b>361.6868</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	2	8.00	260	89	0.20	Diesel

**UnMitigated/Mitigated**

Equipment Type	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Forklifts	0.0226	0.2128	0.2948	4.0000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	34.9157	34.9157	0.0113	0.0000	35.1980
<b>Total</b>	<b>0.0226</b>	<b>0.2128</b>	<b>0.2948</b>	<b>4.0000e-004</b>		<b>0.0114</b>	<b>0.0114</b>		<b>0.0105</b>	<b>0.0105</b>	<b>0.0000</b>	<b>34.9157</b>	<b>34.9157</b>	<b>0.0113</b>	<b>0.0000</b>	<b>35.1980</b>

**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	2	24	500	18400	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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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**11.0 Vegetation**

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Nordic - 2029 Operations Mobile Employee - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Nordic - 2029 Operations Mobile Employee  
Humboldt County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	1.00	1000sqft	36.00	1,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1			<b>Operational Year</b>	2029
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - PG&E 2019 Data

Land Use - 36 acre site, 1 Unit for Calculation Purposes

Construction Phase - Operations Mobile Employee Only

Vehicle Trips - 205 Employee/Visitor Trips/day. 7.71 mi per trip, Annual VMT 575,839

Road Dust - Default Values

Fleet Mix - 50/50 mix LDA/LDT1

Table Name	Column Name	Default Value	New Value
tblFleetMix	LDA	0.00	0.50
tblFleetMix	LDT1	0.00	0.50
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	MaterialMoistureContent	0	0.5
tblRoadDust	MaterialSiltContent	0	4.3
tblRoadDust	MeanVehicleSpeed	0	40

Nordic - 2029 Operations Mobile Employee - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblRoadDust	MobileAverageVehicleWeight	0	2.4
tblRoadDust	RoadPercentPave	0	100
tblRoadDust	RoadSiltLoading	0	0.1
tblVehicleTrips	CC_TL	6.60	7.71
tblVehicleTrips	CNW_TL	6.60	7.71
tblVehicleTrips	CW_TL	14.70	7.71
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	6.42	205.00
tblVehicleTrips	SU_TR	5.09	205.00
tblVehicleTrips	WD_TR	3.93	205.00

**2.0 Emissions Summary**

**2.1 Overall Construction**

Not Applicable

**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					
Mobile	0.0651	0.0576	0.6512	1.5500e-003	0.2051	1.0300e-003	0.2062	0.0546	9.5000e-004	0.0556	0.0000	151.0606	151.0606	5.9100e-003	5.1700e-003	152.7503

**3.0 Construction Detail**

Not Applicable

**4.0 Operational Detail - Mobile**



Nordic - 2029 Operations Mobile Hauling - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Nordic - 2029 Operations Mobile Hauling  
Humboldt County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	1.00	1000sqft	36.00	1,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1	<b>Operational Year</b>	2029		
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - PG&E 2019 data

Land Use - 36 acre site, 1 Unit for Calculation Purposes

Construction Phase - Operational Mobile Only

Vehicle Trips - 100 trips/day, 18.5 miles/trip, 100 percent C-W Trips. Op Mobile Hualign within NCUAQMD. Annual VMT of 673,314

Fleet Mix - 100 percent HHD Trucks

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.00	1.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	14.70	18.50
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00

Nordic - 2029 Operations Mobile Hauling - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	6.42	100.00
tblVehicleTrips	SU_TR	5.09	100.00
tblVehicleTrips	WD_TR	3.93	100.00

**2.0 Emissions Summary**

**2.1 Overall Construction**

Not Applicable

**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					
Mobile	0.0444	2.3926	0.5085	8.8700e-003	0.2779	0.0208	0.2987	0.0765	0.0199	0.0964	0.0000	852.1949	852.1949	1.8800e-003	0.1339	892.1474

**3.0 Construction Detail**

Not Applicable



Nordic - 2029 Operations Mobile Hauling - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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	0.0444	2.3926	0.5085	8.8700e-003	0.2779	0.0208	0.2987	0.0765	0.0199	0.0964	0.0000	852.1949	852.1949	1.8800e-003	0.1339	892.1474
Unmitigated	0.0444	2.3926	0.5085	8.8700e-003	0.2779	0.0208	0.2987	0.0765	0.0199	0.0964	0.0000	852.1949	852.1949	1.8800e-003	0.1339	892.1474

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	100.00	100.00	100.00	673,400	673,400
Total	100.00	100.00	100.00	673,400	673,400

**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
Manufacturing	18.50	6.60	6.60	100.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Nordic - 2029 Operations Mobile Hauling Outside of NCUAQMD - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Nordic - 2029 Operations Mobile Hauling Outside of NCUAQMD  
Humboldt County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	1.00	1000sqft	36.00	1,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1			<b>Operational Year</b>	2029
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - PG&E 2019 data

Land Use - 36 acre site, 1 Unit for Calculation Purposes

Construction Phase - Operational Mobile Only

Vehicle Trips - 100 trips/day, 28 miles/trip, 100 percent C-W Trips. Op Mobile Hualign within NCUAQMD. Annual VMT of 1,019,754

Fleet Mix - 100 percent HHD Trucks

Road Dust - Default Values

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.00	1.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	MaterialMoistureContent	0	0.5
tblRoadDust	MaterialSiltContent	0	4.3
tblRoadDust	MeanVehicleSpeed	0	40
tblRoadDust	MobileAverageVehicleWeight	0	2.4

Nordic - 2029 Operations Mobile Hauling Outside of NCUAQMD - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblRoadDust	RoadPercentPave	0	100
tblRoadDust	RoadSiltLoading	0	0.1
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	14.70	28.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	6.42	100.00
tblVehicleTrips	SU_TR	5.09	100.00
tblVehicleTrips	WD_TR	3.93	100.00

**2.0 Emissions Summary**

**2.1 Overall Construction**

Not Applicable

**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					
Mobile	0.0555	3.4271	0.5989	0.0132	0.4206	0.0314	0.4520	0.1159	0.0300	0.1459	0.0000	1,266.5795	1,266.5795	2.3600e-003	0.1990	1,325.9476

**3.0 Construction Detail**

Not Applicable

**4.0 Operational Detail - Mobile**

Nordic - 2029 Operations Mobile Hauling Outside of NCUAQMD - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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	0.0555	3.4271	0.5989	0.0132	0.4206	0.0314	0.4520	0.1159	0.0300	0.1459	0.0000	1,266.5795	1,266.5795	2.3600e-003	0.1990	1,325.9476
Unmitigated	0.0555	3.4271	0.5989	0.0132	0.4206	0.0314	0.4520	0.1159	0.0300	0.1459	0.0000	1,266.5795	1,266.5795	2.3600e-003	0.1990	1,325.9476

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	100.00	100.00	100.00	1,019,200	1,019,200
Total	100.00	100.00	100.00	1,019,200	1,019,200

**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
Manufacturing	28.00	6.60	6.60	100.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Nordic - 2029 Operations Non Mobile - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Nordic - 2029 Operations Non Mobile  
Humboldt County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	580.00	1000sqft	13.31	580,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1			<b>Operational Year</b>	2029
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - PG&E 2019 data  
 Land Use - 36 acre site, 580ksf Modules  
 Construction Phase - Operational Non Mobile Only  
 Vehicle Trips - Non-Mobile Only  
 Energy Use - Default Title 24 (0.56 KWh/size/yr) and Lighting Energy (1.81KWh/size/yr) Non-Title 24 adjusted to 336,435 KWh/size/yr (Total Process Demand of 195,132,000 KWh/year)  
 Water And Wastewater - 912 million galls/yr freshwater use. Default Indoor (134,125 mg/yr), balance of 777,875 mg/yr as "Outdoor" use  
 Solid Waste - Default Waste. Trips for hauling assessed in Mobile Runs  
 Energy Mitigation - 5,553,000 kWh energy produced onsite solar  
 Operational Off-Road Equipment - 2 Forklifts, 8 hr each per day  
 Fleet Mix - 100 percent HHD Trucks

## Nordic - 2029 Operations Non Mobile - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Stationary Sources - Emergency Generators and Fire Pumps - 2 Emergency Generators, 18,400 hp each. Max Use 24 h/day during power outages, or 10 hr/mo for testing (non-outage). Es. Max Annual 500 hours

Stationary Sources - User Defined -

Table Name	Column Name	Default Value	New Value
tblEnergyUse	NT24E	1.85	336.43
tblFleetMix	HHD	0.00	8.1490e-003
tblFleetMix	LDA	0.00	0.49
tblFleetMix	LDT1	0.00	0.06
tblFleetMix	LDT2	0.00	0.21
tblFleetMix	LHD1	0.00	0.04
tblFleetMix	LHD2	0.00	8.8020e-003
tblFleetMix	MCY	0.00	0.03
tblFleetMix	MDV	0.00	0.14
tblFleetMix	MH	0.00	2.8350e-003
tblFleetMix	MHD	0.00	6.0760e-003
tblFleetMix	OBUS	0.00	1.0820e-003
tblFleetMix	SBUS	0.00	1.3560e-003
tblFleetMix	UBUS	0.00	2.0700e-004
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	0	2.68
tblProjectCharacteristics	PrecipitationFrequency	0	103
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblProjectCharacteristics	WindSpeed	0	2.2
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	WD_TR	3.93	0.00
tblWater	OutdoorWaterUseRate	0.00	777,875,000.00

Nordic - 2029 Operations Non Mobile - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.0 Emissions Summary**

**2.1 Overall Construction**

Not Applicable

**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	2.9378	5.0000e-005	5.3200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0110
Energy	0.0109	0.0989	0.0831	5.9000e-004		7.5200e-003	7.5200e-003		7.5200e-003	7.5200e-003	0.0000	346.5852	346.5852	2.0600e-003	1.9700e-003	347.2253
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
Offroad	0.0226	0.2128	0.2948	4.0000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	34.9157	34.9157	0.0113	0.0000	35.1980
Waste						0.0000	0.0000		0.0000	0.0000	145.9911	0.0000	145.9911	8.6278	0.0000	361.6868
Water						0.0000	0.0000		0.0000	0.0000	42.5517	4.1919	46.7435	4.3705	0.1032	186.7576
<b>Total</b>	<b>2.9712</b>	<b>0.3118</b>	<b>0.3832</b>	<b>9.9000e-004</b>	<b>0.0000</b>	<b>0.0189</b>	<b>0.0189</b>	<b>0.0000</b>	<b>0.0180</b>	<b>0.0180</b>	<b>188.5428</b>	<b>385.7031</b>	<b>574.2459</b>	<b>13.0117</b>	<b>0.1052</b>	<b>930.8787</b>

Nordic - 2029 Operations Non Mobile - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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	2.9378	5.0000e-005	5.3200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0110
Energy	0.0109	0.0989	0.0831	5.9000e-004		7.5200e-003	7.5200e-003		7.5200e-003	7.5200e-003	0.0000	339.8348	339.8348	2.0600e-003	1.9700e-003	340.4749
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
Offroad	0.0226	0.2128	0.2948	4.0000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	34.9157	34.9157	0.0113	0.0000	35.1980
Waste						0.0000	0.0000		0.0000	0.0000	145.9911	0.0000	145.9911	8.6278	0.0000	361.6868
Water						0.0000	0.0000		0.0000	0.0000	42.5517	4.1919	46.7435	4.3705	0.1032	186.7576
<b>Total</b>	<b>2.9712</b>	<b>0.3118</b>	<b>0.3832</b>	<b>9.9000e-004</b>	<b>0.0000</b>	<b>0.0189</b>	<b>0.0189</b>	<b>0.0000</b>	<b>0.0180</b>	<b>0.0180</b>	<b>188.5428</b>	<b>378.9527</b>	<b>567.4955</b>	<b>13.0117</b>	<b>0.1052</b>	<b>924.1283</b>

	ROG	NOx	CO	SO2	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	1.75	1.18	0.00	0.00	0.73

**3.0 Construction Detail**

**Not Applicable**



Nordic - 2029 Operations Non Mobile - Humboldt County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	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
Manufacturing	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.488926	0.061784	0.205349	0.142935	0.041015	0.008802	0.006076	0.008149	0.001082	0.000207	0.031484	0.001356	0.002835

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	232.1253	232.1253	0.0000	0.0000	232.1253
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	238.8757	238.8757	0.0000	0.0000	238.8757
NaturalGas Mitigated	0.0109	0.0989	0.0831	5.9000e-004		7.5200e-003	7.5200e-003		7.5200e-003	7.5200e-003	0.0000	107.7095	107.7095	2.0600e-003	1.9700e-003	108.3496
NaturalGas Unmitigated	0.0109	0.0989	0.0831	5.9000e-004		7.5200e-003	7.5200e-003		7.5200e-003	7.5200e-003	0.0000	107.7095	107.7095	2.0600e-003	1.9700e-003	108.3496

Nordic - 2029 Operations Non Mobile - Humboldt County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - Natural Gas**

**Unmitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	2.0184e+06	0.0109	0.0989	0.0831	5.9000e-004		7.5200e-003	7.5200e-003		7.5200e-003	7.5200e-003	0.0000	107.7095	107.7095	2.0600e-003	1.9700e-003	108.3496
<b>Total</b>		<b>0.0109</b>	<b>0.0989</b>	<b>0.0831</b>	<b>5.9000e-004</b>		<b>7.5200e-003</b>	<b>7.5200e-003</b>		<b>7.5200e-003</b>	<b>7.5200e-003</b>	<b>0.0000</b>	<b>107.7095</b>	<b>107.7095</b>	<b>2.0600e-003</b>	<b>1.9700e-003</b>	<b>108.3496</b>

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	2.0184e+06	0.0109	0.0989	0.0831	5.9000e-004		7.5200e-003	7.5200e-003		7.5200e-003	7.5200e-003	0.0000	107.7095	107.7095	2.0600e-003	1.9700e-003	108.3496
<b>Total</b>		<b>0.0109</b>	<b>0.0989</b>	<b>0.0831</b>	<b>5.9000e-004</b>		<b>7.5200e-003</b>	<b>7.5200e-003</b>		<b>7.5200e-003</b>	<b>7.5200e-003</b>	<b>0.0000</b>	<b>107.7095</b>	<b>107.7095</b>	<b>2.0600e-003</b>	<b>1.9700e-003</b>	<b>108.3496</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	1.96504e+008	238.8757	0.0000	0.0000	238.8757
<b>Total</b>		<b>238.8757</b>	<b>0.0000</b>	<b>0.0000</b>	<b>238.8757</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	1.90951e+008	232.1253	0.0000	0.0000	232.1253
<b>Total</b>		<b>232.1253</b>	<b>0.0000</b>	<b>0.0000</b>	<b>232.1253</b>

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**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	2.9378	5.0000e-005	5.3200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0110
Unmitigated	2.9378	5.0000e-005	5.3200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0110

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**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6721					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2652					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.9000e-004	5.0000e-005	5.3200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0110
<b>Total</b>	<b>2.9378</b>	<b>5.0000e-005</b>	<b>5.3200e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0104</b>	<b>0.0104</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0110</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6721					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2652					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.9000e-004	5.0000e-005	5.3200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0104	0.0104	3.0000e-005	0.0000	0.0110
<b>Total</b>	<b>2.9378</b>	<b>5.0000e-005</b>	<b>5.3200e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0104</b>	<b>0.0104</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0110</b>

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**7.0 Water Detail**

**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	46.7435	4.3705	0.1032	186.7576
Unmitigated	46.7435	4.3705	0.1032	186.7576

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	134.125 / 777.875	46.7435	4.3705	0.1032	186.7576
<b>Total</b>		<b>46.7435</b>	<b>4.3705</b>	<b>0.1032</b>	<b>186.7576</b>

**Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	134.125 / 777.875	46.7435	4.3705	0.1032	186.7576
<b>Total</b>		<b>46.7435</b>	<b>4.3705</b>	<b>0.1032</b>	<b>186.7576</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	145.9911	8.6278	0.0000	361.6868
Unmitigated	145.9911	8.6278	0.0000	361.6868

**8.2 Waste by Land Use**

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	719.2	145.9911	8.6278	0.0000	361.6868
<b>Total</b>		<b>145.9911</b>	<b>8.6278</b>	<b>0.0000</b>	<b>361.6868</b>

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	719.2	145.9911	8.6278	0.0000	361.6868
<b>Total</b>		<b>145.9911</b>	<b>8.6278</b>	<b>0.0000</b>	<b>361.6868</b>



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9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	2	8.00	260	89	0.20	Diesel

UnMitigated/Mitigated

Equipment Type	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Forklifts	0.0226	0.2128	0.2948	4.0000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	34.9157	34.9157	0.0113	0.0000	35.1980
<b>Total</b>	<b>0.0226</b>	<b>0.2128</b>	<b>0.2948</b>	<b>4.0000e-004</b>		<b>0.0114</b>	<b>0.0114</b>		<b>0.0105</b>	<b>0.0105</b>	<b>0.0000</b>	<b>34.9157</b>	<b>34.9157</b>	<b>0.0113</b>	<b>0.0000</b>	<b>35.1980</b>

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	2	24	500	18400	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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