

# **Appendix B**

## **CalEEMod Air Quality Modeling Results**

Nordic Aquafarms - CONST Phase 0 - 2021 - Humboldt County, Annual

**Nordic Aquafarms - CONST Phase 0 - 2021**  
**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>	2022
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics - Construction Phase 0 - 2021  
 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)

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	50.00	173.00
tblConstructionPhase	PhaseEndDate	9/8/2021	2/28/2022

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	WD_TR	3.82	0.00

## 2.0 Emissions Summary

### 2.1 Overall Construction

#### Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.8844	7.6582	6.6467	0.0113	0.0631	0.4029	0.4660	0.0152	0.3831	0.3983	0.0000	985.9201	985.9201	0.1849	0.0000	990.5431
2022	0.2402	2.0325	2.0021	3.5100e-003	0.0203	0.1027	0.1231	4.8900e-003	0.0978	0.1027	0.0000	305.8252	305.8252	0.0568	0.0000	307.2462
<b>Maximum</b>	<b>0.8844</b>	<b>7.6582</b>	<b>6.6467</b>	<b>0.0113</b>	<b>0.0631</b>	<b>0.4029</b>	<b>0.4660</b>	<b>0.0152</b>	<b>0.3831</b>	<b>0.3983</b>	<b>0.0000</b>	<b>985.9201</b>	<b>985.9201</b>	<b>0.1849</b>	<b>0.0000</b>	<b>990.5431</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	Demolition	Demolition	7/1/2021	2/28/2022	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

#### 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

### 3.2 Demolition - 2021

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0143	0.0000	0.0143	2.1600e-003	0.0000	2.1600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8396	7.5984	6.3324	0.0108		0.4024	0.4024		0.3826	0.3826	0.0000	938.6690	938.6690	0.1820	0.0000	943.2195
<b>Total</b>	<b>0.8396</b>	<b>7.5984</b>	<b>6.3324</b>	<b>0.0108</b>	<b>0.0143</b>	<b>0.4024</b>	<b>0.4167</b>	<b>2.1600e-003</b>	<b>0.3826</b>	<b>0.3847</b>	<b>0.0000</b>	<b>938.6690</b>	<b>938.6690</b>	<b>0.1820</b>	<b>0.0000</b>	<b>943.2195</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	5.9000e-004	0.0201	3.2800e-003	5.0000e-005	1.3400e-003	9.0000e-005	1.4300e-003	3.6000e-004	9.0000e-005	4.5000e-004	0.0000	4.9742	4.9742	1.5000e-004	0.0000	4.9780
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	0.0442	0.0396	0.3110	4.7000e-004	0.0475	4.4000e-004	0.0479	0.0127	4.1000e-004	0.0131	0.0000	42.2770	42.2770	2.7500e-003	0.0000	42.3457
<b>Total</b>	<b>0.0448</b>	<b>0.0597</b>	<b>0.3143</b>	<b>5.2000e-004</b>	<b>0.0488</b>	<b>5.3000e-004</b>	<b>0.0494</b>	<b>0.0130</b>	<b>5.0000e-004</b>	<b>0.0135</b>	<b>0.0000</b>	<b>47.2511</b>	<b>47.2511</b>	<b>2.9000e-003</b>	<b>0.0000</b>	<b>47.3236</b>

### 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					4.4400e-003	0.0000	4.4400e-003	6.7000e-004	0.0000	6.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2269	2.0155	1.9137	3.3600e-003		0.1026	0.1026		0.0977	0.0977	0.0000	291.5539	291.5539	0.0560	0.0000	292.9545
<b>Total</b>	<b>0.2269</b>	<b>2.0155</b>	<b>1.9137</b>	<b>3.3600e-003</b>	<b>4.4400e-003</b>	<b>0.1026</b>	<b>0.1070</b>	<b>6.7000e-004</b>	<b>0.0977</b>	<b>0.0984</b>	<b>0.0000</b>	<b>291.5539</b>	<b>291.5539</b>	<b>0.0560</b>	<b>0.0000</b>	<b>292.9545</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	5.7600e-003	9.7000e-004	2.0000e-005	1.1500e-003	3.0000e-005	1.1700e-003	2.9000e-004	2.0000e-005	3.2000e-004	0.0000	1.5279	1.5279	5.0000e-005	0.0000	1.5290
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	0.0131	0.0112	0.0874	1.4000e-004	0.0148	1.3000e-004	0.0149	3.9300e-003	1.2000e-004	4.0500e-003	0.0000	12.7434	12.7434	7.7000e-004	0.0000	12.7626
<b>Total</b>	<b>0.0133</b>	<b>0.0169</b>	<b>0.0884</b>	<b>1.6000e-004</b>	<b>0.0159</b>	<b>1.6000e-004</b>	<b>0.0161</b>	<b>4.2200e-003</b>	<b>1.4000e-004</b>	<b>4.3700e-003</b>	<b>0.0000</b>	<b>14.2713</b>	<b>14.2713</b>	<b>8.2000e-004</b>	<b>0.0000</b>	<b>14.2916</b>



Nordic Aquafarms - CONST Phase 1A - 2022 - Humboldt County, Annual

**Nordic Aquafarms - CONST Phase 1A - 2022**  
**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 & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics - Construction Phase 1A - 2022  
 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

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
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	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
tblOffRoadEquipment	UsageHours	7.00	6.70
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	3.30
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	WD_TR	3.82	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					
2022	1.8245	12.8290	16.4472	0.0329	1.0087	0.4643	1.4729	0.2633	0.4420	0.7053	0.0000	2,924.7392	2,924.7392	0.4145	0.0000	2,935.1005
<b>Maximum</b>	<b>1.8245</b>	<b>12.8290</b>	<b>16.4472</b>	<b>0.0329</b>	<b>1.0087</b>	<b>0.4643</b>	<b>1.4729</b>	<b>0.2633</b>	<b>0.4420</b>	<b>0.7053</b>	<b>0.0000</b>	<b>2,924.7392</b>	<b>2,924.7392</b>	<b>0.4145</b>	<b>0.0000</b>	<b>2,935.1005</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	Site Preparation	Site Preparation	1/1/2022	5/31/2022	5	107	
2	Grading	Grading	1/1/2022	4/29/2022	5	85	
3	Building Construction	Building Construction	4/1/2022	12/30/2022	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

### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Excavators	2	8.30	162	0.38
Site Preparation	Generator Sets	2	10.00	84	0.74

Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Skid Steer Loaders	4	5.00	64	0.37
Site Preparation	Tractors/Loaders/Backhoes	5	10.00	97	0.37
Grading	Excavators	2	10.00	158	0.38
Grading	Graders	2	10.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Aerial Lifts	8	6.70	63	0.31
Building Construction	Cement and Mortar Mixers	4	6.70	9	0.56
Building Construction	Cranes	3	6.70	231	0.29
Building Construction	Forklifts	6	10.00	89	0.20
Building Construction	Generator Sets	4	10.00	84	0.74
Building Construction	Off-Highway Tractors	5	10.00	124	0.44
Building Construction	Pumps	5	6.70	84	0.74
Building Construction	Tractors/Loaders/Backhoes	4	6.70	97	0.37
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
Site Preparation	13	33.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	625.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
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**

### 3.2 Site Preparation - 2022

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					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	0.1314	1.2765	1.7932	2.7800e-003		0.0641	0.0641		0.0606	0.0606	0.0000	242.5457	242.5457	0.0576	0.0000	243.9853
<b>Total</b>	<b>0.1314</b>	<b>1.2765</b>	<b>1.7932</b>	<b>2.7800e-003</b>	<b>0.0000</b>	<b>0.0641</b>	<b>0.0641</b>	<b>0.0000</b>	<b>0.0606</b>	<b>0.0606</b>	<b>0.0000</b>	<b>242.5457</b>	<b>242.5457</b>	<b>0.0576</b>	<b>0.0000</b>	<b>243.9853</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	0.0188	0.0161	0.1255	2.0000e-004	0.0212	1.9000e-004	0.0214	5.6400e-003	1.7000e-004	5.8100e-003	0.0000	18.2914	18.2914	1.1000e-003	0.0000	18.3190
<b>Total</b>	<b>0.0188</b>	<b>0.0161</b>	<b>0.1255</b>	<b>2.0000e-004</b>	<b>0.0212</b>	<b>1.9000e-004</b>	<b>0.0214</b>	<b>5.6400e-003</b>	<b>1.7000e-004</b>	<b>5.8100e-003</b>	<b>0.0000</b>	<b>18.2914</b>	<b>18.2914</b>	<b>1.1000e-003</b>	<b>0.0000</b>	<b>18.3190</b>

### 3.3 Grading - 2022

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0569	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	0.0656	0.7474	0.5288	1.2500e-003		0.0269	0.0269		0.0247	0.0247	0.0000	110.0075	110.0075	0.0356	0.0000	110.8970
<b>Total</b>	<b>0.0656</b>	<b>0.7474</b>	<b>0.5288</b>	<b>1.2500e-003</b>	<b>0.0569</b>	<b>0.0269</b>	<b>0.0838</b>	<b>6.1700e-003</b>	<b>0.0247</b>	<b>0.0309</b>	<b>0.0000</b>	<b>110.0075</b>	<b>110.0075</b>	<b>0.0356</b>	<b>0.0000</b>	<b>110.8970</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	2.6200e-003	0.0879	0.0147	2.5000e-004	5.1400e-003	3.8000e-004	5.5200e-003	1.4100e-003	3.7000e-004	1.7800e-003	0.0000	23.2910	23.2910	7.0000e-004	0.0000	23.3085
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	4.5300e-003	3.8600e-003	0.0302	5.0000e-005	5.1000e-003	5.0000e-005	5.1400e-003	1.3600e-003	4.0000e-005	1.4000e-003	0.0000	4.4032	4.4032	2.7000e-004	0.0000	4.4098
<b>Total</b>	<b>7.1500e-003</b>	<b>0.0917</b>	<b>0.0449</b>	<b>3.0000e-004</b>	<b>0.0102</b>	<b>4.3000e-004</b>	<b>0.0107</b>	<b>2.7700e-003</b>	<b>4.1000e-004</b>	<b>3.1800e-003</b>	<b>0.0000</b>	<b>27.6942</b>	<b>27.6942</b>	<b>9.7000e-004</b>	<b>0.0000</b>	<b>27.7184</b>

### 3.4 Building Construction - 2022

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.8043	7.2903	8.6271	0.0145		0.3550	0.3550		0.3395	0.3395	0.0000	1,247.7351	1,247.7351	0.2482	0.0000	1,253.9412
<b>Total</b>	<b>0.8043</b>	<b>7.2903</b>	<b>8.6271</b>	<b>0.0145</b>		<b>0.3550</b>	<b>0.3550</b>		<b>0.3395</b>	<b>0.3395</b>	<b>0.0000</b>	<b>1,247.7351</b>	<b>1,247.7351</b>	<b>0.2482</b>	<b>0.0000</b>	<b>1,253.9412</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	0.1081	2.8200	0.7375	6.4300e-003	0.1461	0.0108	0.1568	0.0424	0.0103	0.0527	0.0000	609.3648	609.3648	0.0306	0.0000	610.1307
Worker	0.6891	0.5870	4.5903	7.4400e-003	0.7743	6.8600e-003	0.7812	0.2063	6.3300e-003	0.2127	0.0000	669.1005	669.1005	0.0403	0.0000	670.1090
<b>Total</b>	<b>0.7972</b>	<b>3.4070</b>	<b>5.3278</b>	<b>0.0139</b>	<b>0.9204</b>	<b>0.0176</b>	<b>0.9380</b>	<b>0.2487</b>	<b>0.0166</b>	<b>0.2653</b>	<b>0.0000</b>	<b>1,278.4653</b>	<b>1,278.4653</b>	<b>0.0710</b>	<b>0.0000</b>	<b>1,280.2397</b>



Nordic Aquafarms - CONST Phase 1B - 2022 - Humboldt County, Annual

**Nordic Aquafarms - CONST Phase 1B - 2022**  
**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 & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics - Construction Phase 1B - 2022  
 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

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	740.00	152.00
tblConstructionPhase	NumDaysWeek	5.00	6.00



tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	UsageHours	7.00	6.70
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	8.00	2.50
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	WD_TR	3.82	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					
2022	1.1036	7.2037	9.6788	0.0200	0.7138	0.2343	0.9481	0.1929	0.2236	0.4165	0.0000	1,784.3966	1,784.3966	0.2155	0.0000	1,789.7845
<b>Maximum</b>	<b>1.1036</b>	<b>7.2037</b>	<b>9.6788</b>	<b>0.0200</b>	<b>0.7138</b>	<b>0.2343</b>	<b>0.9481</b>	<b>0.1929</b>	<b>0.2236</b>	<b>0.4165</b>	<b>0.0000</b>	<b>1,784.3966</b>	<b>1,784.3966</b>	<b>0.2155</b>	<b>0.0000</b>	<b>1,789.7845</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	Building Construction	Building Construction	6/15/2022	12/8/2022	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

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Aerial Lifts	8	10.00	63	0.31
Building Construction	Cement and Mortar Mixers	4	10.00	9	0.56
Building Construction	Cranes	2	6.70	231	0.29
Building Construction	Forklifts	6	10.00	89	0.20
Building Construction	Generator Sets	4	10.00	84	0.74
Building Construction	Off-Highway Tractors	2	10.00	124	0.44
Building Construction	Pumps	2	10.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	4	10.00	97	0.37
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	36	659.00	257.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

### 3.2 Building Construction - 2022

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4854	4.5615	5.5471	9.2200e-003		0.2206	0.2206		0.2107	0.2107	0.0000	792.9338	792.9338	0.1605	0.0000	796.9456
<b>Total</b>	<b>0.4854</b>	<b>4.5615</b>	<b>5.5471</b>	<b>9.2200e-003</b>		<b>0.2206</b>	<b>0.2206</b>		<b>0.2107</b>	<b>0.2107</b>	<b>0.0000</b>	<b>792.9338</b>	<b>792.9338</b>	<b>0.1605</b>	<b>0.0000</b>	<b>796.9456</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	0.0838	2.1869	0.5720	4.9900e-003	0.1133	8.3500e-003	0.1216	0.0329	7.9900e-003	0.0408	0.0000	472.5686	472.5686	0.0238	0.0000	473.1626
Worker	0.5344	0.4552	3.5598	5.7700e-003	0.6005	5.3200e-003	0.6058	0.1600	4.9100e-003	0.1649	0.0000	518.8943	518.8943	0.0313	0.0000	519.6764
<b>Total</b>	<b>0.6182</b>	<b>2.6422</b>	<b>4.1318</b>	<b>0.0108</b>	<b>0.7138</b>	<b>0.0137</b>	<b>0.7274</b>	<b>0.1929</b>	<b>0.0129</b>	<b>0.2058</b>	<b>0.0000</b>	<b>991.4629</b>	<b>991.4629</b>	<b>0.0550</b>	<b>0.0000</b>	<b>992.8390</b>

Nordic Aquafarms - CONST Phase 1A - 2023 - Humboldt County, Annual

**Nordic Aquafarms - CONST Phase 1A - 2023**  
**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 & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics - Construction Phase 1A - 2023  
 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

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
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	MaterialImported	0.00	1,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	1.30
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	8.00	1.30
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	WD_TR	3.82	0.00

## 2.0 Emissions Summary

### 2.1 Overall Construction

#### Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.6869	4.2833	6.7643	0.0138	0.5182	0.1370	0.6552	0.1453	0.1288	0.2741	0.0000	1,239.6746	1,239.6746	0.1733	0.0000	1,244.0071
<b>Maximum</b>	<b>0.6869</b>	<b>4.2833</b>	<b>6.7643</b>	<b>0.0138</b>	<b>0.5182</b>	<b>0.1370</b>	<b>0.6552</b>	<b>0.1453</b>	<b>0.1288</b>	<b>0.2741</b>	<b>0.0000</b>	<b>1,239.6746</b>	<b>1,239.6746</b>	<b>0.1733</b>	<b>0.0000</b>	<b>1,244.0071</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	Building Construction	Building Construction	1/23/2023	5/23/2023	6	104	
2	Grading	Grading	4/1/2023	5/25/2023	5	39	
3	Paving	Paving	7/3/2023	9/29/2023	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

### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Aerial Lifts	8	10.00	63	0.31
Building Construction	Cranes	0	7.00	231	0.29

Building Construction	Forklifts	6	10.00	89	0.20
Building Construction	Generator Sets	4	10.00	84	0.74
Building Construction	Off-Highway Tractors	5	10.00	124	0.44
Building Construction	Tractors/Loaders/Backhoes	4	10.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	2	5.00	132	0.36
Paving	Rollers	2	5.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	5.00	97	0.37
Paving	Tractors/Loaders/Backhoes	2	20.00	97	0.37
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	1	1.30	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	1.30	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
Building Construction	27	659.00	257.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	125.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

### 3.2 Building Construction - 2023

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2397	2.3151	3.5315	5.5200e-003		0.1077	0.1077		0.1017	0.1017	0.0000	481.3682	481.3682	0.1146	0.0000	484.2337
<b>Total</b>	<b>0.2397</b>	<b>2.3151</b>	<b>3.5315</b>	<b>5.5200e-003</b>		<b>0.1077</b>	<b>0.1077</b>		<b>0.1017</b>	<b>0.1017</b>	<b>0.0000</b>	<b>481.3682</b>	<b>481.3682</b>	<b>0.1146</b>	<b>0.0000</b>	<b>484.2337</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	0.0429	1.1921	0.3381	3.3600e-003	0.0775	2.0900e-003	0.0796	0.0225	2.0000e-003	0.0245	0.0000	318.2516	318.2516	0.0120	0.0000	318.5512
Worker	0.3486	0.2820	2.1844	3.8200e-003	0.4109	3.4400e-003	0.4143	0.1095	3.1700e-003	0.1127	0.0000	343.8461	343.8461	0.0191	0.0000	344.3238
<b>Total</b>	<b>0.3915</b>	<b>1.4741</b>	<b>2.5225</b>	<b>7.1800e-003</b>	<b>0.4884</b>	<b>5.5300e-003</b>	<b>0.4939</b>	<b>0.1320</b>	<b>5.1700e-003</b>	<b>0.1371</b>	<b>0.0000</b>	<b>662.0976</b>	<b>662.0976</b>	<b>0.0311</b>	<b>0.0000</b>	<b>662.8750</b>



### 3.3 Grading - 2023

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0191	0.0000	0.0191	0.0105	0.0000	0.0105	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1300e-003	0.0323	0.0240	5.0000e-005		1.5000e-003	1.5000e-003		1.3800e-003	1.3800e-003	0.0000	4.1112	4.1112	1.3300e-003	0.0000	4.1444
<b>Total</b>	<b>3.1300e-003</b>	<b>0.0323</b>	<b>0.0240</b>	<b>5.0000e-005</b>	<b>0.0191</b>	<b>1.5000e-003</b>	<b>0.0206</b>	<b>0.0105</b>	<b>1.3800e-003</b>	<b>0.0119</b>	<b>0.0000</b>	<b>4.1112</b>	<b>4.1112</b>	<b>1.3300e-003</b>	<b>0.0000</b>	<b>4.1444</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	3.7000e-004	0.0128	2.5100e-003	5.0000e-005	1.0300e-003	4.0000e-005	1.0600e-003	2.8000e-004	3.0000e-005	3.2000e-004	0.0000	4.5353	4.5353	1.0000e-004	0.0000	4.5378
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	1.5900e-003	1.2800e-003	9.9400e-003	2.0000e-005	1.8700e-003	2.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.5653	1.5653	9.0000e-005	0.0000	1.5675
<b>Total</b>	<b>1.9600e-003</b>	<b>0.0140</b>	<b>0.0125</b>	<b>7.0000e-005</b>	<b>2.9000e-003</b>	<b>6.0000e-005</b>	<b>2.9500e-003</b>	<b>7.8000e-004</b>	<b>4.0000e-005</b>	<b>8.3000e-004</b>	<b>0.0000</b>	<b>6.1006</b>	<b>6.1006</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>6.1053</b>

### 3.4 Paving - 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	0.0439	0.4425	0.6324	9.0000e-004		0.0222	0.0222		0.0204	0.0204	0.0000	79.4749	79.4749	0.0257	0.0000	80.1175
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>0.0439</b>	<b>0.4425</b>	<b>0.6324</b>	<b>9.0000e-004</b>		<b>0.0222</b>	<b>0.0222</b>		<b>0.0204</b>	<b>0.0204</b>	<b>0.0000</b>	<b>79.4749</b>	<b>79.4749</b>	<b>0.0257</b>	<b>0.0000</b>	<b>80.1175</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	6.6100e-003	5.3500e-003	0.0414	7.0000e-005	7.7900e-003	7.0000e-005	7.8600e-003	2.0800e-003	6.0000e-005	2.1400e-003	0.0000	6.5221	6.5221	3.6000e-004	0.0000	6.5312
<b>Total</b>	<b>6.6100e-003</b>	<b>5.3500e-003</b>	<b>0.0414</b>	<b>7.0000e-005</b>	<b>7.7900e-003</b>	<b>7.0000e-005</b>	<b>7.8600e-003</b>	<b>2.0800e-003</b>	<b>6.0000e-005</b>	<b>2.1400e-003</b>	<b>0.0000</b>	<b>6.5221</b>	<b>6.5221</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>6.5312</b>



Nordic Aquafarms - CONST Phase 1B - 2023 - Humboldt County, Annual

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**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 & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics - Construction Phase 1B - 2023  
 Land Use - 36-acre site (1,568,160 sf)  
 Construction Phase - Bldg Const 260d  
 Off-road Equipment - Project-Specific Fleet and Activity  
 Off-road Equipment - Project-specific Fleet and Activity  
 Vehicle Trips - Construction Only

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	740.00	260.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	UsageHours	7.00	3.30
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	WD_TR	3.82	0.00

## 2.0 Emissions Summary

### 2.1 Overall Construction

#### Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	1.5854	9.3019	14.3043	0.0306	1.2209	0.2694	1.4904	0.3299	0.2562	0.5861	0.0000	2,745.7294	2,745.7294	0.3147	0.0000	2,753.5957
<b>Maximum</b>	<b>1.5854</b>	<b>9.3019</b>	<b>14.3043</b>	<b>0.0306</b>	<b>1.2209</b>	<b>0.2694</b>	<b>1.4904</b>	<b>0.3299</b>	<b>0.2562</b>	<b>0.5861</b>	<b>0.0000</b>	<b>2,745.7294</b>	<b>2,745.7294</b>	<b>0.3147</b>	<b>0.0000</b>	<b>2,753.5957</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	Building Construction	Building Construction	1/1/2023	12/29/2023	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

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Aerial Lifts	8	10.00	63	0.31
Building Construction	Cranes	1	3.30	231	0.29
Building Construction	Forklifts	6	10.00	89	0.20
Building Construction	Generator Sets	4	10.00	84	0.74
Building Construction	Off-Highway Tractors	2	10.00	124	0.44
Building Construction	Tractors/Loaders/Backhoes	4	10.00	97	0.37
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
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

### 3.2 Building Construction - 2023

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.6066	5.6167	7.9980	0.0126		0.2556	0.2556		0.2433	0.2433	0.0000	1,090.4853	1,090.4853	0.2369	0.0000	1,096.4083
<b>Total</b>	<b>0.6066</b>	<b>5.6167</b>	<b>7.9980</b>	<b>0.0126</b>		<b>0.2556</b>	<b>0.2556</b>		<b>0.2433</b>	<b>0.2433</b>	<b>0.0000</b>	<b>1,090.4853</b>	<b>1,090.4853</b>	<b>0.2369</b>	<b>0.0000</b>	<b>1,096.4083</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	0.1073	2.9803	0.8453	8.3900e-003	0.1938	5.2300e-003	0.1990	0.0562	5.0000e-003	0.0612	0.0000	795.6289	795.6289	0.0300	0.0000	796.3780
Worker	0.8716	0.7050	5.4611	9.5500e-003	1.0271	8.5900e-003	1.0357	0.2737	7.9200e-003	0.2816	0.0000	859.6152	859.6152	0.0478	0.0000	860.8095
<b>Total</b>	<b>0.9789</b>	<b>3.6853</b>	<b>6.3063</b>	<b>0.0179</b>	<b>1.2209</b>	<b>0.0138</b>	<b>1.2348</b>	<b>0.3299</b>	<b>0.0129</b>	<b>0.3428</b>	<b>0.0000</b>	<b>1,655.2441</b>	<b>1,655.2441</b>	<b>0.0777</b>	<b>0.0000</b>	<b>1,657.1875</b>

Nordic Aquafarms - CONST Phase 1B - 2024 - Humboldt County, Annual

**Nordic Aquafarms - CONST Phase 1B - 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>	2025
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics - Construction Phase 1B - 2024

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

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
tblGrading	MaterialImported	0.00	400.00
tblOffRoadEquipment	LoadFactor	0.37	0.42
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	6.70
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	20.00
tblOffRoadEquipment	UsageHours	8.00	20.00
tblOffRoadEquipment	UsageHours	8.00	1.20
tblOffRoadEquipment	UsageHours	7.00	6.70
tblOffRoadEquipment	UsageHours	8.00	1.20
tblOffRoadEquipment	UsageHours	8.00	6.70
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	WD_TR	3.82	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	0.1788	1.1485	1.8236	3.6600e-003	0.1382	0.0387	0.1769	0.0406	0.0359	0.0765	0.0000	328.7731	328.7731	0.0544	0.0000	330.1341
<b>Maximum</b>	<b>0.1788</b>	<b>1.1485</b>	<b>1.8236</b>	<b>3.6600e-003</b>	<b>0.1382</b>	<b>0.0387</b>	<b>0.1769</b>	<b>0.0406</b>	<b>0.0359</b>	<b>0.0765</b>	<b>0.0000</b>	<b>328.7731</b>	<b>328.7731</b>	<b>0.0544</b>	<b>0.0000</b>	<b>330.1341</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	Grading	Grading	1/1/2024	2/5/2024	5	26	
2	Building Construction	Building Construction	1/1/2024	2/5/2024	5	26	
3	Paving	Paving	1/1/2024	2/5/2024	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

### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Aerial Lifts	4	6.70	63	0.31

Building Construction	Cranes	0	6.70	231	0.29
Building Construction	Forklifts	6	10.00	89	0.20
Building Construction	Generator Sets	2	10.00	84	0.74
Building Construction	Off-Highway Tractors	5	10.00	124	0.44
Building Construction	Tractors/Loaders/Backhoes	4	6.70	97	0.37
Building Construction	Welders	0	6.70	46	0.45
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	1	1.20	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	1.20	97	0.37
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	2	20.00	132	0.36
Paving	Rollers	2	20.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	20.00	97	0.42
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
Building Construction	21	659.00	257.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	2	5.00	0.00	50.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
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 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					0.0118	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	1.6400e-003	0.0167	0.0105	2.0000e-005		7.6000e-004	7.6000e-004		7.0000e-004	7.0000e-004	0.0000	1.9968	1.9968	6.5000e-004	0.0000	2.0129
<b>Total</b>	<b>1.6400e-003</b>	<b>0.0167</b>	<b>0.0105</b>	<b>2.0000e-005</b>	<b>0.0118</b>	<b>7.6000e-004</b>	<b>0.0125</b>	<b>6.4600e-003</b>	<b>7.0000e-004</b>	<b>7.1600e-003</b>	<b>0.0000</b>	<b>1.9968</b>	<b>1.9968</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>2.0129</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	1.4000e-004	4.8900e-003	9.7000e-004	2.0000e-005	4.1000e-004	1.0000e-005	4.2000e-004	1.1000e-004	1.0000e-005	1.3000e-004	0.0000	1.8008	1.8008	4.0000e-005	0.0000	1.8018
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	4.9000e-004	3.7700e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	1.0000e-005	2.1000e-004	0.0000	0.6306	0.6306	3.0000e-005	0.0000	0.6314
<b>Total</b>	<b>7.7000e-004</b>	<b>5.3800e-003</b>	<b>4.7400e-003</b>	<b>3.0000e-005</b>	<b>1.1900e-003</b>	<b>2.0000e-005</b>	<b>1.2100e-003</b>	<b>3.2000e-004</b>	<b>2.0000e-005</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>2.4314</b>	<b>2.4314</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>2.4332</b>

### 3.3 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	0.0405	0.3718	0.6201	9.5000e-004		0.0175	0.0175		0.0164	0.0164	0.0000	83.3654	83.3654	0.0218	0.0000	83.9095
<b>Total</b>	<b>0.0405</b>	<b>0.3718</b>	<b>0.6201</b>	<b>9.5000e-004</b>		<b>0.0175</b>	<b>0.0175</b>		<b>0.0164</b>	<b>0.0164</b>	<b>0.0000</b>	<b>83.3654</b>	<b>83.3654</b>	<b>0.0218</b>	<b>0.0000</b>	<b>83.9095</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	0.0102	0.2913	0.0790	8.3000e-004	0.0194	4.9000e-004	0.0199	5.6200e-003	4.7000e-004	6.0900e-003	0.0000	79.1054	79.1054	2.9200e-003	0.0000	79.1783
Worker	0.0830	0.0640	0.4967	9.2000e-004	0.1027	8.1000e-004	0.1035	0.0274	7.5000e-004	0.0281	0.0000	83.1119	83.1119	4.2500e-003	0.0000	83.2182
<b>Total</b>	<b>0.0932</b>	<b>0.3553</b>	<b>0.5757</b>	<b>1.7500e-003</b>	<b>0.1221</b>	<b>1.3000e-003</b>	<b>0.1234</b>	<b>0.0330</b>	<b>1.2200e-003</b>	<b>0.0342</b>	<b>0.0000</b>	<b>162.2173</b>	<b>162.2173</b>	<b>7.1700e-003</b>	<b>0.0000</b>	<b>162.3965</b>

### 3.4 Paving - 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	0.0402	0.3973	0.5976	8.7000e-004		0.0192	0.0192		0.0176	0.0176	0.0000	76.2399	76.2399	0.0247	0.0000	76.8563
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>0.0402</b>	<b>0.3973</b>	<b>0.5976</b>	<b>8.7000e-004</b>		<b>0.0192</b>	<b>0.0192</b>		<b>0.0176</b>	<b>0.0176</b>	<b>0.0000</b>	<b>76.2399</b>	<b>76.2399</b>	<b>0.0247</b>	<b>0.0000</b>	<b>76.8563</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	2.5200e-003	1.9400e-003	0.0151	3.0000e-005	3.1200e-003	2.0000e-005	3.1400e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.5224	2.5224	1.3000e-004	0.0000	2.5256
<b>Total</b>	<b>2.5200e-003</b>	<b>1.9400e-003</b>	<b>0.0151</b>	<b>3.0000e-005</b>	<b>3.1200e-003</b>	<b>2.0000e-005</b>	<b>3.1400e-003</b>	<b>8.3000e-004</b>	<b>2.0000e-005</b>	<b>8.5000e-004</b>	<b>0.0000</b>	<b>2.5224</b>	<b>2.5224</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>2.5256</b>



Nordic Aquafarms - CONST Phase 2 - 2024 - Humboldt County, Annual

**Nordic Aquafarms - CONST Phase 2 - 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>	2025
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics - Construction Phase 2 - 2024  
 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

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	740.00	152.00
tblConstructionPhase	NumDays	30.00	130.00



tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	65.00	64.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	2.50
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	WD_TR	3.82	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	1.1040	7.0525	10.9542	0.0226	0.7356	0.2307	0.9663	0.1987	0.2186	0.4173	0.0000	2,012.1878	2,012.1878	0.2735	0.0000	2,019.0262
<b>Maximum</b>	<b>1.1040</b>	<b>7.0525</b>	<b>10.9542</b>	<b>0.0226</b>	<b>0.7356</b>	<b>0.2307</b>	<b>0.9663</b>	<b>0.1987</b>	<b>0.2186</b>	<b>0.4173</b>	<b>0.0000</b>	<b>2,012.1878</b>	<b>2,012.1878</b>	<b>0.2735</b>	<b>0.0000</b>	<b>2,019.0262</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	Site Preparation	Site Preparation	6/1/2024	11/29/2024	5	130	
2	Building Construction	Building Construction	6/1/2024	12/31/2024	5	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**

### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Aerial Lifts	6	2.50	63	0.31
Building Construction	Cement and Mortar Mixers	2	10.00	9	0.56
Building Construction	Cranes	1	10.00	231	0.29

Building Construction	Forklifts	6	10.00	89	0.20
Building Construction	Generator Sets	4	10.00	84	0.74
Building Construction	Off-Highway Tractors	4	10.00	124	0.44
Building Construction	Pumps	1	10.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	10.00	97	0.37
Building Construction	Welders	4	2.50	46	0.45
Site Preparation	Excavators	2	10.00	162	0.38
Site Preparation	Generator Sets	2	10.00	84	0.74
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Skid Steer Loaders	4	10.00	64	0.37
Site Preparation	Tractors/Loaders/Backhoes	3	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
Building Construction	34	659.00	257.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	11	28.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

### 3.2 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	0.1314	1.2647	2.1274	3.3500e-003		0.0542	0.0542		0.0513	0.0513	0.0000	292.4142	292.4142	0.0686	0.0000	294.1288
<b>Total</b>	<b>0.1314</b>	<b>1.2647</b>	<b>2.1274</b>	<b>3.3500e-003</b>	<b>0.0000</b>	<b>0.0542</b>	<b>0.0542</b>	<b>0.0000</b>	<b>0.0513</b>	<b>0.0513</b>	<b>0.0000</b>	<b>292.4142</b>	<b>292.4142</b>	<b>0.0686</b>	<b>0.0000</b>	<b>294.1288</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	0.0176	0.0136	0.1055	2.0000e-004	0.0218	1.7000e-004	0.0220	5.8100e-003	1.6000e-004	5.9700e-003	0.0000	17.6566	17.6566	9.0000e-004	0.0000	17.6791
<b>Total</b>	<b>0.0176</b>	<b>0.0136</b>	<b>0.1055</b>	<b>2.0000e-004</b>	<b>0.0218</b>	<b>1.7000e-004</b>	<b>0.0220</b>	<b>5.8100e-003</b>	<b>1.6000e-004</b>	<b>5.9700e-003</b>	<b>0.0000</b>	<b>17.6566</b>	<b>17.6566</b>	<b>9.0000e-004</b>	<b>0.0000</b>	<b>17.6791</b>

### 3.3 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	0.4099	3.6970	5.3559	8.7300e-003		0.1687	0.1687		0.1601	0.1601	0.0000	753.7699	753.7699	0.1621	0.0000	757.8234
<b>Total</b>	<b>0.4099</b>	<b>3.6970</b>	<b>5.3559</b>	<b>8.7300e-003</b>		<b>0.1687</b>	<b>0.1687</b>		<b>0.1601</b>	<b>0.1601</b>	<b>0.0000</b>	<b>753.7699</b>	<b>753.7699</b>	<b>0.1621</b>	<b>0.0000</b>	<b>757.8234</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	0.0598	1.7031	0.4619	4.8800e-003	0.1133	2.8500e-003	0.1162	0.0329	2.7300e-003	0.0356	0.0000	462.4622	462.4622	0.0171	0.0000	462.8887
Worker	0.4853	0.3741	2.9035	5.3900e-003	0.6005	4.7500e-003	0.6052	0.1600	4.3800e-003	0.1644	0.0000	485.8851	485.8851	0.0248	0.0000	486.5062
<b>Total</b>	<b>0.5451</b>	<b>2.0772</b>	<b>3.3654</b>	<b>0.0103</b>	<b>0.7138</b>	<b>7.6000e-003</b>	<b>0.7214</b>	<b>0.1929</b>	<b>7.1100e-003</b>	<b>0.2000</b>	<b>0.0000</b>	<b>948.3472</b>	<b>948.3472</b>	<b>0.0419</b>	<b>0.0000</b>	<b>949.3949</b>

Nordic Aquafarms - CONST Phase 2 - 2025 - Humboldt County, Annual

**Nordic Aquafarms - CONST Phase 2 - 2025  
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 & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics - Construction Phase 2 - 2025  
 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

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	740.00	260.00
tblConstructionPhase	PhaseEndDate	11/2/2027	12/30/2025

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	WD_TR	3.82	0.00

## 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					
2025	1.4543	8.4041	13.3035	0.0301	1.2210	0.2194	1.4404	0.3299	0.2086	0.5386	0.0000	2,698.8271	2,698.8271	0.2971	0.0000	2,706.2554
<b>Maximum</b>	<b>1.4543</b>	<b>8.4041</b>	<b>13.3035</b>	<b>0.0301</b>	<b>1.2210</b>	<b>0.2194</b>	<b>1.4404</b>	<b>0.3299</b>	<b>0.2086</b>	<b>0.5386</b>	<b>0.0000</b>	<b>2,698.8271</b>	<b>2,698.8271</b>	<b>0.2971</b>	<b>0.0000</b>	<b>2,706.2554</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	Building Construction	Building Construction	1/1/2025	12/30/2025	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

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Aerial Lifts	6	5.00	63	0.31
Building Construction	Cement and Mortar Mixers	2	3.30	9	0.56
Building Construction	Cranes	1	5.00	231	0.29
Building Construction	Forklifts	6	10.00	89	0.20
Building Construction	Generator Sets	4	10.00	84	0.74
Building Construction	Off-Highway Tractors	4	10.00	124	0.44
Building Construction	Pumps	1	3.30	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	5.00	97	0.37
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
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 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	0.5670	4.9663	7.9786	0.0129		0.2071	0.2071		0.1971	0.1971	0.0000	1,109.9723	1,109.9723	0.2301	0.0000	1,115.7252
<b>Total</b>	<b>0.5670</b>	<b>4.9663</b>	<b>7.9786</b>	<b>0.0129</b>		<b>0.2071</b>	<b>0.2071</b>		<b>0.1971</b>	<b>0.1971</b>	<b>0.0000</b>	<b>1,109.9723</b>	<b>1,109.9723</b>	<b>0.2301</b>	<b>0.0000</b>	<b>1,115.7252</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	0.0978	2.8524	0.7431	8.2900e-003	0.1938	4.5900e-003	0.1984	0.0562	4.3900e-003	0.0606	0.0000	786.2559	786.2559	0.0285	0.0000	786.9689
Worker	0.7895	0.5855	4.5818	8.9100e-003	1.0271	7.7900e-003	1.0349	0.2737	7.1900e-003	0.2809	0.0000	802.5989	802.5989	0.0385	0.0000	803.5613
<b>Total</b>	<b>0.8873</b>	<b>3.4378</b>	<b>5.3249</b>	<b>0.0172</b>	<b>1.2210</b>	<b>0.0124</b>	<b>1.2334</b>	<b>0.3299</b>	<b>0.0116</b>	<b>0.3415</b>	<b>0.0000</b>	<b>1,588.8548</b>	<b>1,588.8548</b>	<b>0.0670</b>	<b>0.0000</b>	<b>1,590.5302</b>



Nordic Aquafarms - CONST Phase 2 - 2026 - Humboldt County, Annual

**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>	2027
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics - Construction Phase 2 - 2026  
 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

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
tblGrading	MaterialImported	0.00	400.00
tblOffRoadEquipment	HorsePower	97.00	130.00
tblOffRoadEquipment	LoadFactor	0.37	0.42
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	7.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	6.70
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	20.00
tblOffRoadEquipment	UsageHours	8.00	20.00
tblOffRoadEquipment	UsageHours	8.00	1.20
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	8.00	1.20
tblOffRoadEquipment	UsageHours	8.00	6.70
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	WD_TR	3.82	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	0.2168	1.5312	2.5475	4.9400e-003	0.1382	0.0528	0.1909	0.0406	0.0498	0.0904	0.0000	440.0295	440.0295	0.0705	0.0000	441.7929
<b>Maximum</b>	<b>0.2168</b>	<b>1.5312</b>	<b>2.5475</b>	<b>4.9400e-003</b>	<b>0.1382</b>	<b>0.0528</b>	<b>0.1909</b>	<b>0.0406</b>	<b>0.0498</b>	<b>0.0904</b>	<b>0.0000</b>	<b>440.0295</b>	<b>440.0295</b>	<b>0.0705</b>	<b>0.0000</b>	<b>441.7929</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	Grading	Grading	1/1/2026	2/5/2026	5	26	
2	Building Construction	Building Construction	1/1/2026	2/5/2026	5	26	
3	Paving	Paving	1/1/2026	2/5/2026	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

### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Aerial Lifts	4	10.00	63	0.31
Building Construction	Cranes	0	6.70	231	0.29

Building Construction	Forklifts	7	10.00	89	0.20
Building Construction	Generator Sets	10	10.00	84	0.74
Building Construction	Off-Highway Tractors	5	10.00	124	0.44
Building Construction	Tractors/Loaders/Backhoes	10	10.00	97	0.37
Building Construction	Welders	0	6.70	46	0.45
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	1	1.20	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	1.20	97	0.37
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	2	20.00	132	0.36
Paving	Rollers	2	20.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	20.00	97	0.37
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
Building Construction	36	659.00	257.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	2	5.00	0.00	50.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
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 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	1.4000e-004	4.5500e-003	9.4000e-004	2.0000e-005	4.1000e-004	1.0000e-005	4.2000e-004	1.1000e-004	1.0000e-005	1.2000e-004	0.0000	1.7778	1.7778	4.0000e-005	0.0000	1.7787
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	4.1000e-004	3.2200e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.8000e-004	2.1000e-004	1.0000e-005	2.1000e-004	0.0000	0.5888	0.5888	3.0000e-005	0.0000	0.5895
<b>Total</b>	<b>7.1000e-004</b>	<b>4.9600e-003</b>	<b>4.1600e-003</b>	<b>3.0000e-005</b>	<b>1.1900e-003</b>	<b>2.0000e-005</b>	<b>1.2000e-003</b>	<b>3.2000e-004</b>	<b>2.0000e-005</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>2.3665</b>	<b>2.3665</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>2.3682</b>



### 3.3 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	0.0906	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	9.4000e-003	0.2801	0.0704	8.2000e-004	0.0194	4.4000e-004	0.0198	5.6200e-003	4.2000e-004	6.0400e-003	0.0000	78.2040	78.2040	2.7800e-003	0.0000	78.2736
Worker	0.0752	0.0537	0.4239	8.6000e-004	0.1027	7.5000e-004	0.1035	0.0274	6.9000e-004	0.0281	0.0000	77.6021	77.6021	3.4900e-003	0.0000	77.6895
<b>Total</b>	<b>0.0846</b>	<b>0.3338</b>	<b>0.4942</b>	<b>1.6800e-003</b>	<b>0.1221</b>	<b>1.1900e-003</b>	<b>0.1233</b>	<b>0.0330</b>	<b>1.1100e-003</b>	<b>0.0341</b>	<b>0.0000</b>	<b>155.8061</b>	<b>155.8061</b>	<b>6.2700e-003</b>	<b>0.0000</b>	<b>155.9631</b>

### 3.4 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	0.0372	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	2.2800e-003	1.6300e-003	0.0129	3.0000e-005	3.1200e-003	2.0000e-005	3.1400e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.3552	2.3552	1.1000e-004	0.0000	2.3578
<b>Total</b>	<b>2.2800e-003</b>	<b>1.6300e-003</b>	<b>0.0129</b>	<b>3.0000e-005</b>	<b>3.1200e-003</b>	<b>2.0000e-005</b>	<b>3.1400e-003</b>	<b>8.3000e-004</b>	<b>2.0000e-005</b>	<b>8.5000e-004</b>	<b>0.0000</b>	<b>2.3552</b>	<b>2.3552</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>2.3578</b>



Nordic - Operations Non-Mobile - Humboldt County, Annual

**Nordic - 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	36.00	580,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<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 & Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	309.97	<b>CH4 Intensity (lb/MWhr)</b>	0.014	<b>N2O Intensity (lb/MWhr)</b>	0.003

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

Project Characteristics - PG&E IE updated per CRIS Reporting

Land Use - 36 acre site, Appx 580ksf of Modules

Construction Phase - Operations Non-Mobile Only

Vehicle Trips - Operations Non-Mobile Only

Energy Use - Nontitel 24 Energy adjusted to 274.28, to account for 160,491 total mWh/yr anticipated energy Use (Grid + Solar)  
107,558 mWh Grid Use, 52,933 mWh Solar Use, 21,000 mWh Generator Use

Water And Wastewater - 912 million gallons/yr freshwater use. Use default Indoor Use (134.125 mg/yr), balance as 777.875 mg/yr as "Outdoor" use

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

Operational Off-Road Equipment - Assumes 2 Forklifts operating 8 hrs/day

Stationary Sources - Emergency Generators and Fire Pumps - 2 generators, each 18,400 horsepower, max use of 24h/day during power outages, or 10 hr/mo for testing (non-outage). Est. Max Annual 500 hrs

Stationary Sources - Process Boilers -

Stationary Sources - User Defined -

Energy Mitigation - 52,933,000 kWh/yr of onsite energy generation

Table Name	Column Name	Default Value	New Value
tblEnergyUse	NT24E	1.85	274.28
tblLandUse	LotAcreage	13.31	36.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.20	0.20
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.014
tblProjectCharacteristics	CO2IntensityFactor	641.35	309.97
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	18,400.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	24.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	500.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	WD_TR	3.82	0.00
tblWater	OutdoorWaterUseRate	0.00	777,875,000.00

## 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					
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	0.0110	0.0998	0.0838	6.0000e-004		7.5800e-003	7.5800e-003		7.5800e-003	7.5800e-003	0.0000	22,673.7894	22,673.7894	1.0213	0.2204	22,764.9956
Offroad	0.0227	0.2139	0.2963	4.0000e-004		0.0115	0.0115		0.0105	0.0105	0.0000	35.0903	35.0903	0.0114	0.0000	35.3740
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	484.8329	527.3846	4.3924	0.1079	669.3444
<b>Total</b>	<b>2.9714</b>	<b>0.3137</b>	<b>0.3854</b>	<b>1.0000e-003</b>	<b>0.0000</b>	<b>0.0191</b>	<b>0.0191</b>	<b>0.0000</b>	<b>0.0181</b>	<b>0.0181</b>	<b>188.5428</b>	<b>23,193.7230</b>	<b>23,382.2658</b>	<b>14.0528</b>	<b>0.3283</b>	<b>23,831.4118</b>

#### 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	0.0110	0.0998	0.0838	6.0000e-004		7.5800e-003	7.5800e-003		7.5800e-003	7.5800e-003	0.0000	15,231.4082	15,231.4082	0.6851	0.1484	15,292.7459
Offroad	0.0227	0.2139	0.2963	4.0000e-004		0.0115	0.0115		0.0105	0.0105	0.0000	35.0903	35.0903	0.0114	0.0000	35.3740
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	484.8329	527.3846	4.3924	0.1079	669.3444
<b>Total</b>	<b>2.9714</b>	<b>0.3137</b>	<b>0.3854</b>	<b>1.0000e-003</b>	<b>0.0000</b>	<b>0.0191</b>	<b>0.0191</b>	<b>0.0000</b>	<b>0.0181</b>	<b>0.0181</b>	<b>188.5428</b>	<b>15,751.3418</b>	<b>15,939.8846</b>	<b>13.7167</b>	<b>0.2563</b>	<b>16,359.1622</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	32.09	31.83	2.39	21.94	31.35

### 3.0 Construction Detail

Not Applicable

### 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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	9.50	7.30	7.30	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	0.520626	0.036604	0.211859	0.125822	0.028053	0.004869	0.013686	0.046581	0.003712	0.001247	0.004873	0.001463	0.000606



## 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	15,122.7702	15,122.7702	0.6830	0.1464	15,183.4623
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	22,565.1514	22,565.1514	1.0192	0.2184	22,655.7119
Natural Gas Mitigated	0.0110	0.0998	0.0838	6.0000e-004		7.5800e-003	7.5800e-003		7.5800e-003	7.5800e-003	0.0000	108.6380	108.6380	2.0800e-003	1.9900e-003	109.2836
Natural Gas Unmitigated	0.0110	0.0998	0.0838	6.0000e-004		7.5800e-003	7.5800e-003		7.5800e-003	7.5800e-003	0.0000	108.6380	108.6380	2.0800e-003	1.9900e-003	109.2836

### 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	2.0358e+06	0.0110	0.0998	0.0838	6.0000e-004		7.5800e-003	7.5800e-003		7.5800e-003	7.5800e-003	0.0000	108.6380	108.6380	2.0800e-003	1.9900e-003	109.2836
<b>Total</b>		<b>0.0110</b>	<b>0.0998</b>	<b>0.0838</b>	<b>6.0000e-004</b>		<b>7.5800e-003</b>	<b>7.5800e-003</b>		<b>7.5800e-003</b>	<b>7.5800e-003</b>	<b>0.0000</b>	<b>108.6380</b>	<b>108.6380</b>	<b>2.0800e-003</b>	<b>1.9900e-003</b>	<b>109.2836</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	2.0358e+06	0.0110	0.0998	0.0838	6.0000e-004		7.5800e-003	7.5800e-003		7.5800e-003	7.5800e-003	0.0000	108.6380	108.6380	2.0800e-003	1.9900e-003	109.2836
<b>Total</b>		<b>0.0110</b>	<b>0.0998</b>	<b>0.0838</b>	<b>6.0000e-004</b>		<b>7.5800e-003</b>	<b>7.5800e-003</b>		<b>7.5800e-003</b>	<b>7.5800e-003</b>	<b>0.0000</b>	<b>108.6380</b>	<b>108.6380</b>	<b>2.0800e-003</b>	<b>1.9900e-003</b>	<b>109.2836</b>

### 5.3 Energy by Land Use - Electricity

#### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	1.60492e+008	22,565.1514	1.0192	0.2184	22,655.7119
<b>Total</b>		<b>22,565.1514</b>	<b>1.0192</b>	<b>0.2184</b>	<b>22,655.7119</b>

#### Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	1.07559e+008	15,122.7702	0.6830	0.1464	15,183.4623
<b>Total</b>		<b>15,122.7702</b>	<b>0.6830</b>	<b>0.1464</b>	<b>15,183.4623</b>

## 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>

#### 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

Total	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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## 7.0 Water Detail

### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	527.3846	4.3924	0.1079	669.3444
Unmitigated	527.3846	4.3924	0.1079	669.3444

### 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	527.3846	4.3924	0.1079	669.3444
<b>Total</b>		<b>527.3846</b>	<b>4.3924</b>	<b>0.1079</b>	<b>669.3444</b>

#### Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	134.125 / 777.875	527.3846	4.3924	0.1079	669.3444

Total		527.3846	4.3924	0.1079	669.3444
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## 8.0 Waste Detail

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### 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>

## 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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	0.0227	0.2139	0.2963	4.0000e-004		0.0115	0.0115		0.0105	0.0105	0.0000	35.0903	35.0903	0.0114	0.0000	35.3740
<b>Total</b>	<b>0.0227</b>	<b>0.2139</b>	<b>0.2963</b>	<b>4.0000e-004</b>		<b>0.0115</b>	<b>0.0115</b>		<b>0.0105</b>	<b>0.0105</b>	<b>0.0000</b>	<b>35.0903</b>	<b>35.0903</b>	<b>0.0114</b>	<b>0.0000</b>	<b>35.3740</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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**11.0 Vegetation**

Nordic - Operations Mobile Employee - Humboldt County, Annual

**Nordic - 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>	Urban	<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 & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	309.97	<b>CH4 Intensity (lb/MW hr)</b>	0.014	<b>N2O Intensity (lb/MW hr)</b>	0.003

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

- Project Characteristics - PG&E IE updated per CRIS Reporting
- Land Use - 36 acre site, 1 Unit for Calculation Purposes
- Construction Phase - Operations Mobile Employee Only
- Vehicle Trips - Operations Mobile Employee Only. Assumes 140 Employee/Visitor Trips/day, 21.7 m/day trip
- Energy Use - Mobile Employee Only
- Water And Wastewater - Mobile Employee Only
- Solid Waste - Mobile Employee Only
- Energy Mitigation - Mobile Employee Only
- Operational Off-Road Equipment - Mobile Employee Only



Stationary Sources - Emergency Generators and Fire Pumps -

Stationary Sources - Process Boilers -

Stationary Sources - User Defined -

Fleet Mix - 50/50 mix LDA/LDT1

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.05	0.00
tblFleetMix	LDA	0.52	0.50
tblFleetMix	LDT1	0.04	0.50
tblFleetMix	LDT2	0.21	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	4.8690e-003	0.00
tblFleetMix	MCY	4.8730e-003	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	6.0600e-004	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	3.7120e-003	0.00
tblFleetMix	SBUS	1.4630e-003	0.00
tblFleetMix	UBUS	1.2470e-003	0.00
tblLandUse	LotAcreage	0.02	36.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.014
tblProjectCharacteristics	CO2IntensityFactor	641.35	309.97
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	CC_TL	7.30	21.70
tblVehicleTrips	CNW_TL	7.30	21.70
tblVehicleTrips	CW_TL	9.50	21.70
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.49	140.00
tblVehicleTrips	SU_TR	0.62	140.00

tblVehicleTrips	WD_TR	3.82	140.00
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## 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	0.1031	0.2635	2.0438	3.1900e-003	0.3943	3.3400e-003	0.3976	0.1050	3.0800e-003	0.1081	0.0000	286.6466	286.6466	0.0180	0.0000	287.0968

## 3.0 Construction Detail

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Not Applicable



Nordic - Operations Mobile Hauling - Humboldt County, Annual

**Nordic - 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>	Urban	<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 & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	309.97	<b>CH4 Intensity (lb/MW hr)</b>	0.014	<b>N2O Intensity (lb/MW hr)</b>	0.003

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

Project Characteristics - PG&E IE updated per CRIS Reporting

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

Construction Phase - Operations Mobile Employee Only

Vehicle Trips - Operations Mobile Hauling Only within NCUAQMD, or Annual VMT of 673,314. For purposes of calculation, used 100 trips/Day at 18.5 miles/trip, 100 percent C-W Trips

Fleet Mix - 100 percent HHD Trucks

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.05	1.00
tblFleetMix	LDA	0.52	0.00

tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.21	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	4.8690e-003	0.00
tblFleetMix	MCY	4.8730e-003	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	6.0600e-004	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	3.7120e-003	0.00
tblFleetMix	SBUS	1.4630e-003	0.00
tblFleetMix	UBUS	1.2470e-003	0.00
tblLandUse	LotAcreage	0.02	36.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.014
tblProjectCharacteristics	CO2IntensityFactor	641.35	309.97
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	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	1.49	100.00
tblVehicleTrips	SU_TR	0.62	100.00
tblVehicleTrips	WD_TR	3.82	100.00

## 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	3.1575	0.6441	0.0127	0.2767	7.7600e-003	0.2845	0.0761	7.4200e-003	0.0836	0.0000	1,204.0311	1,204.0311	0.0275	0.0000	1,204.7191

## 3.0 Construction Detail

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Not Applicable

## 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	0.0918	3.1575	0.6441	0.0127	0.2767	7.7600e-003	0.2845	0.0761	7.4200e-003	0.0836	0.0000	1,204.0311	1,204.0311	0.0275	0.0000	1,204.7191
Unmitigated	0.0918	3.1575	0.6441	0.0127	0.2767	7.7600e-003	0.2845	0.0761	7.4200e-003	0.0836	0.0000	1,204.0311	1,204.0311	0.0275	0.0000	1,204.7191

### 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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	18.50	0.00	0.00	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 - Operations Mobile Hauling Outside of NCUAQMD - Humboldt County, Annual

**Nordic - 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>	Urban	<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 & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	309.97	<b>CH4 Intensity (lb/MW hr)</b>	0.014	<b>N2O Intensity (lb/MW hr)</b>	0.003

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

Project Characteristics - PG&E IE updated per CRIS Reporting

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

Construction Phase - Operations Mobile Employee Only

Vehicle Trips - Operations Mobile Hauling Outside NCUAQMD, or Annual VMT of 1,019,754. For purposes of calculation, used 100 trips/Day at 28 miles/trip, 100 percent C-W Trips

Energy Use - Mobile Employee Only

Fleet Mix - 100 percent HHD Trucks

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.05	1.00



tblFleetMix	LDA	0.52	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.21	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	4.8690e-003	0.00
tblFleetMix	MCY	4.8730e-003	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	6.0600e-004	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	3.7120e-003	0.00
tblFleetMix	SBUS	1.4630e-003	0.00
tblFleetMix	UBUS	1.2470e-003	0.00
tblLandUse	LotAcreage	0.02	36.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.014
tblProjectCharacteristics	CO2IntensityFactor	641.35	309.97
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	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	1.49	100.00
tblVehicleTrips	SU_TR	0.62	100.00
tblVehicleTrips	WD_TR	3.82	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	0.1265	4.0409	0.8855	0.0182	0.4188	0.0115	0.4304	0.1152	0.0110	0.1263	0.0000	1,730.2964	1,730.2964	0.0293	0.0000	1,731.0287

## 3.0 Construction Detail

Not Applicable

## 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	0.1265	4.0409	0.8855	0.0182	0.4188	0.0115	0.4304	0.1152	0.0110	0.1263	0.0000	1,730.2964	1,730.2964	0.0293	0.0000	1,731.0287
Unmitigated	0.1265	4.0409	0.8855	0.0182	0.4188	0.0115	0.4304	0.1152	0.0110	0.1263	0.0000	1,730.2964	1,730.2964	0.0293	0.0000	1,731.0287

#### 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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	28.00	0.00	0.00	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