

DOCKETED

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Reference: Air Quality Technical Memorandum for the Fountain Wind Energy Project

storage sheds; and three temporary batch plants. New access roads would be constructed within the project site, and the existing roads on-site would be improved.

ENVIRONMENTAL SETTING

Air Quality

The Project lies within the Northern Sacramento Valley Air Basin (NSVAB), which includes Shasta, Tehama, Glenn, Butte, Colusa, Sutter, and Yuba counties. The Shasta County Air Quality Management District (AQMD) oversees air quality resources in Shasta County. Among its responsibilities, the Shasta County AQMD monitors concentrations of particulate matter and ozone (O₃) air pollutants that could affect public and environmental health.

Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards for outdoor concentrations. These standards are designed to protect the most sensitive persons, such as children, pregnant women, and the elderly, from illness or discomfort. Criteria air pollutants include O₃, nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), particulate matter 2.5 microns or less in diameter (PM_{2.5}), particulate matter 10 microns or less in diameter (PM₁₀), and lead (Pb). It is noted that reactive organic gases (ROG) — also known as reactive organic compounds or volatile organic compounds (VOC) — and oxides of nitrogen (NO_x) are not classified as criteria pollutants. However, ROG and NO_x are widely emitted from land development projects and participate in photochemical reactions in the atmosphere to form O₃; therefore, emissions of ROG and NO_x are relevant to the Project and are of concern in the air basin.

Ambient Air Quality Standards

The Shasta County AQMD is charged with maintaining or reaching attainment for criteria air pollutants. Criteria air pollutant thresholds are set at the national and state levels. The National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) were determined by the U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB), respectively, and define the maximum amount of an air pollutant that can be present in ambient air. The Shasta County AQMD is in nonattainment for ozone and PM₁₀.

METHODOLOGY

Construction and operational emissions of criteria pollutants were calculated based on the same methodology used within the 2019 Analysis prepared by ESA Consulting. The updated calculations relied on the methodology and modeling inputs used within the 2019 analysis, but updated the inputs to account for the reduction in Project size and relied on more up to date models and emission factors (i.e., consistent with the updated traffic study [Westwood 2023]). Moreover, this analysis also assumed that all construction equipment on the project site would operate for 10 hours per day. The 2019 Analysis utilized a less conservative assumption and modeled construction equipment as operating for 4 to 8 hours per day.

Reference: Air Quality Technical Memorandum for the Fountain Wind Energy Project

Consistent with the 2019 Analysis, the construction and operational emissions were calculated with the California Emissions Estimator Model (CalEEMod), CARB EMFAC, and helicopter emission factors. It was assumed that total graded material, hauling and worker trips, and helicopter operating hours would be reduced by 33% to account for the reduction in site size and the proposed number of wind turbines. Modeling assumptions and output files are provided in Attachment A.

Based on the 2019 Analysis, it was assumed that construction phases may occur concurrently during Year 1 and Year 2. Concurrent activities for each Project component that would emit the greatest amount of daily emissions would be as follows:

Year 1 of Construction

- Timber Removal and Grubbing; and
- Grading and Access Road Work

Year 2 of Construction

- Turbine and Transformer Installation;
- Substation and O&M Building Installation;
- Underground Collector System; and
- Overhead Collection Systems.

RESULTS

Construction

Construction emissions are generated from off-road construction equipment, worker and hauling vehicle trips, and dust emissions from unpaved roadways. Table 1 below shows the unmitigated construction emissions from the updated Project compared to the emissions calculated in the 2019 Analysis.

Table 1: Unmitigated Construction Emissions

Phase	Source	ROG	NOx	PM ₁₀	PM _{2.5}
Peak Construction Emissions - First Year (pounds per day)					
Timber Removal and Grubbing	Equipment	11.29	80.27	3.04	2.80
	Vehicles	0.87	18.98	1667.26	166.99
Grading and Access Road Work	Equipment	23.87	178.76	14.68	7.04
	Vehicles	0.76	7.76	943.41	95.07
Year 1 Total		36.79	285.77	2628.39	271.90
2019 Analysis Year 1 Totals		35.00	365.00	2860.00	313.00
Percent Difference		5.11%	-21.71%	-8.10%	-13.13%
Peak Construction Emissions - Second Year (pounds per day)					

Reference: Air Quality Technical Memorandum for the Fountain Wind Energy Project

Phase	Source	ROG	NOx	PM₁₀	PM_{2.5}
Turbine and Transformer Installation	Equipment	6.65	65.15	2.84	2.65
	Vehicles*	0.76	15.55	539.98	56.74
	On-Site Pick Up Trucks**	0.10	1.12	0.05	0.03
Substation and O&M Building Installation	Equipment	1.26	12.97	0.56	0.52
	Vehicles	0.54	2.23	400.73	40.54
	On-Site Pick Up Trucks**	0.29	6.12	0.23	0.12
Underground Collector System	Equipment	2.47	24.44	1.39	1.28
	Vehicles	0.07	0.13	117.87	11.79
	On-Site Pick Up Trucks**	0.43	9.18	0.35	0.18
Overhead Collection System	Equipment	3.65	30.91	1.13	1.04
	Vehicles	0.07	0.13	117.92	11.80
	Helicopter	5.25	7.84	4.36	0.64
	On-Site Pick Up Trucks**	0.36	7.65	0.29	0.15
Year 2 Total		21.90	183.42	1,187.70	127.48
2019 Analysis Year 2 Total		29.00	205.00	1,506.00	162.00
Percent Difference		-24.48%	-10.53%	-21.14%	-21.31%

*Similar to the 2019 analysis, turbine and transformer installation vehicle emissions represent only the portion of the trips that would occur within Shasta County AQMD's jurisdiction.

** Review of the 2019 Analysis demonstrates that pick-up trucks were not included in the modeling. This analysis calculates the emissions from the use of off-road pick-up trucks consistent with the construction equipment list. Source: Stantec, 2023.

As shown in the table, all emissions under the updated Project would be reduced as compared to the 2019 Analysis, with the exception of Year 1 ROG emissions. This increase in Year 1 ROG emissions is likely attributed to the increased hours of operation for off-road equipment. However, as shown in Table 2, with implementation of the mitigation required under the 2019 Analysis, which requires the use of Tier 4 Final equipment and implementation of fugitive dust control measures, Year 1 ROG emissions would be reduced to below the 2019 emissions level.

Table 2 below shows the mitigated construction emissions from the Project compared to the 2019 Analysis.

Reference: Air Quality Technical Memorandum for the Fountain Wind Energy Project

Table 2: Mitigated Construction Emissions

Phase	Source	ROG	NOx	PM ₁₀	PM _{2.5}
Peak Construction Emissions - First Year (pounds per day)					
Timber Removal and Grubbing	Equipment	3.65	18.16	0.48	0.48
	Vehicles	0.87	18.98	268.84	27.42
Grading and Access Road Work	Equipment	7.17	31.09	8.93	1.83
	Vehicles	0.76	7.76	154.9	16.33
Year 1 Total		12.45	75.99	433.15	46.06
2019 Analysis Year 1 Totals		13	120	479	48
Percent Difference		-4.23%	-36.68%	-9.57%	-4.04%
Peak Construction Emissions - Second Year (pounds per day)					
Turbine and Transformer Installation	Equipment	1.54	6.7	0.21	0.21
	Vehicles*	0.76	15.55	63.79	9.1
	On-Site Pick Up Trucks**	0.10	1.12	0.05	0.03
Substation and O&M Building Installation	Equipment	0.38	3.98	0.04	0.04
	Vehicles	0.54	2.23	41.91	4.69
	On-Site Pick Up Trucks**	0.29	6.12	0.23	0.12
Underground Collector System	Equipment	0.6	7.32	0.06	0.06
	Vehicles	0.07	0.13	11.66	1.19
	On-Site Pick Up Trucks**	0.43	9.18	0.35	0.18
Overhead Collection System	Equipment	1.33	11.51	0.16	0.16
	Vehicles	0.07	0.13	11.7	1.2
	Helicopter	5.25	7.84	4.36	0.64
	On-Site Pick Up Trucks**	0.36	7.65	0.29	0.15
Year 2 Total		11.72	79.46	134.81	17.77
2019 Analysis Year 2 Total		18.00	85.00	175.00	23.00
Percent Difference		-34.89%	-6.52%	-22.96%	-22.74%

*Similar to the 2019 analysis, turbine and transformer installation vehicle emissions represent only the portion of the trips that would occur within Shasta County AQMD's jurisdiction.

** Review of the 2019 Analysis demonstrates that pick-up trucks were not included in the modeling. This analysis calculates the emissions from the use of off-road pick-up trucks consistent with the construction equipment list.

Reference: Air Quality Technical Memorandum for the Fountain Wind Energy Project

As shown in Table 2, with implementation of the required mitigation, all construction emissions under the updated Project would be reduced as compared to the 2019 Analysis.

Operation

Operational emissions associated with the Project would be generated from worker vehicle trips, maintenance of the wind turbines, and operations, maintenance, and testing of the back-up generator. Operations were assumed to be similar to the 2019 Analysis but were estimated using updated modeling and emission factors. Additionally, while the 2019 Analysis assumed that the back-up generator would be diesel-fueled, the back-up generator for the updated Project would be fueled by compressed natural gas or propane. Table 3 below shows the unmitigated operational emissions from the updated Project compared to the emissions calculated in the 2019 Analysis. As shown in the table, all emissions under the updated Project would be reduced as compared to the 2019 Analysis, with the exception ROG emissions. The increase in ROG emissions is attributable to the change in fuel type for the emergency generator. It is noted that the Shasta County AQMD Level A Threshold for ROG emissions is 25 pounds per day. As a result, although the emissions in ROG would increase to 6.09 pounds per day under the Project, total emissions would remain below the Level A Threshold, and the conclusion of the analysis would remain the same.

Table 3: Unmitigated Operational Emissions

Project Component	ROG	NOx	PM₁₀	PM_{2.5}
Operational Emissions (pounds per day)				
Worker Vehicle Emissions	0.90	0.80	54.51	5.60
Maintenance Work with Cranes and Mowers	0.47	4.63	0.22	0.20
Emergency Generator Testing and Maintenance	4.72	0.45	0.03	0.03
Total	6.09	5.88	54.76	5.83
2019 Analysis Operational Total	1.55	8.19	55.00	6.01
Percent Difference	292.93%¹	-28.18%	-0.45%	-3.07%

¹ Note that this perceived increase in ROG results from using more plausible and conservative estimations of construction vehicle operation times (10 hrs/day vs the 4-8 hrs/day estimated in the 2019 analysis).

Conclusion

As presented within this Memo, with proposed best management practices, construction of the updated Project would result in fewer criteria pollutant emissions as compared to the previous version of the project that was evaluated in the 2019 Analysis. During operations, the updated Project would result in fewer emissions of NO_x, PM₁₀, and PM_{2.5} as compared to the previous version of the project that was evaluated in the 2019 Analysis. While emissions of ROG were determined to increase under the Project, the ROG emissions would still be well below the Level A Threshold established by the Shasta County AQMD, and the less-than-significant impact determination would remain applicable. Overall, the Project would result in a less-than-significant impact related to air quality, and new or more severe impacts beyond what was evaluated in the 2019 Analysis would not occur.

Reference: Air Quality Technical Memorandum for the Fountain Wind Energy Project

Respectfully,

STANTEC CONSULTING SERVICES INC.

A handwritten signature in black ink that reads "Kaitlyn Heck". The signature is written in a cursive, flowing style.

Air Quality Specialist
Phone: (626) 568-6069
Mobile: 626-429-6692
kaitlyn.heck@stantec.com

Attachment: Air Quality Emissions Calculations

**ATTACHMENT A
EMISSIONS CALCULATIONS**

CalEEMod Updated Inputs

Updates based on reduced project size and 2019 modelling scenario.

Construction Vehicles

Worker

Phase	Year of Construction	Vehicle Type	2019 Project Trips/Day	Ratio	2022 Project One-Way Trips/Day	2023 Project Trips/Day	Trip Length
Timber Removal and Grubbing	1	LDT1	64	0.67	42.67	21.33	10
Grading and Access Road Work	1	LDT1	130	0.67	86.67	43.33	50
Concrete Batch Plants	1	LDT1	64	0.67	42.67	21.33	10
Turbine, Transformer, Substation and O&M Foundations	1	LDT1	64	0.67	42.67	21.33	10
Turbine and Transformer Installation	2	LDT1	38	0.67	25.33	12.67	10
Substation and O&M Building Installation	2	LDT1	130	0.67	86.67	43.33	50
Underground Collector System	2	LDT1	38	0.67	25.33	12.67	10
Overhead Collection System	2	LDT1	38	0.67	25.33	12.67	10
Substation Aggregate and Security Fence	2	LDT1	38	0.67	25.33	12.67	10
Transmission Line Connection	2	LDT1	38	0.67	25.33	12.67	10
Support Equipment - Fuel Trucks, Maintenance Vehicles, Delivery Vehicles, Security Vehicles, EMT vehicles, other	2	LDT1	38	0.67	25.33	12.67	10

Trucking Emissions

Phase	Year of Construction	2019 Project Trips	Ratio	2022 Project Trips	Truck Trips per Day	Trip Length
Timber Removal and Grubbing	1	13,000	0.67	8666.67	157.58	20
Grading and Access Road Work	1	8830	0.67	5886.67	46.72	22
Concrete Batch Plants	1	7610	0.67	5073.33	72.48	50
Turbine, Transformer, Substation and O&M Foundations	1	0	0.67	0.00	0.00	0
Turbine and Transformer Installation	2	5336	0.67	3557.33	258	
Substation and O&M Building Installation	2	364	0.67	242.67		20
Underground Collector System	2	0	0.67	0.00		20
Overhead Collection System	2	0	0.67	0.00		20
Substation Aggregate and Security Fence	2	2116	0.67	1410.67		20
Transmission Line Connection	2	0	0.67	0.00		20
Support Equipment - Fuel Trucks, Maintenance Vehicles, Delivery Vehicles, Security Vehicles, EMT vehicles, other	2	0	0.67	0.00		20

Grading

Year	2019 Grading Export Estimate	2023 Grading Export Estimate
1	256000	170752
2	0	0

Water Use (Operational)

2019 Assumption 1,825,000 gallons/year
 2023 Assumption 1217275 gallons/year

Dirt Roads

same as 2019 assumptions

Worker Trucks Dirt Road Travel

Year	miles/trip	Dirt road travel	% dirt road	% paved road
Year 1				
Phase 1	10	3.25	33%	68%
Phase 2	50	3.25	7%	94%
Phase 3	10	3.25	33%	68%
Phase 4	10	3.25	33%	68%
Year 2				
Phase 1	10	3.25	33%	68%
Phase 2	50	3.25	7%	94%
Phase 3	10	3.25	33%	68%
Phase 4	10	3.25	33%	68%
Phase 5	10	3.25	33%	68%
Phase 6	10	3.25	33%	68%

Workers would park at the O&M site or at one of the laydown/staging areas. The O&M site is approximately 0.5 mile from the highway and the various staging areas are estimated to average 6 miles from the highway. (6 miles + .5 mile)/2

Haul Trucks Dirt Road Travel

Year	miles/trip	Dirt road travel	% dirt road	% paved road
Year 1				
Phase 1	20	6	30%	70%
Phase 2	22	6	27%	73%
Phase 3	50	6	12%	88%
Phase 4	0	0	0%	100%
Year 2				
Phase 1	258	6	2%	98%
Phase 2	50	6	12%	88%
Phase 3	0	0	0%	100%
Phase 4	0	0	0%	100%
Phase 5	0	0	0%	100%
Phase 6	20	6	30%	70%

Average dirt road travel for haul trucks is based on the distance from Highway 299 to the Substation, which is approximately at the center of the site.



On-Site Pickup Trucks Emissions

Source: EMFAC2021 (v1.0.2) Emission Rates

Region Type: County

Region: Merced

Calendar Year: 2023

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/year for CVMT and EVMT, g/mile for RUNEX, PMBW and PMTW, mph for Speed, kWh/mile for Energy Consumption, gallon/mile for Fuel Consumption. PHEV calculated based on total VMT.

Region	Calendar	Y	Vehicle	Cat	Model	Yea	Speed	Fuel	Total	VMT	by	CVMT	EVMT	NOx	PM2.5	PM10	CO2	CH4	N2O	RUN	ROG	TOG	RUNE	CO	RUNE	SOx	RUNE	NH3	RUNE	PM10	PM2.5	PMBW	PM2.5	PMBW	Fuel	Consum	Energy
Shasta	2023	MHDT	Aggregate	Aggregate	Gasoline	463.544869	0.129524704	463.544869	0.129524704	3115.269478	3115.269478	0	2.558781297	0.0710280746	0.002840395	0.003089189	2612.07117	0.037663125	0.03183	0.189914	0.277122	2.888701	0.025823	0.044952	0.061495877	0.02152557	0.030362	0.061495877	0.02152557	0.030362	0.061495877	0.02152557	0.030362	0.061495877	0.02152557	0.030362	0.061495877
3578.814347																																					
Air Quality Emissions																																					
Number of OnSite																																					
Fuel Trucks Daily Miles 1 Total Workdays Annual Miles																																					
Turbine and Transformer Installation																																					
Substation and O&M Building Installation																																					
Underground Collector System																																					
Overhead Collection System																																					
Substation Aggregate																																					
Transmission Line Connection																																					

1 Per SCAQMD fugitive dust rules, on unpaved roads trucks are required to travel 15 mph. If operating for 10 consecutive hours, then trucks would travel 150 trips per day

Worksheet: 2017-2018 Income Statement

Category	2017	2018
Revenue		
Operating Expenses		
Non-Operating Expenses		
Income Tax		

Category	2017	2018
Revenue		
Operating Expenses		
Non-Operating Expenses		
Income Tax		

Category	2017	2018
Revenue		
Operating Expenses		
Non-Operating Expenses		
Income Tax		

Category	2017	2018
Revenue		
Operating Expenses		
Non-Operating Expenses		
Income Tax		

Worksheet: 2017-2018 Income Statement

Fugitive Dust Associated Concrete Batch Plants

Source	PM10 (lb/CY)	2019 concrete (CY)	Ratio	2022 concrete (CY)	lbs PM10	lbs PM2.5
Aggregate Delivery to Ground Storage	0.0031	36,946	0.67	24630.67	76.36	51.46
San Delivery to Ground Storage	0.0007	36,946	0.67	24630.67	17.24	11.62
Aggregate Transfer to Conveyor	0.0031	36,946	0.67	24630.67	76.36	51.46
San Transfer to Conveyor	0.0007	36,946	0.67	24630.67	17.24	11.62
Aggregate Transfer to Elevated Storage	0.0031	36,946	0.67	24630.67	76.36	51.46
Sand Transfer to Elevated Storage	0.0007	36,946	0.67	24630.67	17.24	11.62
Cement Delivery to Silo	0.0001	36,946	0.67	24630.67	2.46	1.66
Cement Supplement to Silo	0.0002	36,946	0.67	24630.67	4.93	3.32
Total					288.18	194.23
Days					70	70
lb/day					4.11684	2.77475016

Notes:

2019 concrete volume derived from 2019 Air Quality and Greenhouse Gas Emissions calculations.

Emission factors obtained from AP-42 Table 11.12.6.

PM2.5 fraction of PM10 is 0.674 (SCAQMD, 2006. Final Methodology to Calculate PM2.5 and PM2.5 Significance Thresholds).

Website: [http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/particulate-matter-\(pm\)-2.5-significance-thresholds-and-calculation-methodology/final_pm2_5methodology.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/particulate-matter-(pm)-2.5-significance-thresholds-and-calculation-methodology/final_pm2_5methodology.pdf?sfvrsn=2)

Proposed Project would construct 48 wind towers as compared to the 2019 analysis which assumed 72 wind turbines. Therefore, only 67% (48 / 72 = 0.67) of concrete required in 2019 would be required for the Proposed Project.

Operational Vehicles

Source: DMFAC2011 (v1.0-2) Emission Rates
Region: Shasta
Calendar Year: 2025

Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for TripL, g/mile for RWND, PMSW and PMTIV, g/trip for STEK, HOTSONS and RUNLOS, g/vehicle/day for IOLEX and OLUX, PHVE calculated based on total VAT.
Region: Shasta
Calendar Year: 2025
Vehicle Class: Light
Fuel: Gasoline
Population: 78468
Total VAT: 3028176
EVMT: 0
Trip: 0
N2O: 0
N2O2: 0
NOx: 0
NOx2: 0
NOx3: 0
NOx4: 0
NOx5: 0
NOx6: 0
NOx7: 0
NOx8: 0
NOx9: 0
NOx10: 0
NOx11: 0
NOx12: 0
NOx13: 0
NOx14: 0
NOx15: 0
NOx16: 0
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NOx98: 0
NOx99: 0
NOx100: 0

Operational Worker Emissions

Trips per Day	Trip Length	CO2				NOx				PM10				PM2.5				
		Daily Miles	Running	Start Up	Total (grams/day)	Running	Start Up	Total (grams/day)	Running	Start Up	Total (grams/day)	Running	Start Up	Total (grams/day)	Running	Start Up	Total (grams/day)	
24	50	1200	1131.5	66.5	1198.0	1131.5	66.5	1198.0	4.825	2.175	7.0	0.0002751	1.3475	1.3475	2.7811	2.4	2.1817	4.6628

Trips per Day	Trip Length	CO2	NOx	PM10	PM2.5
24	50	1200	1131.5	66.5	1198.0

GHS

Trips per Day	Trip Length	CO2				NOx					
		Daily Miles	Running	Start Up	Total (grams/day)	Running	Start Up	Total (grams/day)	Running	Start Up	Total (grams/day)
24	50	1200	1131.5	66.5	1198.0	1131.5	66.5	1198.0	4.825	2.175	7.0

Fountain Wind, Operations - Shasta County, Annual

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

Fountain Wind, Operations

Shasta County, Annual

1.0 Project Characteristics

1.1 Land Usage

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

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	82
Climate Zone	3			Operational Year	2026
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Operation only

Off-road Equipment - provided

Off-road Equipment - operation only

Trips and VMT - operation only

On-road Fugitive Dust - operation only

Grading - total acres graded and material exported assumed to be ~0.67 of 2019 assumptions

Vehicle Trips - operational vehicle trips based on 2019 analysis

Water And Wastewater - water use updated to be consistent with project assumptions

Construction Off-road Equipment Mitigation - based on 2019 assumptions

Operational Off-Road Equipment - cranes and mowers would be used during operations - consistent with 2019 project analysis

Fountain Wind, Operations - Shasta County, Annual

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

Stationary Sources - Emergency Generators and Fire Pumps - assume 8 hours maximum to be operated

Stationary Sources - Emergency Generators and Fire Pumps EF - generator emissions calculated off model

Road Dust - 94% paved

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblRoadDust	RoadPercentPave	100	94
tblTripsAndVMT	WorkerTripLength	10.80	0.00
tblVehicleTrips	CC_TL	7.30	50.00
tblVehicleTrips	CNW_TL	7.30	50.00
tblVehicleTrips	CW_TL	9.50	50.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	6.42	24.00
tblVehicleTrips	SU_TR	5.09	24.00
tblVehicleTrips	WD_TR	3.93	24.00
tblWater	IndoorWaterUseRate	231,250.00	1,217,275.00

2.0 Emissions Summary

Fountain Wind, Operations - Shasta County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

Fountain Wind, Operations - Shasta County, Annual

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

		Highest	
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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	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.9013	1.9013	1.5000e-004	4.0000e-005	1.9157
Mobile	0.0572	0.1364	0.6898	1.5800e-003	9.9049	1.7300e-003	9.9066	1.0121	1.6300e-003	1.0138	0.0000	150.2903	150.2903	7.1400e-003	7.5600e-003	152.7230
Offroad	0.0611	0.6020	0.4731	1.0800e-003		0.0283	0.0283		0.0260	0.0260	0.0000	94.9371	94.9371	0.0307	0.0000	95.7047
Stationary	0.1179	0.0114	0.3071	4.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	6.8332	6.8332	0.0143	0.0000	7.1904
Waste						0.0000	0.0000		0.0000	0.0000	0.2517	0.0000	0.2517	0.0149	0.0000	0.6236
Water						0.0000	0.0000		0.0000	0.0000	0.3862	0.6094	0.9956	0.0398	9.5000e-004	2.2724
Total	0.2414	0.7507	1.4708	2.7100e-003	9.9049	0.0307	9.9356	1.0121	0.0284	1.0405	0.6379	254.5713	255.2092	0.1069	8.5500e-003	260.4297

Fountain Wind, Operations - Shasta County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.9013	1.9013	1.5000e-004	4.0000e-005	1.9157
Mobile	0.0572	0.1364	0.6898	1.5800e-003	9.9049	1.7300e-003	9.9066	1.0121	1.6300e-003	1.0138	0.0000	150.2903	150.2903	7.1400e-003	7.5600e-003	152.7230
Offroad	0.0611	0.6020	0.4731	1.0800e-003		0.0283	0.0283		0.0260	0.0260	0.0000	94.9371	94.9371	0.0307	0.0000	95.7047
Stationary	0.1179	0.0114	0.3071	4.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	6.8332	6.8332	0.0143	0.0000	7.1904
Waste						0.0000	0.0000		0.0000	0.0000	0.2517	0.0000	0.2517	0.0149	0.0000	0.6236
Water						0.0000	0.0000		0.0000	0.0000	0.3862	0.6094	0.9956	0.0398	9.5000e-004	2.2724
Total	0.2414	0.7507	1.4708	2.7100e-003	9.9049	0.0307	9.9356	1.0121	0.0284	1.0405	0.6379	254.5713	255.2092	0.1069	8.5500e-003	260.4297

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

3.0 Construction Detail

Construction Phase

Fountain Wind, Operations - Shasta County, Annual

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

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Operation only	Site Preparation	1/1/2025	1/1/2025	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Operation only	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Operation only	0	0.00	0.00	0.00	0.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

Fountain Wind, Operations - Shasta County, Annual

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0572	0.1364	0.6898	1.5800e-003	9.9049	1.7300e-003	9.9066	1.0121	1.6300e-003	1.0138	0.0000	150.2903	150.2903	7.1400e-003	7.5600e-003	152.7230
Unmitigated	0.0572	0.1364	0.6898	1.5800e-003	9.9049	1.7300e-003	9.9066	1.0121	1.6300e-003	1.0138	0.0000	150.2903	150.2903	7.1400e-003	7.5600e-003	152.7230

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	24.00	24.00	24.00	436,800	436,800
Total	24.00	24.00	24.00	436,800	436,800

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	50.00	50.00	50.00	59.00	28.00	13.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.496817	0.053869	0.185478	0.139329	0.040637	0.008838	0.009512	0.023153	0.000626	0.000165	0.034569	0.001403	0.005605

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.7966	0.7966	1.3000e-004	2.0000e-005	0.8045
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.7966	0.7966	1.3000e-004	2.0000e-005	0.8045
NaturalGas Mitigated	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1046	1.1046	2.0000e-005	2.0000e-005	1.1112
NaturalGas Unmitigated	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1046	1.1046	2.0000e-005	2.0000e-005	1.1112

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

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	KBTU/yr																
General Heavy Industry	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	0.0000	1.1046	1.1046	2.0000e-005	2.0000e-005	1.1112
Total	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	0.0000	1.1046	1.1046	2.0000e-005	2.0000e-005	1.1112

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																
General Heavy Industry	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	0.0000	1.1046	1.1046	2.0000e-005	2.0000e-005	1.1112
Total	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	0.0000	1.1046	1.1046	2.0000e-005	2.0000e-005	1.1112

Fountain Wind, Operations - Shasta County, Annual

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	8610	0.7966	1.3000e-004	2.0000e-005	0.8045
Total		0.7966	1.3000e-004	2.0000e-005	0.8045

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	8610	0.7966	1.3000e-004	2.0000e-005	0.8045
Total		0.7966	1.3000e-004	2.0000e-005	0.8045

6.0 Area Detail

6.1 Mitigation Measures Area

Fountain Wind, Operations - Shasta County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.1600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.1600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

7.0 Water Detail

7.1 Mitigation Measures Water

Fountain Wind, Operations - Shasta County, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.9956	0.0398	9.5000e-004	2.2724
Unmitigated	0.9956	0.0398	9.5000e-004	2.2724

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	1.21728 / 0	0.9956	0.0398	9.5000e-004	2.2724
Total		0.9956	0.0398	9.5000e-004	2.2724

Fountain Wind, Operations - Shasta County, Annual

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	1.21728 / 0	0.9956	0.0398	9.5000e-004	2.2724
Total		0.9956	0.0398	9.5000e-004	2.2724

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.2517	0.0149	0.0000	0.6236
Unmitigated	0.2517	0.0149	0.0000	0.6236

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

8.2 Waste by Land Use

Unmitigated

Waste Disposed	Total CO2	CH4	N2O	CO2e
tons	MT/yr			
1.24	0.2517	0.0149	0.0000	0.6236
General Heavy Industry				
Total	0.2517	0.0149	0.0000	0.6236

Mitigated

Waste Disposed	Total CO2	CH4	N2O	CO2e
tons	MT/yr			
1.24	0.2517	0.0149	0.0000	0.6236
General Heavy Industry				
Total	0.2517	0.0149	0.0000	0.6236

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Cranes	2	4.00	260	231	0.29	Diesel

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

Sweepers/Scrubbers	2	4.00	260	64	0.46	Diesel
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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					
Cranes	0.0407	0.4118	0.2257	7.5000e-004		0.0175	0.0175		0.0161	0.0161	0.0000	65.9045	65.9045	0.0213	0.0000	66.4374
Sweepers/Scrubbers	0.0205	0.1902	0.2473	3.3000e-004		0.0108	0.0108		9.9200e-003	9.9200e-003	0.0000	29.0325	29.0325	9.3900e-003	0.0000	29.2673
Total	0.0611	0.6020	0.4731	1.0800e-003		0.0283	0.0283		0.0260	0.0260	0.0000	94.9371	94.9371	0.0307	0.0000	95.7047

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	2	100	268	0.73	CNG

Boilers

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

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

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - CNG (0 - 500 HP)	0.1179	0.0114	0.3071	4.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	6.8332	6.8332	0.0143	0.0000	7.1904
Total	0.1179	0.0114	0.3071	4.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	6.8332	6.8332	0.0143	0.0000	7.1904

11.0 Vegetation

Fountain Wind, Operations - Shasta County, Summer

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

**Fountain Wind, Operations
Shasta County, Summer**

1.0 Project Characteristics

1.1 Land Usage

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

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	82
Climate Zone	3			Operational Year	2026
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use -
- Construction Phase - Operation only
- Off-road Equipment - provided
- Off-road Equipment - operation only
- Trips and VMT - operation only
- On-road Fugitive Dust - operation only
- Grading - total acres graded and material exported assumed to be ~0.67 of 2019 assumptions
- Vehicle Trips - operational vehicle trips based on 2019 analysis
- Water And Wastewater - water use updated to be consistent with project assumptions
- Construction Off-road Equipment Mitigation - based on 2019 assumptions
- Operational Off-Road Equipment - cranes and mowers would be used during operations - consistent with 2019 project analysis

Fountain Wind, Operations - Shasta County, Summer

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

Stationary Sources - Emergency Generators and Fire Pumps - assume 8 hours maximum to be operated

Stationary Sources - Emergency Generators and Fire Pumps EF - generator emissions calculated off model

Road Dust - 94% paved

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblRoadDust	RoadPercentPave	100	94
tblTripsAndVMT	WorkerTripLength	10.80	0.00
tblVehicleTrips	CC_TL	7.30	50.00
tblVehicleTrips	CNW_TL	7.30	50.00
tblVehicleTrips	CW_TL	9.50	50.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	6.42	24.00
tblVehicleTrips	SU_TR	5.09	24.00
tblVehicleTrips	WD_TR	3.93	24.00
tblWater	IndoorWaterUseRate	231,250.00	1,217,275.00

2.0 Emissions Summary

Fountain Wind, Operations - Shasta County, Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Mobile	0.3342	0.6973	4.2849	9.3400e-003	54.4642	9.5000e-003	54.4737	5.5715	8.9600e-003	5.5804		978.4273	978.4273	0.0433	0.0446	992.7867
Offroad	0.4702	4.6308	3.6389	8.3100e-003		0.2176	0.2176		0.2002	0.2002	0.0000	805.0026	805.0026	0.2604		811.5115
Stationary	4.7158	0.4540	12.2821	1.6400e-003		0.0260	0.0260		0.0260	0.0260		301.2907	301.2907	0.6300		317.0400
Total	5.5485	5.7877	20.2106	0.0193	54.4642	0.2535	54.7177	5.5715	0.2356	5.8070	0.0000	2,091.3929	2,091.3929	0.9337	0.0447	2,128.0501

Fountain Wind, Operations - Shasta County, Summer

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Mobile	0.3342	0.6973	4.2849	9.3400e-003	54.4642	9.5000e-003	54.4737	5.5715	8.9600e-003	5.5804		978.4273	978.4273	0.0433	0.0446	992.7867
Offroad	0.4702	4.6308	3.6389	8.3100e-003		0.2176	0.2176		0.2002	0.2002	0.0000	805.0026	805.0026	0.2604		811.5115
Stationary	4.7158	0.4540	12.2821	1.6400e-003		0.0260	0.0260		0.0260	0.0260		301.2907	301.2907	0.6300		317.0400
Total	5.5485	5.7877	20.2106	0.0193	54.4642	0.2535	54.7177	5.5715	0.2356	5.8070	0.0000	2,091.3929	2,091.3929	0.9337	0.0447	2,128.0501

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Operation only	Site Preparation	1/1/2025	1/1/2025	5	1	

Acres of Grading (Site Preparation Phase): 0

Fountain Wind, Operations - Shasta County, Summer

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

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Operation only	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Operation only	0	0.00	0.00	0.00	0.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

Fountain Wind, Operations - Shasta County, Summer

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

3.2 Operation only - 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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Unmitigated Construction Off-Site

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

Fountain Wind, Operations - Shasta County, Summer

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

3.2 Operation only - 2025

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

Fountain Wind, Operations - Shasta County, Summer

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3342	0.6973	4.2849	9.3400e-003	54.4642	9.5000e-003	54.4737	5.5715	8.9600e-003	5.5804		978.4273	978.4273	0.0433	0.0446	992.7867
Unmitigated	0.3342	0.6973	4.2849	9.3400e-003	54.4642	9.5000e-003	54.4737	5.5715	8.9600e-003	5.5804		978.4273	978.4273	0.0433	0.0446	992.7867

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	24.00	24.00	24.00	436,800	436,800
Total	24.00	24.00	24.00	436,800	436,800

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	50.00	50.00	50.00	59.00	28.00	13.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.496817	0.053869	0.185478	0.139329	0.040637	0.008838	0.009512	0.023153	0.000626	0.000165	0.034569	0.001403	0.005605

Fountain Wind, Operations - Shasta County, Summer

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
NaturalGas Unmitigated	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	56.7123	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Total		6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117

Fountain Wind, Operations - Shasta County, Summer

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	0.0567123	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Total		6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Fountain Wind, Operations - Shasta County, Summer

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.3500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Fountain Wind, Operations - Shasta County, Summer

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.3500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Cranes	2	4.00	260	231	0.29	Diesel
Sweepers/Scrubbers	2	4.00	260	64	0.46	Diesel

Fountain Wind, Operations - Shasta County, Summer

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

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Cranes	0.3128	3.1679	1.7365	5.7700e-003		0.1347	0.1347		0.1239	0.1239	0.0000	558.8262	558.8262	0.1807		563.3446
Sweepers/Scrubbers	0.1574	1.4629	1.9025	2.5400e-003		0.0829	0.0829		0.0763	0.0763	0.0000	246.1764	246.1764	0.0796		248.1669
Total	0.4702	4.6308	3.6389	8.3100e-003		0.2176	0.2176		0.2002	0.2002	0.0000	805.0026	805.0026	0.2604		811.5115

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	2	100	268	0.73	CNG

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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Fountain Wind, Operations - Shasta County, Summer

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

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - CNG (0 - 500 HP)	4.7158	0.4540	12.2821	1.6400e-003		0.0260	0.0260		0.0260	0.0260		301.2907	301.2907	0.6300		317.0400
Total	4.7158	0.4540	12.2821	1.6400e-003		0.0260	0.0260		0.0260	0.0260		301.2907	301.2907	0.6300		317.0400

11.0 Vegetation

Fountain Wind, Operations - Shasta County, Winter

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

Fountain Wind, Operations

Shasta County, Winter

1.0 Project Characteristics

1.1 Land Usage

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

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	82
Climate Zone	3			Operational Year	2026
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use -
- Construction Phase - Operation only
- Off-road Equipment - provided
- Off-road Equipment - operation only
- Trips and VMT - operation only
- On-road Fugitive Dust - operation only
- Grading - total acres graded and material exported assumed to be ~0.67 of 2019 assumptions
- Vehicle Trips - operational vehicle trips based on 2019 analysis
- Water And Wastewater - water use updated to be consistent with project assumptions
- Construction Off-road Equipment Mitigation - based on 2019 assumptions
- Operational Off-Road Equipment - cranes and mowers would be used during operations - consistent with 2019 project analysis

Fountain Wind, Operations - Shasta County, Winter

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

Stationary Sources - Emergency Generators and Fire Pumps - assume 8 hours maximum to be operated

Stationary Sources - Emergency Generators and Fire Pumps EF - generator emissions calculated off model

Road Dust - 94% paved

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblRoadDust	RoadPercentPave	100	94
tblTripsAndVMT	WorkerTripLength	10.80	0.00
tblVehicleTrips	CC_TL	7.30	50.00
tblVehicleTrips	CNW_TL	7.30	50.00
tblVehicleTrips	CW_TL	9.50	50.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	6.42	24.00
tblVehicleTrips	SU_TR	5.09	24.00
tblVehicleTrips	WD_TR	3.93	24.00
tblWater	IndoorWaterUseRate	231,250.00	1,217,275.00

2.0 Emissions Summary

Fountain Wind, Operations - Shasta County, Winter

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Mobile	0.3207	0.7879	3.8919	8.5300e-003	54.4642	9.5000e-003	54.4737	5.5715	8.9600e-003	5.5804		893.1759	893.1759	0.0447	0.0473	908.3860
Offroad	0.4702	4.6308	3.6389	8.3100e-003		0.2176	0.2176		0.2002	0.2002	0.0000	805.0026	805.0026	0.2604		811.5115
Stationary	4.7158	0.4540	12.2821	1.6400e-003		0.0260	0.0260		0.0260	0.0260		301.2907	301.2907	0.6300		317.0400
Total	5.5351	5.8782	19.8176	0.0185	54.4642	0.2535	54.7177	5.5715	0.2356	5.8070	0.0000	2,006.1414	2,006.1414	0.9352	0.0474	2,043.6494

Fountain Wind, Operations - Shasta County, Winter

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Mobile	0.3207	0.7879	3.8919	8.5300e-003	54.4642	9.5000e-003	54.4737	5.5715	8.9600e-003	5.5804		893.1759	893.1759	0.0447	0.0473	908.3860
Offroad	0.4702	4.6308	3.6389	8.3100e-003		0.2176	0.2176		0.2002	0.2002	0.0000	805.0026	805.0026	0.2604		811.5115
Stationary	4.7158	0.4540	12.2821	1.6400e-003		0.0260	0.0260		0.0260	0.0260		301.2907	301.2907	0.6300		317.0400
Total	5.5351	5.8782	19.8176	0.0185	54.4642	0.2535	54.7177	5.5715	0.2356	5.8070	0.0000	2,006.1414	2,006.1414	0.9352	0.0474	2,043.6494

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Operation only	Site Preparation	1/1/2025	1/1/2025	5	1	

Acres of Grading (Site Preparation Phase): 0

Fountain Wind, Operations - Shasta County, Winter

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

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Operation only	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Operation only	0	0.00	0.00	0.00	0.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

Fountain Wind, Operations - Shasta County, Winter

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

3.2 Operation only - 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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Unmitigated Construction Off-Site

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

Fountain Wind, Operations - Shasta County, Winter

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

3.2 Operation only - 2025

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

Fountain Wind, Operations - Shasta County, Winter

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3207	0.7879	3.8919	8.5300e-003	54.4642	9.5000e-003	54.4737	5.5715	8.9600e-003	5.5804		893.1759	893.1759	0.0447	0.0473	908.3860
Unmitigated	0.3207	0.7879	3.8919	8.5300e-003	54.4642	9.5000e-003	54.4737	5.5715	8.9600e-003	5.5804		893.1759	893.1759	0.0447	0.0473	908.3860

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	24.00	24.00	24.00	436,800	436,800
Total	24.00	24.00	24.00	436,800	436,800

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	50.00	50.00	50.00	59.00	28.00	13.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.496817	0.053869	0.185478	0.139329	0.040637	0.008838	0.009512	0.023153	0.000626	0.000165	0.034569	0.001403	0.005605

Fountain Wind, Operations - Shasta County, Winter

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
NaturalGas Unmitigated	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	56.7123	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Total		6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117

Fountain Wind, Operations - Shasta County, Winter

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	0.0567123	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Total		6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Fountain Wind, Operations - Shasta County, Winter

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.3500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Fountain Wind, Operations - Shasta County, Winter

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.3500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Cranes	2	4.00	260	231	0.29	Diesel
Sweepers/Scrubbers	2	4.00	260	64	0.46	Diesel

Fountain Wind, Operations - Shasta County, Winter

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

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Cranes	0.3128	3.1679	1.7365	5.7700e-003		0.1347	0.1347		0.1239	0.1239	0.0000	558.8262	558.8262	0.1807		563.3446
Sweepers/Scrubbers	0.1574	1.4629	1.9025	2.5400e-003		0.0829	0.0829		0.0763	0.0763	0.0000	246.1764	246.1764	0.0796		248.1669
Total	0.4702	4.6308	3.6389	8.3100e-003		0.2176	0.2176		0.2002	0.2002	0.0000	805.0026	805.0026	0.2604		811.5115

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	2	100	268	0.73	CNG

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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Fountain Wind, Operations - Shasta County, Winter

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

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - CNG (0 - 500 HP)	4.7158	0.4540	12.2821	1.6400e-003		0.0260	0.0260		0.0260	0.0260		301.2907	301.2907	0.6300		317.0400
Total	4.7158	0.4540	12.2821	1.6400e-003		0.0260	0.0260		0.0260	0.0260		301.2907	301.2907	0.6300		317.0400

11.0 Vegetation

Fountain Wind, Year 1 - Shasta County, Annual

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

**Fountain Wind, Year 1
Shasta County, Annual**

1.0 Project Characteristics

1.1 Land Usage

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

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	82
Climate Zone	3			Operational Year	2026
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction schedule provided, no construction anticipated during winter months (January through March).

Off-road Equipment - provided

Off-road Equipment - construction equipment provided

Off-road Equipment - equipment provided

Off-road Equipment - support equipment necessary during Year 1 construction

Off-road Equipment - equipment provided

Trips and VMT - construction trips pulled from 2019, reduced based on project description

On-road Fugitive Dust - per 2019 CalEEMod assumptions

Grading - total acres graded and material exported assumed to be ~0.67 of 2019 assumptions

Vehicle Trips - construction only

Fountain Wind, Year 1 - Shasta County, Annual

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

Construction Off-road Equipment Mitigation - based on 2019 assumptions

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	37.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	100.00	70.00

Fountain Wind, Year 1 - Shasta County, Annual

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

tblConstructionPhase	NumDays	2.00	126.00
tblConstructionPhase	NumDays	1.00	55.00
tblConstructionPhase	NumDays	1.00	70.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	AcresOfGrading	866.25	923.13
tblGrading	MaterialExported	0.00	170,752.00
tblOffRoadEquipment	HorsePower	8.00	89.00
tblOffRoadEquipment	HorsePower	367.00	247.00
tblOffRoadEquipment	HorsePower	65.00	187.00
tblOffRoadEquipment	LoadFactor	0.43	0.20
tblOffRoadEquipment	LoadFactor	0.48	0.40
tblOffRoadEquipment	LoadFactor	0.37	0.41
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	16.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	30.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	11.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	20.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	PhaseName		Concrete Batch Plants
tblOffRoadEquipment	PhaseName		Foundations
tblOffRoadEquipment	PhaseName		Foundations
tblOffRoadEquipment	PhaseName		Concrete Batch Plants
tblOffRoadEquipment	PhaseName		Timber Removal and Grubbing
tblOffRoadEquipment	PhaseName		Grading and Access Road Work
tblOffRoadEquipment	PhaseName		Concrete Batch Plants
tblOffRoadEquipment	PhaseName		Foundations
tblOffRoadEquipment	PhaseName		Timber Removal and Grubbing
tblOffRoadEquipment	PhaseName		Grading and Access Road Work
tblOffRoadEquipment	PhaseName		Foundations
tblOffRoadEquipment	PhaseName		Grading and Access Road Work
tblOffRoadEquipment	PhaseName		Timber Removal and Grubbing
tblOffRoadEquipment	PhaseName		Concrete Batch Plants
tblOffRoadEquipment	PhaseName		Foundations
tblOffRoadEquipment	UsageHours	6.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOnRoadDust	HaulingPercentPave	100.00	70.00
tblOnRoadDust	HaulingPercentPave	100.00	73.00
tblOnRoadDust	HaulingPercentPave	100.00	88.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblOnRoadDust	WorkerPercentPave	100.00	94.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00

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

tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblTripsAndVMT	HaulingTripLength	20.00	22.00
tblTripsAndVMT	HaulingTripLength	20.00	50.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	8,667.00
tblTripsAndVMT	HaulingTripNumber	21,344.00	5,887.00
tblTripsAndVMT	HaulingTripNumber	0.00	73.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripLength	10.80	50.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripNumber	35.00	58.00
tblTripsAndVMT	WorkerTripNumber	78.00	120.00
tblTripsAndVMT	WorkerTripNumber	65.00	60.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	WD_TR	3.93	0.00

2.0 Emissions Summary

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2024	6-30-2024	8.0855	2.2978
2	7-1-2024	9-30-2024	9.0153	2.0316
		Highest	9.0153	2.2978

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	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.9013	1.9013	1.5000e-004	4.0000e-005	1.9157
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.2517	0.0000	0.2517	0.0149	0.0000	0.6236
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.1158	0.1891	7.5500e-003	1.8000e-004	0.4317
Total	5.1800e-003	1.0100e-003	8.6000e-004	1.0000e-005	0.0000	8.0000e-005	8.0000e-005	0.0000	8.0000e-005	8.0000e-005	0.3251	2.0171	2.3421	0.0226	2.2000e-004	2.9710

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.9013	1.9013	1.5000e-004	4.0000e-005	1.9157
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.2517	0.0000	0.2517	0.0149	0.0000	0.6236
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.1158	0.1891	7.5500e-003	1.8000e-004	0.4317
Total	5.1800e-003	1.0100e-003	8.6000e-004	1.0000e-005	0.0000	8.0000e-005	8.0000e-005	0.0000	8.0000e-005	8.0000e-005	0.3251	2.0171	2.3421	0.0226	2.2000e-004	2.9710

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Timber Removal and Grubbing	Site Preparation	4/1/2024	6/3/2024	6	55	
2	Grading and Access Road Work	Grading	5/7/2024	9/30/2024	6	126	
3	Concrete Batch Plants	Building Construction	9/5/2024	12/11/2024	5	70	

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

4	Foundations	Site Preparation	10/1/2024	12/20/2024	6	70
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Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 923.13

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Timber Removal and Grubbing	Off-Highway Trucks	16	10.00	402	0.38
Timber Removal and Grubbing	Other Construction Equipment	2	10.00	172	0.42
Timber Removal and Grubbing	Skid Steer Loaders	2	10.00	65	0.37
Timber Removal and Grubbing	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Grading and Access Road Work	Graders	3	10.00	187	0.41
Grading and Access Road Work	Off-Highway Trucks	30	10.00	402	0.38
Grading and Access Road Work	Plate Compactors	4	10.00	8	0.43
Grading and Access Road Work	Scrapers	4	10.00	247	0.40
Grading and Access Road Work	Tractors/Loaders/Backhoes	6	10.00	97	0.37
Concrete Batch Plants	Cement and Mortar Mixers	10	10.00	9	0.56
Concrete Batch Plants	Generator Sets	3	10.00	84	0.74
Concrete Batch Plants	Off-Highway Trucks	11	10.00	402	0.38
Concrete Batch Plants	Skid Steer Loaders	3	10.00	65	0.37
Foundations	Cranes	3	10.00	231	0.29
Foundations	Excavators	3	10.00	158	0.38
Foundations	Off-Highway Trucks	20	10.00	402	0.38
Foundations	Plate Compactors	4	10.00	89	0.20
Foundations	Skid Steer Loaders	3	10.00	187	0.41
Foundations	Tractors/Loaders/Backhoes	3	10.00	97	0.37

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

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
Timber Removal and Grubbing	14	58.00	0.00	8,667.00	10.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading and Access Road Work	31	120.00	6.00	5,887.00	50.00	7.30	22.00	LD_Mix	HDT_Mix	HHDT
Concrete Batch Plants	21	0.00	0.00	73.00	10.00	7.30	50.00	LD_Mix	HDT_Mix	HHDT
Foundations	26	60.00	0.00	0.00	10.00	7.30	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Timber Removal and Grubbing - 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	0.3104	2.2075	2.3124	8.0600e-003		0.0837	0.0837		0.0770	0.0770	0.0000	707.4748	707.4748	0.2288	0.0000	713.1951
Total	0.3104	2.2075	2.3124	8.0600e-003	0.0000	0.0837	0.0837	0.0000	0.0770	0.0770	0.0000	707.4748	707.4748	0.2288	0.0000	713.1951

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

3.2 Timber Removal and Grubbing - 2024

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	0.0106	0.5977	0.1238	2.5400e-003	29.7251	5.5000e-003	29.7306	2.9766	5.2600e-003	2.9819	0.0000	243.4347	243.4347	4.5000e-004	0.0383	254.8478
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	4.4900e-003	2.9200e-003	0.0358	1.0000e-004	5.8323	6.0000e-005	5.8324	0.5835	6.0000e-005	0.5835	0.0000	9.2344	9.2344	2.9000e-004	2.7000e-004	9.3220
Total	0.0150	0.6006	0.1597	2.6400e-003	35.5574	5.5600e-003	35.5629	3.5601	5.3200e-003	3.5654	0.0000	252.6691	252.6691	7.4000e-004	0.0385	264.1697

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1003	0.4993	3.8530	8.0600e-003		0.0131	0.0131		0.0131	0.0131	0.0000	707.4740	707.4740	0.2288	0.0000	713.1943
Total	0.1003	0.4993	3.8530	8.0600e-003	0.0000	0.0131	0.0131	0.0000	0.0131	0.0131	0.0000	707.4740	707.4740	0.2288	0.0000	713.1943

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

3.2 Timber Removal and Grubbing - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0106	0.5977	0.1238	2.5400e-003	4.8001	5.5000e-003	4.8056	0.4889	5.2600e-003	0.4942	0.0000	243.4347	243.4347	4.5000e-004	0.0383	254.8478
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	4.4900e-003	2.9200e-003	0.0358	1.0000e-004	0.9396	6.0000e-005	0.9396	0.0951	6.0000e-005	0.0952	0.0000	9.2344	9.2344	2.9000e-004	2.7000e-004	9.3220
Total	0.0150	0.6006	0.1597	2.6400e-003	5.7396	5.5600e-003	5.7452	0.5840	5.3200e-003	0.5894	0.0000	252.6691	252.6691	7.4000e-004	0.0385	264.1697

3.3 Grading and Access Road Work - 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					0.5021	0.0000	0.5021	0.0548	0.0000	0.0548	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5041	11.2616	10.0859	0.0371		0.4225	0.4225		0.3889	0.3889	0.0000	3,254.2713	3,254.2713	1.0503	0.0000	3,280.5297
Total	1.5041	11.2616	10.0859	0.0371	0.5021	0.4225	0.9246	0.0548	0.3889	0.4437	0.0000	3,254.2713	3,254.2713	1.0503	0.0000	3,280.5297

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

3.3 Grading and Access Road Work - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.5100e-003	0.4404	0.0871	1.8900e-003	19.9941	4.1000e-003	19.9982	2.0031	3.9200e-003	2.0070	0.0000	181.0069	181.0069	3.2000e-004	0.0285	189.4927
Vendor	5.3000e-004	0.0190	5.9100e-003	8.0000e-005	2.4600e-003	1.2000e-004	2.5800e-003	7.1000e-004	1.2000e-004	8.3000e-004	0.0000	7.4457	7.4457	3.0000e-005	1.0800e-003	7.7691
Worker	0.0672	0.0533	0.6833	2.3300e-003	26.1382	1.3700e-003	26.1396	2.6517	1.2600e-003	2.6529	0.0000	213.6209	213.6209	3.3200e-003	4.6800e-003	215.0992
Total	0.0753	0.5126	0.7763	4.3000e-003	46.1347	5.5900e-003	46.1403	4.6555	5.3000e-003	4.6608	0.0000	402.0735	402.0735	3.6700e-003	0.0342	412.3610

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5021	0.0000	0.5021	0.0548	0.0000	0.0548	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4520	1.9585	17.0202	0.0371		0.0603	0.0603		0.0603	0.0603	0.0000	3,254.2674	3,254.2674	1.0503	0.0000	3,280.5258
Total	0.4520	1.9585	17.0202	0.0371	0.5021	0.0603	0.5624	0.0548	0.0603	0.1150	0.0000	3,254.2674	3,254.2674	1.0503	0.0000	3,280.5258

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

3.3 Grading and Access Road Work - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.5100e-003	0.4404	0.0871	1.8900e-003	3.2329	4.1000e-003	3.2370	0.3302	3.9200e-003	0.3341	0.0000	181.0069	181.0069	3.2000e-004	0.0285	189.4927
Vendor	5.3000e-004	0.0190	5.9100e-003	8.0000e-005	2.3100e-003	1.2000e-004	2.4300e-003	6.7000e-004	1.2000e-004	7.9000e-004	0.0000	7.4457	7.4457	3.0000e-005	1.0800e-003	7.7691
Worker	0.0672	0.0533	0.6833	2.3300e-003	4.3798	1.3700e-003	4.3811	0.4775	1.2600e-003	0.4788	0.0000	213.6209	213.6209	3.3200e-003	4.6800e-003	215.0992
Total	0.0753	0.5126	0.7763	4.3000e-003	7.6150	5.5900e-003	7.6205	0.8084	5.3000e-003	0.8137	0.0000	402.0735	402.0735	3.6700e-003	0.0342	412.3610

3.4 Concrete Batch Plants - 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	0.3105	2.2051	2.3617	7.8100e-003		0.0819	0.0819		0.0771	0.0771	0.0000	677.0930	677.0930	0.1936	0.0000	681.9328
Total	0.3105	2.2051	2.3617	7.8100e-003		0.0819	0.0819		0.0771	0.0771	0.0000	677.0930	677.0930	0.1936	0.0000	681.9328

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

3.4 Concrete Batch Plants - 2024

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	1.5000e-004	0.0114	1.5900e-003	5.0000e-005	1.5300e-003	1.2000e-004	1.6500e-003	4.2000e-004	1.1000e-004	5.3000e-004	0.0000	4.9624	4.9624	1.0000e-005	7.8000e-004	5.1950
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.5000e-004	0.0114	1.5900e-003	5.0000e-005	1.5300e-003	1.2000e-004	1.6500e-003	4.2000e-004	1.1000e-004	5.3000e-004	0.0000	4.9624	4.9624	1.0000e-005	7.8000e-004	5.1950

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0931	0.5271	3.5909	7.8100e-003		0.0120	0.0120		0.0120	0.0120	0.0000	677.0922	677.0922	0.1936	0.0000	681.9320
Total	0.0931	0.5271	3.5909	7.8100e-003		0.0120	0.0120		0.0120	0.0120	0.0000	677.0922	677.0922	0.1936	0.0000	681.9320

Fountain Wind, Year 1 - Shasta County, Annual

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

3.4 Concrete Batch Plants - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5000e-004	0.0114	1.5900e-003	5.0000e-005	1.4300e-003	1.2000e-004	1.5400e-003	4.0000e-004	1.1000e-004	5.1000e-004	0.0000	4.9624	4.9624	1.0000e-005	7.8000e-004	5.1950
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.5000e-004	0.0114	1.5900e-003	5.0000e-005	1.4300e-003	1.2000e-004	1.5400e-003	4.0000e-004	1.1000e-004	5.1000e-004	0.0000	4.9624	4.9624	1.0000e-005	7.8000e-004	5.1950

3.5 Foundations - 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	0.5210	3.7460	3.7988	0.0134		0.1418	0.1418		0.1304	0.1304	0.0000	1,178.3575	1,178.3575	0.3811	0.0000	1,187.8851
Total	0.5210	3.7460	3.7988	0.0134	0.0000	0.1418	0.1418	0.0000	0.1304	0.1304	0.0000	1,178.3575	1,178.3575	0.3811	0.0000	1,187.8851

Fountain Wind, Year 1 - Shasta County, Annual

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

3.5 Foundations - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9100e-003	3.8400e-003	0.0472	1.3000e-004	7.6789	8.0000e-005	7.6790	0.7682	8.0000e-005	0.7683	0.0000	12.1582	12.1582	3.9000e-004	3.5000e-004	12.2734
Total	5.9100e-003	3.8400e-003	0.0472	1.3000e-004	7.6789	8.0000e-005	7.6790	0.7682	8.0000e-005	0.7683	0.0000	12.1582	12.1582	3.9000e-004	3.5000e-004	12.2734

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1641	0.7110	6.3492	0.0134		0.0219	0.0219		0.0219	0.0219	0.0000	1,178.3561	1,178.3561	0.3811	0.0000	1,187.8837
Total	0.1641	0.7110	6.3492	0.0134	0.0000	0.0219	0.0219	0.0000	0.0219	0.0219	0.0000	1,178.3561	1,178.3561	0.3811	0.0000	1,187.8837

Fountain Wind, Year 1 - Shasta County, Annual

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

3.5 Foundations - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9100e-003	3.8400e-003	0.0472	1.3000e-004	1.2371	8.0000e-005	1.2372	0.1253	8.0000e-005	0.1253	0.0000	12.1582	12.1582	3.9000e-004	3.5000e-004	12.2734
Total	5.9100e-003	3.8400e-003	0.0472	1.3000e-004	1.2371	8.0000e-005	1.2372	0.1253	8.0000e-005	0.1253	0.0000	12.1582	12.1582	3.9000e-004	3.5000e-004	12.2734

Fountain Wind, Year 1 - Shasta County, Annual

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

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

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	0.00	0.00	0.00	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
General Heavy Industry	0.496817	0.053869	0.185478	0.139329	0.040637	0.008838	0.009512	0.023153	0.000626	0.000165	0.034569	0.001403	0.005605

Fountain Wind, Year 1 - Shasta County, Annual

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.7966	0.7966	1.3000e-004	2.0000e-005	0.8045
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.7966	0.7966	1.3000e-004	2.0000e-005	0.8045
NaturalGas Mitigated	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1046	1.1046	2.0000e-005	2.0000e-005	1.1112
NaturalGas Unmitigated	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1046	1.1046	2.0000e-005	2.0000e-005	1.1112

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

5.2 Energy by Land Use - Natural Gas

Unmitigated

Land Use		tons/yr															MT/yr			
NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e				
General Heavy Industry	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	0.0000	1.1046	1.1046	2.0000e-005	2.0000e-005	1.1112				
Total	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	0.0000	1.1046	1.1046	2.0000e-005	2.0000e-005	1.1112				

Mitigated

Land Use		tons/yr															MT/yr			
NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e				
General Heavy Industry	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	0.0000	1.1046	1.1046	2.0000e-005	2.0000e-005	1.1112				
Total	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	0.0000	1.1046	1.1046	2.0000e-005	2.0000e-005	1.1112				

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

5.3 Energy by Land Use - Electricity

Unmitigated

Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr			
General Heavy Industry	8610	0.7966	1.3000e-004	2.0000e-005
Total	0.7966	1.3000e-004	2.0000e-005	0.8045

Mitigated

Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr			
General Heavy Industry	8610	0.7966	1.3000e-004	2.0000e-005
Total	0.7966	1.3000e-004	2.0000e-005	0.8045

6.0 Area Detail

6.1 Mitigation Measures Area

Fountain Wind, Year 1 - Shasta County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.1600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

Fountain Wind, Year 1 - Shasta County, Annual

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.1600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

7.0 Water Detail

7.1 Mitigation Measures Water

Fountain Wind, Year 1 - Shasta County, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.1891	7.5500e-003	1.8000e-004	0.4317
Unmitigated	0.1891	7.5500e-003	1.8000e-004	0.4317

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	0.23125 / 0	0.1891	7.5500e-003	1.8000e-004	0.4317
Total		0.1891	7.5500e-003	1.8000e-004	0.4317

Fountain Wind, Year 1 - Shasta County, Annual

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	0.23125 / 0	0.1891	7.5500e-003	1.8000e-004	0.4317
Total		0.1891	7.5500e-003	1.8000e-004	0.4317

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.2517	0.0149	0.0000	0.6236
Unmitigated	0.2517	0.0149	0.0000	0.6236

Fountain Wind, Year 1 - Shasta County, Annual

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

8.2 Waste by Land Use

Unmitigated

Waste Disposed	Total CO2	CH4	N2O	CO2e
tons	MT/yr			
1.24	0.2517	0.0149	0.0000	0.6236
General Heavy Industry				
Total	0.2517	0.0149	0.0000	0.6236

Mitigated

Waste Disposed	Total CO2	CH4	N2O	CO2e
tons	MT/yr			
1.24	0.2517	0.0149	0.0000	0.6236
General Heavy Industry				
Total	0.2517	0.0149	0.0000	0.6236

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Fountain Wind, Year 1 - Shasta County, Annual

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Fountain Wind, Year 1 - Shasta County, Summer

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

Fountain Wind, Year 1

Shasta County, Summer

1.0 Project Characteristics

1.1 Land Usage

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

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	82
Climate Zone	3			Operational Year	2026
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction schedule provided, no construction anticipated during winter months (January through March).

Off-road Equipment - provided

Off-road Equipment - construction equipment provided

Off-road Equipment - equipment provided

Off-road Equipment - support equipment necessary during Year 1 construction

Off-road Equipment - equipment provided

Trips and VMT - construction trips pulled from 2019, reduced based on project description

On-road Fugitive Dust - per 2019 CalEEMod assumptions

Grading - total acres graded and material exported assumed to be ~0.67 of 2019 assumptions

Vehicle Trips - construction only

Fountain Wind, Year 1 - Shasta County, Summer

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

Construction Off-road Equipment Mitigation - based on 2019 assumptions

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	37.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	100.00	70.00

Fountain Wind, Year 1 - Shasta County, Summer

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

tblConstructionPhase	NumDays	2.00	126.00
tblConstructionPhase	NumDays	1.00	55.00
tblConstructionPhase	NumDays	1.00	70.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	AcresOfGrading	866.25	923.13
tblGrading	MaterialExported	0.00	170,752.00
tblOffRoadEquipment	HorsePower	8.00	89.00
tblOffRoadEquipment	HorsePower	367.00	247.00
tblOffRoadEquipment	HorsePower	65.00	187.00
tblOffRoadEquipment	LoadFactor	0.43	0.20
tblOffRoadEquipment	LoadFactor	0.48	0.40
tblOffRoadEquipment	LoadFactor	0.37	0.41
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	16.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	30.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	11.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	20.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00

Fountain Wind, Year 1 - Shasta County, Summer

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

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	PhaseName		Concrete Batch Plants
tblOffRoadEquipment	PhaseName		Foundations
tblOffRoadEquipment	PhaseName		Foundations
tblOffRoadEquipment	PhaseName		Concrete Batch Plants
tblOffRoadEquipment	PhaseName		Timber Removal and Grubbing
tblOffRoadEquipment	PhaseName		Grading and Access Road Work
tblOffRoadEquipment	PhaseName		Concrete Batch Plants
tblOffRoadEquipment	PhaseName		Foundations
tblOffRoadEquipment	PhaseName		Timber Removal and Grubbing
tblOffRoadEquipment	PhaseName		Grading and Access Road Work
tblOffRoadEquipment	PhaseName		Foundations
tblOffRoadEquipment	PhaseName		Grading and Access Road Work
tblOffRoadEquipment	PhaseName		Timber Removal and Grubbing
tblOffRoadEquipment	PhaseName		Concrete Batch Plants
tblOffRoadEquipment	PhaseName		Foundations
tblOffRoadEquipment	UsageHours	6.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOnRoadDust	HaulingPercentPave	100.00	70.00
tblOnRoadDust	HaulingPercentPave	100.00	73.00
tblOnRoadDust	HaulingPercentPave	100.00	88.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblOnRoadDust	WorkerPercentPave	100.00	94.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00

Fountain Wind, Year 1 - Shasta County, Summer

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

tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblTripsAndVMT	HaulingTripLength	20.00	22.00
tblTripsAndVMT	HaulingTripLength	20.00	50.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	8,667.00
tblTripsAndVMT	HaulingTripNumber	21,344.00	5,887.00
tblTripsAndVMT	HaulingTripNumber	0.00	73.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripLength	10.80	50.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripNumber	35.00	58.00
tblTripsAndVMT	WorkerTripNumber	78.00	120.00
tblTripsAndVMT	WorkerTripNumber	65.00	60.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	WD_TR	3.93	0.00

2.0 Emissions Summary

Fountain Wind, Year 1 - Shasta County, Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0284	5.5600e-003	4.7700e-003	3.0000e-005	0.0000	4.2000e-004	4.2000e-004	0.0000	4.2000e-004	4.2000e-004		6.6723	6.6723	1.3000e-004	1.2000e-004	6.7119

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0284	5.5600e-003	4.7700e-003	3.0000e-005	0.0000	4.2000e-004	4.2000e-004	0.0000	4.2000e-004	4.2000e-004		6.6723	6.6723	1.3000e-004	1.2000e-004	6.7119

Fountain Wind, Year 1 - Shasta County, Summer

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

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Timber Removal and Grubbing	Site Preparation	4/1/2024	6/3/2024	6	55	
2	Grading and Access Road Work	Grading	5/7/2024	9/30/2024	6	126	
3	Concrete Batch Plants	Building Construction	9/5/2024	12/11/2024	5	70	
4	Foundations	Site Preparation	10/1/2024	12/20/2024	6	70	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 923.13

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Timber Removal and Grubbing	Off-Highway Trucks	16	10.00	402	0.38
Timber Removal and Grubbing	Other Construction Equipment	2	10.00	172	0.42
Timber Removal and Grubbing	Skid Steer Loaders	2	10.00	65	0.37
Timber Removal and Grubbing	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Grading and Access Road Work	Graders	3	10.00	187	0.41
Grading and Access Road Work	Off-Highway Trucks	30	10.00	402	0.38
Grading and Access Road Work	Plate Compactors	4	10.00	8	0.43

Fountain Wind, Year 1 - Shasta County, Summer

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

Grading and Access Road Work	Scrapers	4	10.00	247	0.40
Grading and Access Road Work	Tractors/Loaders/Backhoes	6	10.00	97	0.37
Concrete Batch Plants	Cement and Mortar Mixers	10	10.00	9	0.56
Concrete Batch Plants	Generator Sets	3	10.00	84	0.74
Concrete Batch Plants	Off-Highway Trucks	11	10.00	402	0.38
Concrete Batch Plants	Skid Steer Loaders	3	10.00	65	0.37
Foundations	Cranes	3	10.00	231	0.29
Foundations	Excavators	3	10.00	158	0.38
Foundations	Off-Highway Trucks	20	10.00	402	0.38
Foundations	Plate Compactors	4	10.00	89	0.20
Foundations	Skid Steer Loaders	3	10.00	187	0.41
Foundations	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
Timber Removal and Grubbing	14	58.00	0.00	8,667.00	10.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading and Access Road Work	31	120.00	6.00	5,887.00	50.00	7.30	22.00	LD_Mix	HDT_Mix	HHDT
Concrete Batch Plants	21	0.00	0.00	73.00	10.00	7.30	50.00	LD_Mix	HDT_Mix	HHDT
Foundations	26	60.00	0.00	0.00	10.00	7.30	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

Fountain Wind, Year 1 - Shasta County, Summer

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

3.2 Timber Removal and Grubbing - 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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	11.2859	80.2713	84.0867	0.2930		3.0432	3.0432		2.7997	2.7997		28,358.45 50	28,358.45 50	9.1717		28,587.74 74
Total	11.2859	80.2713	84.0867	0.2930	0.0000	3.0432	3.0432	0.0000	2.7997	2.7997		28,358.45 50	28,358.45 50	9.1717		28,587.74 74

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3954	20.6463	4.4644	0.0921	1,393.595 0	0.1997	1,393.794 7	139.4539	0.1911	139.6449		9,752.017 2	9,752.017 2	0.0184	1.5328	10,209.23 62
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
Worker	0.2018	0.0991	1.5492	4.0400e- 003	273.4620	2.3200e- 003	273.4644	27.3432	2.1300e- 003	27.3453		408.7464	408.7464	0.0111	0.0103	412.1050
Total	0.5972	20.7454	6.0136	0.0962	1,667.057 0	0.2020	1,667.259 1	166.7971	0.1932	166.9903		10,160.76 36	10,160.76 36	0.0295	1.5431	10,621.34 12

Fountain Wind, Year 1 - Shasta County, Summer

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

3.2 Timber Removal and Grubbing - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	3.6464	18.1551	140.1100	0.2930		0.4777	0.4777		0.4777	0.4777	0.0000	28,358.45 50	28,358.45 50	9.1717		28,587.74 74
Total	3.6464	18.1551	140.1100	0.2930	0.0000	0.4777	0.4777	0.0000	0.4777	0.4777	0.0000	28,358.45 50	28,358.45 50	9.1717		28,587.74 74

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3954	20.6463	4.4644	0.0921	224.6385	0.1997	224.8382	22.7877	0.1911	22.9788		9,752.017 2	9,752.017 2	0.0184	1.5328	10,209.23 62
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
Worker	0.2018	0.0991	1.5492	4.0400e-003	43.9980	2.3200e-003	44.0003	4.4422	2.1300e-003	4.4443		408.7464	408.7464	0.0111	0.0103	412.1050
Total	0.5972	20.7454	6.0136	0.0962	268.6366	0.2020	268.8386	27.2299	0.1932	27.4231		10,160.76 36	10,160.76 36	0.0295	1.5431	10,621.34 12

Fountain Wind, Year 1 - Shasta County, Summer

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

3.3 Grading and Access Road Work - 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	lb/day										lb/day					
Fugitive Dust					7.9697	0.0000	7.9697	0.8692	0.0000	0.8692			0.0000			0.0000
Off-Road	23.8742	178.7551	160.0934	0.5889		6.7060	6.7060		6.1734	6.1734		56,940.00 12	56,940.00 12	18.3777		57,399.44 34
Total	23.8742	178.7551	160.0934	0.5889	7.9697	6.7060	14.6757	0.8692	6.1734	7.0427		56,940.00 12	56,940.00 12	18.3777		57,399.44 34

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1227	6.6387	1.3704	0.0299	409.1520	0.0651	409.2171	40.9586	0.0623	41.0208		3,165.348 8	3,165.348 8	5.7100e-003	0.4975	3,313.748 2
Vendor	8.6900e-003	0.2864	0.0921	1.2300e-003	0.0407	1.9500e-003	0.0426	0.0117	1.8600e-003	0.0136		130.1673	130.1673	4.7000e-004	0.0189	135.8156
Worker	1.1730	0.7900	13.8275	0.0409	534.1257	0.0217	534.1475	54.0182	0.0200	54.0382		4,134.737 1	4,134.737 1	0.0635	0.0785	4,159.712 8
Total	1.3043	7.7151	15.2900	0.0720	943.3184	0.0888	943.4071	94.9884	0.0841	95.0726		7,430.253 3	7,430.253 3	0.0697	0.5949	7,609.276 6

Fountain Wind, Year 1 - Shasta County, Summer

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

3.3 Grading and Access Road Work - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.9697	0.0000	7.9697	0.8692	0.0000	0.8692			0.0000			0.0000
Off-Road	7.1739	31.0867	270.1628	0.5889		0.9565	0.9565		0.9565	0.9565	0.0000	56,940.00 11	56,940.00 11	18.3777		57,399.44 34
Total	7.1739	31.0867	270.1628	0.5889	7.9697	0.9565	8.9262	0.8692	0.9565	1.8258	0.0000	56,940.00 11	56,940.00 11	18.3777		57,399.44 34

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1227	6.6387	1.3704	0.0299	66.0220	0.0651	66.0871	6.7121	0.0623	6.7743		3,165.348 8	3,165.348 8	5.7100e-003	0.4975	3,313.748 2
Vendor	8.6900e-003	0.2864	0.0921	1.2300e-003	0.0381	1.9500e-003	0.0400	0.0111	1.8600e-003	0.0129		130.1673	130.1673	4.7000e-004	0.0189	135.8156
Worker	1.1730	0.7900	13.8275	0.0409	88.7546	0.0217	88.7764	9.5269	0.0200	9.5469		4,134.737 1	4,134.737 1	0.0635	0.0785	4,159.712 8
Total	1.3043	7.7151	15.2900	0.0720	154.8147	0.0888	154.9035	16.2500	0.0841	16.3341		7,430.253 3	7,430.253 3	0.0697	0.5949	7,609.276 6

Fountain Wind, Year 1 - Shasta County, Summer

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

3.4 Concrete Batch Plants - 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	lb/day										lb/day					
Off-Road	8.8711	63.0016	67.4766	0.2232		2.3413	2.3413		2.2015	2.2015		21,324.77 91	21,324.77 91	6.0971		21,477.20 72
Total	8.8711	63.0016	67.4766	0.2232		2.3413	2.3413		2.2015	2.2015		21,324.77 91	21,324.77 91	6.0971		21,477.20 72

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.4400e-003	0.3098	0.0452	1.4800e-003	0.0457	3.2900e-003	0.0489	0.0125	3.1400e-003	0.0157		156.2491	156.2491	2.1000e-004	0.0246	163.5725
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
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.4400e-003	0.3098	0.0452	1.4800e-003	0.0457	3.2900e-003	0.0489	0.0125	3.1400e-003	0.0157		156.2491	156.2491	2.1000e-004	0.0246	163.5725

Fountain Wind, Year 1 - Shasta County, Summer

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

3.4 Concrete Batch Plants - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6603	15.0591	102.5970	0.2232		0.3420	0.3420		0.3420	0.3420	0.0000	21,324.77 91	21,324.77 91	6.0971		21,477.20 72
Total	2.6603	15.0591	102.5970	0.2232		0.3420	0.3420		0.3420	0.3420	0.0000	21,324.77 91	21,324.77 91	6.0971		21,477.20 72

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.4400e-003	0.3098	0.0452	1.4800e-003	0.0426	3.2900e-003	0.0458	0.0118	3.1400e-003	0.0149		156.2491	156.2491	2.1000e-004	0.0246	163.5725
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
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.4400e-003	0.3098	0.0452	1.4800e-003	0.0426	3.2900e-003	0.0458	0.0118	3.1400e-003	0.0149		156.2491	156.2491	2.1000e-004	0.0246	163.5725

Fountain Wind, Year 1 - Shasta County, Summer

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

3.5 Foundations - 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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	14.8853	107.0291	108.5382	0.3834		4.0506	4.0506		3.7266	3.7266		37,111.90 87	37,111.90 87	12.0027		37,411.97 73
Total	14.8853	107.0291	108.5382	0.3834	0.0000	4.0506	4.0506	0.0000	3.7266	3.7266		37,111.90 87	37,111.90 87	12.0027		37,411.97 73

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.2088	0.1026	1.6026	4.1800e-003	282.8918	2.4000e-003	282.8942	28.2861	2.2100e-003	28.2883		422.8411	422.8411	0.0115	0.0107	426.3155
Total	0.2088	0.1026	1.6026	4.1800e-003	282.8918	2.4000e-003	282.8942	28.2861	2.2100e-003	28.2883		422.8411	422.8411	0.0115	0.0107	426.3155

Fountain Wind, Year 1 - Shasta County, Summer

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

3.5 Foundations - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	4.6879	20.3141	181.4051	0.3834		0.6251	0.6251		0.6251	0.6251	0.0000	37,111.90 86	37,111.90 86	12.0027		37,411.97 72
Total	4.6879	20.3141	181.4051	0.3834	0.0000	0.6251	0.6251	0.0000	0.6251	0.6251	0.0000	37,111.90 86	37,111.90 86	12.0027		37,411.97 72

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.2088	0.1026	1.6026	4.1800e-003	45.5152	2.4000e-003	45.5176	4.5953	2.2100e-003	4.5975		422.8411	422.8411	0.0115	0.0107	426.3155
Total	0.2088	0.1026	1.6026	4.1800e-003	45.5152	2.4000e-003	45.5176	4.5953	2.2100e-003	4.5975		422.8411	422.8411	0.0115	0.0107	426.3155

Fountain Wind, Year 1 - Shasta County, Summer

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

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

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	0.00	0.00	0.00	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
General Heavy Industry	0.496817	0.053869	0.185478	0.139329	0.040637	0.008838	0.009512	0.023153	0.000626	0.000165	0.034569	0.001403	0.005605

Fountain Wind, Year 1 - Shasta County, Summer

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
NaturalGas Unmitigated	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	56.7123	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Total		6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117

Fountain Wind, Year 1 - Shasta County, Summer

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

5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	0.0567123	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Total		6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Fountain Wind, Year 1 - Shasta County, Summer

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.3500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Fountain Wind, Year 1 - Shasta County, Summer

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.3500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

Fountain Wind, Year 1 - Shasta County, Summer

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Fountain Wind, Year 1 - Shasta County, Winter

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

Fountain Wind, Year 1

Shasta County, Winter

1.0 Project Characteristics

1.1 Land Usage

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

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	82
Climate Zone	3			Operational Year	2026
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction schedule provided, no construction anticipated during winter months (January through March).

Off-road Equipment - provided

Off-road Equipment - construction equipment provided

Off-road Equipment - equipment provided

Off-road Equipment - support equipment necessary during Year 1 construction

Off-road Equipment - equipment provided

Trips and VMT - construction trips pulled from 2019, reduced based on project description

On-road Fugitive Dust - per 2019 CalEEMod assumptions

Grading - total acres graded and material exported assumed to be ~0.67 of 2019 assumptions

Vehicle Trips - construction only

Fountain Wind, Year 1 - Shasta County, Winter

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

Construction Off-road Equipment Mitigation - based on 2019 assumptions

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	37.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	100.00	70.00

Fountain Wind, Year 1 - Shasta County, Winter

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

tblConstructionPhase	NumDays	2.00	126.00
tblConstructionPhase	NumDays	1.00	55.00
tblConstructionPhase	NumDays	1.00	70.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	AcresOfGrading	866.25	923.13
tblGrading	MaterialExported	0.00	170,752.00
tblOffRoadEquipment	HorsePower	8.00	89.00
tblOffRoadEquipment	HorsePower	367.00	247.00
tblOffRoadEquipment	HorsePower	65.00	187.00
tblOffRoadEquipment	LoadFactor	0.43	0.20
tblOffRoadEquipment	LoadFactor	0.48	0.40
tblOffRoadEquipment	LoadFactor	0.37	0.41
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	16.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	30.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	11.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	20.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00

Fountain Wind, Year 1 - Shasta County, Winter

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

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	PhaseName		Concrete Batch Plants
tblOffRoadEquipment	PhaseName		Foundations
tblOffRoadEquipment	PhaseName		Foundations
tblOffRoadEquipment	PhaseName		Concrete Batch Plants
tblOffRoadEquipment	PhaseName		Timber Removal and Grubbing
tblOffRoadEquipment	PhaseName		Grading and Access Road Work
tblOffRoadEquipment	PhaseName		Concrete Batch Plants
tblOffRoadEquipment	PhaseName		Foundations
tblOffRoadEquipment	PhaseName		Timber Removal and Grubbing
tblOffRoadEquipment	PhaseName		Grading and Access Road Work
tblOffRoadEquipment	PhaseName		Foundations
tblOffRoadEquipment	PhaseName		Grading and Access Road Work
tblOffRoadEquipment	PhaseName		Timber Removal and Grubbing
tblOffRoadEquipment	PhaseName		Concrete Batch Plants
tblOffRoadEquipment	PhaseName		Foundations
tblOffRoadEquipment	UsageHours	6.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOnRoadDust	HaulingPercentPave	100.00	70.00
tblOnRoadDust	HaulingPercentPave	100.00	73.00
tblOnRoadDust	HaulingPercentPave	100.00	88.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblOnRoadDust	WorkerPercentPave	100.00	94.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00

Fountain Wind, Year 1 - Shasta County, Winter

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

tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblTripsAndVMT	HaulingTripLength	20.00	22.00
tblTripsAndVMT	HaulingTripLength	20.00	50.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	8,667.00
tblTripsAndVMT	HaulingTripNumber	21,344.00	5,887.00
tblTripsAndVMT	HaulingTripNumber	0.00	73.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripLength	10.80	50.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripNumber	35.00	58.00
tblTripsAndVMT	WorkerTripNumber	78.00	120.00
tblTripsAndVMT	WorkerTripNumber	65.00	60.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	WD_TR	3.93	0.00

2.0 Emissions Summary

Fountain Wind, Year 1 - Shasta County, Winter

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0284	5.5600e-003	4.7700e-003	3.0000e-005	0.0000	4.2000e-004	4.2000e-004	0.0000	4.2000e-004	4.2000e-004		6.6723	6.6723	1.3000e-004	1.2000e-004	6.7119

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0284	5.5600e-003	4.7700e-003	3.0000e-005	0.0000	4.2000e-004	4.2000e-004	0.0000	4.2000e-004	4.2000e-004		6.6723	6.6723	1.3000e-004	1.2000e-004	6.7119

Fountain Wind, Year 1 - Shasta County, Winter

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

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Timber Removal and Grubbing	Site Preparation	4/1/2024	6/3/2024	6	55	
2	Grading and Access Road Work	Grading	5/7/2024	9/30/2024	6	126	
3	Concrete Batch Plants	Building Construction	9/5/2024	12/11/2024	5	70	
4	Foundations	Site Preparation	10/1/2024	12/20/2024	6	70	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 923.13

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Timber Removal and Grubbing	Off-Highway Trucks	16	10.00	402	0.38
Timber Removal and Grubbing	Other Construction Equipment	2	10.00	172	0.42
Timber Removal and Grubbing	Skid Steer Loaders	2	10.00	65	0.37
Timber Removal and Grubbing	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Grading and Access Road Work	Graders	3	10.00	187	0.41
Grading and Access Road Work	Off-Highway Trucks	30	10.00	402	0.38
Grading and Access Road Work	Plate Compactors	4	10.00	8	0.43

Fountain Wind, Year 1 - Shasta County, Winter

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

Grading and Access Road Work	Scrapers	4	10.00	247	0.40
Grading and Access Road Work	Tractors/Loaders/Backhoes	6	10.00	97	0.37
Concrete Batch Plants	Cement and Mortar Mixers	10	10.00	9	0.56
Concrete Batch Plants	Generator Sets	3	10.00	84	0.74
Concrete Batch Plants	Off-Highway Trucks	11	10.00	402	0.38
Concrete Batch Plants	Skid Steer Loaders	3	10.00	65	0.37
Foundations	Cranes	3	10.00	231	0.29
Foundations	Excavators	3	10.00	158	0.38
Foundations	Off-Highway Trucks	20	10.00	402	0.38
Foundations	Plate Compactors	4	10.00	89	0.20
Foundations	Skid Steer Loaders	3	10.00	187	0.41
Foundations	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
Timber Removal and Grubbing	14	58.00	0.00	8,667.00	10.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading and Access Road Work	31	120.00	6.00	5,887.00	50.00	7.30	22.00	LD_Mix	HDT_Mix	HHDT
Concrete Batch Plants	21	0.00	0.00	73.00	10.00	7.30	50.00	LD_Mix	HDT_Mix	HHDT
Foundations	26	60.00	0.00	0.00	10.00	7.30	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

Fountain Wind, Year 1 - Shasta County, Winter

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

3.2 Timber Removal and Grubbing - 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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	11.2859	80.2713	84.0867	0.2930		3.0432	3.0432		2.7997	2.7997		28,358.45 50	28,358.45 50	9.1717		28,587.74 74
Total	11.2859	80.2713	84.0867	0.2930	0.0000	3.0432	3.0432	0.0000	2.7997	2.7997		28,358.45 50	28,358.45 50	9.1717		28,587.74 74

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3675	22.3048	4.5567	0.0923	1,393.595 0	0.2000	1,393.795 0	139.4539	0.1913	139.6452		9,765.902 0	9,765.902 0	0.0171	1.5350	10,223.74 33
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
Worker	0.1685	0.1180	1.3117	3.5600e- 003	273.4620	2.3200e- 003	273.4644	27.3432	2.1300e- 003	27.3453		359.5877	359.5877	0.0127	0.0116	363.3621
Total	0.5360	22.4228	5.8684	0.0958	1,667.057 0	0.2023	1,667.259 3	166.7971	0.1935	166.9905		10,125.48 97	10,125.48 97	0.0298	1.5466	10,587.10 54

Fountain Wind, Year 1 - Shasta County, Winter

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

3.2 Timber Removal and Grubbing - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	3.6464	18.1551	140.1100	0.2930		0.4777	0.4777		0.4777	0.4777	0.0000	28,358.45 50	28,358.45 50	9.1717		28,587.74 74
Total	3.6464	18.1551	140.1100	0.2930	0.0000	0.4777	0.4777	0.0000	0.4777	0.4777	0.0000	28,358.45 50	28,358.45 50	9.1717		28,587.74 74

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3675	22.3048	4.5567	0.0923	224.6385	0.2000	224.8385	22.7877	0.1913	22.9791		9,765.902 0	9,765.902 0	0.0171	1.5350	10,223.74 33
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
Worker	0.1685	0.1180	1.3117	3.5600e-003	43.9980	2.3200e-003	44.0003	4.4422	2.1300e-003	4.4443		359.5877	359.5877	0.0127	0.0116	363.3621
Total	0.5360	22.4228	5.8684	0.0958	268.6366	0.2023	268.8389	27.2299	0.1935	27.4234		10,125.48 97	10,125.48 97	0.0298	1.5466	10,587.10 54

Fountain Wind, Year 1 - Shasta County, Winter

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

3.3 Grading and Access Road Work - 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	lb/day										lb/day					
Fugitive Dust					7.9697	0.0000	7.9697	0.8692	0.0000	0.8692			0.0000			0.0000
Off-Road	23.8742	178.7551	160.0934	0.5889		6.7060	6.7060		6.1734	6.1734		56,940.00 12	56,940.00 12	18.3777		57,399.44 34
Total	23.8742	178.7551	160.0934	0.5889	7.9697	6.7060	14.6757	0.8692	6.1734	7.0427		56,940.00 12	56,940.00 12	18.3777		57,399.44 34

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1144	7.1715	1.3977	0.0299	409.1520	0.0652	409.2171	40.9586	0.0623	41.0209		3,169.465 6	3,169.465 6	5.3300e-003	0.4982	3,318.049 6
Vendor	8.2400e-003	0.3091	0.0960	1.2400e-003	0.0407	1.9500e-003	0.0426	0.0117	1.8700e-003	0.0136		130.4312	130.4312	4.5000e-004	0.0190	136.0996
Worker	1.1830	0.9409	10.3620	0.0359	534.1257	0.0217	534.1475	54.0182	0.0200	54.0382		3,628.212 6	3,628.212 6	0.0578	0.0880	3,655.868 5
Total	1.3057	8.4215	11.8557	0.0671	943.3184	0.0889	943.4072	94.9884	0.0842	95.0727		6,928.109 4	6,928.109 4	0.0635	0.6051	7,110.017 7

Fountain Wind, Year 1 - Shasta County, Winter

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

3.3 Grading and Access Road Work - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.9697	0.0000	7.9697	0.8692	0.0000	0.8692			0.0000			0.0000
Off-Road	7.1739	31.0867	270.1628	0.5889		0.9565	0.9565		0.9565	0.9565	0.0000	56,940.00 11	56,940.00 11	18.3777		57,399.44 34
Total	7.1739	31.0867	270.1628	0.5889	7.9697	0.9565	8.9262	0.8692	0.9565	1.8258	0.0000	56,940.00 11	56,940.00 11	18.3777		57,399.44 34

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1144	7.1715	1.3977	0.0299	66.0220	0.0652	66.0872	6.7121	0.0623	6.7744		3,169.465 6	3,169.465 6	5.3300e-003	0.4982	3,318.049 6
Vendor	8.2400e-003	0.3091	0.0960	1.2400e-003	0.0381	1.9500e-003	0.0400	0.0111	1.8700e-003	0.0129		130.4312	130.4312	4.5000e-004	0.0190	136.0996
Worker	1.1830	0.9409	10.3620	0.0359	88.7546	0.0217	88.7764	9.5269	0.0200	9.5469		3,628.212 6	3,628.212 6	0.0578	0.0880	3,655.868 5
Total	1.3057	8.4215	11.8557	0.0671	154.8147	0.0889	154.9035	16.2500	0.0842	16.3342		6,928.109 4	6,928.109 4	0.0635	0.6051	7,110.017 7

Fountain Wind, Year 1 - Shasta County, Winter

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

3.4 Concrete Batch Plants - 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	lb/day										lb/day					
Off-Road	8.8711	63.0016	67.4766	0.2232		2.3413	2.3413		2.2015	2.2015		21,324.77 91	21,324.77 91	6.0971		21,477.20 72
Total	8.8711	63.0016	67.4766	0.2232		2.3413	2.3413		2.2015	2.2015		21,324.77 91	21,324.77 91	6.0971		21,477.20 72

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.2600e-003	0.3345	0.0458	1.4800e-003	0.0457	3.2900e-003	0.0489	0.0125	3.1500e-003	0.0157		156.3409	156.3409	2.0000e-004	0.0246	163.6686
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
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.2600e-003	0.3345	0.0458	1.4800e-003	0.0457	3.2900e-003	0.0489	0.0125	3.1500e-003	0.0157		156.3409	156.3409	2.0000e-004	0.0246	163.6686

Fountain Wind, Year 1 - Shasta County, Winter

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

3.4 Concrete Batch Plants - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6603	15.0591	102.5970	0.2232		0.3420	0.3420		0.3420	0.3420	0.0000	21,324.77 91	21,324.77 91	6.0971		21,477.20 72
Total	2.6603	15.0591	102.5970	0.2232		0.3420	0.3420		0.3420	0.3420	0.0000	21,324.77 91	21,324.77 91	6.0971		21,477.20 72

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.2600e-003	0.3345	0.0458	1.4800e-003	0.0426	3.2900e-003	0.0458	0.0118	3.1500e-003	0.0149		156.3409	156.3409	2.0000e-004	0.0246	163.6686
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
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.2600e-003	0.3345	0.0458	1.4800e-003	0.0426	3.2900e-003	0.0458	0.0118	3.1500e-003	0.0149		156.3409	156.3409	2.0000e-004	0.0246	163.6686

Fountain Wind, Year 1 - Shasta County, Winter

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

3.5 Foundations - 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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	14.8853	107.0291	108.5382	0.3834		4.0506	4.0506		3.7266	3.7266		37,111.90 87	37,111.90 87	12.0027		37,411.97 73
Total	14.8853	107.0291	108.5382	0.3834	0.0000	4.0506	4.0506	0.0000	3.7266	3.7266		37,111.90 87	37,111.90 87	12.0027		37,411.97 73

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.1743	0.1220	1.3569	3.6800e-003	282.8918	2.4000e-003	282.8942	28.2861	2.2100e-003	28.2883		371.9873	371.9873	0.0132	0.0120	375.8918
Total	0.1743	0.1220	1.3569	3.6800e-003	282.8918	2.4000e-003	282.8942	28.2861	2.2100e-003	28.2883		371.9873	371.9873	0.0132	0.0120	375.8918

Fountain Wind, Year 1 - Shasta County, Winter

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

3.5 Foundations - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	4.6879	20.3141	181.4051	0.3834		0.6251	0.6251		0.6251	0.6251	0.0000	37,111.90 86	37,111.90 86	12.0027		37,411.97 72
Total	4.6879	20.3141	181.4051	0.3834	0.0000	0.6251	0.6251	0.0000	0.6251	0.6251	0.0000	37,111.90 86	37,111.90 86	12.0027		37,411.97 72

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.1743	0.1220	1.3569	3.6800e-003	45.5152	2.4000e-003	45.5176	4.5953	2.2100e-003	4.5975		371.9873	371.9873	0.0132	0.0120	375.8918
Total	0.1743	0.1220	1.3569	3.6800e-003	45.5152	2.4000e-003	45.5176	4.5953	2.2100e-003	4.5975		371.9873	371.9873	0.0132	0.0120	375.8918

Fountain Wind, Year 1 - Shasta County, Winter

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

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

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	0.00	0.00	0.00	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
General Heavy Industry	0.496817	0.053869	0.185478	0.139329	0.040637	0.008838	0.009512	0.023153	0.000626	0.000165	0.034569	0.001403	0.005605

Fountain Wind, Year 1 - Shasta County, Winter

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
NaturalGas Unmitigated	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	56.7123	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Total		6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117

Fountain Wind, Year 1 - Shasta County, Winter

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	0.0567123	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Total		6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Fountain Wind, Year 1 - Shasta County, Winter

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.3500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Fountain Wind, Year 1 - Shasta County, Winter

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.3500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

Fountain Wind, Year 1 - Shasta County, Winter

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

Fountain Wind, Year 2 - Shasta County, Annual

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

**Fountain Wind, Year 2
Shasta County, Annual**

1.0 Project Characteristics

1.1 Land Usage

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

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	82
Climate Zone	3			Operational Year	2026
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction schedule provided, no construction anticipated during winter months (January through March).

Off-road Equipment - provided

Off-road Equipment - construction equipment provided

Off-road Equipment - construction equipment provided

Off-road Equipment - construction equipment provided

Off-road Equipment - construction equipment provided

Off-road Equipment - construction equipment provided. Turbine delivery trucks modeled within hauling truck trips.

Off-road Equipment - construction equipment provided

Trips and VMT - construction trips pulled from 2019, reduced based on project description

On-road Fugitive Dust - per 2019 CalEEMod assumptions

Fountain Wind, Year 2 - Shasta County, Annual

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	100.00	66.00
tblConstructionPhase	NumDays	1.00	160.00
tblConstructionPhase	NumDays	1.00	95.00
tblConstructionPhase	NumDays	100.00	95.00
tblConstructionPhase	NumDays	100.00	15.00
tblConstructionPhase	NumDays	100.00	20.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	4.00	10.00
tblOffRoadEquipment	UsageHours	4.00	10.00
tblOffRoadEquipment	UsageHours	4.00	10.00
tblOffRoadEquipment	UsageHours	6.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00

Fountain Wind, Year 2 - Shasta County, Annual

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

tblOffRoadEquipment	UsageHours	8.00	10.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	HaulingPercentPave	100.00	88.00
tblOnRoadDust	HaulingPercentPave	100.00	70.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblOnRoadDust	WorkerPercentPave	100.00	94.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblTripsAndVMT	HaulingTripLength	20.00	258.00
tblTripsAndVMT	HaulingTripLength	20.00	50.00
tblTripsAndVMT	HaulingTripNumber	0.00	3,557.00
tblTripsAndVMT	HaulingTripNumber	0.00	243.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,411.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripLength	10.80	50.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripNumber	0.00	25.00
tblTripsAndVMT	WorkerTripNumber	18.00	87.00
tblTripsAndVMT	WorkerTripNumber	33.00	25.00
tblTripsAndVMT	WorkerTripNumber	0.00	25.00
tblTripsAndVMT	WorkerTripNumber	0.00	25.00
tblTripsAndVMT	WorkerTripNumber	0.00	25.00

Fountain Wind, Year 2 - Shasta County, Annual

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

tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	WD_TR	3.93	0.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

2.0 Emissions Summary

Fountain Wind, Year 2 - Shasta County, Annual

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2025	6-30-2025	5.9559	3.1717
2	7-1-2025	9-30-2025	2.3850	0.8500
		Highest	5.9559	3.1717

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	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.9013	1.9013	1.5000e-004	4.0000e-005	1.9157
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.2517	0.0000	0.2517	0.0149	0.0000	0.6236
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.1800e-003	1.0100e-003	8.6000e-004	1.0000e-005	0.0000	8.0000e-005	8.0000e-005	0.0000	8.0000e-005	8.0000e-005	0.2517	1.9013	2.1530	0.0150	4.0000e-005	2.5393

Fountain Wind, Year 2 - Shasta County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.9013	1.9013	1.5000e-004	4.0000e-005	1.9157
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.2517	0.0000	0.2517	0.0149	0.0000	0.6236
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.1800e-003	1.0100e-003	8.6000e-004	1.0000e-005	0.0000	8.0000e-005	8.0000e-005	0.0000	8.0000e-005	8.0000e-005	0.2517	1.9013	2.1530	0.0150	4.0000e-005	2.5393

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Turbine and Transformer Installation	Building Construction	4/1/2025	6/16/2025	6	66	
2	Substation and O&M Building Installation	Site Preparation	4/22/2025	10/24/2025	6	160	
3	Underground Collection System	Site Preparation	5/14/2025	9/1/2025	6	95	

Fountain Wind, Year 2 - Shasta County, Annual

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

4	Overhead Collection System	Building Construction	7/25/2025	11/12/2025	6	95
5	Substation Aggregate and Security Fence	Building Construction	9/30/2025	10/16/2025	6	15
6	Transmission Line Connection	Building Construction	11/13/2025	12/5/2025	6	20

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Turbine and Transformer Installation	Cranes	10	10.00	231	0.29
Turbine and Transformer Installation	Forklifts	10	10.00	89	0.20
Turbine and Transformer Installation	Generator Sets	4	10.00	84	0.74
Turbine and Transformer Installation	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Substation and O&M Building Installation	Cranes	2	10.00	231	0.29
Substation and O&M Building Installation	Forklifts	3	10.00	89	0.20
Substation and O&M Building Installation	Skid Steer Loaders	2	10.00	65	0.37
Underground Collection System	Forklifts	4	10.00	89	0.20
Underground Collection System	Skid Steer Loaders	4	10.00	65	0.37
Underground Collection System	Tractors/Loaders/Backhoes	1	10.00	97	0.37
Underground Collection System	Trenchers	4	10.00	78	0.50
Overhead Collection System	Aerial Lifts	6	10.00	63	0.31
Overhead Collection System	Cranes	2	10.00	231	0.29
Overhead Collection System	Off-Highway Trucks	3	10.00	402	0.38
Overhead Collection System	Tractors/Loaders/Backhoes	5	10.00	97	0.37
Substation Aggregate and Security Fence	Skid Steer Loaders	1	10.00	65	0.37

Fountain Wind, Year 2 - Shasta County, Annual

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

Transmission Line Connection	Aerial Lifts	6	10.00	63	0.31
Transmission Line Connection	Cranes	6	10.00	231	0.29
Transmission Line Connection	Excavators	2	10.00	158	0.38
Transmission Line Connection	Off-Highway Trucks	4	10.00	402	0.38
Transmission Line Connection	Tractors/Loaders/Backhoes	1	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
Turbine and Transformer Installation	26	25.00	0.00	3,557.00	10.00	7.30	258.00	LD_Mix	HDT_Mix	HHDT
Substation and O&M Building Installation	7	87.00	0.00	243.00	50.00	7.30	50.00	LD_Mix	HDT_Mix	HHDT
Underground Collection System	13	25.00	0.00	0.00	10.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Overhead Collection System	16	25.00	6.00	0.00	10.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Substation Aggregate and Security Fence	1	25.00	0.00	1,411.00	10.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Transmission Line Connection	19	25.00	6.00	0.00	10.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Use Cleaner Engines for Construction Equipment
- Use Soil Stabilizer
- Replace Ground Cover
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads
- Clean Paved Roads

Fountain Wind, Year 2 - Shasta County, Annual

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

3.2 Turbine and Transformer Installation - 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	0.2197	2.1498	1.9717	4.3500e-003		0.0938	0.0938		0.0876	0.0876	0.0000	380.3815	380.3815	0.0963	0.0000	382.7892
Total	0.2197	2.1498	1.9717	4.3500e-003		0.0938	0.0938		0.0876	0.0876	0.0000	380.3815	380.3815	0.0963	0.0000	382.7892

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	0.0284	2.6579	0.2612	0.0125	10.8504	0.0285	10.8788	1.1494	0.0272	1.1767	0.0000	1,197.8315	1,197.8315	1.2000e-003	0.1883	1,253.9645
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1700e-003	1.3500e-003	0.0174	5.0000e-005	3.0167	3.0000e-005	3.0167	0.3018	3.0000e-005	0.3018	0.0000	4.7568	4.7568	1.4000e-004	1.3000e-004	4.7989
Total	0.0306	2.6593	0.2786	0.0125	13.8671	0.0285	13.8956	1.4512	0.0273	1.4785	0.0000	1,202.5882	1,202.5882	1.3400e-003	0.1884	1,258.7634

Fountain Wind, Year 2 - Shasta County, Annual

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

3.2 Turbine and Transformer Installation - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0510	0.2210	2.4139	4.3500e-003		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	380.3811	380.3811	0.0963	0.0000	382.7888
Total	0.0510	0.2210	2.4139	4.3500e-003		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	380.3811	380.3811	0.0963	0.0000	382.7888

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0284	2.6579	0.2612	0.0125	1.3794	0.0285	1.4078	0.2005	0.0272	0.2278	0.0000	1,197.8315	1,197.8315	1.2000e-003	0.1883	1,253.9645
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1700e-003	1.3500e-003	0.0174	5.0000e-005	0.2991	3.0000e-005	0.2991	0.0305	3.0000e-005	0.0305	0.0000	4.7568	4.7568	1.4000e-004	1.3000e-004	4.7989
Total	0.0306	2.6593	0.2786	0.0125	1.6785	0.0285	1.7070	0.2311	0.0273	0.2583	0.0000	1,202.5882	1,202.5882	1.3400e-003	0.1884	1,258.7634

Fountain Wind, Year 2 - Shasta County, Annual

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

3.3 Substation and O&M Building Installation - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1005	1.0376	0.9633	2.0300e-003		0.0449	0.0449		0.0413	0.0413	0.0000	178.0527	178.0527	0.0576	0.0000	179.4923
Total	0.1005	1.0376	0.9633	2.0300e-003	0.0000	0.0449	0.0449	0.0000	0.0413	0.0413	0.0000	178.0527	178.0527	0.0576	0.0000	179.4923

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	5.0000e-004	0.0373	5.2800e-003	1.7000e-004	0.8365	3.8000e-004	0.8369	0.0843	3.6000e-004	0.0847	0.0000	16.1463	16.1463	2.0000e-005	2.5400e-003	16.9030
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	0.0583	0.0435	0.5858	2.0700e-003	24.0637	1.2100e-003	24.0649	2.4412	1.1100e-003	2.4423	0.0000	195.8535	195.8535	2.7200e-003	3.9900e-003	197.1116
Total	0.0588	0.0808	0.5911	2.2400e-003	24.9002	1.5900e-003	24.9018	2.5255	1.4700e-003	2.5270	0.0000	211.9998	211.9998	2.7400e-003	6.5300e-003	214.0147

Fountain Wind, Year 2 - Shasta County, Annual

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

3.3 Substation and O&M Building Installation - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0300	0.3184	1.1822	2.0300e-003		3.3200e-003	3.3200e-003		3.3200e-003	3.3200e-003	0.0000	178.0525	178.0525	0.0576	0.0000	179.4921
Total	0.0300	0.3184	1.1822	2.0300e-003	0.0000	3.3200e-003	3.3200e-003	0.0000	3.3200e-003	3.3200e-003	0.0000	178.0525	178.0525	0.0576	0.0000	179.4921

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-004	0.0373	5.2800e-003	1.7000e-004	0.0858	3.8000e-004	0.0862	9.3400e-003	3.6000e-004	9.7000e-003	0.0000	16.1463	16.1463	2.0000e-005	2.5400e-003	16.9030
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	0.0583	0.0435	0.5858	2.0700e-003	2.5541	1.2100e-003	2.5553	0.2918	1.1100e-003	0.2929	0.0000	195.8535	195.8535	2.7200e-003	3.9900e-003	197.1116
Total	0.0588	0.0808	0.5911	2.2400e-003	2.6399	1.5900e-003	2.6415	0.3012	1.4700e-003	0.3026	0.0000	211.9998	211.9998	2.7400e-003	6.5300e-003	214.0147

Fountain Wind, Year 2 - Shasta County, Annual

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

3.4 Underground Collection System - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1171	1.1608	1.3393	1.8400e-003		0.0659	0.0659		0.0606	0.0606	0.0000	161.8864	161.8864	0.0524	0.0000	163.1953
Total	0.1171	1.1608	1.3393	1.8400e-003	0.0000	0.0659	0.0659	0.0000	0.0606	0.0606	0.0000	161.8864	161.8864	0.0524	0.0000	163.1953

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1300e-003	1.9500e-003	0.0250	7.0000e-005	4.3422	5.0000e-005	4.3423	0.4344	4.0000e-005	0.4344	0.0000	6.8468	6.8468	2.0000e-004	1.9000e-004	6.9075
Total	3.1300e-003	1.9500e-003	0.0250	7.0000e-005	4.3422	5.0000e-005	4.3423	0.4344	4.0000e-005	0.4344	0.0000	6.8468	6.8468	2.0000e-004	1.9000e-004	6.9075

Fountain Wind, Year 2 - Shasta County, Annual

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

3.4 Underground Collection System - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0286	0.3477	1.3921	1.8400e-003		3.0100e-003	3.0100e-003		3.0100e-003	3.0100e-003	0.0000	161.8862	161.8862	0.0524	0.0000	163.1951
Total	0.0286	0.3477	1.3921	1.8400e-003	0.0000	3.0100e-003	3.0100e-003	0.0000	3.0100e-003	3.0100e-003	0.0000	161.8862	161.8862	0.0524	0.0000	163.1951

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1300e-003	1.9500e-003	0.0250	7.0000e-005	0.4305	5.0000e-005	0.4306	0.0439	4.0000e-005	0.0440	0.0000	6.8468	6.8468	2.0000e-004	1.9000e-004	6.9075
Total	3.1300e-003	1.9500e-003	0.0250	7.0000e-005	0.4305	5.0000e-005	0.4306	0.0439	4.0000e-005	0.0440	0.0000	6.8468	6.8468	2.0000e-004	1.9000e-004	6.9075

Fountain Wind, Year 2 - Shasta County, Annual

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

3.5 Overhead Collection System - 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	0.1736	1.4685	1.8242	4.5700e-003		0.0535	0.0535		0.0492	0.0492	0.0000	400.8931	400.8931	0.1297	0.0000	404.1345
Total	0.1736	1.4685	1.8242	4.5700e-003		0.0535	0.0535		0.0492	0.0492	0.0000	400.8931	400.8931	0.1297	0.0000	404.1345

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	3.9000e-004	0.0141	4.3600e-003	6.0000e-005	1.8500e-003	9.0000e-005	1.9500e-003	5.4000e-004	9.0000e-005	6.2000e-004	0.0000	5.5149	5.5149	2.0000e-005	8.0000e-004	5.7541
Worker	3.1300e-003	1.9500e-003	0.0250	7.0000e-005	4.3422	5.0000e-005	4.3423	0.4344	4.0000e-005	0.4344	0.0000	6.8468	6.8468	2.0000e-004	1.9000e-004	6.9075
Total	3.5200e-003	0.0161	0.0294	1.3000e-004	4.3441	1.4000e-004	4.3442	0.4349	1.3000e-004	0.4351	0.0000	12.3618	12.3618	2.2000e-004	9.9000e-004	12.6617

Fountain Wind, Year 2 - Shasta County, Annual

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

3.5 Overhead Collection System - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0632	0.5463	2.5138	4.5700e-003		7.4500e-003	7.4500e-003		7.4500e-003	7.4500e-003	0.0000	400.8926	400.8926	0.1297	0.0000	404.1340
Total	0.0632	0.5463	2.5138	4.5700e-003		7.4500e-003	7.4500e-003		7.4500e-003	7.4500e-003	0.0000	400.8926	400.8926	0.1297	0.0000	404.1340

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.9000e-004	0.0141	4.3600e-003	6.0000e-005	1.7400e-003	9.0000e-005	1.8300e-003	5.1000e-004	9.0000e-005	6.0000e-004	0.0000	5.5149	5.5149	2.0000e-005	8.0000e-004	5.7541
Worker	3.1300e-003	1.9500e-003	0.0250	7.0000e-005	0.4305	5.0000e-005	0.4306	0.0439	4.0000e-005	0.0440	0.0000	6.8468	6.8468	2.0000e-004	1.9000e-004	6.9075
Total	3.5200e-003	0.0161	0.0294	1.3000e-004	0.4323	1.4000e-004	0.4324	0.0444	1.3000e-004	0.0446	0.0000	12.3618	12.3618	2.2000e-004	9.9000e-004	12.6617

Fountain Wind, Year 2 - Shasta County, Annual

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

3.6 Substation Aggregate and Security Fence - 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	5.6000e-004	7.4300e-003	0.0129	2.0000e-005		2.3000e-004	2.3000e-004		2.1000e-004	2.1000e-004	0.0000	1.7050	1.7050	5.5000e-004	0.0000	1.7188
Total	5.6000e-004	7.4300e-003	0.0129	2.0000e-005		2.3000e-004	2.3000e-004		2.1000e-004	2.1000e-004	0.0000	1.7050	1.7050	5.5000e-004	0.0000	1.7188

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-003	0.0954	0.0201	4.0000e-004	0.0118	8.8000e-004	0.0127	3.2600e-003	8.4000e-004	4.1100e-003	0.0000	38.7445	38.7445	7.0000e-005	6.0900e-003	40.5609
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	4.9000e-004	3.1000e-004	3.9500e-003	1.0000e-005	0.6856	1.0000e-005	0.6856	0.0686	1.0000e-005	0.0686	0.0000	1.0811	1.0811	3.0000e-005	3.0000e-005	1.0907
Total	2.1900e-003	0.0957	0.0241	4.1000e-004	0.6975	8.9000e-004	0.6983	0.0719	8.5000e-004	0.0727	0.0000	39.8255	39.8255	1.0000e-004	6.1200e-003	41.6516

Fountain Wind, Year 2 - Shasta County, Annual

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

3.6 Substation Aggregate and Security Fence - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	0.0109	0.0147	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.7050	1.7050	5.5000e-004	0.0000	1.7188
Total	4.8000e-004	0.0109	0.0147	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.7050	1.7050	5.5000e-004	0.0000	1.7188

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7000e-003	0.0954	0.0201	4.0000e-004	0.0111	8.8000e-004	0.0119	3.0700e-003	8.4000e-004	3.9100e-003	0.0000	38.7445	38.7445	7.0000e-005	6.0900e-003	40.5609
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	4.9000e-004	3.1000e-004	3.9500e-003	1.0000e-005	0.0680	1.0000e-005	0.0680	6.9400e-003	1.0000e-005	6.9400e-003	0.0000	1.0811	1.0811	3.0000e-005	3.0000e-005	1.0907
Total	2.1900e-003	0.0957	0.0241	4.1000e-004	0.0790	8.9000e-004	0.0799	0.0100	8.5000e-004	0.0109	0.0000	39.8255	39.8255	1.0000e-004	6.1200e-003	41.6516

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

3.7 Transmission Line Connection - 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	0.0557	0.4672	0.4807	1.3900e-003		0.0181	0.0181		0.0166	0.0166	0.0000	121.9042	121.9042	0.0394	0.0000	122.8899
Total	0.0557	0.4672	0.4807	1.3900e-003		0.0181	0.0181		0.0166	0.0166	0.0000	121.9042	121.9042	0.0394	0.0000	122.8899

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	8.0000e-005	2.9700e-003	9.2000e-004	1.0000e-005	3.9000e-004	2.0000e-005	4.1000e-004	1.1000e-004	2.0000e-005	1.3000e-004	0.0000	1.1610	1.1610	0.0000	1.7000e-004	1.2114
Worker	6.6000e-004	4.1000e-004	5.2700e-003	2.0000e-005	0.9142	1.0000e-005	0.9142	0.0915	1.0000e-005	0.0915	0.0000	1.4414	1.4414	4.0000e-005	4.0000e-005	1.4542
Total	7.4000e-004	3.3800e-003	6.1900e-003	3.0000e-005	0.9145	3.0000e-005	0.9146	0.0916	3.0000e-005	0.0916	0.0000	2.6025	2.6025	4.0000e-005	2.1000e-004	2.6656

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

3.7 Transmission Line Connection - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0186	0.1378	0.7141	1.3900e-003		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003	0.0000	121.9041	121.9041	0.0394	0.0000	122.8897
Total	0.0186	0.1378	0.7141	1.3900e-003		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003	0.0000	121.9041	121.9041	0.0394	0.0000	122.8897

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	2.9700e-003	9.2000e-004	1.0000e-005	3.7000e-004	2.0000e-005	3.9000e-004	1.1000e-004	2.0000e-005	1.3000e-004	0.0000	1.1610	1.1610	0.0000	1.7000e-004	1.2114
Worker	6.6000e-004	4.1000e-004	5.2700e-003	2.0000e-005	0.0906	1.0000e-005	0.0907	9.2500e-003	1.0000e-005	9.2600e-003	0.0000	1.4414	1.4414	4.0000e-005	4.0000e-005	1.4542
Total	7.4000e-004	3.3800e-003	6.1900e-003	3.0000e-005	0.0910	3.0000e-005	0.0910	9.3600e-003	3.0000e-005	9.3900e-003	0.0000	2.6025	2.6025	4.0000e-005	2.1000e-004	2.6656

Fountain Wind, Year 2 - Shasta County, Annual

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

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

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	0.00	0.00	0.00	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
General Heavy Industry	0.496817	0.053869	0.185478	0.139329	0.040637	0.008838	0.009512	0.023153	0.000626	0.000165	0.034569	0.001403	0.005605

Fountain Wind, Year 2 - Shasta County, Annual

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.7966	0.7966	1.3000e-004	2.0000e-005	0.8045
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.7966	0.7966	1.3000e-004	2.0000e-005	0.8045
NaturalGas Mitigated	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1046	1.1046	2.0000e-005	2.0000e-005	1.1112
NaturalGas Unmitigated	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1046	1.1046	2.0000e-005	2.0000e-005	1.1112

Fountain Wind, Year 2 - Shasta County, Annual

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

5.2 Energy by Land Use - Natural Gas

Unmitigated

Land Use		tons/yr														MT/yr	
NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
General Heavy Industry	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	0.0000	1.1046	1.1046	2.0000e-005	2.0000e-005	1.1112	
Total	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	0.0000	1.1046	1.1046	2.0000e-005	2.0000e-005	1.1112	

Mitigated

Land Use		tons/yr														MT/yr	
NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
General Heavy Industry	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	0.0000	1.1046	1.1046	2.0000e-005	2.0000e-005	1.1112	
Total	1.1000e-004	1.0100e-003	8.5000e-004	1.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	8.0000e-005	0.0000	1.1046	1.1046	2.0000e-005	2.0000e-005	1.1112	

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

5.3 Energy by Land Use - Electricity

Unmitigated

Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	MT/yr			
General Heavy Industry	8610	0.7966	1.3000e-004	2.0000e-005
Total		0.7966	1.3000e-004	2.0000e-005
				0.8045

Mitigated

Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	MT/yr			
General Heavy Industry	8610	0.7966	1.3000e-004	2.0000e-005
Total		0.7966	1.3000e-004	2.0000e-005
				0.8045

6.0 Area Detail

6.1 Mitigation Measures Area

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.1600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.1600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

7.0 Water Detail

7.1 Mitigation Measures Water

Fountain Wind, Year 2 - Shasta County, Annual

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

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Fountain Wind, Year 2 - Shasta County, Annual

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.2517	0.0149	0.0000	0.6236
Unmitigated	0.2517	0.0149	0.0000	0.6236

Fountain Wind, Year 2 - Shasta County, Annual

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

8.2 Waste by Land Use

Unmitigated

Waste Disposed	Land Use	tons	Total CO2	CH4	N2O	CO2e
	Land Use		MT/yr			
	General Heavy Industry	1.24	0.2517	0.0149	0.0000	0.6236
	Total		0.2517	0.0149	0.0000	0.6236

Mitigated

Waste Disposed	Land Use	tons	Total CO2	CH4	N2O	CO2e
	Land Use		MT/yr			
	General Heavy Industry	1.24	0.2517	0.0149	0.0000	0.6236
	Total		0.2517	0.0149	0.0000	0.6236

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Fountain Wind, Year 2 - Shasta County, Annual

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Fountain Wind, Year 2 - Shasta County, Summer

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

Fountain Wind, Year 2

Shasta County, Summer

1.0 Project Characteristics

1.1 Land Usage

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

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	82
Climate Zone	3			Operational Year	2026
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction schedule provided, no construction anticipated during winter months (January through March).

Off-road Equipment - provided

Off-road Equipment - construction equipment provided

Off-road Equipment - construction equipment provided

Off-road Equipment - construction equipment provided

Off-road Equipment - construction equipment provided

Off-road Equipment - construction equipment provided. Turbine delivery trucks modeled within hauling truck trips.

Off-road Equipment - construction equipment provided

Trips and VMT - construction trips pulled from 2019, reduced based on project description

On-road Fugitive Dust - per 2019 CalEEMod assumptions

Fountain Wind, Year 2 - Shasta County, Summer

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	100.00	66.00
tblConstructionPhase	NumDays	100.00	95.00
tblConstructionPhase	NumDays	100.00	15.00
tblConstructionPhase	NumDays	100.00	20.00
tblConstructionPhase	NumDays	1.00	160.00
tblConstructionPhase	NumDays	1.00	95.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	4.00	10.00
tblOffRoadEquipment	UsageHours	4.00	10.00
tblOffRoadEquipment	UsageHours	4.00	10.00
tblOffRoadEquipment	UsageHours	6.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00

Fountain Wind, Year 2 - Shasta County, Summer

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

tblOffRoadEquipment	UsageHours	8.00	10.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	HaulingPercentPave	100.00	88.00
tblOnRoadDust	HaulingPercentPave	100.00	70.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblOnRoadDust	WorkerPercentPave	100.00	94.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblTripsAndVMT	HaulingTripLength	20.00	258.00
tblTripsAndVMT	HaulingTripLength	20.00	50.00
tblTripsAndVMT	HaulingTripNumber	0.00	3,557.00
tblTripsAndVMT	HaulingTripNumber	0.00	243.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,411.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripLength	10.80	50.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripNumber	0.00	25.00
tblTripsAndVMT	WorkerTripNumber	18.00	87.00
tblTripsAndVMT	WorkerTripNumber	33.00	25.00
tblTripsAndVMT	WorkerTripNumber	0.00	25.00
tblTripsAndVMT	WorkerTripNumber	0.00	25.00
tblTripsAndVMT	WorkerTripNumber	0.00	25.00

Fountain Wind, Year 2 - Shasta County, Summer

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

tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	WD_TR	3.93	0.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

2.0 Emissions Summary

Fountain Wind, Year 2 - Shasta County, Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0284	5.5600e-003	4.7700e-003	3.0000e-005	0.0000	4.2000e-004	4.2000e-004	0.0000	4.2000e-004	4.2000e-004		6.6723	6.6723	1.3000e-004	1.2000e-004	6.7119

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0284	5.5600e-003	4.7700e-003	3.0000e-005	0.0000	4.2000e-004	4.2000e-004	0.0000	4.2000e-004	4.2000e-004		6.6723	6.6723	1.3000e-004	1.2000e-004	6.7119

Fountain Wind, Year 2 - Shasta County, Summer

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

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Turbine and Transformer Installation	Building Construction	4/1/2025	6/16/2025	6	66	
2	Substation and O&M Building Installation	Site Preparation	4/22/2025	10/24/2025	6	160	
3	Underground Collection System	Site Preparation	5/14/2025	9/1/2025	6	95	
4	Overhead Collection System	Building Construction	7/25/2025	11/12/2025	6	95	
5	Substation Aggregate and Security Fence	Building Construction	9/30/2025	10/16/2025	6	15	
6	Transmission Line Connection	Building Construction	11/13/2025	12/5/2025	6	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Turbine and Transformer Installation	Cranes	10	10.00	231	0.29
Turbine and Transformer Installation	Forklifts	10	10.00	89	0.20
Turbine and Transformer Installation	Generator Sets	4	10.00	84	0.74
Turbine and Transformer Installation	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Substation and O&M Building Installation	Cranes	2	10.00	231	0.29

Fountain Wind, Year 2 - Shasta County, Summer

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

Substation and O&M Building Installation	Forklifts	3	10.00	89	0.20
Substation and O&M Building Installation	Skid Steer Loaders	2	10.00	65	0.37
Underground Collection System	Forklifts	4	10.00	89	0.20
Underground Collection System	Skid Steer Loaders	4	10.00	65	0.37
Underground Collection System	Tractors/Loaders/Backhoes	1	10.00	97	0.37
Underground Collection System	Trenchers	4	10.00	78	0.50
Overhead Collection System	Aerial Lifts	6	10.00	63	0.31
Overhead Collection System	Cranes	2	10.00	231	0.29
Overhead Collection System	Off-Highway Trucks	3	10.00	402	0.38
Overhead Collection System	Tractors/Loaders/Backhoes	5	10.00	97	0.37
Substation Aggregate and Security Fence	Skid Steer Loaders	1	10.00	65	0.37
Transmission Line Connection	Aerial Lifts	6	10.00	63	0.31
Transmission Line Connection	Cranes	6	10.00	231	0.29
Transmission Line Connection	Excavators	2	10.00	158	0.38
Transmission Line Connection	Off-Highway Trucks	4	10.00	402	0.38
Transmission Line Connection	Tractors/Loaders/Backhoes	1	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
Turbine and Transformer Installation	26	25.00	0.00	3,557.00	10.00	7.30	258.00	LD_Mix	HDT_Mix	HHDT
Substation and O&M Building Installation	7	87.00	0.00	243.00	50.00	7.30	50.00	LD_Mix	HDT_Mix	HHDT
Underground Collection System	13	25.00	0.00	0.00	10.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Overhead Collection System	16	25.00	6.00	0.00	10.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Substation Aggregate and Security Fence	1	25.00	0.00	1,411.00	10.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Transmission Line Connection	19	25.00	6.00	0.00	10.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Fountain Wind, Year 2 - Shasta County, Summer

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

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Turbine and Transformer Installation - 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	lb/day										lb/day					
Off-Road	6.6586	65.1459	59.7492	0.1319		2.8431	2.8431		2.6538	2.6538		12,706.0258	12,706.0258	3.2170		12,786.4506
Total	6.6586	65.1459	59.7492	0.1319		2.8431	2.8431		2.6538	2.6538		12,706.0258	12,706.0258	3.2170		12,786.4506

Fountain Wind, Year 2 - Shasta County, Summer

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

3.2 Turbine and Transformer Installation - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.8643	76.3189	7.9043	0.3780	421.2489	0.8620	422.1110	44.1307	0.8248	44.9554		40,009.64 60	40,009.64 60	0.0403	6.2883	41,884.57 74
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
Worker	0.0814	0.0383	0.6250	1.6800e-003	117.8716	9.6000e-004	117.8725	11.7859	8.8000e-004	11.7867		175.4165	175.4165	4.3400e-003	4.1600e-003	176.7643
Total	0.9456	76.3572	8.5293	0.3797	539.1205	0.8630	539.9835	55.9165	0.8256	56.7422		40,185.06 25	40,185.06 25	0.0447	6.2925	42,061.34 17

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5454	6.6968	73.1479	0.1319		0.2061	0.2061		0.2061	0.2061	0.0000	12,706.02 58	12,706.02 58	3.2170		12,786.45 05
Total	1.5454	6.6968	73.1479	0.1319		0.2061	0.2061		0.2061	0.2061	0.0000	12,706.02 58	12,706.02 58	3.2170		12,786.45 05

Fountain Wind, Year 2 - Shasta County, Summer

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

3.2 Turbine and Transformer Installation - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.8643	76.3189	7.9043	0.3780	51.2665	0.8620	52.1285	7.0876	0.8248	7.9124		40,009.64 60	40,009.64 60	0.0403	6.2883	41,884.57 74
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
Worker	0.0814	0.0383	0.6250	1.6800e-003	11.6604	9.6000e-004	11.6614	1.1843	8.8000e-004	1.1852		175.4165	175.4165	4.3400e-003	4.1600e-003	176.7643
Total	0.9456	76.3572	8.5293	0.3797	62.9269	0.8630	63.7899	8.2719	0.8256	9.0976		40,185.06 25	40,185.06 25	0.0447	6.2925	42,061.34 17

3.3 Substation and O&M Building Installation - 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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2561	12.9696	12.0407	0.0253		0.5611	0.5611		0.5162	0.5162		2,453.368 6	2,453.368 6	0.7935		2,473.205 3
Total	1.2561	12.9696	12.0407	0.0253	0.0000	0.5611	0.5611	0.0000	0.5162	0.5162		2,453.368 6	2,453.368 6	0.7935		2,473.205 3

Fountain Wind, Year 2 - Shasta County, Summer

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

3.3 Substation and O&M Building Installation - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.3600e-003	0.4416	0.0656	2.1000e-003	13.4711	4.7200e-003	13.4759	1.3550	4.5200e-003	1.3595		222.4222	222.4222	3.0000e-004	0.0350	232.8471
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
Worker	0.7990	0.5085	9.3344	0.0287	387.2411	0.0151	387.2562	39.1632	0.0139	39.1771		2,984.5556	2,984.5556	0.0409	0.0527	3,001.2925
Total	0.8054	0.9501	9.4000	0.0308	400.7123	0.0198	400.7321	40.5181	0.0184	40.5365		3,206.9778	3,206.9778	0.0412	0.0877	3,234.1397

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3751	3.9796	14.7777	0.0253		0.0415	0.0415		0.0415	0.0415	0.0000	2,453.3686	2,453.3686	0.7935		2,473.2053
Total	0.3751	3.9796	14.7777	0.0253	0.0000	0.0415	0.0415	0.0000	0.0415	0.0415	0.0000	2,453.3686	2,453.3686	0.7935		2,473.2053

Fountain Wind, Year 2 - Shasta County, Summer

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

3.3 Substation and O&M Building Installation - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.3600e-003	0.4416	0.0656	2.1000e-003	1.3702	4.7200e-003	1.3749	0.1467	4.5200e-003	0.1512		222.4222	222.4222	3.0000e-004	0.0350	232.8471
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
Worker	0.7990	0.5085	9.3344	0.0287	40.5169	0.0151	40.5320	4.5240	0.0139	4.5379		2,984.5556	2,984.5556	0.0409	0.0527	3,001.2925
Total	0.8054	0.9501	9.4000	0.0308	41.8871	0.0198	41.9070	4.6707	0.0184	4.6891		3,206.9778	3,206.9778	0.0412	0.0877	3,234.1397

3.4 Underground Collection System - 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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.4662	24.4383	28.1952	0.0388		1.3870	1.3870		1.2761	1.2761		3,756.8244	3,756.8244	1.2150		3,787.2002
Total	2.4662	24.4383	28.1952	0.0388	0.0000	1.3870	1.3870	0.0000	1.2761	1.2761		3,756.8244	3,756.8244	1.2150		3,787.2002

Fountain Wind, Year 2 - Shasta County, Summer

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

3.4 Underground Collection System - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0814	0.0383	0.6250	1.6800e-003	117.8716	9.6000e-004	117.8725	11.7859	8.8000e-004	11.7867		175.4165	175.4165	4.3400e-003	4.1600e-003	176.7643
Total	0.0814	0.0383	0.6250	1.6800e-003	117.8716	9.6000e-004	117.8725	11.7859	8.8000e-004	11.7867		175.4165	175.4165	4.3400e-003	4.1600e-003	176.7643

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6025	7.3192	29.3077	0.0388		0.0634	0.0634		0.0634	0.0634	0.0000	3,756.8243	3,756.8243	1.2150		3,787.2002
Total	0.6025	7.3192	29.3077	0.0388	0.0000	0.0634	0.0634	0.0000	0.0634	0.0634	0.0000	3,756.8243	3,756.8243	1.2150		3,787.2002

Fountain Wind, Year 2 - Shasta County, Summer

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

3.4 Underground Collection System - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0814	0.0383	0.6250	1.6800e-003	11.6604	9.6000e-004	11.6614	1.1843	8.8000e-004	1.1852		175.4165	175.4165	4.3400e-003	4.1600e-003	176.7643
Total	0.0814	0.0383	0.6250	1.6800e-003	11.6604	9.6000e-004	11.6614	1.1843	8.8000e-004	1.1852		175.4165	175.4165	4.3400e-003	4.1600e-003	176.7643

3.5 Overhead Collection System - 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	lb/day										lb/day					
Off-Road	3.6540	30.9148	38.4047	0.0961		1.1257	1.1257		1.0356	1.0356		9,303.3464	9,303.3464	3.0089		9,378.5687
Total	3.6540	30.9148	38.4047	0.0961		1.1257	1.1257		1.0356	1.0356		9,303.3464	9,303.3464	3.0089		9,378.5687

Fountain Wind, Year 2 - Shasta County, Summer

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

3.5 Overhead Collection System - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.4600e-003	0.2827	0.0901	1.2100e-003	0.0407	1.9200e-003	0.0426	0.0117	1.8300e-003	0.0136		127.8724	127.8724	4.5000e-004	0.0186	133.4139
Worker	0.0814	0.0383	0.6250	1.6800e-003	117.8716	9.6000e-004	117.8725	11.7859	8.8000e-004	11.7867		175.4165	175.4165	4.3400e-003	4.1600e-003	176.7643
Total	0.0898	0.3210	0.7151	2.8900e-003	117.9122	2.8800e-003	117.9151	11.7976	2.7100e-003	11.8003		303.2888	303.2888	4.7900e-003	0.0227	310.1782

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3308	11.5019	52.9220	0.0961		0.1568	0.1568		0.1568	0.1568	0.0000	9,303.3464	9,303.3464	3.0089		9,378.5687
Total	1.3308	11.5019	52.9220	0.0961		0.1568	0.1568		0.1568	0.1568	0.0000	9,303.3464	9,303.3464	3.0089		9,378.5687

Fountain Wind, Year 2 - Shasta County, Summer

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

3.5 Overhead Collection System - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.4600e-003	0.2827	0.0901	1.2100e-003	0.0381	1.9200e-003	0.0400	0.0111	1.8300e-003	0.0129		127.8724	127.8724	4.5000e-004	0.0186	133.4139
Worker	0.0814	0.0383	0.6250	1.6800e-003	11.6604	9.6000e-004	11.6614	1.1843	8.8000e-004	1.1852		175.4165	175.4165	4.3400e-003	4.1600e-003	176.7643
Total	0.0898	0.3210	0.7151	2.8900e-003	11.6985	2.8800e-003	11.7014	1.1954	2.7100e-003	1.1981		303.2888	303.2888	4.7900e-003	0.0227	310.1782

3.6 Substation Aggregate and Security Fence - 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	lb/day										lb/day					
Off-Road	0.0741	0.9901	1.7240	2.5900e-003		0.0300	0.0300		0.0276	0.0276		250.5937	250.5937	0.0811		252.6199
Total	0.0741	0.9901	1.7240	2.5900e-003		0.0300	0.0300		0.0276	0.0276		250.5937	250.5937	0.0811		252.6199

Fountain Wind, Year 2 - Shasta County, Summer

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

3.6 Substation Aggregate and Security Fence - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2331	12.0855	2.6592	0.0538	1.6485	0.1177	1.7661	0.4521	0.1126	0.5647		5,691.0194	5,691.0194	0.0109	0.8945	5,957.8410
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
Worker	0.0814	0.0383	0.6250	1.6800e-003	117.8716	9.6000e-004	117.8725	11.7859	8.8000e-004	11.7867		175.4165	175.4165	4.3400e-003	4.1600e-003	176.7643
Total	0.3145	12.1238	3.2841	0.0555	119.5200	0.1186	119.6386	12.2380	0.1134	12.3514		5,866.4359	5,866.4359	0.0152	0.8986	6,134.6052

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0636	1.4528	1.9618	2.5900e-003		4.2400e-003	4.2400e-003		4.2400e-003	4.2400e-003	0.0000	250.5937	250.5937	0.0811		252.6199
Total	0.0636	1.4528	1.9618	2.5900e-003		4.2400e-003	4.2400e-003		4.2400e-003	4.2400e-003	0.0000	250.5937	250.5937	0.0811		252.6199

Fountain Wind, Year 2 - Shasta County, Summer

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

3.6 Substation Aggregate and Security Fence - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2331	12.0855	2.6592	0.0538	1.5365	0.1177	1.6542	0.4246	0.1126	0.5372		5,691.0194	5,691.0194	0.0109	0.8945	5,957.8410
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
Worker	0.0814	0.0383	0.6250	1.6800e-003	11.6604	9.6000e-004	11.6614	1.1843	8.8000e-004	1.1852		175.4165	175.4165	4.3400e-003	4.1600e-003	176.7643
Total	0.3145	12.1238	3.2841	0.0555	13.1969	0.1186	13.3155	1.6089	0.1134	1.7224		5,866.4359	5,866.4359	0.0152	0.8986	6,134.6052

3.7 Transmission Line Connection - 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	lb/day										lb/day					
Off-Road	5.5722	46.7158	48.0689	0.1388		1.8063	1.8063		1.6618	1.6618		13,437.6373	13,437.6373	4.3460		13,546.2874
Total	5.5722	46.7158	48.0689	0.1388		1.8063	1.8063		1.6618	1.6618		13,437.6373	13,437.6373	4.3460		13,546.2874

Fountain Wind, Year 2 - Shasta County, Summer

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

3.7 Transmission Line Connection - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.4600e-003	0.2827	0.0901	1.2100e-003	0.0407	1.9200e-003	0.0426	0.0117	1.8300e-003	0.0136		127.8724	127.8724	4.5000e-004	0.0186	133.4139
Worker	0.0814	0.0383	0.6250	1.6800e-003	117.8716	9.6000e-004	117.8725	11.7859	8.8000e-004	11.7867		175.4165	175.4165	4.3400e-003	4.1600e-003	176.7643
Total	0.0898	0.3210	0.7151	2.8900e-003	117.9122	2.8800e-003	117.9151	11.7976	2.7100e-003	11.8003		303.2888	303.2888	4.7900e-003	0.0227	310.1782

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8563	13.7789	71.4124	0.1388		0.2268	0.2268		0.2268	0.2268	0.0000	13,437.6373	13,437.6373	4.3460		13,546.2874
Total	1.8563	13.7789	71.4124	0.1388		0.2268	0.2268		0.2268	0.2268	0.0000	13,437.6373	13,437.6373	4.3460		13,546.2874

Fountain Wind, Year 2 - Shasta County, Summer

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

3.7 Transmission Line Connection - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.4600e-003	0.2827	0.0901	1.2100e-003	0.0381	1.9200e-003	0.0400	0.0111	1.8300e-003	0.0129		127.8724	127.8724	4.5000e-004	0.0186	133.4139
Worker	0.0814	0.0383	0.6250	1.6800e-003	11.6604	9.6000e-004	11.6614	1.1843	8.8000e-004	1.1852		175.4165	175.4165	4.3400e-003	4.1600e-003	176.7643
Total	0.0898	0.3210	0.7151	2.8900e-003	11.6985	2.8800e-003	11.7014	1.1954	2.7100e-003	1.1981		303.2888	303.2888	4.7900e-003	0.0227	310.1782

Fountain Wind, Year 2 - Shasta County, Summer

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

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

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	0.00	0.00	0.00	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
General Heavy Industry	0.496817	0.053869	0.185478	0.139329	0.040637	0.008838	0.009512	0.023153	0.000626	0.000165	0.034569	0.001403	0.005605

Fountain Wind, Year 2 - Shasta County, Summer

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
NaturalGas Unmitigated	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	56.7123	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Total		6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117

Fountain Wind, Year 2 - Shasta County, Summer

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	0.0567123	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Total		6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Fountain Wind, Year 2 - Shasta County, Summer

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.3500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Fountain Wind, Year 2 - Shasta County, Summer

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.3500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

Fountain Wind, Year 2 - Shasta County, Summer

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

Fountain Wind, Year 2 - Shasta County, Winter

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

Fountain Wind, Year 2

Shasta County, Winter

1.0 Project Characteristics

1.1 Land Usage

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

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	82
Climate Zone	3			Operational Year	2026
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction schedule provided, no construction anticipated during winter months (January through March).

Off-road Equipment - provided

Off-road Equipment - construction equipment provided

Off-road Equipment - construction equipment provided

Off-road Equipment - construction equipment provided

Off-road Equipment - construction equipment provided

Off-road Equipment - construction equipment provided. Turbine delivery trucks modeled within hauling truck trips.

Off-road Equipment - construction equipment provided

Trips and VMT - construction trips pulled from 2019, reduced based on project description

On-road Fugitive Dust - per 2019 CalEEMod assumptions

Fountain Wind, Year 2 - Shasta County, Winter

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	100.00	66.00
tblConstructionPhase	NumDays	1.00	160.00
tblConstructionPhase	NumDays	1.00	95.00
tblConstructionPhase	NumDays	100.00	95.00
tblConstructionPhase	NumDays	100.00	15.00
tblConstructionPhase	NumDays	100.00	20.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	4.00	10.00
tblOffRoadEquipment	UsageHours	4.00	10.00
tblOffRoadEquipment	UsageHours	4.00	10.00
tblOffRoadEquipment	UsageHours	6.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00

Fountain Wind, Year 2 - Shasta County, Winter

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

tblOffRoadEquipment	UsageHours	8.00	10.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	HaulingPercentPave	100.00	88.00
tblOnRoadDust	HaulingPercentPave	100.00	70.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblOnRoadDust	WorkerPercentPave	100.00	94.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblOnRoadDust	WorkerPercentPave	100.00	68.00
tblTripsAndVMT	HaulingTripLength	20.00	258.00
tblTripsAndVMT	HaulingTripLength	20.00	50.00
tblTripsAndVMT	HaulingTripNumber	0.00	3,557.00
tblTripsAndVMT	HaulingTripNumber	0.00	243.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,411.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripLength	10.80	50.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripLength	10.80	10.00
tblTripsAndVMT	WorkerTripNumber	0.00	25.00
tblTripsAndVMT	WorkerTripNumber	18.00	87.00
tblTripsAndVMT	WorkerTripNumber	33.00	25.00
tblTripsAndVMT	WorkerTripNumber	0.00	25.00
tblTripsAndVMT	WorkerTripNumber	0.00	25.00
tblTripsAndVMT	WorkerTripNumber	0.00	25.00

Fountain Wind, Year 2 - Shasta County, Winter

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

tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	WD_TR	3.93	0.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

2.0 Emissions Summary

Fountain Wind, Year 2 - Shasta County, Winter

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0284	5.5600e-003	4.7700e-003	3.0000e-005	0.0000	4.2000e-004	4.2000e-004	0.0000	4.2000e-004	4.2000e-004		6.6723	6.6723	1.3000e-004	1.2000e-004	6.7119

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0284	5.5600e-003	4.7700e-003	3.0000e-005	0.0000	4.2000e-004	4.2000e-004	0.0000	4.2000e-004	4.2000e-004		6.6723	6.6723	1.3000e-004	1.2000e-004	6.7119

Fountain Wind, Year 2 - Shasta County, Winter

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

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Turbine and Transformer Installation	Building Construction	4/1/2025	6/16/2025	6	66	
2	Substation and O&M Building Installation	Site Preparation	4/22/2025	10/24/2025	6	160	
3	Underground Collection System	Site Preparation	5/14/2025	9/1/2025	6	95	
4	Overhead Collection System	Building Construction	7/25/2025	11/12/2025	6	95	
5	Substation Aggregate and Security Fence	Building Construction	9/30/2025	10/16/2025	6	15	
6	Transmission Line Connection	Building Construction	11/13/2025	12/5/2025	6	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Turbine and Transformer Installation	Cranes	10	10.00	231	0.29
Turbine and Transformer Installation	Forklifts	10	10.00	89	0.20
Turbine and Transformer Installation	Generator Sets	4	10.00	84	0.74
Turbine and Transformer Installation	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Substation and O&M Building Installation	Cranes	2	10.00	231	0.29

Fountain Wind, Year 2 - Shasta County, Winter

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

Substation and O&M Building Installation	Forklifts	3	10.00	89	0.20
Substation and O&M Building Installation	Skid Steer Loaders	2	10.00	65	0.37
Underground Collection System	Forklifts	4	10.00	89	0.20
Underground Collection System	Skid Steer Loaders	4	10.00	65	0.37
Underground Collection System	Tractors/Loaders/Backhoes	1	10.00	97	0.37
Underground Collection System	Trenchers	4	10.00	78	0.50
Overhead Collection System	Aerial Lifts	6	10.00	63	0.31
Overhead Collection System	Cranes	2	10.00	231	0.29
Overhead Collection System	Off-Highway Trucks	3	10.00	402	0.38
Overhead Collection System	Tractors/Loaders/Backhoes	5	10.00	97	0.37
Substation Aggregate and Security Fence	Skid Steer Loaders	1	10.00	65	0.37
Transmission Line Connection	Aerial Lifts	6	10.00	63	0.31
Transmission Line Connection	Cranes	6	10.00	231	0.29
Transmission Line Connection	Excavators	2	10.00	158	0.38
Transmission Line Connection	Off-Highway Trucks	4	10.00	402	0.38
Transmission Line Connection	Tractors/Loaders/Backhoes	1	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
Turbine and Transformer Installation	26	25.00	0.00	3,557.00	10.00	7.30	258.00	LD_Mix	HDT_Mix	HHDT
Substation and O&M Building Installation	7	87.00	0.00	243.00	50.00	7.30	50.00	LD_Mix	HDT_Mix	HHDT
Underground Collection System	13	25.00	0.00	0.00	10.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Overhead Collection System	16	25.00	6.00	0.00	10.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Substation Aggregate and Security Fence	1	25.00	0.00	1,411.00	10.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Transmission Line Connection	19	25.00	6.00	0.00	10.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Fountain Wind, Year 2 - Shasta County, Winter

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

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Turbine and Transformer Installation - 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	lb/day										lb/day					
Off-Road	6.6586	65.1459	59.7492	0.1319		2.8431	2.8431		2.6538	2.6538		12,706.0258	12,706.0258	3.2170		12,786.4506
Total	6.6586	65.1459	59.7492	0.1319		2.8431	2.8431		2.6538	2.6538		12,706.0258	12,706.0258	3.2170		12,786.4506

Fountain Wind, Year 2 - Shasta County, Winter

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

3.2 Turbine and Transformer Installation - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.8547	82.3730	7.9298	0.3780	421.2489	0.8621	422.1110	44.1307	0.8248	44.9555		40,014.3283	40,014.3283	0.0399	6.2891	41,889.4889
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
Worker	0.0681	0.0456	0.5312	1.4800e-003	117.8716	9.6000e-004	117.8725	11.7859	8.8000e-004	11.7867		154.3666	154.3666	4.9900e-003	4.6600e-003	155.8812
Total	0.9227	82.4186	8.4611	0.3795	539.1205	0.8631	539.9836	55.9165	0.8257	56.7423		40,168.6949	40,168.6949	0.0449	6.2938	42,045.3701

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5454	6.6968	73.1479	0.1319		0.2061	0.2061		0.2061	0.2061	0.0000	12,706.0258	12,706.0258	3.2170		12,786.4505
Total	1.5454	6.6968	73.1479	0.1319		0.2061	0.2061		0.2061	0.2061	0.0000	12,706.0258	12,706.0258	3.2170		12,786.4505

Fountain Wind, Year 2 - Shasta County, Winter

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

3.2 Turbine and Transformer Installation - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.8547	82.3730	7.9298	0.3780	51.2665	0.8621	52.1286	7.0876	0.8248	7.9125		40,014.3283	40,014.3283	0.0399	6.2891	41,889.4889
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
Worker	0.0681	0.0456	0.5312	1.4800e-003	11.6604	9.6000e-004	11.6614	1.1843	8.8000e-004	1.1852		154.3666	154.3666	4.9900e-003	4.6600e-003	155.8812
Total	0.9227	82.4186	8.4611	0.3795	62.9269	0.8631	63.7899	8.2719	0.8257	9.0977		40,168.6949	40,168.6949	0.0449	6.2938	42,045.3701

3.3 Substation and O&M Building Installation - 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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2561	12.9696	12.0407	0.0253		0.5611	0.5611		0.5162	0.5162		2,453.3686	2,453.3686	0.7935		2,473.2053
Total	1.2561	12.9696	12.0407	0.0253	0.0000	0.5611	0.5611	0.0000	0.5162	0.5162		2,453.3686	2,453.3686	0.7935		2,473.2053

Fountain Wind, Year 2 - Shasta County, Winter

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

3.3 Substation and O&M Building Installation - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.0900e-003	0.4768	0.0665	2.1000e-003	13.4711	4.7200e-003	13.4759	1.3550	4.5200e-003	1.3595		222.5544	222.5544	2.8000e-004	0.0350	232.9853
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
Worker	0.8104	0.6054	6.9977	0.0252	387.2411	0.0151	387.2562	39.1632	0.0139	39.1771		2,619.7627	2,619.7627	0.0374	0.0591	2,638.2967
Total	0.8165	1.0823	7.0642	0.0273	400.7123	0.0198	400.7321	40.5181	0.0184	40.5365		2,842.3171	2,842.3171	0.0377	0.0940	2,871.2820

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3751	3.9796	14.7777	0.0253		0.0415	0.0415		0.0415	0.0415	0.0000	2,453.3686	2,453.3686	0.7935		2,473.2053
Total	0.3751	3.9796	14.7777	0.0253	0.0000	0.0415	0.0415	0.0000	0.0415	0.0415	0.0000	2,453.3686	2,453.3686	0.7935		2,473.2053

Fountain Wind, Year 2 - Shasta County, Winter

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

3.3 Substation and O&M Building Installation - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.0900e-003	0.4768	0.0665	2.1000e-003	1.3702	4.7200e-003	1.3749	0.1467	4.5200e-003	0.1512		222.5544	222.5544	2.8000e-004	0.0350	232.9853
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
Worker	0.8104	0.6054	6.9977	0.0252	40.5169	0.0151	40.5320	4.5240	0.0139	4.5379		2,619.7627	2,619.7627	0.0374	0.0591	2,638.2967
Total	0.8165	1.0823	7.0642	0.0273	41.8871	0.0198	41.9070	4.6707	0.0184	4.6891		2,842.3171	2,842.3171	0.0377	0.0940	2,871.2820

3.4 Underground Collection System - 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	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.4662	24.4383	28.1952	0.0388		1.3870	1.3870		1.2761	1.2761		3,756.8244	3,756.8244	1.2150		3,787.2002
Total	2.4662	24.4383	28.1952	0.0388	0.0000	1.3870	1.3870	0.0000	1.2761	1.2761		3,756.8244	3,756.8244	1.2150		3,787.2002

Fountain Wind, Year 2 - Shasta County, Winter

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

3.4 Underground Collection System - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0681	0.0456	0.5312	1.4800e-003	117.8716	9.6000e-004	117.8725	11.7859	8.8000e-004	11.7867		154.3666	154.3666	4.9900e-003	4.6600e-003	155.8812
Total	0.0681	0.0456	0.5312	1.4800e-003	117.8716	9.6000e-004	117.8725	11.7859	8.8000e-004	11.7867		154.3666	154.3666	4.9900e-003	4.6600e-003	155.8812

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6025	7.3192	29.3077	0.0388		0.0634	0.0634		0.0634	0.0634	0.0000	3,756.8243	3,756.8243	1.2150		3,787.2002
Total	0.6025	7.3192	29.3077	0.0388	0.0000	0.0634	0.0634	0.0000	0.0634	0.0634	0.0000	3,756.8243	3,756.8243	1.2150		3,787.2002

Fountain Wind, Year 2 - Shasta County, Winter

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

3.4 Underground Collection System - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0681	0.0456	0.5312	1.4800e-003	11.6604	9.6000e-004	11.6614	1.1843	8.8000e-004	1.1852		154.3666	154.3666	4.9900e-003	4.6600e-003	155.8812
Total	0.0681	0.0456	0.5312	1.4800e-003	11.6604	9.6000e-004	11.6614	1.1843	8.8000e-004	1.1852		154.3666	154.3666	4.9900e-003	4.6600e-003	155.8812

3.5 Overhead Collection System - 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	lb/day										lb/day					
Off-Road	3.6540	30.9148	38.4047	0.0961		1.1257	1.1257		1.0356	1.0356		9,303.3464	9,303.3464	3.0089		9,378.5687
Total	3.6540	30.9148	38.4047	0.0961		1.1257	1.1257		1.0356	1.0356		9,303.3464	9,303.3464	3.0089		9,378.5687

Fountain Wind, Year 2 - Shasta County, Winter

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

3.5 Overhead Collection System - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0100e-003	0.3051	0.0939	1.2200e-003	0.0407	1.9200e-003	0.0426	0.0117	1.8400e-003	0.0136		128.1355	128.1355	4.3000e-004	0.0186	133.6964
Worker	0.0681	0.0456	0.5312	1.4800e-003	117.8716	9.6000e-004	117.8725	11.7859	8.8000e-004	11.7867		154.3666	154.3666	4.9900e-003	4.6600e-003	155.8812
Total	0.0761	0.3507	0.6251	2.7000e-003	117.9122	2.8800e-003	117.9151	11.7976	2.7200e-003	11.8003		282.5021	282.5021	5.4200e-003	0.0233	289.5776

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3308	11.5019	52.9220	0.0961		0.1568	0.1568		0.1568	0.1568	0.0000	9,303.3464	9,303.3464	3.0089		9,378.5687
Total	1.3308	11.5019	52.9220	0.0961		0.1568	0.1568		0.1568	0.1568	0.0000	9,303.3464	9,303.3464	3.0089		9,378.5687

Fountain Wind, Year 2 - Shasta County, Winter

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

3.5 Overhead Collection System - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0100e-003	0.3051	0.0939	1.2200e-003	0.0381	1.9200e-003	0.0400	0.0111	1.8400e-003	0.0129		128.1355	128.1355	4.3000e-004	0.0186	133.6964
Worker	0.0681	0.0456	0.5312	1.4800e-003	11.6604	9.6000e-004	11.6614	1.1843	8.8000e-004	1.1852		154.3666	154.3666	4.9900e-003	4.6600e-003	155.8812
Total	0.0761	0.3507	0.6251	2.7000e-003	11.6985	2.8800e-003	11.7014	1.1954	2.7200e-003	1.1981		282.5021	282.5021	5.4200e-003	0.0233	289.5776

3.6 Substation Aggregate and Security Fence - 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	lb/day										lb/day					
Off-Road	0.0741	0.9901	1.7240	2.5900e-003		0.0300	0.0300		0.0276	0.0276		250.5937	250.5937	0.0811		252.6199
Total	0.0741	0.9901	1.7240	2.5900e-003		0.0300	0.0300		0.0276	0.0276		250.5937	250.5937	0.0811		252.6199

Fountain Wind, Year 2 - Shasta County, Winter

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

3.6 Substation Aggregate and Security Fence - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2165	13.0573	2.7139	0.0538	1.6485	0.1178	1.7663	0.4521	0.1127	0.5648		5,699.2086	5,699.2086	0.0101	0.8958	5,966.3972
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
Worker	0.0681	0.0456	0.5312	1.4800e-003	117.8716	9.6000e-004	117.8725	11.7859	8.8000e-004	11.7867		154.3666	154.3666	4.9900e-003	4.6600e-003	155.8812
Total	0.2846	13.1029	3.2451	0.0553	119.5200	0.1188	119.6388	12.2380	0.1136	12.3516		5,853.5752	5,853.5752	0.0151	0.9004	6,122.2784

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0636	1.4528	1.9618	2.5900e-003		4.2400e-003	4.2400e-003		4.2400e-003	4.2400e-003	0.0000	250.5937	250.5937	0.0811		252.6199
Total	0.0636	1.4528	1.9618	2.5900e-003		4.2400e-003	4.2400e-003		4.2400e-003	4.2400e-003	0.0000	250.5937	250.5937	0.0811		252.6199

Fountain Wind, Year 2 - Shasta County, Winter

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

3.6 Substation Aggregate and Security Fence - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2165	13.0573	2.7139	0.0538	1.5365	0.1178	1.6543	0.4246	0.1127	0.5374		5,699.2086	5,699.2086	0.0101	0.8958	5,966.3972
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
Worker	0.0681	0.0456	0.5312	1.4800e-003	11.6604	9.6000e-004	11.6614	1.1843	8.8000e-004	1.1852		154.3666	154.3666	4.9900e-003	4.6600e-003	155.8812
Total	0.2846	13.1029	3.2451	0.0553	13.1969	0.1188	13.3157	1.6089	0.1136	1.7225		5,853.5752	5,853.5752	0.0151	0.9004	6,122.2784

3.7 Transmission Line Connection - 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	lb/day										lb/day					
Off-Road	5.5722	46.7158	48.0689	0.1388		1.8063	1.8063		1.6618	1.6618		13,437.6373	13,437.6373	4.3460		13,546.2874
Total	5.5722	46.7158	48.0689	0.1388		1.8063	1.8063		1.6618	1.6618		13,437.6373	13,437.6373	4.3460		13,546.2874

Fountain Wind, Year 2 - Shasta County, Winter

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

3.7 Transmission Line Connection - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0100e-003	0.3051	0.0939	1.2200e-003	0.0407	1.9200e-003	0.0426	0.0117	1.8400e-003	0.0136		128.1355	128.1355	4.3000e-004	0.0186	133.6964
Worker	0.0681	0.0456	0.5312	1.4800e-003	117.8716	9.6000e-004	117.8725	11.7859	8.8000e-004	11.7867		154.3666	154.3666	4.9900e-003	4.6600e-003	155.8812
Total	0.0761	0.3507	0.6251	2.7000e-003	117.9122	2.8800e-003	117.9151	11.7976	2.7200e-003	11.8003		282.5021	282.5021	5.4200e-003	0.0233	289.5776

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8563	13.7789	71.4124	0.1388		0.2268	0.2268		0.2268	0.2268	0.0000	13,437.6373	13,437.6373	4.3460		13,546.2874
Total	1.8563	13.7789	71.4124	0.1388		0.2268	0.2268		0.2268	0.2268	0.0000	13,437.6373	13,437.6373	4.3460		13,546.2874

Fountain Wind, Year 2 - Shasta County, Winter

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

3.7 Transmission Line Connection - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0100e-003	0.3051	0.0939	1.2200e-003	0.0381	1.9200e-003	0.0400	0.0111	1.8400e-003	0.0129		128.1355	128.1355	4.3000e-004	0.0186	133.6964
Worker	0.0681	0.0456	0.5312	1.4800e-003	11.6604	9.6000e-004	11.6614	1.1843	8.8000e-004	1.1852		154.3666	154.3666	4.9900e-003	4.6600e-003	155.8812
Total	0.0761	0.3507	0.6251	2.7000e-003	11.6985	2.8800e-003	11.7014	1.1954	2.7200e-003	1.1981		282.5021	282.5021	5.4200e-003	0.0233	289.5776

Fountain Wind, Year 2 - Shasta County, Winter

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

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

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	0.00	0.00	0.00	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
General Heavy Industry	0.496817	0.053869	0.185478	0.139329	0.040637	0.008838	0.009512	0.023153	0.000626	0.000165	0.034569	0.001403	0.005605

Fountain Wind, Year 2 - Shasta County, Winter

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
NaturalGas Unmitigated	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	56.7123	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Total		6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117

Fountain Wind, Year 2 - Shasta County, Winter

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

5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day											lb/day				
General Heavy Industry	0.0567123	6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117
Total		6.1000e-004	5.5600e-003	4.6700e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		6.6720	6.6720	1.3000e-004	1.2000e-004	6.7117

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Mitigated	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Fountain Wind, Year 2 - Shasta County, Winter

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.3500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Fountain Wind, Year 2 - Shasta County, Winter

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.3500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

Fountain Wind, Year 2 - Shasta County, Winter

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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