

DOCKETED	
Docket Number:	23-OPT-01
Project Title:	Fountain Wind Project
TN #:	263383
Document Title:	County of Shasta Letter Comments - Attachment 5 Air Quality Impacts
Description:	County of Shasta Letter Comments - Attachment 5 Air Quality Impacts
Filer:	Kari Cameron
Organization:	County of Shasta
Submitter Role:	Public Agency
Submission Date:	5/27/2025 2:34:49 PM
Docketed Date:	5/27/2025



MEMORANDUM

To: Adam Fieseler, Assistant Director
Shasta County Department of Resource Management

From: Garry Rees, Planning & Biology Service Area Principal

Date: May 15, 2025

Subject: Evaluation of CEC's Staff Assessment for the Fountain Wind Energy Project – Air Quality Impacts

Introduction

At the request of the Shasta County Department of Resource Management (County), SHN Consulting Engineers and Geologists (SHN) has provided the enclosed review comments on the California Energy Commission's (CEC) Staff Assessment and associated environmental impact review for the Fountain Wind Energy Project, dated March 25, 2025 (TN# 262350). This evaluation focuses on the adequacy of the disclosed air quality impacts and environmental determinations subject to the California Environmental Quality Act (CEQA).

Project Description

The proposed project is a wind energy generation development proposed by Fountain Wind LLC (applicant) in unincorporated Shasta County. The proposed project is located approximately 1 mile west of the existing Hatchet Ridge Wind Project, 6 miles west of Burney, 35 miles northeast of Redding, and immediately north and south of State Route 299. The proposed project would be located entirely on private property, managed for timber production and harvesting, where public access is currently restricted. The project area includes thirty-seven parcels in which the project components will be sited and encompasses approximately 16,108 acres. The proposed project site boundary encompasses approximately 2,855 acres within the overall project area. Overall, the project would have a total nameplate generating capacity of up to 205 MW. Associated infrastructure and facilities would include:

- Up to 48 wind turbine generators, approximately 610 feet tall, rising above the existing tree canopy;
- 34.5-kilovolt (kV) overhead and underground electrical collector system;
- an on-site substation to receive electricity from the turbines via the electrical collector system;
- overhead and underground fiber-optic communication lines and/or a microwave relay system;
- an onsite switching station to connect the project to the existing regional grid operated by the Pacific Gas and Electric Company (PG&E);
- a temporary 10-acre construction and equipment laydown area;
- up to nine (9) temporary 2-acre laydown areas distributed throughout the project site to store and stage building materials and equipment;
- up to three (3) permanent meteorological evaluation towers (METs);



- temporary, episodic deployment of mobile Sonic Detection and Ranging (SoDAR) or Light Detection and Ranging (LiDAR) systems within identified disturbance areas (e.g., at MET locations);
- two (2) storage sheds;
- up to three (3) temporary five (5) acre concrete batch plants; and
- an operation and maintenance (O&M) facility with employee parking, including a septic system and a new operational water supply well.
- Over 500 acres of permanent forest clearing and conversion of forested working lands.

The CEC's Evaluation of Air Quality Impacts Fails to Comply with CEQA

We have reviewed the Staff Assessment and related documents for the Fountain Wind Energy Project and have determined that the CEC, as lead agency, has failed to satisfy the requirements of CEQA (Public Resources Code section 21000 et seq.) in its review of the overall air quality impact resulting from project implementation. For the reasons set forth below and to afford the public and decision makers their rightful critical examination of new essential information, we urge the CEC to address inadequacies identified in these comments and recirculate the EIR.

Information Contained in Chapter 5.1 (Air Quality) of the EIR Failed to Provide Meaningful Review of Anticipated Effects

Consistency with NSVPA 2021 Triennial Air Quality Attainment Plan

Criterion a under Section 5.1.2.2 of the EIR does not provide sufficient analysis of consistency with the Northern Sacramento Valley Planning Area 2021 Triennial Air Quality Attainment Plan (Attainment Plan; see EIR pgs. 5.1-14 through 5.1-15).

Regarding construction of the project, the analysis states “*Construction activities would be conditioned to include appropriate and best available emissions control measures, consistent with Shasta County General policies for minimizing ozone precursors and particulate matter emissions*” (see EIR pg. 5.1-14). However, the analysis does not identify these conditions or explain what they require or how they would reduce emissions. Further, the EIR provides no reference as to where a reader could locate this information.

Regarding long-term operation of the project, the analysis states “*New sources of emissions would be conditioned to comply with AQMD air permitting requirements, including operating limitations and applicable emission standards that from the basis of attainment planning*” (see EIR pg. 5.1-15). Here again, the analysis does not provide any information about what these conditions are or what they would require, and the EIR provides no reference as to where a reader could locate this information. Without specific reference to and explanation of the conditions and other requirements that the project would be subject to, the EIR's determination that the impact is “*less than significant with mitigation incorporated*” is not supported by substantial evidence.

Therefore, the CEC should revise the EIR to explain what specific project conditions and other requirements are proposed and specifically how they will ensure the project would not conflict with or obstruct implementation of the Attainment Plan.

Failure to Provide Sufficient Information to Support Impact Determinations

Failure to Clearly Identify Sensitive Receptors

Section 5.1 of the EIR does not provide sufficient information regarding the location of the nearest sensitive receptors to the proposed construction and decommissioning activities. The only information provided is one paragraph stating (see EIR pg. 5.1-5):

The closest sensitive receptors to the project site would be existing residences. The nearest residence to any of the work areas on the project site would be those along Sycamore Road, approximately 1,900 feet from a construction staging area. The closest residence to any of the access roads on the project site would be along Moose Avenue, at a distance of approximately 400 feet. (FWPA TN 248288-5; Shasta County DEIR).

The EIR refers to a portion of the Fountain Wind Project Application (FWPA) as the source of information about the location of sensitive receptors (see FWPA 2020, TN 248288-5, Shasta County DEIR). The document referenced is the Air Quality section of the Shasta County DEIR for the Fountain Wind Project, which contains the same paragraph referenced above.

However, in order to properly disclose and accurately identify the location and nature of sensitive receptors in the project area, Section 5.1 of the EIR should include mapping (drawn to scale) showing the location of the nearest sensitive receptors and the distances to the closest work areas and access roads. Without disclosure of this information, it is difficult for the public and decision makers to assess the veracity of the statements in the EIR regarding the location of sensitive receptors in relation to the project site. Without knowing the specific work areas and access roads that are closest to the receptors it is also difficult to critically examine the EIR's conclusions regarding impacts to sensitive receptors. For example, due to the project design, some work areas will have a greater concentration of construction and decommissioning activities, activities which would result in greater potential for diesel particulate matter emissions and fugitive dust to impact those sensitive receptors closest to those work areas. Likewise, under the project's design, some access roads will receive higher volumes of construction-related traffic, which, in turn, would result in greater potential for the project to impact the closest sensitive receptors with fugitive dust from unpaved access roads. Therefore, the CEC should revise Section 5.1 of the EIR to provide mapping (drawn to scale) that clearly shows the location of the nearest sensitive receptors and the distances to the closest work areas and access roads, analyze the varying levels of emissions impacts on these sensitive receptors, and proposed mitigation measures to address any significant emissions impacts to these sensitive receptors.

Lack of Information about Modified Emissions Modeling by CEC Staff

Section 5.1.2.1 of the EIR (see EIR pgs. 5.1-12 through 5.1-13) explains that CEC staff modified the emissions modeling results provided by the applicant. As stated in Section 5.1.2.1:

For this analysis, staff translated the applicant's off-road fleets and activity forecasts for construction and operation into an updated version of CalEEMod (version 2022.1.1). Using the newer version of CalEEMod ensures use of the most up-to-date emissions factors from statewide databases. Staff also reviewed the proposed project Traffic Study (FWPA TN 254771; Fountain Wind Traffic Study, March 1, 2024) to verify that the emissions estimates for on-highway vehicle activity fully capture the total numbers of construction worker, vendor and hauling truck trips, including equipment and materials deliveries. When compared with the applicant's emissions estimates (FWPA TN 254767), staff increased the on-highway vehicle activity to be consistent with the

anticipated totals of vehicle-miles traveled from the March 2024 Traffic Study (FWPA TN 254771). Emissions from helicopters and use of proposed concrete batch plants during construction are unchanged from the applicant's analysis (FWPA TN 254767).

Staff also uses the updated version of CalEEMod for operation-phase results for mobile sources, the emergency generator as a stationary source, and other uses of transportation fuels and energy (natural gas) to provide landscaping and space heating for the operation and maintenance (O&M) building.

Tables 5.1-4 through 5.1-7 in the EIR appear to contain the summarized results of the updated modeling prepared by CEC staff (see EIR pgs. 5.1-17 through 5.1-20).

However, other than the summarized results in Tables 5.1-4 through 5.1-7, it does not appear that the CEC has provided documentation of the updated modeling results or provided any reference as to where this information may be found. Without access to this information, the public and decision makers do not have the ability to critically examine the data inputs or detailed modeling results from the updated emissions modeling prepared by CEC staff. (This information was provided for the emissions modeling submitted by the applicant (see FWPA 2023a, TN 250273, AIR-001_013_014 Response Memo and FWPA 2024, TN 254767, AQ Tech Memo), but the CEC has failed to provide this information for the updated modeling conducted by their staff.)

Therefore, the CEC must revise the EIR to show their work for the updated emissions modeling conducted by their staff. Otherwise, the public and decision makers are not able to critically examine the modeling used to support the significance determination of “*less than significant with mitigation incorporated*” under *Criterion b* in Section 5.1.2.2 of the EIR.

Lack of Information about Supplemental Dispersion Modeling by CEC Staff

Criterion c under Section 5.1.2.2 of the EIR (see EIR pgs. 5.1-23 through 5.1-24) explains that “*independent staff analysis*” was conducted to supplement the dispersion modeling analysis submitted by the applicant to “*reflect greater levels of on-site activity and to incorporate changes made to the proposed property boundary by the applicant after the applicant's original dispersion modeling.*” Table 5.1-8 in the EIR shows the summarized results of the dispersion modeling conducted by CEC staff.

However, other than the summarized results in Table 5.1-8, it does not appear that the CEC has provided documentation of the independent staff analysis or provided any reference to where this information may be found. Without access to this information, the public and decisions makers do not have the ability to critically examine the data inputs, methodology, calculations, and/or detailed modeling results from the CEC staff analysis. (This information was provided for the dispersion modeling analysis submitted by the applicant (see FWPA 2023b, TN 251208, Air Quality Responses), but the CEC has failed to provide this information for the analysis conducted by their staff.)

Therefore, the CEC must revise the EIR to show their work for the dispersion modeling analysis conducted by their staff. Otherwise, the public and decision makers are not able to critically examine the modeling used to support the significance determination of “*less than significant with mitigation incorporated*” under *Criterion c* in Section 5.1.2.2 of the EIR.

Documentation and References

FWPA (Fountain Wind Project Application). 2020. TN 248288-1 through TN 248288-18 - Shasta County DEIR. Accessed online at: <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=23-OPT-01>.

FWPA (Fountain Wind Project Application). 2023a. TN 250273 - AIR-001_013_014 Response Memo, dated May 23, 2023. Accessed online at: <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=23-OPT-01>.

FWPA (Fountain Wind Project Application). 2023b. TN 251208 - AQ Responses, dated July 27, 2023. Accessed online at: <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=23-OPT-01>.

FWPA (Fountain Wind Project Application). 2024. TN 254767 - AQ Tech Memo, dated March 1, 2024. Accessed online at: <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=23-OPT-01>.

Qualifications of SHN Reviewer

Planning staff from SHN who contributed to the review of Chapter 5.1 (Air Quality) include the following:

Garry Rees. Mr. Rees has over 18 years of experience in leading a variety of environmental reviews for public and private projects. At SHN, he is responsible for preparing all types of CEQA and NEPA environmental compliance documentation (EIRs, Negative Declarations, Environmental Assessments), as well as coordinating necessary technical studies. His projects have included a variety of residential, commercial, industrial, municipal, and restoration projects in northern California. His experience includes preparing air quality emissions modeling and analysis and conducting peer reviews of air quality analysis for a variety of projects in northern California. Representative projects are provided below.

Representative Projects – Air Quality Analysis

- Fountain Wind Project, Shasta County, CA.
- Klamath Dam Removal Project, Siskiyou County, CA.
- Makenze Dam Project, Shasta County, CA.
- Creek Side Homes Annexation Project, Arcata, CA.
- Old Juvenile Hall Justice Center Demolition, Redding, CA.
- Sorrel Place Affordable Housing Project, Arcata, CA.
- Pit River Tribe Hardin Road Access Project, Shasta County, CA.
- Alturas Wastewater Treatment Plant Project, Modoc County, CA
- The Avelon Hotel Project, Fort Bragg, CA.
- Anavkaam Center Renovation Project, Siskiyou County, CA.
- The Lodge Senior Housing Project, Eureka, CA.
- Elk Valley Rancheria Gas Station Project, Crescent City, CA.
- Water Tank Replacement Project, Blue Lake, CA.
- Skyline Aggregates Quarry Development, Lassen County, CA.
- Sage Commons Project, Santa Rosa, CA.
- The Village Student Housing Community Project, Arcata, CA.
- Grocery Outlet Project, Trinity County, CA.
- Redbank Habitat Enhancement Project, Siskiyou County, CA.
- Eureka Veterans Housing Project, Eureka, CA.
- 777 West San Carlos Residential Project, San Jose, CA.
- Lake Shastina CSD Wastewater Improvement Project, Siskiyou County, CA