



Memorandum

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To: Alexandre Balcerzak
Environmental Coordinator
District 1-Environmental Management
California Department of Transportation

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From: Youngil Cho
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California Department of Transportation

Subject: Noise Analysis for the Savage Creek Intake Project

Project Description

Caltrans District 1 proposes to upgrade/retrofit the existing water intake and diversion structure by removing and replacing the existing collection manifold, backfilling the diversion box with graded media, and installing a new fish friendly wedge-wire screen. The project is located in Humboldt County on Route 101 at postmile 103.6.

The purpose of this project is to require less maintenance, allow for a fish-friendly passage within the creek, and improve influent water quality. The project is needed due to sediment accumulation that causes algae and biofilm build-up in the existing intake device.

Noise

Title 23, Part 772 of the Code of Federal Regulations (23CFR772) provides procedures for preparing operational and construction noise studies and evaluating noise abatement considered for Federal and Federal-aid highway projects. Under 23CFR772.7, projects are categorized as Type I, Type II, or Type III projects.

The Federal Highway Administration (FHWA) defines a Type I project as a proposed Federal or Federal-aid project for the construction of a highway on a new location; the physical alteration of an existing highway where there is either substantial horizontal or substantial vertical alteration; the addition of through lane; the addition of auxiliary lanes, except when the auxiliary lane is a turn lane; the addition or relocation of interchange lanes or ramps added to a quadrant to complete an existing partial interchange; restriping existing pavement for the purpose of adding through-traffic lane or an auxiliary lane; or the addition of a new or substantial alteration of a weight station, rest stop, ride-share lot, or toll plaza. A Type II project involves construction of noise abatement on an existing highway with no changes to highway capacity or alignment. A Type III project is a project that does not meet the classifications of a Type I or Type II project. Type III projects do not require a noise analysis.

23CFR772 defines substantial vertical alignment alteration as a project that removes shielding thereby exposing the line-of-sight between the receptor and the traffic noise source. This is done by altering either the vertical alignment of the highway or the topography between the highway traffic noise source and the receptor. 23CFR772 defines substantial horizontal alignment alteration as a project that halves the distance between the traffic noise source and the closest receptor between the existing condition to the future build condition.

Long-Term Effects (Operational Noise)

The proposed project does not construct a new highway in a new location or substantially change the vertical or horizontal alignments and does not include any other activities discussed in the definition of a Type I project. This project meets the criteria for a Type III project as defined in 23CFR772. Traffic volumes, composition and speeds would remain the same in the build and no build condition. Traffic noise impacts are not anticipated, and a detailed noise study report is not required.

Noise abatement was not considered on this project.

Short-Term Effects (Construction Noise)

During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Noise generated by construction activities would be a function of the noise levels generated by individual pieces of construction equipment, the type and amount of equipment operating at any given time, the timing and duration of construction activities, and the proximity of nearby sensitive receptors.

Construction noise would primarily result from the operation of heavy construction equipment and arrival and departure of heavy-duty trucks. Construction noise levels will vary on a day-to-day basis during each phase of construction depending on the specific task being completed.

Minimization Measures

Noise associated with construction is controlled by 2022 Caltrans Standard Specification Section 14-8.02, "Noise Control," which states the following:

- Control and monitor noise resulting from work activities.
- Do not exceed 86 dBA L_{max} at 50 feet from the job site from 9 p.m. to 6 a.m.

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