Keith Higgins

Traffic Engineer

March 16, 2020

Bob Berlage, Communications Director
Big Creek Lumber Co.
3564 Highway 1
Davenport, CA 95017

Re: Cotoni-Coast Dairies National Monument Traffic Analysis Review, Santa Cruz County, California

Dear Bob:

As you requested, this letter provides my comments on the existing environmental documents regarding traffic issues associated with the proposed Cotoni-Coast Dairies National Monument (Project) in northern Santa Cruz County, California. I have performed traffic studies for a variety of County, Regional and State Parks in the past. These include the Hearst Castle Visitors Center, Anderson County Park, Coyote Lake County Park, Almaden Quicksilver Park, Coyote Alamitos Canal Trail, Wilder Ranch, Polo Grounds Park, Hollister Hills State Recreational Vehicle Park, Point Lobos State Reserve Satellite Parking Lot, Pogonip Park, San Vicente Redwoods Preserve as well as others. The studies for these projects routinely provided quantitative analysis of traffic operations, sight distance, channelization requirements and parking demand estimates to address the transportation and circulation issues associated with the specific project. A cursory review of the "Resource Management Plan Amendment and Environmental Assessment," February 2020, indicates that a similar analysis has not been prepared for the proposed Project.

The following comments are limited to the portion of the Project northwest of the town of Davenport and primarily associated with access to and parking supply proposed for the parking areas currently being considered along Warrenella Road and Swanton Road. The comments are arranged by the following topics.

A. The scope of work that should be performed for the environmental document to provide a full description and analysis of potential Project impacts.
B. A description of observations of physical characteristics on existing roads and intersections that are relevant to the environmental review.
C. Additional Project access and parking location alternatives recommended for consideration and analysis in the environmental document.

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D. A Vehicle Miles Traveled (VMT) Analysis will be necessary to complete the California Environmental Quality Act (CEQA) environmental documentation for the project should CEQA be necessary.

A. Environmental Document Scope of Work

The environmental document should include the following information.

1. Description and analysis of the following intersections along Highway 1 that will provide access and egress to the various project parking areas.
    a. Highway 1 / Cement Plant Road (South)
    b. Highway 1 / Cement Plant Road - Connector at Plant Main Gate
    c. Highway 1 / Cement Plant Road – Connector South of Warrenella Road
    d. Highway 1 / Cement Plant Road (North) – Davenport Landing Road (South)
    e. Highway 1 / Swanton Road (South) – Davenport Landing Road (North)
    f. Highway 1 / Swanton Road (North)

    The analysis should include:
    a. Level of service.
    b. Operational issues associated with skewed intersection alignment.
    c. Left and right turn channelization warrants.
    d. Sight distance adequacy.
    e. Street lighting (illumination).
    f. Delineation.
    g. Crash history.

2. Description and analysis of the following highways and roads that will provide access and egress to the various project parking areas.
    a. Cement Plant Road
    b. Warrenella Road
    c. Swanton Road
    d. Highway 1
    e. Mission Street (Highway 1) in the City of Santa Cruz

    The description and analysis of each road should include:
    a. Traffic volumes.
    b. General physical dimensions of the roads including lane and shoulder widths, curvature, and gradients.
    c. Pavement conditions.
    d. Delineation (shoulder striping).
    e. Numbers of residences and other land uses along access roads that may experience a quality of life impact.
    f. Travel speeds along access routes.

g. Terrain through which the access roads traverse, including warrants for guardrails, warning signs and other safety features.
h. Crash history.

3. Analysis of project traffic impacts including the following.
    a. Estimate of project traffic generation for the project as a whole. This should include the basis for attendance estimates. It should also include an estimate of the amount of project traffic that will be new traffic on Highway 1 and the amount that will be either pass-by or captured from persons already in the project vicinity that are visiting other parks and destinations.
    b. Estimate of project traffic generation for the individual parking areas serving the project.
    c. Estimates of recreational vehicle and bike traffic along County roads should be estimated. A discussion of the effect of this type of traffic on County roads such as increased conflicts with ambient traffic should be included.
    d. Project traffic assignment to individual access roads.
    e. Description of special events that are planned for the project, with associated traffic operations analysis.
    f. The resulting Existing Plus Project traffic volumes and corresponding road segment levels of service or warranted improvements to the roadway physical features.
    g. Improvements warranted including guardrails, warranted signs and other safety features under Existing Plus Project conditions.
    h. Intersection operations including levels of service warranted traffic control and left and right turn channelization under Existing Plus Project conditions.
    i. Project impacts on residential area quality of life.
    j. Project pavement impacts.
    k. Parking demand estimates for the various proposed parking areas.
    l. Estimates of and strategies to accommodate special event parking demand.
    m. Anticipated traffic enforcement requirements on the project access roads.
    n. Effect on anticipated intersection and road safety.
    o. Effect on level of service on Mission Street in the City of Santa Cruz.

4. Analysis of cumulative impacts including intensification of operations at the existing Cemex Davenport Plant and Cal Poly Swanton Ranch as well as background traffic growth on Highway 1.

5. Analysis of pedestrian and bicycle connections across Highway 1 between the Project and the Monterey Bay Sanctuary Scenic Trail. This includes an estimate of pedestrian and bicycle volumes across Highway 1 with recommendations for the associated traffic control / crossing improvements.

6. Documentation of consultation with affected agencies including Caltrans, Santa Cruz County Public Works and Santa Cruz Regional Transportation Commission.

7. Documentation of public comments and questions received at Community Meetings and Workshops. This will help in verifying that public concerns are addressed in the environmental document.

8. Comparison of Access and Parking Lot alternatives based on traffic operations, impact on County roads, impact on residential areas and ability to provide mitigation. A comparison matrix would be helpful.

B. Observations of Existing Conditions for Consideration in the Environmental Document

The following are observations of existing conditions that affect traffic operations on the roads providing access to Parking Areas 1A, 1B, 2A, 2B, 3 and 4.

1. Swanton Road Parking Areas 1A and 1B.
    a. Pavement conditions along Swanton Road should be discussed. Some locations have spalling along the edge of the roadway, which results in narrow travel lanes. Potholes and pavement deterioration also are occurring.
    b. The status of the temporary bridge at Molino Creek should be discussed. The bridge deck has a low coefficient of friction, which can result in skidding. It is understood that this bridge will be replaced at some time in the future.
    c. Sight distance along Swanton Road at the Parking Areas 1A and 1B driveway intersections should be analyzed.
    d. The traffic operations at the existing washouts on Swanton Road just south of Swanton View Road and at approximately Postmile 6.28 should be discussed.
    e. The condition of the existing Swanton Road Mill Creek bridge should be discussed. This bridge has pavement failure at the north abutment and wooden guardrails that are rotten. A “Dip” warning sign should be added.
    f. Tree and vegetation encroachment onto the Swanton Road travel way should be discussed.
    g. Hairpin turns north of Scott Creek should be discussed regarding its ability to accommodate recreational vehicles.
    h. The ability of Swanton Road to accommodate recreational vehicles in general should be discussed.
    i. The ability of Swanton Road to accommodate bike traffic generated from Parking Areas 1A and 1B should be discussed.
    j. The ability of the skewed Highway 1 / Swanton Road (North) intersection to accommodate left turns by recreational vehicles should be discussed.
    k. The effect of the skewed Highway 1 / Swanton Road (North) intersection on drivers exiting Swanton Road to observe southbound Highway 1 traffic should be discussed.
    l. The ability of the skewed Highway 1 / Swanton Road (South) intersection to accommodate left turns by recreational vehicles should be discussed.

m. The effect of the skewed Highway 1 / Swanton Road (South) intersection on drivers exiting Swanton Road to observe southbound Highway 1 traffic should be discussed.
n. Street lighting (illumination) does not exist at the Highway 1 / Swanton Road (South) intersection. Many visitors to the Project will be unfamiliar with the road system. Intersection illumination should be considered in order to better identify the intersection location if it is used as an access from Highway 1.

2. Warrenella Road Parking Areas 2A, 2B, 3 and 4 require access along Cement Plant Road past the Davenport "New Town" neighborhood.
    a. Neighborhood quality of life impacts from increased traffic should be addressed.
    b. The adequacy of the existing width of Cement Plant Road should be discussed.
    c. Speed control measures along Cement Plant Road should be discussed.
    d. Traffic control on the 1st Avenue, 2nd Avenue and 3rd Avenue approaches to Cement Plant Road should be evaluated.
    e. Pavement conditions along the access route from Highway 1 to Warrenella Road should be discussed. Some locations have spalling along the edge of the roadway, which results in narrow travel lanes. Potholes and pavement deterioration also are occurring.
    f. Consider changing Cement Plant Road to emergency access only between 3rd Avenue and the connector between Cement Plant Road and Highway 1 at Seaside Pumpkin Farms.
    g. Evaluate the need for illumination at the intersections of Cement Plant Road connectors with Cement Plant Road and Highway 1.
    h. Evaluate warrants for left and right turn channelization at the intersections of Cement Plant Road connectors with Cement Plant Road and Highway 1.
    i. At a minimum, consider guide signing to direct Project traffic to avoid the section of Cement Plant Road at New Town.
    j. Evaluate the adequacy of the width of Warrenella Road, especially near its intersection with Cement Plant Road for Parking Areas 3 and 4.
    k. Street lighting (illumination) does not exist at the Highway 1 intersections with the connectors to Cement Plant Road. Many visitors to the Project will be unfamiliar with the road system. Intersection illumination should be considered in order to better identify the intersection location if it is used as an access from Highway 1.

C. Analysis of Project Access and Parking Alternatives

Additional Project access and parking lot alternatives should be analyzed. This should include a comparison of all Project parking and access alternatives regarding impacts to County roads and nearby residential areas. Alternatives should include the following at a minimum. Also, any other alternatives that have been considered should be described in the environmental document with reasons why they are no longer being considered.

1. A new access on Highway 1 at Postmile SCR 30.22. This is approximately one-fourth mile south of the Swanton Road (South) intersection.

2. On Swanton Road approximately 400 feet north of Highway 1 and 450 feet south of Swanton Berry Farm. The existing Swanton Road intersection could also be realigned to create a perpendicular approach, offset from Davenport Landing Road by about 430 feet.

D. Vehicle Miles Traveled (VMT) Analysis

The California Environmental Quality Act (CEQA) now requires an analysis of vehicle miles traveled (VMT). If this project is subject to CEQA, the methodology and relevant policies regarding thresholds of significance will need to be determined in consultation with the Santa Cruz County Planning Department.

Finally, this project is subject to the National Environmental Policy Act (NEPA). The traffic analysis for this project should also be subject to the relevant guidelines for traffic studies for Caltrans and customary scope of work and methodology for traffic and parking studies acceptable to the Santa Cruz County Public Works and Planning Departments.

If you have any questions this letter, please do not hesitate to contact me at your convenience. Thank you for the opportunity to assist you.

Respectfully submitted,

Keith Higgins

Keith B. Higgins, PE (California Civil Engineer CE 30489), TE (California Traffic Engineer TE 1385)