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To: Coastal Commissioners and Interested Persons

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Subject: STAFF REPORT ADDENDUM for Item W 8b

Consistency Certification CC-018-07 (Foothill/Eastern Transportation Corridor Agency (TCA)), Foothill Transportation South (FTC-S) toll road in southern Orange/northern San Diego County

As noted in the revised staff recommendation mailed to the Commission on January 18, 2008, the Commission staff received from TCA: (1) a Revised Wetlands Delineation; (2) a Report on Greenhouse Gas Emissions Impacts, (3) a Report on Archaeological Resources; and (4) a "tracked changes" version of the original staff recommendation indicating what TCA considers to be errors in the original recommendation. On January 9, 2008, the Commission staff received from TCA: (1) a 500+ page critique of the original staff recommendation; (2) a copy of TCA's application to the Regional Water Quality Control Board; and (3) a Resource Management Plan for the San Mateo North Population of the Pacific Pocket Mouse. This addendum responds to the significant points raised in these submittals, as well as to the submittal by the environmental coalition of a revised "Smart Mobility" alternative recommended by this coalition for an I-5 widening alternative.

[Proposed new language is shown in underline text; language to be deleted is shown in ~~strikeout~~ text.]

Issue: Executive Summary

Modification: Modify the discussion of ESHA to reflect to reflect refined estimates of habitat acreage impacts as follows:

Environmentally Sensitive Habitat Areas (ESHA)
The project is fundamentally inconsistent with the spirit and letter of numerous resource protection policies of the Coastal Act. The project involves development within environmentally sensitive habitat areas (ESHA) and is inconsistent with the ESHA policy (Section 30240), which only allows "uses dependent on the resource" within an ESHA.

Moreover, the project is inconsistent with the additional requirements of Section 30240 because it would not protect the ESHA against any significant disruption of habitat values; not be sited and designed to prevent impacts which would significantly degrade those areas; and not be compatible with the continuance of the ESHA. The ESHA include habitat for the Pacific pocket mouse, tidewater goby, arroyo toad, coastal California gnatcatcher, least Bell's vireo, and southern California coast steelhead. The most significant adverse impacts, impacts which cannot be mitigated, would be to the Pacific pocket mouse. In fact, it is highly likely that the project would result in the complete loss of one of the three remaining limited populations of Pacific pocket mouse and thereby hasten the extinction of the entire species, which is federally listed as endangered. The project would also likely result in the loss of the only remaining coastal population of the arroyo toad, also federally listed as endangered, because it proposes at least three years of significant construction activities within more than 39~~66~~ acres of ESHA for this species. The project also proposes to conduct grading, vegetation removal, and substantial landform alteration associated with the placement of the six lane toll road within 32~~50~~ acres of the vitally important coastal sage scrub vegetation community that provides federally designated critical habitat for the coastal California gnatcatcher, a third species listed under the federal Endangered Species Act. Moreover, the project proposes permanent and prolonged use of wetland areas totaling over 29 acres, areas that have included federally designated critical habitat for two species that are federally listed as endangered, the tidewater goby and arroyo toad, and provide essential ESHA habitat for two others also provided with this listing status, the least Bell's vireo and southern California coast steelhead.

In addition to the disturbance and destruction of untold numbers of these six species and potentially irreparable harm to their local, regional and global populations, populations which have been consistently recognized as both vitally important and gravely threatened, the project would fragment and transform one of the last remaining intact watersheds and coastal canyon ecosystems in all of southern California. Considering the magnitude, extent and duration of activities associated with the project it is highly likely that well over 50~~66~~ acres of ESHA would be degraded or permanently lost. As evidenced by the large number of threatened or endangered species and federally designated critical habitats within the relatively small portion of the project area that is proposed to occupy the coastal zone, and the fact that ~~nearly 48%~~ well over one-third of the 138 acre project footprint within the coastal zone has been found to meet the Coastal Act definition of ESHA, it would be difficult to imagine a *more* environmentally damaging alternative location for the proposed toll road and one which would be more clearly inconsistent with the environmentally sensitive habitat resource protection requirements contained within Coastal Act Section 30240.

Modification: Modify the reference on page 6 to the "Smart Mobility Report" as follows:

The Commission does not agree with TCA's rejection of the CC, CC-ALPV, I-5

Widening, A7C-ALPV, and AIO Alternatives for "unacceptable adverse, social, economic, and environmental impact" reasons, or for "serious community disruption" reasons. TCA's comparison of impacts from these alternatives and the weight given to community disruption do not take into account the quality of the resources being affected, or reflect prioritization of resource values according to the resource protection priorities contained in the Coastal Act. Numerous other alternative alignments are feasible and could be found consistent with the Coastal Act, including: (1) the Central Corridor (CC); (2) Central Corridor-Avenida La Pata (CC-ALPV); (3) Alignment 7 Corridor-Avenida La Pata (A7C-ALPV); (4) Arterial Improvements Only (AIO); (5) the I-5 Widening Alternative (I-5), as described in the FSEIR or (6) the Arterial Improvements Plus-Refined (AIP-R) alternative described in "An Alternative to the Proposed Foothill South Toll Road, The Refined AIP Alternative," prepared by Smart Mobility, Inc. (Revised January 2008~~September 2007~~). The "Smart Mobility" Reports, and accompanying Peer Review (Bergmann Associated, January 23, 2008), provide ample technical, economic, and social data to show the I-5 widening would not only be a logistically and technically feasible alternative, but one that would be less costly, less socially damaging, and less environmentally damaging than the proposed toll road or the I-5 widening alternative described by TCA.

Modification: Delete a sentence in the first paragraph and two sentences in the second paragraph of the Water Quality section (page 8):

The Commission lacks sufficient information to determine the project's consistency with the Water Quality policy (Section 30231) of the Coastal Act. TCA believes the proposed toll road will improve water quality because it will incorporate Best Management Practices ("BMPs") and treat additional runoff from I-5. On September 17, 2007, TCA submitted its most recent Runoff Management Plan (dated July 26, 2007) to the Commission staff. ~~As of the date of this mailing, the Commission staff has not had time to review this document prior to the mailing for the October Commission meeting.~~ Review of this plan will be discussed in an addendum to this report. However, the Regional Water Quality Control Board (RWQCB) staff has raised a number of questions about the adequacy of this plan, as have hydrological consultants to Surfrider Foundation (Philip Williams & Associates, Ltd.), who have questioned the scale of TCA's hydrological analysis.

San Mateo and San Onofre Creeks are healthy, unimpaired and among the healthiest streams in southern California, because their watersheds are far less developed than most southern California watersheds. The proposed detention basins on I-5 TCA proposes to construct may help offset impacts on the watershed from the increased runoff and pollutant loadings from 8-9 miles of highway being constructed along San Mateo Creek and its tributary, Cristianitos Creek, but it is not clear how substantial a benefit this would provide. In addition, while TCA states that it is providing these collection facilities voluntarily, and beyond what would be required for its project, the RWQCB staff discounts this assertion, noting that State Water Board policies require installation of

such BMPs when improving existing roads. The RWQCB staff further notes that none of the available data suggest an existing water quality impairment, that the lower portions of San Onofre and San Mateo Creeks have not been proposed to be listed as impaired, and that quantifying benefits from the proposed project is difficult without adequate baseline data. ~~Finally, the RWQCB staff also indicates that TCA's monitoring plan is deficient. Based on the RWQCB staff's concerns, it would appear premature for the Commission to concur with TCA's water quality assessment that the project is consistent with Sections 30230 and 30231 of the Coastal Act, much less that it would provide a net water quality improvement to the watershed.~~

Issue: Conflict Resolution

Modification: Replace the sentence in indented paragraph (b) of the Conflict Resolution section (page 10):

Many of these issues have been discussed in detail above. Concerning **water quality**, San Mateo and San Onofre Creeks are healthy, unimpaired and among the healthiest streams in southern California, and both the Commission and the RWQCB staff question the value of the proposed detention basins on I-5 proposed by TCA. The RWQCB staff has asserted that the basins would be a normal project requirement, that there is a lack of available data suggesting existing water quality impairment or that the lower portions of San Onofre and San Mateo Creeks are impaired, and that quantifying benefits from the proposed project is difficult without adequate baseline data. In addition, the Commission notes that:

(a) not authorizing the project would be more protective of water quality in San Mateo Creek;

(b) TCA has estimated the amount of some pollutants that should be removed by the sand filter basins, but Jeremy Hass, of the San Diego RWQCB staff, is still concerned that without baseline data he cannot assess whether the Sand Filter Basins are adequately protecting water quality from local stressors (email to CCC staff dated January 23, 2008). ~~the proposed benefits cited by TCA have not been quantified or established;~~

Issue: Extent of Commission Jurisdiction
Modification: Modify the Table of Contents, p. 12, as follows:

Issue: Project Description

Modification: Modify the project description, p. 13, as follows:

According to TCA's FSEIR, ~~T~~the project includes approximately 41 million cubic yards of grading (22 million cubic yards of cut and 19 million cubic yards of fill), plus an additional 18 million cubic yards of "remedial" grading to stabilize landslides (FSEIR, p. 4.20-14 and Table 4.20-2).

Modification: Modify the Project Description, p. 16, adding the following at the end of the Project Description:

TCA's Response to CCC Report, p. 1, also states that the initial construction of the project is limited to 4 lanes, rather than the 6 lanes ultimately contemplated. The Commission agrees with TCA that the Commission would have the authority to review the additional two lanes when they are proposed for construction. The project description above (p. 13) recognizes the initial 4-lane proposal. However, an understanding of the footprint of the ultimate buildout to six lanes is critical to analyzing the project's effects on habitat, recreation, and other coastal zone effects, and to an understanding of the project's cumulative effects (which is required under Section Section 30250 of the Coastal Act, and under the California Environmental Quality Act (CEQA) § 21083(b)(2) and CEQA Guidelines § 15130). It is therefore appropriate to consider and describe the ultimate project's overall impacts.

Modification: Add New Section II.C., p. 22:

C. Extent of Commission Jurisdiction

Jurisdiction of Commission Over Activities Located Outside of Coastal Zone. Section 307(c) of the Coastal Zone Management Act[1] provides:

> *(3) (A) After final approval by the Secretary of a state's management program, any applicant for a required Federal license or permit to conduct an activity, in or outside of the coastal zone, affecting any land or water use or natural resource of the coastal zone of that state shall provide in the application to the licensing or permitting agency a certification that the proposed activity complies with the enforceable policies of the state's approved program and that such activity will be conducted in a manner consistent with the program.*

Consistent with this statutory language, section III of TCA's originally submitted consistency certification acknowledges~~d~~:

> *The implementing regulations of the Coastal Zone Management Act (CZMA) and the policies of the California Coastal Commission apply to lands within the coastal zone boundaries and to activities conducted outside the coastal zone that*

[1] 16 U.S.C. Section 1456(c)(3)(A)

> *may affect lands within the coastal zone. FTC-S includes activities in both categories. This consistency certification evaluates these activities in detail.*

However, in its January 9, 2008, Response to Coastal Commission Staff Report Released September 2007 (hereinafter described as "*TCA's Response to CCC Report*"), page 1, TCA contends that the Commission's jurisdiction is limited to reviewing only those portions of the project within the coastal zone. This interpretation gives rise to numerous allegations of "factual error" in the staff's recommendation concerning the magnitude and extent of effects to coastal zone resources. Thus, TCA attempts to limit the scope of the Commission's review of the project to only the portion of the project physically located with in the coastal zone, i.e., the seaward-most 2.2 mile portion of the project.

The Commission disagrees. TCA's assertion is clearly inconsistent with a plain reading of the Coastal Zone Management Act (CZMA), with the clear legislative intent of Congress in enacting the CZMA, with the federal regulations implementing the CZMA, with consistent past Commission decisions under the Coastal Zone Management, and, finally, with TCA's own originally submitted consistency certification.

The Commission further notes that TCA's Consistency Certification and accompanying analysis are replete with analyses of downstream impacts of the effects of upstream activities, for example the water quality, sediment, hydrological, and surfing analysis.

Commission Jurisdiction Over Activities Located On a "Federal Enclave." *TCA's Response to CCC Report*, p. 135 (footnote 40), also states that it reserves the argument that the Commission lacks jurisdiction altogether, even within the coastal zone, because of the CZMA definition of the coastal zone, and because Camp Pendleton is a "federal enclave" subject to exclusive federal jurisdiction.

The Commission disagrees, for several reasons. First, the Commission notes that TCA has asserted, but has not provided evidence to demonstrate, that Camp Pendleton qualifies as a "federal enclave." Assuming for the sake of discussion that Camp Pendleton is a "federal enclave," the Commission acknowledges legal authority that certain state laws are not applicable to such areas. See generally *Taylor v. Lockheed Martin Corp.* (2000) 78 Cal.App.4th 472. However, in conducting a consistency review of the FTC-S project the Commission is exercising authority conferred on it by the CZMA, which is a federal, not a state, law. TCA has not cited, and the Commission is not otherwise aware of, any legal authority that limits the applicability of federal law such as the CZMA to activities occurring on a "federal enclave." As one court has stated: "When an area becomes a **federal enclave**,…Federal law applies…." (*Taylor*, 78 Cal.App.4th at 481.)

Commission Jurisdiction Over Activities On Land Excluded From the Coastal Zone. TCA also reserves the argument that the Commission lacks jurisdiction over the FTC-S project because the CZMA excludes from the "coastal zone" the land on which said project is located. TCA bases its argument on the coastal zone definition in section

304(1) of the CZMA which provides that: "Excluded from the coastal zone are lands the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government, its officers or agents." Because the federal government shares concurrent jurisdiction with the State of California over both land included within the SOSB leasehold, as well as land within the I-5 corridor, it does not exercise "sole discretion" over such lands. Consequently, such lands are not "excluded from the coastal zone. The absence of "sole discretion" by the federal government over particular lands been recognized as precluding the "exclusion" of such lands from the coastal zone. See *Granite Rock Co. v. Cal. Coastal Comm'n* (N.D. Cal. 1984) 590 F. Supp. 1361, reversed on other grounds, 768 F.2d 1077, reversed 480 U.S. 572.

Consistent with the view that lands on Camp Pendleton with respect to which the federal government does not exercise "sole discretion" are not excluded from the coastal zone as defined in § 304(1), the Commission has The Commission has acted to protect sensitive habitat and other coastal zone resources on portions of Camp Pendleton subject to the SOSB and I-5 Corridor leases in the exercise of its federal consistency authority in consistency determinations and certifications CD-22-82, U.S. Marine Corps, construction and operation of a Landing Craft Air Cushion (LCAC) Base, CD-101-96 and CD-101-96 U.S. Marine Corps construction of officer housing units at San Mateo Point, CD-040-83, U.S. Marine Corps freight switching yard relocation, and a number of North County Transit District rail improvement and double tracking proposals, CC-004-05, CC-55-05, CC-52-05, CC-86-03, CC-004-05, and CC-008-07.[2]

Compelling evidence of the lack of "sole discretion" by the federal government with respect to lands comprising the SOSB and the I-5 Corridor is found in the September 24, 1974, retrocession agreements between California Governor Reagan and the Navy, and in the State Lands Commission recorded retrocession documents recorded on January 8, 1974, for the return of concurrent jurisdiction to the State of California for the term of the lease between the State and the Navy (See Retrocession Agreements, Exhibit 12).

Finally, the Commission notes that even if all relevant portions of Camp Pendleton were considered to be "excluded from the coastal zone," the Commission would still have jurisdiction over the FTC-S project by virtue of multiple spill-over effects on areas of the coastal zone outside of Camp Pendleton (e.g., recreation, water quality, and public views seaward of the mean high tide, and biological and archaeological resources of regional significance).

Modification: Modify the Necessary Information for Water Quality (page 24):

[2] TCA also asserts that the exclusion of Camp Pendleton from the coastal zone for purposes of the CZMA also deprives the Commission of permit authority over FTC-S under the Coastal Act. However, The Commission has also reviewed and issued to non-federal applicants dozens of coastal development permits for development on Camp Pendleton since 1972, including the permit for the San Onofre Nuclear Generating Station (CDP 183-73), and the subsequent amendment to that permit which resulted in the campground at SOSB (CDP 6-81-330-A, referenced elsewhere in the recreation section of this report).

2. Necessary Information.

2. Water Quality. TCA needs to submit adequate baseline data for San Mateo and San Onofre Creeks, as well as a monitoring plan to assess and quantify any degradation of the biological productivity and water quality baseline that may be caused by this project. The San Diego RWQCB staff, on September 24, 2007, requested a Baseline investigation consistent with the commitments of the EIR and cited the EIR Table 4.9-6 as representing the minimum information required. TCA responded with a Technical Memo dated December 12, 2007 describing a sampling plan for a limited suite of constituents, at two locations, during wet weather and over a six year period, but this plan is inadequate to assess the biological productivity and water quality baseline conditions or the effectiveness of the Runoff Management Plan those conditions. The project monitoring plan should be able to demonstrate the effectiveness of erosion control features in this watershed, coupled with a feedback mechanism to ensure that any adverse impacts to the San Mateo or San Onofre watersheds are corrected. ~~the additional information requested in the RWQCB staff letter to TCA dated September 24, 2007~~. The need for this information is explained in the water quality section of this report below.

Issue: ESHA

[Staff Note: Specific discussion and analysis due to continued research by the Commission and in response to information contained within *TCA's Response to CCC Report* and letters from TCA consultant Dr. Dennis Murphy and biologist Dr. Wayne Spencer regarding the Pacific pocket mouse will be addressed in a separate memorandum to be released when completed.**]**

Modification: Modify page 25 to include the following paragraph directly preceding the "Defining ESHA" subheading:

With respect to a Coastal Act policy interpretation raised in *TCA's Response to CCC Report*, p. 47 (footnote 15), TCA maintains that the Commission's application of Sections 30233 and 30340 of the Coastal Act, is discretionary, and if the Commission were to apply them, section 30512.2(b) of the Coastal Act (and of the CCMP) requires the Commission to do so only to the extent necessary to achieve compliance with one or more of the legislative goals set forth in Section 30001.5 of the Coastal Act. The Commission disagrees. Under the Coastal Act, and thus the CCMP, Section 30512.2 by its express terms applies only to Commission reviews of Local Coastal Programs, and not to the application of Chapter 3 policies generally (including federal consistency reviews).

Modification: Modify page 28 to include the following paragraphs directly preceding the "Federally Designated Critical Habitat as ESHA" subheading:

The analysis included above is questioned in *TCA's Response to CCC Report* (page 12), which states:

> *Under the subheading "Site Specific ESHA Analyses," Coastal Commission staff implies that the value now placed on these resources would influence the Commission's implementation of the law (p. 26). However, the Coastal Commission staff reject's the "values"—professional opinions—of those State and federal agencies that are mandated by law and whose expertise it is to protect sensitive species. As documented below, staff asserts, by implication, that its own opinion about species' status and habitat needs and project impacts deserve greater weight that that of these agencies. For example, the report defines as an ESHA any area within the coastal zone portion of the proposed project area that is currently or has been previously designated as critical habitat by the U.S. Fish and Wildlife Service. The USFWS, the agency that regulates critical habitat designations for federally listed species, has in several instances determined that a critical habitat designation is no longer appropriate – based primarily on the determination that existing conservation planning actions provide protections to species at a higher level than that afforded by the designation of critical habitat – and has removed such designation. Yet staff fails to acknowledge that USFWS's regulations constitute "best scientific information available," which the Coastal Commission states is the standard for their analysis (p.26). To meet its standard of basing ESHA determinations on the most current scientific information available, Coastal Commission staff should observe the expert agency's regulations, which are prepared by agency staff and subject to peer review and public notice and comment.*

As demonstrated by the Commission's extensive quoting (pages 31, 33, 34, 37, 41, 42, 43, 44, 45, 46, 47, 48, 49, 51, 52, 55, 56, 57, 59, 62, 63, 66, 72, 73, 74, 75, 76, 78, 80), careful review of and substantial reliance on extensive documents, studies, critical habitat designations and Endangered Species Act listings released by USFWS, CDFG and NOAA/NMFS over the past several decades regarding the sensitive species and their habitats located within the proposed project area, the opinions and findings released by these federal and state agencies factored heavily in Commission analysis.

Furthermore, TCA's assertion that "the [staff] report defines as an ESHA any area that is currently or has been previously designated as critical habitat by the U.S. Fish and Wildlife Service" is similarly inaccurate and taken out of context. The complete statement referred to by TCA in this quotation can be found on page 29 of this staff report and continues, "…due to the recognized and established presence of federally listed threatened or endangered species and/or the importance of these areas to the conservation of threatened or endangered species also qualify as environmentally sensitive habitat areas, ESHA." In other words, insofar as USFWS critical habitat designations function as a proxy for the indisputable presence of sensitive species within a habitat area and the importance of that habitat area for the conservation and recovery of that species, those critical habitats may also be considered ESHA.

TCA's assertion that those critical habitat areas from which USFWS has subsequently removed the critical habitat designation should therefore also not be considered as ESHA misses the point raised above. Although several of the areas previously determined to be critical habitat by USFWS within the proposed project's disturbance footprint have subsequently had this designation removed, none of the decisions to remove the critical habitat designation were based on the absence of sensitive species or a reconsideration of the importance of the area for the conservation and recovery of the species for which the habitat was determined to be critical. Because those are the only pertinent factors of a critical habitat designation that are relevant to the Commission's consideration of ESHA, the removal of a critical habitat designation that is not solely based upon those factors is not relevant to the Commission analysis. As noted by TCA above, in those instances when USFWS "has determined that a critical habitat designation is no longer appropriate, [that decision has been] based primarily on the determination that existing conservation planning actions provide protections to species at a higher level than that afforded by the designation of critical habitat" and has not been based on the determination that sensitive species no longer exist within the habitat area or that the habitat is no longer critical for the species in question. Furthermore, as this statement also demonstrates, the motivation of USFWS in removing the critical habitat designations for several of the species located within the proposed project's disturbance footprint was to "provide protections to species at a higher level than that afforded by the designation of critical habitat." In other words, USFWS considers these areas worthy of a higher level of protection than that which they can provide.

Modification: Modify page 29 to include the revised estimate of critical habitat within the project footprint by altering the appropriate sentence as follows:

The proposed temporary and permanent development of approximately 138 acres[3] within the coastal zone portion of the project area, including a substantial amount of undeveloped open space within one of the largest and least developed coastal valleys in southern California, has the potential to adversely affect a large number of the sensitive and unique species and habitats that exist within this area, including approximately 50 ~~66~~ acres[4] of federally designated critical habitat for species that are listed as threatened or endangered under the federal Endangered Species Act.

Modification: Modify page 30 to include the following paragraphs directly preceding the "Pacific Pocket Mouse" subheading:

On page 10 of *TCA's Response to CCC Report*, TCA has taken issue with references underlying the analysis and discussion of potential impacts included below by stating:

[3] Personal communication from Glenn Lukos Associates (TCA) on September 11, 2007: "The total area of CCC jurisdiction that falls within the disturbance limits is approximately 138 acres."

[4] This estimate is based on the amount of federally designated critical habitat for federally listed threatened or endangered species located within the disturbance limits of the proposed project as demonstrated in the revised Exhibit 15 and was calculated by staff of the Commission's Technical Services – Mapping Unit.

> *Moreover, despite the fact that over 50 professional biologists have been collecting and analyzing data from the project area for over 20 years, with thousands of hours spent in the field, staff chose not to contact any of these experts to discuss site conditions or research and data collection efforts.*

However, as demonstrated by the 11 pages and 130 separate citations included in the staff report's substantive file documents, Commission analysis made use of a wide range of scientific reports, scholarly journal articles, studies and research conducted by several hundred biologists and noted experts. Contrary to TCA's assertions, Commission staff had personal communications with many of the "professional biologists [that] have been collecting and analyzing data from the project area" when necessary to clear up disputes or answer additional questions but more commonly and appropriately made use of the dozens of peer reviewed and published findings released by these individual researchers.

TCA's Response to Staff Report (page 10) continues its general attempt to discredit and undermine the Commission staff's analysis by quoting a letter to the Commission staff written by TCA consultant Dr. Dennis Murphy which states:

> *The core of the staff report on sensitive species is a highly selective interpretation and reinterpretation of available observations and data, and is obviously designed to build a singular case against the toll road project – in essence, a categorical cherry picking from the standing base of information on the status and trends of species of concern, on species uses and reliance on specific habitat associations and resources, and on possible species and habitat responses to proposed and potential mitigation and management actions.*

The Commission has relied on all available information and research. As demonstrated on the subsequent pages, this research has established the presence of seven special status species and their vital habitat within and directly adjacent to the proposed project's disturbance limits and therefore contributed heavily to the Commission's determination that 50 acres of ESHA exist within the proposed project's disturbance footprint.
Modification: Modify page 35 to include the following paragraphs directly below the first paragraph:

TCA's Response to CCC Report (page 13) refutes these findings and questions the magnitude and severity of potential impacts to tidewater goby habitat by stating:

> *Critical habitat is designated for only one species within the coastal zone in the area of the project: tidewater goby. A total of approximately 130 acres of critical habitat have been designated for the goby in San Mateo and San Onofre Creeks; however, due to significant avoidance measures by TCA and FHWA, the proposed project would only result in the permanent loss of 0.011 (0.006 in San Mateo Creek and 0.005 in San Onofre Creek) acre of this area (less than 0.008 percent*

> *(eight one thousandths) of the total critical habitat designated for this species in these watersheds).*

The previous response regarding the number and relevance of currently and previously designated critical habitat areas within the project area partially addresses this issue. In addition, despite TCA's statements concerning the percentage that the proposed project's impacts would have on vital habitat areas for the federally listed as endangered tidewater goby, the fact remains that this species and its habitat will be adversely affected by the proposed project. Although TCA has chosen to focus on the restricted acreage of permanent habitat loss associated with the project, substantially more acreage exists within the proposed project's disturbance footprint and as has been clearly described in this section and noted in the project EIS/SEIR, Table 4.12-4A "Potential Impacts of the Preferred Alternative to Critical Habitat SOCTIIP," 29.3 acres (19.74 acres in San Mateo Creek and 9.56 acres in San Onofre Creek) would suffer from long-term construction related disturbance and may be rendered unsuitable for re-colonization by the tidewater goby due to the effects of landform alteration, sedimentation, shading and erosion. The project EIS/SEIR notes on page 4.12-13 that

> *Impacts to TG* [Tidewater Goby] *may occur during road improvements based on their known or reported distribution in the survey area. If construction occurs during the breeding season* [spring and summer]*, construction activities would result in a disruption of breeding activities. Physical activities in stream courses could cause additional mortality of individuals. Long-term impacts to the physical characteristics (substrate materials and creation of impediments due to upstream improvements) could also occur during the construction of the bridge/culvert structures that could effect movement of local populations. Alternatives that would affect TG include FEC-M, FEC-W, and A7C-FEC-M and Preferred Alternative (Table 4.12-3).*

Therefore, the statement by TCA that the proposed project will only affect 0.011 acres of tidewater goby occupied habitat is not consistent with its acknowledgement of impacts from construction activities required to construct the bridges over San Mateo Creek and San Onofre Creek, as well as the analysis and conclusions clearly established and provided in the project EIS/SEIR.

TCA's Response to CCC Report (pages 19-20) again takes issue with the Commission's analysis, stating regarding the tidewater goby:

> *The tidewater goby is a fish that is found in the San Mateo lagoon at the ocean end of San Mateo Creek. The project has no impacts on the lagoon. Without any supporting data, the Staff Report asserts that the project will impact approximately 24 acres of tidewater goby critical habitat (pp.31-32). Coastal staff's assertion ignores the fact that the project design includes bridge spans at both the San Mateo Creek and San Onofre Creek crossings to essentially avoid*

> *impacts in these areas. The design of the bridges at San Onofre and San Mateo Creeks has significantly reduced the level of permanent impacts to just 0.011 acre. This represents less than 0.008 percent of the total critical habitat designated for this species in these watersheds. This fraction of a percentage cannot constitute "obvious detrimental effects," as stated in the Staff Report. The Staff Report's grossly overstated impacts represent a total disregard for the facts.*

Although the Commission appreciates the efforts of TCA to minimize permanent use of important tidewater goby habitat areas through bridge design refinements, the fact remains that the project EIS/SEIR clearly establishes on page 4.12-13 and Table 4.12-4A that construction of these bridges will result in the occupation and disturbance of 29.3 acres of tidewater goby habitat (the figure of 24 acres comes from the Commission's more conservative estimate of the area that would be disturbed during bridge construction), the potential mortality of gobies within these areas and the potential long-term avoidance of these areas by the tidewater goby. In addition, although TCA asserts that the tidewater goby is restricted to San Mateo Lagoon, there is no impediment to the occupation of the southern end of San Mateo Creek by the goby as well and, accordingly, surveys conducted in this section of San Mateo Creek and referenced by TCA in the document titled *Focused Summary of Environmental Impacts in the Coastal Zone*, have noted the presence of tidewater gobies within the creek. Considering the very high density of tidewater gobies within San Mateo Lagoon, surveys have indicated as many as 10,000, the presence of these fish within the creek that feeds into the lagoon is not surprising.

Modification: Modify page 37 to include the following discussion directly following the italicized quotation by the U.S. Fish and Wildlife Service:

TCA's Response to CCC Report (p.20) responds to FWS's analysis of the CP alignment and the Commission's inclusion of the above information by stating that:

> *The Staff Report attempts to justify its gross overstatements of project impacts by citing to the 200 final rule designating critical habitat for goby which concluded that "construction of the CP alignment would likely result in the loss of [the San Mateo and San Onofre] populations and potentially preclude recovery of this species" (p.35). That analysis is outdated; the project before the Commission is not the CP alignment (cf. p.34).*

Indeed, the project currently proposed by TCA is not the CP alignment; however, this previously proposed alignment shares many notable similarities with the proposed project and is nearly identical throughout the coastal zone portion of the project area. In addition, although TCA has indeed conducted further refinements of the proposed project subsequent to the development of the CP alignment, most obviously to the proposed bridge structures over San Mateo Creek and San Onofre Creek, much of the construction techniques and requirements are the same for both alignments and therefore many of the

potential impacts can be considered to be similar in magnitude and extent. Furthermore, it can be assumed that in the analysis and conclusions made by USFWS relative to this proposed toll road project, USFWS relied heavily on information and studies related to the threats to the conservation and recovery of the tidewater goby that were subsequently consolidated in their *Recovery Plan for the Tidewater Goby*. This document discusses existing and potential threats to the species and its habitat and specifically notes that upstream alteration of sediment flows (please refer to section D of this staff report for a detailed discussion of the proposed project's potential to influence and alter sediment flows in San Mateo Creek), diversion of water flows, sedimentation, habitat modification and watercourse contamination resulting from vehicular activity in the vicinity of lagoons are paramount among the known threats to the tidewater goby and its habitat. Considering that each of these factors would be anticipated to increase substantially as a result of the proposed project and the previously proposed CP alignment, the analysis provided by USFWS in 2000 provides a valuable illustration of the potential for a project that involves substantial construction, grading and land use alteration within a relatively pristine and undeveloped watershed to adversely affect those species, such as the tidewater goby, that rely on the habitat provided within that watershed for their existence.

Modification: Modify page 41 to include the following discussion between the first and second paragraphs:

In response to the above analysis, *TCA's Response to CCC Report* states:

> *The Staff Report also inaccurately describes the proposed woodland restoration area as providing potential habitat for the tidewater goby. This statement again clearly demonstrates the Coastal Commission Staff's lack of familiarity with the proposed project and its on-site resources.*

As noted above, the Commission agrees with the marginal suitability of the wetland restoration area in term of occupation by tidewater goby. The purpose of referring to this area was to draw attention to the fact that although the proposed wetland mitigation area would be close to and hydrologically connected to the San Mateo Lagoon, use of this area by the tidewater goby would not be expected and it should therefore not be considered as potential mitigation for the anticipated loss of occupied goby habitat.

Modification: Modify page 41 to include the following discussion immediately below the final paragraph:

TCA's Response to CCC Report (pages 21-22) takes issue with this conclusion and states:

> *Finally, Coastal Commission Staff's conclusion that the area "within tidewater goby critical habitat and [the] proposed construction activities would likely result in an adverse impact to this species" (p.39) is contrary to the expert agency's opinion. After reviewing the current status of the tidewater goby, the environmental baseline for the action area, the direct and indirect effects of the*

proposed action, and the cumulative effects, it is the USFWS's preliminary opinion that construction, operation, and maintenance of the toll road is not likely to jeopardize the continued existence of the goby, nor is it likely to destroy or adversely modify its designated critical habitat. This preliminary opinion is supported by the following project facts:

(a) Very small direct impacts to tidewater goby are limited to bridge construction activities at San Mateo and San Onofre Creeks; construction may require temporary dewatering of small areas of these creeks, and the dewatering will likely occur outside the spawning season for goby to avoid and minimize impacts to goby reproduction;

(b) Gobies in the area of the potential dewatering activities will be captured by seining and released away from the construction footprint;

(c) Gobies are expected to remain in the creeks during and following construction and no appreciable reduction in the number of animals or distribution of the species is expected; and

(d) Gobies are most plentiful in the lagoons, which are over 700 feet from the impact area. These off-site lagoons are sufficient to support existing goby populations and to provide the necessary conservation function for this species.

Throughout *TCA's Response to CCC Report*, TCA repeatedly criticizes Commission staff for diverging from the opinions included within a two and a half page letter submitted to the Federal Highway Administration by USFWS in September of 2005. Several pertinent facts should be considered when assessing the validity of TCA's claims regarding this letter. Foremost, the letter was released in 2005, well before the release of the final EIS/SEIR and well before the completion of TCAs alterations and amendments to the proposed project, which by their own admission occurred through 2005 and included the development of a new "preferred alternative" that differed from the A7C-FEC-M Initial Alignment referred to and analyzed in the USFWS letter.

In addition, the letter from USFWS repeatedly qualifies the statements included therein as cursory, subject to further revision and provided at such an early stage only at the specific request of the FHWA. For example, the second paragraph begins: "Based on our draft analyses, we have determined in our preliminary conclusions that the construction and maintenance of the SOCTIIP A7C-FEC-M Initial Alignment (the "proposed action") will not jeopardize the continued existence of the Riverside fairy shrimp, San Diego fairy shrimp, tidewater goby, southwestern willow flycatcher, least Bell's vireo, or thread-leaved brodiaea." The USFWS letter provides no further discussion of these species, the rationale behind this preliminary determination, the information that was considered in their "draft analysis," the anticipated and potential impacts that were considered and analyzed to formulate this determination.

The Commission's Coastal Act consistency analysis is based on broader habitat questions than simply "jeopardy to continued existence" and has therefore relied more substantially

and more appropriately on the wealth of finalized, peer reviewed and publicly vetted studies, research reports and articles that have been made available as a result of the diligent work of biologists funded through academic institutions, research organizations, USFWS, USGS, CDFG, NOAA/NMFS and U.S. Marine Corps Base Camp Pendleton.

Notably, the letter also includes a reference to the other sensitive species located within the project area that TCA has less frequently drawn attention to. The third paragraph begins: "Our draft analyses for the arroyo toad, coastal California gnatcatcher and its designated and proposed critical habitats, and PPM [Pacific pocket mouse] identify significant project-related impacts to individuals, populations and habitat for these species." Although, as above, Commission staff has relied solely on these draft findings and notes that supporting documentation or analysis was not provided to corroborate them.

Regarding the project facts noted by TCA in the excerpt from *TCA's Response to CCC Report* included above, far from lending support to TCA's previous assertions that tidewater gobies will not be found within the disturbance area and will therefore not be affected by the proposed project, these facts suggest that gobies do indeed inhabit the area to be used for construction activities. Furthermore, the measures proposed to be taken to ensure that these fish are not adversely impacted, if instituted as proposed, appear likely to result in the disturbance and mortality of at least some tidewater gobies. Dewatering portions of the creek to allow the placement of construction equipment and bridge supports would result in substantial alteration of the creek bed as well as displacing those fish within the dewatered area. The status and suitability of the habitat once water is allowed to return is questionable and is unlikely to represent the same quality habitat that was present before the dewatering occurred.

Modification: Modify page 45 to include the following discussion immediately below the first paragraph:

TCA's Response to CCC Report (page 22) disputes the analysis and information provided above by stating:

> *Extensive surveys for arroyo toad did not identify any toads within the coastal zone portion of the project (1987 through 2001, EIS/SEIR Section 4.12.2.1).*

The Commission disagrees. Section 4.12.2.2 of the project EIS/SEIR – Threatened and Endangered Wildlife Species (TCA's reference to Section 4.12.2.1 is in error as this section refers to Threatened and Endangered Plant Species) states that: "USFWS-protocol surveys were conducted in 2001 in known occupied AT [arroyo toad] habitat, including… Cristianitos Creek and San Mateo Creek in the study area. Six surveys were performed on each reach of known occupied streams, unless that segment became seasonally dry… Locations of AT observations were mapped on color aerial photographic maps (Figure 4.11-3e)." A review of the relevant figure immediately

reveals that four separate arroyo toads were observed within the coastal zone portion of the project area, all of which were within or immediately adjacent to the proposed project's disturbance footprint. Figure 4.11-3e from the project EIS/SEIR is available on TCA's website at: http://www.thetollroads.com/home/Section%204/4.11%20Figures/Figure%204.11-3e%2010.pdf

In addition, the reference to surveys conducted within the coastal zone from 1987 through 2001 is similarly inaccurate. As stated above, the only arroyo toad survey conducted within the coastal zone was started and completed in 2001. Therefore, in direct contradiction of TCA's claim that five years of surveys did not reveal a single arroyo toad within the coastal zone portion of the project, the EIS/SEIR reveals that only six surveys conducted over a single year clearly demonstrated the presence of arroyo toads within the project footprint.

Furthermore, in support of the information provided in the EIS/SEIR a recent letter dated January 22, 2008, from Robert Lovich, a noted biologist with nearly a decade of direct experience with the management, research and conservation of arroyo toads, reiterates:

Page 8 of the executive summary of TCA's response states that the arroyo toad was not identified by surveys "within the coastal zone portion of the project." However, even if these particular surveys did not find the arroyo toad [although they actually did], the fact remains that they do occur within the footprint of the project within the coastal zone. Overwhelming evidence for this exists in the collections, peer reviewed literature, contract reports, and my own personal observations (Holland and Goodman 1998, Shanahan 1998, Atkinson et al. 2003, Brehme et al 2006, pers. Obs.). Precise locations in reports plus the mobile nature of the species guarantees occupation and utilization of the project footprint by arroyo toads. TCA ignores the best available scientific information amassed over decades of work on the arroyo toad in San Mateo Creek.

Modification: Modify page 45 to reflect revised estimate of habitat acreage impacts by modifying the second sentence (and associated footnote) below the "Potential Effects on ESHA and Arroyo Toads" subheading, as follows:

The proposed use of nearly 40 ~~66~~ acres[5] of previously designated arroyo toad critical habitat in and around San Mateo Creek for equipment and materials storage and staging, construction and use of access roads, scaffolding, elevated support structures, retaining walls, and other construction related activities for approximately three years would result in the loss of upland and riparian habitat, increased sedimentation and habitat alteration, and would increase the potential for direct mortality to toads due to interactions with

[5] Although the project EIS does not include a calculation of previously designated arroyo toad critical habitat within the proposed project's disturbance limits, staff of the Commission's Technical Services Mapping Unit have calculated the area of previously designated arroyo toad critical habitat within the disturbance limits to be 39.33 ~~65.95~~ acres, as demonstrated in the revised Exhibit 15.

construction vehicles and equipment and sediment and water contamination due to the release of construction related fluids and materials.

Modification: Modify page 45 to include the following discussion immediately preceding the final sentence of the second paragraph which begins "As stated in the 1999…" :

TCA refutes this analysis on page 9 of TCA's Reponse to CCC Report by stating that:

> *The Coastal Commission staff grossly overestimates the potential arroyo toad habitat to be impacted by the proposed project. Staff's calculations of 66 acres (p.43) includes approximately 32 acres of habitat types that cannot or do not support the arroyo toad such as existing transportation facilities (I-5 and other paved roadway surface) and other developed/disturbed areas containing non-native and ornamental vegetation (landscaped areas).*

A subsequent re-examination of the amount and location of previously designated arroyo toad critical habitat within the proposed project's disturbance limits (for which Commission staff's calculation of ESHA acreage was based) has revealed that USFWS did indeed include developed areas such as I-5 as critical habitat. In light of this recent finding, Commission staff has re-calculated the amount of arroyo toad ESHA within the proposed project's disturbance limits as approximately 40 acres. This revised figure does not include developed areas such as I-5.

Modification: Modify page 48 to reflect revised estimate of habitat acreage impacts by modifying the second and third sentences of the first paragraph as follows:

As mentioned previously, the proposed project includes the clearing, grading and use of nearly 40~~66~~ acres of ESHA for three years during construction to facilitate staging areas, access roads, and construction areas. In addition, proposed project activities would likely degrade additional arroyo toad occupied or potentially occupied ESHA outside of the 40~~66~~ acres directly within ~~or adjacent to~~ the proposed project's disturbance limits.

Modification: Modify page 48 to include the following discussion immediately preceding the "Mitigation" subheading:

TCA consultant Dr. Dennis Murphy disputes the analysis included above by stating in *TCA's Response to CCC Report* that:

> *The arroyo toad is widespread in the San Mateo and San Onofre watersheds; with nearly all of its extensive local distribution above the coastal zone, where an extraordinary ninety-plus percent of available habitat was occupied by the arroyo toad as recently as 2003. As is clear from maps at Tabs 15 and 16 in the staff report, the fate of the arroyo toad in the overall project area is very much a matter of its survival in areas inland (and largely well inland) of the coastal zone.*

> *And, as with the Pacific pocket mouse, surveys in support of the EIS/SEIR did not find the species in the coastal zone portion of the project area.*

This statement is refuted by the project EIS/SEIR. As stated before, Figure 4.11-3e of the project EIS/SEIR clearly demonstrates arroyo toads within the project disturbance footprint within the coastal zone. Furthermore, although not cited and therefore not verified by Commission staff (although it is assumed that the reference is to the March 2007 MCB Camp Pendleton *Integrated Natural Resources Management Plan* –see relevant quote on pages 44 and 45 of the staff report), Dr. Murphy's assertion that greater than 90% of available habitat adjacent and contiguous with the coastal zone was occupied by the arroyo toad in 2003 lends further support to the likelihood and importance of suitable arroyo toad habitat within the coastal zone and within the project footprint. Such dense occupation of adjacent habitat areas in 2003 would suggest that had TCA conducted arroyo toad surveys within the coastal zone in 2003 instead of 2001, many more toads may have been observed within the coastal zone.

In addition, Dr. Murphy's assessment is again contradicted by Robert Lovich, who has been studying the arroyo toad within the project area for nearly 10 years. Mr. Lovich has substantial experience with the arroyo toad and asserts in an August 16, 2007, letter to the Commission (Exhibit 8 of the list provided in this addendum) that:

> *This project would significantly disrupt arroyo toad populations in the coastal zone of San Mateo Creek watershed, and over the long term would impact populations in neighboring watersheds and tributaries as well.*
>
> …
>
> *…potentially irreversible fragmentation of arroyo toad populations within and without the coastal zone would result from the construction of the proposed toll road. The toll road footprint represents the last wildlife corridor that extends from the Pacific Ocean inland to the Santa Ana Mountains. Areas to the north and south have already been compromised by development, and arroyo toads vanished from these areas long ago. The toll road in this location would degrade and fragment this extraordinary relict of a once larger functional ecosystem in southern California.*

Modification: Modify page 51 to include the following discussion immediately below the second paragraph:

Furthermore, while this strategy may be successful in removing toads from the construction area, due to the fact that adjacent habitat within the San Mateo Creek and San Onofre Creek watersheds is so densely occupied, as demonstrated in the March 2007 MCB Camp Pendleton *Integrated Natural Resources Management Plan*, from 91% to 98% of available breeding habitat was occupied by arroyo toads in these watersheds in

2003 surveys, it is likely that the displacement of arroyo toads from the 66 acres of arroyo toad occupied ESHA within the project footprint would substantially increase resource competition in adjoining areas that may already be spatially constrained. The relocation of toads into areas already heavily used and occupied by other toads may result in adverse impacts to both populations.

Modification: Modify page 54 to include the following discussion immediately preceding the "Conclusion" subheading:

In addition to the mitigation measures described and analyzed above, *TCA's Response to CCC Report* (page 24) includes a reference to the use of wildlife undercrossings by the arroyo toad:

> *In coordination with USFWS, large diameter culverts have been incorporated into the project design under the road to provide for wildlife movement to upland areas west of the alignment. In addition, TCA has committed to installing a permanent mesh fence at the base of the chain-link fence along the roadway in areas near toad habitat. The fencing will act as a barrier, keeping toads off the road, and as a drift fence to funnel toads to culverts that cross under the road.*

TCA has provided no evidence to suggest that this strategy will be successful. Careful review of the wildlife undercrossing annual monitoring reports from the previous SR-241 toll road project from 1999-2003 demonstrate that wildlife undercrossings are only marginally successful in providing movement corridors for larger wildlife such as deer, coyote, bobcats and skunks, despite the fact that attractants were often present near the entrance to the undercrossings. The Commission is unaware of research demonstrating that small, less mobile animals such as toads would use the large culverts that TCA is suggesting or would be "funneled" to these culverts by exclusionary fencing.

Modification: Modify page 54 to include the following discussion immediately below the "Conclusion" paragraph:

TCA's Response to CCC Report (page 22) refutes the analysis provided above regarding the coastal population of arroyo toads within the project area by stating:

> *Without any scientific justification, Coastal Commission staff has fabricated a "coastal population" of arroyo toads upon which it has concluded that the project would have "substantial adverse impacts" (p.52). There is absolutely no scientific data supporting the claim that the arroyo toads closer to the coast are genetically any different from the abundant toads further inland.*

The Commission disagrees. Regarding scientific justification for the idea of a genetically distinct coastal population of the arroyo toad, several studies have tested and reinforced this theory including research conducted by J.A. Shanahan in 1998 and cited by Robert

Lovich in his August 16, 2007 letter to the Commission (Exhibit 8 of the list provided in this addendum) which notes that:

> *Shanahan (1998) studied the population genetics of the arroyo toad using micro-satellites and found evidence of recent gene flow between populations in San Onofre Creek and San Mateo Creek watersheds. Variation was found among populations within San Mateo Creek tributaries as well. This data, and that from my PhD. Dissertation* [regarding the mitochondrial DNA sequence variation within the arroyo toad] *support the model that gene flow is occurring in geographically proximal streams such as San Mateo River and San Juan Creek. Such gene flow is well known to maintain genetic diversity and avoid deleterious effects from inbreeding.*

This idea is further reinforced by Robert Lovich in his recent January 18, 2008, letter to the Commission (Exhibit 8 of the list provided in this addendum) which clarifies that:

> *Section iv of TCA's response claims that "There is absolutely no scientific evidence that arroyo toads closer to the coast are any different from those inland." This is a false statement. The M.S. Thesis by Shanahan (1998) that I cited in my letter, conclusively proves otherwise. Arroyo toads are significantly different genetically in coastal portions of San Mateo and San Onofre Creek than populations farther inland or in other watersheds.*

Modification: Modify page 56 to reflect revised estimate of habitat acreage impacts by modifying the first sentence (and associated footnote) of the final paragraph as follows:

The final critical habitat area designated for the coastal California gnatcatcher therefore includes all 2,960 acres of San Onofre State Beach, including a substantial portion of the project area and ~~48~~over 32 acres[6] within the proposed project's disturbance limits.

Modification: Modify page 57 to include the following discussion immediately below the first full paragraph:

TCA's Response to CCC Report (page 27) disputes the presence of gnatcatchers within the coastal zone by stating that:

> *However, multiple years of data collection documents that not all coastal sage scrub within the coastal zone is occupied by gnatcatchers.*

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[6] Staff of the Commission's Technical Services Mapping Unit have calculated the area of designated gnatcatcher critical habitat within the coastal zone portion of the proposed project's disturbance limits to be 32.36~~48~~ acres, as demonstrated in the revised Exhibit 15. This calculation ~~closely matches~~ differs from the estimate of 49.75 acres provided to Commission staff by TCA due to the fact that TCA's estimate includes all coastal sage scrub within the disturbance footprint while the Commission's estimate focuses solely on coastal sage scrub that is known to be occupied by the coastal California gnatcatcher and has been designated as critical habitat for this species by USFWS.

This statement is refuted for the reasons described on pages 55 through 60 of the staff recommendation, and by the January 16, 2008, letter to the Commission from field biologist Robert Hamilton (Exhibit 4 of the list provided in this addendum), which cited recently conducted successful gnatcatcher specific habitat surveys carried out within the proposed project's disturbance footprint before concluding:

> *I have documented that within that portion of the coastal zone that would be impacted by grading for the Foothill Transportation Corridor, four out of five existing stands of coastal sage scrub are generally intact and well-connected to surrounding natural open space areas. Only Area B is too narrow and isolated to be regarded as being valuable as wildlife habitat. The scrub in Area C is lush and healthy, but is probably too chaparral-like to be occupied by California Gnatcatchers. Area A shows signs of prior disturbance, but nevertheless includes approximately 6.4 acres of California Sagebrush-dominated scrub that appears to be suitable for use by gnatcatchers. Areas D and E provide approximately 21.0 acres of high quality habitat for the gnatcatcher. Thus, I have identified approximately 27.4 acres of coastal sage scrub habitat within the proposed limits of grading that I know or expect to support California Gnatcatchers.*

The Commission agrees with Mr. Hamilton's findings concerning the portion of the project footprint along I-5 and described as Area B in his letter as not being considered to be coastal sage scrub ESHA for the gnatcatcher. It should also be noted that Mr. Hamilton's survey did not include all portions of the project footprint within the coastal zone (most notably those sections contiguous with Areas D and E identified by him and near the San Mateo Creek), and accordingly the total area of 27.4 acres he has cited may be an under-representation of occupied gnatcatcher ESHA within the project footprint. Nevertheless, Mr. Hamilton's survey work was successful in identifying several gnatcatchers within the project's disturbance limits within the coastal zone and is illustrative of the continuing use of these habitat areas by the gnatcatcher and the high quality habitat that these areas represent.

Modification: Modify page 57 to reflect revised estimate of habitat acreage impacts by modifying the second sentence below the "Potential Effects on ESHA and Gnatcatchers" subheading, as follows:

Through the proposed removal of nearly 32~~50~~ acres of gnatcatcher occupied coastal sage scrub ESHA that has been designated as critical habitat for this species, project activities within the coastal zone have the potential to adversely affect the gnatcatcher population in a variety of ways.

Modification: Modify page 58 to reflect revised estimate of habitat acreage impacts by modifying the second full paragraph (and associated footnote), as follows:

Regardless of whether or not construction activities occur during the gnatcatcher breeding season, however, proposed project activities include the removal of roughly 215 acres of gnatcatcher occupied coastal sage scrub habitat that has been designated as critical habitat. Of these 215 acres, approximately 32~~49.75~~[7] acres would be located within the coastal zone portion of the project's disturbance limits. These nearly 32~~50~~ acres would support project construction activities for approximately three years and would experience substantial amounts of grading activities and vegetation clearance. TCA has not proposed mitigation for this use of coastal sage scrub ESHA and gnatcatcher critical habitat within the coastal zone.[8] Additionally, because the proposed project includes the placement of one of the primary construction staging areas and approximately one year of pile driving (six months for each of the two elevated toll road "flyways") within this 32~~50~~ acre footprint, it is likely that elevated noise levels would extend well into adjacent areas during the construction phase of the proposed project.

Modification: Modify page 59 to reflect revised estimate of habitat acreage impacts by modifying the first full paragraph and final sentence as follows:

As detailed in the *Final Determination of Critical Habitat for the Coastal California Gnatcatcher*, the habitat area within San Onofre State Beach and MCB Camp Pendleton, including the 32.36~~49.75~~ acres proposed to be used by TCA during the construction and operational phases of the proposed project, represents not only a breeding area for gnatcatchers but also provides a vital linkage between several important gnatcatcher populations. The continued existence of this linkage is important to maintain genetic exchange between separate populations and is essential to preserve the genetic diversity of the species and thereby augment its ability to adapt to environmental changes, including those induced by climate change. The permanent and temporary loss of these 32.36~~49.75~~ acres has the potential to lower the overall carrying capacity of the greater habitat area for which these acres are a part by reducing the amount of available forage and breeding habitat. Furthermore, the 32.36~~49.75~~ acres that are proposed to be removed consist of one of California's most imperiled vegetation and habitat communities, coastal sage scrub. Within San Diego County this habitat type has routinely been designated as ESHA by the Commission (in CDP numbers 6-03-098, 6-03-099 and Consistency Certification CC-004-05, for example).

...

In effect, the removal of approximately 32~~50~~ acres of gnatcatcher occupied sage scrub habitat would substantially increase competition in the remaining habitat areas and may result in a cascading effect of territory displacement and crowding of remaining areas.

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[7] ~~Paragraph 4 of page 2.8-14 of the *Focused Summary of Environmental Impacts in the Coastal Zone.*~~ As demonstrated in the revised Exhibit 15 and calculated by Commission Mapping staff.

[8] Areas proposed by TCA to serve as mitigation for the loss of coastal sage scrub within the coastal zone are located approximately 12 to 16 miles inland from the coastal zone boundary and are therefore considered to be inappropriate mitigation for impacts to coastal resources.

Modification: Modify page 60 to include the following discussion immediately preceding the "Mitigation" subheading:

In response to the Commission's analysis of the increased risk of fire due to the increased vehicular use and public presence in fire prone areas transited by the proposed toll road, *TCA's Response to CCC Report* states that:

> *Contrary to staff's conclusions (e.g. 58) the project will not substantially increase the risk of wildfire. The proposed project would provide increased public access to the study area; however, the entire alignment would be fenced, in part, to restrict access from adjacent land uses… Coastal Commission staff ignores the fact that the proposed project enhances the ability of firefighters to move fire protection resources from one aera to another using the corridor and the firebreak properties that the road provides in the even of a wildfire. These benefits were realized during the devastating Santiago Canyon Fire (2007) that burned nearly 30,000 acres in Orange County as well as in the Anaheim Hills fire in February 2006 and for the Coto de Caza/Rancho Santa Margarita fire in May 2002. During these wild fires, the toll road served not only to provide emergency vehicle access to fire areas and evacuation routes for residents, but was also used effectively as a fire "break" for the control and containment of fire.*

The Commission's previous conclusions regarding the proposed project's potential to increase the incidence of fire ignitions within the project area is supported by a January 22, 2008, letter to the Commission from wildland firefighter and director of the California Chaparral Institute, David Halsey (Exhibit 9 of the list provided in this addendum) which states:

> *The Coastal Commission's staff report correctly concluded that the toll road would "increase the likelihood of fires occurring within gnatcatcher habitat surrounding the toll road route." The TCA's response that the project would "not substantially increase the risk of wildfire" is simply unsupported.*
>
> *TCA notes that the "entire alignment would be fenced, in part, to restrict access from adjacent land uses." But the absence or presence of fencing has nothing to do with whether or not a road increases fires risk. The mere presence of vehicles and associated passenger activities, accidents, and equipment malfunctions dramatically increase fire risk. This is why so many fires originate next to roads. For example, road activity is one of the primary causes of fire starts within the Cleveland National Forest. I have attached a map showing the origins of fires within the Descanso Ranger District of the Cleveland National Forest. As you can see, a significant percentage of fire starts occur along the I-8 corridor (USFS 2007).*

> *To state that the presence of a major road like the proposed Foothill-South in a fire-prone shrubland ecosystem would not increase fire risk is contrary to all the data concerning wildland fires in southern California (UWM 2006). TCA's argument that the toll road would provide access to firefighters, might act as a fire break, and would include mitigation measures such as warning signs and call boxes, does not mitigate the increased fire risk the road would cause. During increasingly frequent extreme fire weather conditions, wind-driven wildland fires usually jumped multi-lane interstate highways. And while firefighting resources can certainly use the toll road, the increased fire risk the road brings to the landscape is not an acceptable trade off. The TSA's reference to the 2007 Santiago Canyon fire and the 2006 Anaheim Hills fire as evidence large roads can be an advantage during wildfire events, is not compelling.* ***The Santiago fire jumped over the 241 Toll Road several times.*** *The more important issue is that we could dramatically reduce fire starts in the first place by eliminating roads through fire-prone environments.* [emphasis in original]

Similar support is provided in another recent letter (Exhibit 10 of the list provided in this addendum), also dated January 22, 2008, from USGS research ecologist Jon Keeley which states:

> *We live in a part of the world in where humans play the dominate role in determining when and where fires occur. In southern California several studies have shown that fires are over-whelmingly tied to roads. In many parts of the region a map of where fires ignite is often nearly a carbon copy of a road map [see figure provided with Exhibit 9 of the list provided in this addendum]. These fires come about through both accidental ignitions such as sparks from catalytic converters as well as carelessness of discarded cigarettes. It is a well established fact that when new roads are established they bring with them a greatly increased incidence of fires.*
>
> *Although roads of the scale of the toll road have the potential for acting as a fire break, which diminishes fire spread, this is generally only true under moderate weather conditions. However, under the weather conditions that lead to our most destructive fires, roads and even major highways seldom act as a barrier to fire spread.*
>
> *In short, when considering projects such as this new road, it is important that the Commission factor in the likelihood of increased fire incidence on the landscape and the costs this will likely have both on communities as well as the devastating impacts that frequent fires have on natural resources.*

Modification: Modify page 61 to include the following discussion immediately preceding and following the "Conclusion" subheading:

TCA's Response to CCC Report (page 28) draws attention to additional mitigation proposed to be carried out in association with the proposed project:

> *Further confounding the evaluation of project impacts, the Staff Report ignores the conservation importance of the mitigation strategy for impacts to the coastal California gnatcatcher. TCA implemented the USFWS-recommended mitigation measure of protecting over 1,182 acres within its Upper Chiquita Canyon Conservation Area.*

In numerous instances the Commission has historically found mitigation carried out outside of the coastal zone may not be adequate compensation for the loss of coastal resources. Regarding the Upper Chiquita Canyon mitigation area, it should be noted that this area is several miles inland of the coastal zone and mitigation carried out in this area is therefore not expected to result in any meaningful minimization or compensation for coastal zone resources. Furthermore, the importance of the gnatcatcher occupied coastal sage scrub habitat within the project's disturbance limits has not been contested by TCA nor has the conclusion that this area be considered as ESHA.

Regarding mitigation, *TCA's Response to CCC Report* (page 28) also notes that:

> *In addition to the significant conservation benefits provided by the protection and restoration of Upper Chiquita Canyon Conservation Area, TCA has identified an additional 150 acres of coastal sage scrub for restoration within Crystal Cove State Park.*

Although this area has indeed been identified for restoration by TCA, substantial information exists which suggests that it would be inappropriate to assume that the proposed project would facilitate this restoration work. Foremost, it is the Commission's understanding that the offer of $100 million to the California Department of Parks and Recreation carries no requirements in terms of what this money would be used for. In other words, although TCA has identified a variety of potential projects, there is no guarantee or reason to suggest that any of these projects would be carried out as a result of TCA's contribution to the State Park budget. Furthermore, as stated in a January 10, 2008, letter to the Commission from Dr. Wayne Spencer (Exhibit 2 of the list provided in this addendum):

> *I understand that the Transportation Corridor Agency (TCA) is proposing to mitigate for impacts to CSS [coastal sage scrub] by restoring 150 acres of CSS habitat at CCSP [Crystal Cove State Park]. However, according to David Pryor, District Ecologist with the California Department of Parks and Recreation (personal communication, 7 January 2008), in accordance with State Park General Plan policies, all appropriate CSS and other habitat restoration at the park is ongoing, and hundreds of acres (including about 220 acres of CSS) have*

> *already been restored. The remaining acreage will be restored regardless of TCA's proposal, and the amount of potential additional CSS restoration is only "in the tens of acres" according to David Pryor (personal communication)* [emphasis added].

Conclusion
In addition to directly removing and occupying 32~~50~~ acres of gnatcatcher occupied coastal sage scrub ESHA during the construction phase of the proposed project, the project also has the potential to indirectly and directly cause mortality to this endangered species during both the construction and operational phases of the proposed project. Adverse affects resulting from habitat loss, increased resource competition, interruption of breeding activities, reduced reproductive success, increased incidence of wildfire, loss of population linkages, and loss of nests, eggs and juvenile or nestling birds have the potential to negatively affect the gnatcatcher population throughout the region. In addition, the effects of elevated noise and construction activities may result in adverse impacts to gnatcatchers well beyond the 50 acres identified by TCA as within the immediate construction footprint. As described in the introduction to this section, Section 30240 of the Coastal Act specifies that "…*only uses dependent on those resources* shall be allowed within … [environmentally sensitive habitat] areas." The proposed use of 32~~50~~ acres of ESHA for the construction and placement of a toll road is clearly inconsistent with this Coastal Act policy.

Modification: Modify page 64 to include the following discussion immediately preceding the "Potential Effects on ESHA and Vireos" subheading:

TCA's Response to CCC Report (page 11), through an excerpt from the letter TCA consultant Dr. Dennis Murphy submitted to the Commission, refutes this conclusion be stating:

> *The salient fact is that today in the San Mateo and San Onofre watersheds alone there are nearly half as many vireos than existed statewide at the 46 locations that were occupied when the bird was granted federal protection in 1986. While not yet formally designated as "recovered" by FWS, the least Bell's vireo has experienced one of the greatest reversals in population trend of any federally protected species in California. Given that the toll road project will directly impact just over one and a half percent of the current local "population" of least Bell's vireos, and substantially less than a tenth of one percent of current regional numbers of the species, an independent scientific assessment of impacts on the vireo would not agree with staff that the proposed project is "inconsistent with the environmentally sensitive habitat resource protection requirements" in the Coastal Act.*

Although Dr. Murphy has not provided citations to support the figures noted in his letter, it can be presumed that the population increase that the least Bell's vireo has achieved

over the past several decades can be attributed, at least in part, to the fact that as a species listed both federally and by the State of California as endangered its breeding and foraging habitat has been granted a high level of protection. A reversal of this positive trend towards recovery would therefore likely occur if these protections were removed and destruction of these vital habitat areas was permitted to occur. In addition, by citing the large number of vireos that currently exist within the San Onofre Creek and San Mateo Creek watersheds, Dr. Murphy reinforces the importance of these riparian habitat areas to the continued recovery and conservation of the species. Such information is not surprising considering the fact that these watersheds are some of the last remaining intact watersheds in southern California and lends support to the Commission determination to consider least Bell's vireo occupied habitat within the proposed project's disturbance footprint as ESHA.

Modification: Modify page 71 to include the following discussion immediately following the "Conclusion" paragraph:

This conclusion is addressed in *TCA's Response to CCC Report* (page 10) through an excerpt from the letter TCA consultant Dr. Dennis Murphy submitted to the Commission which states:

> *For the least Bell's vireo, the toll road Environmental Impact Report/Subsequent Environmental Impact Statement (EIR/SEIS) recognizes disturbance or permanent loss of portions of just two vireo "breeding" territories in the coastal zone- is a trivial impact on a species that is distributed along riparian strands throughout the San Mateo and San Onofre Creek watersheds, as well several dozen additional watersheds across southern California.*

As Dr. Murphy readily admits and the preceding discussion establishes, the presence of this species and its vital habitat within the area that would be disturbed or permanently lost is undeniable. As noted above and defined in Section 30107.5, this habitat area is therefore clearly ESHA and is afforded the protection provided by Section 30240 of the Coastal Act.

Modification: Modify page 83 to reflect revised estimate of habitat acreage impacts by modifying the first sentence of the first paragraph as follows:

General Mitigation Measures
In addition to those specific impacts to the Pacific pocket mouse, tidewater goby, arroyo toad, coastal California gnatcatcher, least Bell's vireo, southern California coast steelhead trout and San Diego fairy shrimp and at least 5066 total acres of ESHA, as detailed above and demonstrated in the revised Exhibit 15, the proposed project would also potentially adversely affect additional species and habitat located within and adjacent to the 138 acres of the project footprint located within the coastal zone.

Modification: Modify page 86 to include the following discussion within and immediately below the "Conclusion" paragraph:

Conclusion
Despite the implementation of these mitigation measures, as well as those described for each endangered or threatened species listed above, the Commission concludes that the proposed project's permanent and/or temporary use of approximately 5066 total acres of ESHA is not a use allowable within such habitat, and would not protect such habitat, and is therefore inconsistent with the requirements of Section 30240 of the Coastal Act.

TCA's Response to CCC Report (page 14) takes issue with this conclusion and the analysis included above by stating:

> *Perhaps most troubling is that the Staff Report reaches conclusions about project impacts without taking into account the extensive mitigation measures required by State and federal law that avoid, minimize, and compensate for impacts to biologically sensitive areas. As staff well knows, the project cannot be built without these measures. Because of this omission, the report mischaracterizes and vastly overestimates project impacts.*

The Commission disagrees. The Commission's analysis takes into account each relevant mitigation measure proposed by TCA to address anticipated adverse impacts to sensitive species and habitats. Thus, the conclusions regarding the project's impacts were made subsequent to the review and analysis of these mitigation measures. It should be noted however, that despite TCA's effort to avoid and reduce project impacts, even after mitigation, a substantial number of the proposed project's impacts remained and substantial resource damage as a result of the proposed project would be inevitable and unavoidable. Furthermore, based on the availability of less environmentally damaging alternatives and the proposed project's unavoidable occupation, disturbance and destruction of over 50 acres of ESHA, the Commission has determined that mitigation designed to "compensate for impacts to biologically sensitive areas" would be insufficient to enable the proposed project to be found consistent with the Coastal Act.

Issue: Wetland Resources

Modification to Staff Recommendation: Page 91, this new paragraph will be inserted between the second and third paragraphs, as shown below.

> *… we accept Commission's interpretation of sections 30233 and 30240… In particular we note that under Commission's interpretation, incidental public services are limited to temporary disruptions and do not usually include permanent roadway expansions. Roadway expansions are permitted only when no*

other alternative exists and the expansion is necessary to maintain existing traffic capacity.

With respect to a Coastal Act policy interpretation raised in *TCA's Response to CCC Report*, p. 47 (footnote 15), TCA maintains that the Commission's application of Sections 30233 and 30340 of the Coastal Act, is discretionary, and if the Commission were to apply them, section 30512.2(b) of the Coastal Act (and of the CCMP) requires the Commission to do so only to the extent necessary to achieve compliance with one or more of the legislative goals set forth in Section 30001.5 of the Coastal Act. The Commission disagrees. Under the Coastal Act, and thus the CCMP, Section 30512.2 by its express terms applies only to Commission reviews of Local Coastal Programs, and not to the application of Chapter 3 policies generally (including federal consistency reviews).

The Commission concludes: (a) that the project is not a temporary disruption; (b) that the project is not a limited expansion of an existing road; (c) that the project will increase highway capacity; and, therefore, (d) that it cannot be considered an allowable use under Section 30233(a)(4).

Modification to Staff Recommendation: Pages 106, third paragraph, through page 108, fourth paragraph, are modified as follows:

c) Mitigation Test

The Commission originally received documentation for TCA's consistency certification on March 23, 2007. A series of four separate documents presented inconsistent and contradictory data about the amount of impacts to wetlands. The Commission requested clarification from TCA on July 9, 2007 and TCA responded with new data on September 4, 2007 (dated July 27, 2007) and on December 27, 2007 (dated December 18, 2007).

The wetland delineation dated December 18, 2007, corrected most of the shortcomings of the delineation dated July 24, 2007[9]. The methods followed standard protocols and the delineation was appropriately based on the Coastal Commissions "one-parameter" wetland definition. There were errors in three of the data sheets that resulted in each of those three sample points being incorrectly categorized as "upland" when wetland vegetation was present. Two of those sample points may have been included within a mapped wetland; however, because of the large size of the sample symbols relative to the map scale, the Commission is unable to definitively make this determination from the materials submitted. The third point was not mapped as a wetland. As a result of these errors, the acreage of wetlands present and the amount impacted is currently underestimated by some unknown, although probably small, amount.

[9] Chlup, I. and T. Ly (Glenn Lukos Associates). December 18, 2007. Letter report to D. Lowe (Transportation Corridor Agencies) regarding CCC jurisdictional delineation for the Foothill Transportation Corridor – South, Orange County, California.

~~The new data provided made clear that TCA did not follow the standard jurisdictional delineation methodology that requires an assessment of vegetation, soils, and hydrology. Instead, vegetation types were recorded at 16 points on July 24, 2007.[10] These 16 points do not provide the data necessary to accurately delineate wetlands or assess impacts and proposed mitigation. In choosing to only assess vegetation, TCA did not complete a jurisdictional wetland determination. It is impossible to determine if an area meets the Commission's one-parameter wetland definition if two of the three parameters were not adequately assessed. This omission means that the acreage of wetlands present and the amount impacted is currently unknown.~~

~~In addition to failing to complete the wetlands delineation, TCA did not provide the following standard information normally required by the Commission:~~

~~1) Introduction~~

- ~~Personnel conducting delineation - training, and experience. Someone on the delineation team must have botanical taxonomic expertise.~~
- ~~Dates field work conducted~~

~~2) Site Description:~~

- ~~Location.~~
- ~~Size - acreage and dimensions.~~
- ~~General site description – including topography, geology, soils, hydrology, and vegetation communities.~~
- ~~Hydrology of the site (how water gets on and off the site), including significant features such as water bodies, culverts, swales, ditches, etc. Also describe significant hydrological features on property adjacent to the project site.~~

~~3) Sampling Methods:~~

- ~~Wetland delineation methodology used (routine, comprehensive, etc.).~~
- ~~When feasible for difficult sites, after the first few rains of the season, visit the site shortly after significant rainfall and map all inundated areas. Return and remap inundated areas after 7 days. On both occasions, assess shallow soil saturation in potential wetlands.~~
- ~~Rationale for the sampling method used.~~
- ~~Provide the rationale for changes to standard methods.~~

~~4) Results and Conclusions~~

- ~~Summarize results of vegetation, soil, and hydrology sampling.~~

[10] Glen Lukos Associates, *Foothill Transportation Corridor-South, Orange County, California,* (Hereafter "*Wetlands Letter*"), Letter to TCA, August 31, 2007 (received on September 4, 2007) at 3.

- ~~Describe the characteristics, location, and size (acreage and dimensions) of each wetland area.~~
- ~~Give size of each wetland separately, as well as the total.~~
- ~~Describe the surface features used to map the wetland boundaries.~~

~~5) Site Map(s)~~

- ~~Topographic map (or maps) of the project site, preferably at a 1:24,000 scale, showing 5- to 10-foot contours.~~
- ~~Indicate property and project area boundaries.~~

~~6) Wetland Map~~

- ~~An appropriately large-scale map (or maps) of the project site showing delineated wetland areas and any areas with a preponderance of wetland indicator species (whether or not delineated), with enough detail to identify hydrological and landscape features.~~
- ~~Vegetation communities. These should be mapped, and any area with a preponderance of wetland indicator species should be delineated with a polygon.~~
- ~~Wetland or vegetation boundaries that are straight lines should be explained. Such features suggest arbitrary anthropogenic limits.~~

~~7) Site Photos~~

- ~~Ground-level photos documenting surface features (e.g. plant community changes) used to map the wetland boundaries.~~
- ~~Ground-level photos of each wetland.~~
- ~~Aerial photos of project site, if available, with important features identified (wetlands, waterbodies, project boundaries, etc). Oblique aerial photos are especially helpful in providing orientation.~~
- ~~Photo log including date, location, and photographer.~~

~~8) Field Data Forms~~

- ~~Completed wetland delineation data sheets showing the data collected for hydrology, soils, and vegetation for each sampling site.~~
- ~~Data sheets must be legible and completely filled out.~~

~~The Commission also requires that areas proposed as mitigation sites also undergo a jurisdictional wetlands delineation. TCA also failed to delineate the proposed mitigation sites.[11] If the mitigation sites are already wetlands under Coastal Act definitions, then the extent they would mitigate impacts from the proposed toll road has been overstated.~~
Another concern is the distinction made between temporary and permanent wetland impacts. TCA defined permanent impacts as those areas where an actual physical structure will be built.

[11] Personal communication between Commission staff and Glen Lukos Associates, on September 11 and September 17, 2007.

Temporary impacts are defined as all other effects during construction, such as grading and the staging of construction equipment. The Commission inquired with TCA about the length of time anticipated for construction. TCA believes the total construction duration within the coastal zone will last approximately three years. For the wetlands impacted by the connector ramps, construction will be performed in a period of 12-months or less. No time estimate was provided for wetlands impacted by other means.[12] Mitigation is scheduled to occur within one growing year after construction is complete.[13] This means that it will be about a year, or more likely longer, before replanting begins and an additional year, or more likely longer, to establish mitigation for some of the wetlands. For the remaining wetlands, the length of time impacted is unknown. The Commission has generally considered "temporary" impacts that result in destruction of vegetation or alteration of the soil, especially those lasting ~~one~~a year or more, to be equivalent to~~considered~~ permanent impacts. Such areas require restoration and hence the loss of habitat function may be considerably longer than the "temporary impact." In addition, there will be uncertainty regarding the success of the restoration. For those reasons, a mitigation ratio greater than 1:1 is generally appropriate. In order to assess the effects of such impacts, the Commission needs a detailed description of each type of "temporary" impact, including whether vegetation is damaged or removed or soil is disturbed, and the footprint of each type of impact. This information has not been provided.
~~particularly when those effects include compaction of soils.~~

Modification to Staff Recommendation: Page 109, last paragraph, is modified as follows:

Mitigation
TCA submitted a very conceptual mitigation plan. Permanent impacts to wetlands will be mitigated at a 6.25:1 ratio and will entail the creation of 1.0 acres of southern willow woodland. This newly created acre of willow will be located on a former agricultural field within the coastal zone, directly adjacent to an extended detention basin and the proposed toll road (Exhibit 26).[14] It would be semi-isolated, apparently not connected with either the San Mateo Marsh wetlands or the San Mateo Creek wetlands~~ and would essentially function as a one-acre island of wetlands~~.[15] Although TCA asserts that approximately 40 feet of the mitigated wetlands will be contiguous with San Mateo Marsh East, given that a dirt road separates the two it is unclear how this connection will occur.

There does not appear to be a significant buffer between the mitigated land and the detention basin or the proposed toll road, leaving it exposed to indirect impacts from the highway, polluted runoff, and edge effects. Although TCA asserts that no buffer is needed, because the I-5 is already subjecting the impacted wetlands to the same indirect impacts the proposed toll

[12] TCA response to Commission staff questions via email on September 7, 2007.
[13] *See* Footnote 26.
[14] Earthworks Restoration Inc., Glen Lukos Associates, BonTerra Consulting, *Conceptual Habitat Mitigation and Monitoring Plan, South Orange County Transportation Infrastructure Improvement Project (SOCTIIP) Orange and San Diego Counties, California,* Prepared for TCA, August 31, 2007.
[15] *See* Footnote 26.

road would, the Commission does not agree. First, the Commission generally requires a buffer of at least 100 feet for all mitigated wetlands. Second, subjecting the surrounding wetlands to two highways, rather than just the I-5, is a cumulative effect further diminishing the site's value.

~~As mentioned above, this area has not undergone a wetland delineation or vegetation mapping. These factors make it impossible to assess if this would be a suitable mitigation site for the permanent wetlands impacts, or whether it is already a wetland.~~Without a detailed mitigation plan that includes descriptions of topographic alterations, the source of hydrology, what exactly the detention basin (most recently now called as a sand media filter) is, and how all of this will be constructed, this proposal cannot be adequately evaluated.

Modification to Staff Recommendation: Page 110, beginning at paragraph 3, is modified as follows.

Section 30233(a) Conclusion

To conclude, the Commission finds that the proposed toll road: (1) is not an allowable use under Section 30233(a)(4) and does not qualify under any of the other allowable uses in Section 30233(a); and (2) is not the least environmentally damaging feasible alternative. The Commission therefore finds the proposed toll road inconsistent with Section 30233(a). In addition, the Commission lacks sufficient information to determine whether it meets the third (mitigation) test of Section 30233(a), because TCA has not provided sufficiently detailed information regarding the temporary impacts and mitigation plan~~adequate wetland delineations~~.

Section 30233(c) Conclusion

TCA is required to show that the filling of wetlands within the coastal zone maintains or enhances the functional capacity of the wetlands and estuaries in the impacted area. Although TCA has now provided a~~TCA did not analyze Section 30233(c) in its consistency certification or perform a functional capacity analysis to show how the filling of wetlands in the coastal zone will maintain or enhance the functional capacity there. Rather, in its recently submitted wetlands letter, TCA stated that "Jurisdictional totals strictly represent the surface area of each feature and do not include an assessment of the relative quality of each feature."[16]~~ functional analysis to the Commission demonstrating the proposed toll road will increase functional capacity, serious issues such as statistical bias and unsubstantiated conclusions have been raised by a biologist from the Conservation Biology Institute. He expressed additional concerns that the major functions and conservation values that would be affected by the project have not been addressed and/or impacted to a significantly greater extent than acknowledged.[17] This should be responded to.

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[16] *See Wetlands Letter* at 4.

[17] Michael D. White, PhD., Conservation Biology Institute, *CCC Jurisdictional Delineation for the Foothill Transportation Corridor – South, Orange County, California (Glenn Lukos Associates December 17, 2007),* Letter to Mark Delaplaine, Manager, Energy, Ocean Resources and Federal Consistency Division, California Coastal Commission, January 18, 2008.

~~The Commission therefore finds that it lacks sufficient information to enable it to determine whether the proposed toll road would be consistent with Section 30233(c).~~

Conclusion

The Commission concludes that the proposed toll road is inconsistent with the first two tests of § 30233(a) of the Coastal Act (i.e., the allowable use and alternatives tests), and, further, that the Commission lacks sufficient information to enable it to determine whether the proposed toll road would be consistent with the third test of Section 30233(a) (the mitigation test)~~and with the functional capacity test of § 30233(c).~~ The Commission therefore concludes that the proposed toll road is inconsistent with the Coastal Act's wetland policy.

Issue: Alternatives

Modification: Modify the reference on p. 104 to the "Smart Mobility" Report as follows:

The Commission therefore finds that the Central Corridor (CC), Central Corridor-Avenida La Pata (CC-ALPV), Alignment 7 Corridor-Avenida La Pata (A7C-ALPV), Arterial Improvements Only (AIO), the I-5 Widening Alternative (I-5), and the Arterial Improvements Plus-Refined (AIP-R) alternative described in "An Alternative to the Proposed Foothill South Toll Road ("Smart Mobility Report, Revised January 2008, with accompanying Peer Review (Bergmann Associates, January 23, 2008)), would all be less environmentally damaging alternatives than the proposed alternative. TCA has provided evidence that any of these alternatives would improve the region's traffic congestion problems. The Commission finds that that any of these alternatives, if carried forward to a complete level of design, with impact avoidance, minimization, and mitigation measures, would be less environmentally damaging than the proposed alternative.

Modification: Add, at the top of p. 105, after the previous paragraph:

TCA's Response to CCC Report, p. 102-126, questions the validity of the September 2007 "Smart Mobility" Report. The report has been revised to respond to these criticisms. The Smart Mobility Report concludes:

> ***CONCLUSIONS***
>
> - *At the planning design level of review, the AIP-R is a practicable, prudent and feasible alternative to the proposed Foothill South Toll Road that warrants further development and analysis.*
>
> - *The AIP-Refined (AIP-R) alternative results in limited displacement when carefully designed to avoid private property, consistent with good engineering practice for designing transportation infrastructure in urbanized areas. This*

negates the primary reason for the rejection of the AIP alternative in the SEIR, impacts to private property.

- *Based on the SEIR data, the AIP-R alternative will have similar results the toll road in relieving I-5 congestion, regional travel time savings and other typical traffic performance measures.*

- *The design described in this report significantly reduces (about 95% based on preliminary estimates) the displacements identified in the SEIR without sacrificing performance.*

In addition, a peer review has been conducted by Bergmann Associates (January 23, 2008) (Exhibit 11) on the revised, January 2008, Smart Mobility Report (Appendix F). This peer review concludes:

> ***Displacement of people and businesses for the AIP alternative can be markedly reduced.*** *Smart Mobility, utilizing representative example of possible modifications to the AIP alternative, presents a strong case that there are numerous alternative approaches to the TCA design that have solid potential to greatly reduce the overall right-of-way impact and cost.*
>
> ***Detailed studies are necessary to determine the extent to which displacements can be reduced.*** *Along a highway such as I-5, characterized by heavy development immediately adjacent to the existing highway boundary, a relatively small change in the design approach for proposed improvements can make a huge difference in right-of-way impacts. The extent to which displacements of people and businesses could be reduced for the AIP alternative can only be reliably determined through a renewed effort by TCA to explore a broad range of opportunities to do so. Some possibilities have been suggested by Smart Mobility and there are likely others that TCA could discover.*
>
> ***Comparison between the AIP alternative and the toll road alternative are inconclusive until detailed studies are complete****. The AIP alternative as developed by TCA does not demonstrate the level of innovation and context sensitivity typically undertaken for projects in a tight urban environment characteristic of the I-5 corridor and its ancillary arterial network. Until TCA undertakes a study that demonstrates innovation and context sensitivity, their estimate of right-of-way impacts for the AIP alternative should be considered invalid and much greater than necessary.*
>
> ***The costs and impacts for the toll road alternatives as presented in the SEIR are not representative of actual circumstances.*** *If the toll road is constructed, it is likely many of the operational and safety problems that the AIP alternative would have resolved along I-5 and at arterial intersections will remain. Some, if not all*

of these problems will still need to be addressed. The construction cost, and right-of-way cost and impacts for this work are elements of the overall true cost and impact of the toll road alternatives. Only when these are included in the analysis can a truly representative comparison be made between toll road alternatives and a revised AIP alternative.

A refined AIP alternative should be presented in the SEIR. *Considering the high marks that the original AIP was given in the SEIR, other than the right-of-way impacts, and given that the Report suggests viable ways of significantly reducing the extent of right-of-way impacts, it is apparent that the AIP-R concepts and other refinements should be thoroughly pursued, developed, and presented in the SEIR by TCA before a final recommendation is made to decision makers.*

Issue: Public Access, Recreation and Views

Modification: Modify page 122 to include the following discussion directly after the sentence in the second paragraph which begins "Unless renewed, this lease…":

In the recently submitted, January 9, 2008, *Response to Coastal Commission Staff Report Released September 2007*, TCA contends that "There is no guarantee that the lease will be renewed and USMC needs for additional training facilities and area are well documented." As evidence of this, TCA notes that Major General William Bowden gave testimony to the United States House of Representatives on May 6, 2003, regarding increasing "encroachments" on the military sovereignty and use of Marine Corps Base Camp Pendleton. Major General Bowdon's testimony, while explicitly describing a wide variety of "encroachments" such as compliance with the Endangered Species Act and cultural resource protection laws, does not mention the state park leasehold.

Modification: Modify page 129 to strike the following statements and include the following discussion in their place:

~~A further provision of this statute, subsection (f)(2) further clarifies the circumstances under which payment of fair market value would be required and provides an exemption by stating that:~~

~~*(f)(2) Notwithstanding subsection (b)(4), the Secretary concerned may accept consideration in an amount that is less than the fair market value of the lease interest if the Secretary concerned determines that –*~~

~~*(A) a public interest will be served as a result of the lease; and*~~

~~*(B) the fair market value of the lease is*~~

~~*(i) unobtainable, or*~~

~~*(ii) not compatible with such public benefit.*~~

Additional statutes, such as 40 U.S.C. 550(e), the Federal Property and Administrative Services Act further clarify the circumstances under which payment of fair market value would be required for the lease of federal lands and provides an exemption by stating that when federal lands are leased to a state for "public park or recreation area use," the "Secretary of the Interior shall take into consideration any benefit which has accrued or may accrue to the Government from the use of the property by the State" when determining value. In other words, federal property leased to a state for use as a park would not necessarily require the payment of fair market value by the state. Such factors should be considered in recognition of the fact that w~~W~~hen the Department of the Navy initially granted the fifty year lease to the California Department of Parks and Recreation in 1971 for the creation of San Onofre State Beach, the State was only required to pay $1 in rent for the full 50 year term of this lease. The fair market value of the property at that time clearly exceeded one dollar. Given this precedent and the obvious public interest and public benefit provided by San Onofre State Beach, it may reasonably be assumed that the Secretary of the Navy would consider the possibility of exempting the California Department of Parks and Recreation from the obligation to pay "fair market value" to renew its lease of the San Onofre State Beach lands in 2021.

Modification: Modify page 151, second full paragraph directly below the "Trestles Beach" subheading as follows:

Trestles Beach
Similarly, inland views from ~~much of~~ the Trestles Beach subunit would also be altered by the presence of the proposed toll road. While the existing elevation of the I-5 freeway does not make it visible from the beach and ocean, as shown in Exhibits 32 – the visual simulations provided by TCA and included in the project EIS/SEIR, because the proposed toll road would be elevated up to 20 feet above the existing I-5 freeway for much of the length of the connection between these two freeways, the proposed toll road would be visible from the ocean and beach. The proposed toll road would therefore alter the character of the San Mateo Valley – as seen from the beach and ocean looking inland – from one with almost no evidence of human development to one in which the proposed freeway would be clearly visible as it horizontally bisects San Onofre State Beach above the canopy of existing vegetation. *TCA's Response to CCC Report* disagrees with Commission analysis and the visual simulations previously provided in the project EIS/SEIR (and included as Exhibit 32 of the Staff Recommendation) by variously stating that:

> *The Staff Report exaggerates the visual impacts of the proposed project on the views from Trestles Beach. As demonstrated in the additional view simulations 1 through 4 in Attachment 15, the proposed alignment would not be visible from Trestles Beach.*

And:

> *The project would not be visible from Trestles Beach because existing topography and vegetation would block all views of the proposed alignment from the Trestles Beach area and the alignment would not be close enough to be visible from the beach.*

The additional visual simulations recently provided by TCA, modeled from four observation points on Trestles Beach that are different from those used in the visual simulations previously provided by TCA and included in the project EIS/SEIR, do not indicate that the proposed toll road would be visible from these portions of Trestles Beach. However, as those visual simulations provided in the project EIS/SEIR as Figures 5.8-3, 5.8-4, 5.8-5 and 5.8-6 (and included as Exhibit 32 of the Coastal Commission Staff Recommendation) indicate, the proposed project would clearly be visible from portions of Trestles Beach and adjacent waters. Accordingly, the Commission disagrees with TCA's assertion that "the proposed alignment would not be visible from Trestles Beach" but clarifies that the proposed project would not result in adverse visual impacts to *all* locations on Trestles Beach.

Modification: Modify page 154 to delete the following words and include the following discussion immediately following the modified sentence:

The proposed toll road would ~~therefore not~~ require lighting within the coastal zone at the north-to-north connector and the south-to-south connector, and at the Cristianitos and Basilone interchanges.

TCA has recently amended its project description to clarify that night lighting would be used on sections of the proposed toll road within the coastal zone portion of the project area. Specifically, TCA noted on page 154 of the *Redlined Errata version of the Commission's September 2007 Staff Report and Recommendation* (provided to Commission staff on December 27, 2007) that:

> *For safety reasons and in compliance with Caltrans safety standards, the connector ramps and interchanges will be lit. The proposed toll road would require lighting within the coastal zone at the north-to-north connector and the south-to-south connector, and at the Cristianitos and Basilone interchanges.*

This new information contradicts information previously submitted to the Commission by TCA as well as the information contained within the project EIS/SEIR which did not describe project lighting within the coastal zone. The lighting requirements described above by TCA would likely result in additional adverse visual impacts to the coastal viewshed. It is difficult to determine the magnitude and severity of these impacts due to the lack of visual simulations demonstrating the specific location, height, intensity, color and number of these lights. However, considering both the current unlit baseline of the project area as well as the fact that the lights would be included on some of the highest and most visually intrusive aspects of the proposed project, the elevated connector

structures, it is assumed that these lights and possibly their associated support structures will be visible from distant locations including Trestles Beach as well as nearby areas including the San Mateo Campground. Although TCA has proposed to mitigate the amount of "spillover light" resulting from these street lights through a commitment (described in Measure AS-4) to not allow "any surface of the right-of-way" to be illuminated "greater than 1/10 of the road's average horizontal illuminance," the manner in which this would be achieved has not been described. It is therefore difficult for the Commission to make a determination regarding this mitigation measure's potential for success.

Issue: Surfing Resources

Modification: Pages 173, second to last paragraph, through page 174, second paragraph, are modified as follows.

Commission Analysis

The Commission notes that the San Mateo Creek watershed is one of the last undeveloped watersheds in Southern California. The upper reaches of the watershed, comprised of steep terrain and slopes of primarily sandy and silty soils, deliver a specific mix of both fine gradient sediments and coarse grain sands and cobbles to the lower watershed where it is ultimately discharged into the Pacific Ocean. It is this specific mix of sediments, sands, and cobbles that is responsible for the high quality waves at Trestles. Due to the relatively pristine nature of the watershed and the types of soils and terrain present, even small changes in its hydrology can alter this specific mix of sediment and potentially alter the waves at Trestles.

Section 30220 requires that surfing at Trestles be protected because it cannot be provided at inland water areas. The question before the Commission is: Can TCA guarantee that surfing at Trestles will be protected if the toll road is built? This question is analyzed in the context of the two characteristics that qualify Trestles as a world-class surf break: (1) its consistent high quality waves, and (2) its aesthetic. This is followed by an analysis of indirect effects.

High Quality Wave Formation

As noted earlier, the general consensus is that the cobbles play a major role in the formation of surfing waves at Trestles. The cobbles form a fan-shaped delta offshore of the mouth of San Mateo Creek that is believed to sustain the waves.

Recent coastal sediment research indicates that in a nearshore cobble beach environment (like Trestles) the movement of cobble under wave action is greatly affected by the amounts of finer sediments that fill the voids between the cobble. Generally, when there is an increase in fine sediment the cobbles move offshore. A decrease in fine sediment causes cobbles to move onshore.[18]

[18] Philip Williams & Associates, *Foothill Transportation-South Runoff Management Plan Supplemental Documentation Review and Comment*, Letter to Patrick Kruer, Chairman of the California Coastal Commission, January 22, 2008.

In addition, surfing conditions are also influenced by the discharge of water and sand sized sediment from San Mateo Creek. Anecdotal reports from surfers who noticed changed surf conditions following a discharge event, the location of the break at the mouth of the Creek, and the fan shape of the cobbles support this.

Therefore, the waves at Trestles can be impacted in either of two ways: through the reduced delivery of cobbles to the ocean via San Mateo Creek; or through a change or increase in the ratio of fine sediment grains to cobbles that are delivered to the ocean via San Mateo Creek. Changes to either of these can impact the fan-shaped cobble delta and the formation of high quality waves. Due to the supply of cobbles currently in the channel, this is likely to be a delayed impact with long term effects seen after this existing supply is diminished.

The Commission's geologist concurs with TCA's hypothesis that the primary source of cobbles is the eastern San Mateo watershed and that cobbles will continue to be able to move down the watershed towards San Mateo Creek during large storm events. But detailed information on the cobble delivery system is critical to any determination relating to impacts on surfing. For example, the ability of the cobbles to successfully descend through the lower portions of San Mateo Creek (where the proposed toll road will have effects) and into the Pacific Ocean remains uncertain. The Commission notes that any increase in fine sediment or decrease in peak flow rate in the watershed is going to reduce cobble transport and therefore impact the high quality wave formation.

TCA asserts cobble delivery will not be thwarted and an increase in fine sediments will not occur because its studies show the proposed toll road will bring about only small changes to the hydrology and sediment transport because: a) it will incorporate BMPs and b) it will disrupt only 0.3% of the San Mateo watershed. ~~, and b) it will incorporate BMPs.~~These assertions are made without providing information regarding distribution of sediment grain sizes or sediment composition.

Modification: Page 174, the third paragraph "Watershed Impacts" is switched with the fourth paragraph "Best Management Practices" so that the fourth paragraph of "Best Management Practices," with its modifications and subsequent paragraphs, comes first. The third paragraph in "Best Management Practices" is moved so that it is now second. All of these modifications are reflected below.

Best Management Practices
The TCA study asserts that hydraulics and therefore hydrology and sediment transport will be maintained through the inclusion of Best Management Practices (BMPs). While they do acknowledge that small amounts of sand may increase, they otherwise claim the BMPs will prevent increases in flow rates and erosion. However, there is no supporting evidence such as sediment rating curves to support its argument.

~~Even if the BMPs do not fail for the proposed toll road, it is not evident they will be able to retain the same grain size characteristics of the sediment that is currently delivered by the San Mateo Creek.~~ TCA does not address the grain size characteristics of the sediment, and this is~~will be~~ one of the main factors determining and influencing cobble transport. The Surfrider study contends the proposed toll road would increase the amount of impermeable area, resulting in more rapid runoff from the same amount of rainfall, creating more surface erosion. San Mateo Creek already has large variability in the volume and velocity of flows due to the great variability in rainfall that is characteristic of the southern California climate. The more rapid runoff into San Mateo Creek estimated under the Surfrider study would increase the magnitude of the peak events on the creek. The consequences of increased runoff can result in gullying, bank scour, head cutting, increased sedimentation, and changes to the creek bed; examples of these conditions can be seen in many of the developed watersheds of Orange and San Diego Counties (and i~~was~~ referred to in the Deer Canyon case below~~above~~). The volume and velocity of the discharge from San Mateo Creek will greatly influence the sediment transport modeling. The Surfrider study questions whether the proposed BMPs will be able to prevent these conditions and whether BMPs will be able to prevent an influx of the medium- and fine-sized grain sediment especially during the 2-year flow events. The Commission's geologist concurs that an increase in the amount of medium- and fine-sized grain sediment may decrease the transport of gravel and cobbles. As stated earlier, an increase in fine sediment or a decrease in peak flow rate is going to reduce cobble transport and impact high quality wave formation.

Since the publication of the Staff Report, the Commission reviewed TCA's Runoff Management Plan (RMP) submitted late September, 2007 and it's application for a 401 Permit to the California Regional Water Quality Control Board dated January 4, 2008. Overall, the Commission has reservations about the analyses performed and the conclusions drawn. Prior to Commission analysis of these documents, it is first necessary to explain some basic aspects of how water will descend through the various sub-watersheds when it rains.

In the absence of roadways, rainwater normally infiltrates into the ground and flows at some natural rate into various tributaries, creeks, and streams. These feed into larger creeks and streams, and eventually the water descends through its sub-watershed and into a primary creek channel (San Mateo Creek), which ultimately discharges into the Pacific Ocean. Along the way, this runoff also moves sediment. The amount and composition (grain size) of sediment that it acquires is a function of how fast the runoff is flowing (flow rate) and the type of sediment it encounters. The higher the flow, the larger the grain it can transport. Generally cobble is transported only during large flow events.

Roadways influence hydrology because they reduce infiltration and increase runoff flowrates and volumes as compared to unpaved surfaces. To mitigate the impacts increased runoff flow rates and volumes can have downstream, runoff from roadways is often directed into detention basins or other treatment control BMPs that capture the water, allow pollutants to settle out, and then discharge runoff slowly back onto its natural path through creeks and streams.

Roadways influence hydrology in another important by bisecting natural drainages. Culverts are often utilized to route runoff from the upper subwatershed (area above the roadway) underneath the roadway. However, culverts also limit infiltration along the flowpath, alter the timing of runoff delivery, often resulting in minor increases in runoff flow rates and volumes.

For the proposed toll road, TCA proposes to route runoff from large segments of the highway past several subwatershed drainages to treatment control BMPs. This will increase the runoff volume that is discharged from the treatment control BMPs into the downstream channel while decreasing the runoff volume discharged to the bypassed channels. The combined runoff acts to increase the runoff volume discharged to the channels downstream of the treatment control BMPs. TCA has proposed energy dissipators be installed to prevent erosion at the point of discharge as it goes back onto its natural path through creeks and streams. But energy dissipators will not account for the increased runoff volume discharged to channels downstream of the treatment control BMPs. Proper analysis and modeling can account for this increase in volume and flowrate from upper sub-watersheds.

Due to the undisturbed nature of the San Mateo Creek watershed and the surfing resources dependence upon the delivery of a specific mix of sediments, sands, and cobbles, typical BMPs will most likely not be adequate for the proposed toll road. A review of TCA's RMP and 401 Permit reveals that TCA has proposed only typical BMPs and has excluded large portions of runoff from receiving treatment BMPs at all.

For example, TCA uses the term "offsite" runoff for all of the runoff draining from above the proposed toll road and for all of the runoff draining along the cut and fill slopes that would be created to build the proposed toll road. All of the "offsite" runoff would be directed through longitudinal ditches and cross culverts to pass underneath the proposed toll road and would be discharged to existing drainage channels that currently route runoff. The runoff would not be routed through detention basins or other treatment control BMPs that allow sediment and pollutants to settle out. Therefore, all of this runoff would be discharged back into the sub-watershed untreated. TCA has proposed rip rap be installed at the discharge point to limit erosion, which may work at that point. However erosion can still occur downstream of the rip rap if there are even small increases in flow rate and/or volume discharged into the downstream channel.

Even more importantly, this "offsite" runoff will be draining from about 530 acres of cut and fill slopes (steep slopes) with cuts ranging as wide as 800 feet from the proposed toll road and up to 250 feet high. There is no detailed information regarding how these cut and fill slopes will be stabilized. TCA has suggested it will use source control BMPs such as hydroseeding (or revegetation), but given the steepness of the slopes and hydroseeding's generally limited success rate the Commission is not convinced this will be 100% effective at preventing development of new sources of fine sediment, as TCA claims. The Commission notes that these source control BMPs would have to be 100% effective to keep the cut and fill slopes from becoming a new source of fine sediment because there are no detention basins or any other type of treatment control BMP proposed as a backup to the source control BMPs for the

"offsite" runoff. In other words, if the source control BMPs do not perform at 100%, sediment will erode from these steep slopes and be discharged into the downstream drainage channels, increasing the fine sediment contribution to San Mateo Creek. Without detailed plans showing how TCA will ensure its source control BMPs will be 100% effective, the Commission is not convinced this is possible.

The Commission investigated TCA's track record with source control BMPs. Through conversations with CDPR, the Commission staff obtained historical facts regarding a previous TCA project, the San Joaquin Hills Transportation Corridor (SJHTC), which the Commission also reviewed. Approximately 10 years ago TCA experienced failures of its BMPs on "the sliver," an area spanning 35 acres of ridge-top in what is today part of the Laguna Coast Wilderness. This land functioned at the time, and still does, as part of the conservation area for the Natural Communities Conservation Plan/Habitat Conservation Plan. Runoff normally flows down Deer Canyon and into the El Moro Creek sub-watershed within Crystal Cove State Park. TCA re-vegetated this area following construction of the SJHTC. CDPR expressed specific concerns to TCA about potential erosion issues. Following a heavy rain, water diversion caused severe erosion on the constructed slope into Deer Canyon. CDPR personnel measured 10 foot deep gashes in the land and estimated 2,000 cubic yards of sediment was dumped into Crystal Cove State Park. Based on this experience, and having witnessed the failure of BMPs on other projects as well, CDPR is very concerned about having more BMP failures with the proposed toll road. CDPR considers the movement of 41 million cubic yards of cut and fill in a traditional land slide area to be an epic undertaking, and has expressed significant doubt that it can be successfully accomplished.[19] TCA asserts the proposed toll road will use improved BMPs over those that failed at Deer Canyon and has submitted an analysis to the Commission staff of "lessons learned" from those failures. However, the Commission has not forgotten that TCA made the same optimistic claims during Commission review of the SJHTC (Consistency Certification CC-63-92/CDP 5-92-232) that its then "state-of-the-art BMPs" would avoid water quality problems.

Based on the SJHTC experience, the Commission has reason to doubt TCA's claim that it can prevent erosion with the proposed mitigation. In addition, the Commission is concerned that "offsite" runoff will go untreated unless the source BMPs are 100% effective. Given the fact that these cut and fill slopes will cover an enormous area, are themselves quite steep, and would be comprised of soil types and fine grained sediments prone to erosion, the Commission considers these high expectations for hydroseeding success.

TCA has defined runoff from rainfall that falls directly onto the proposed toll road as "onsite" runoff. It is only for "onsite" runoff that TCA has designed post-construction BMPs that will address erosion, pollution, and sedimentation issues. In the San Mateo watershed, runoff from small storms (storms with a two year return period[20]) will be routed to one of five treatment

[19] Personal communication between Commission staff and David Pryor, Environmental Scientist, California Department of Parks and Recreation, on September 17, 2007.
[20] The two year return period storm is about the same size as the 85th percentile storm event used as the design storm for treatment control BMPs.

control BMPs (either media sand filter basins or detention basins), while runoff that exceeds the two year return period will be split from the storm drain system and discharged directly into the existing drainage channel (hence going untreated). There are approximately 30 small drainage channels that currently route runoff from the sub-watersheds into San Mateo and Christianitos Creeks. It is important to note that since all "onsite" runoff is being routed into one of five treatment control BMPs that will discharge into one of five associated discharge channels this will necessarily increase the volume of water within these five discharge channels. Three of these discharge channels will be routed directly to the major creeks, but two of them will be routed to 50 foot wide channels about 1000 feet from the creeks and it is not clear if those discharges will result in increased erosion within these channels.

TCA has provided calculations showing that by treating a two mile portion of I-5 in addition to the proposed toll road, there will be a net decrease in pollutant loading over the watersheds impacted by the proposed toll road and that section of the I-5. Nevertheless, a quick review of the effectiveness of the BMPs indicates that automotive pollutants will still be discharged from both roads. Although BMPs are the basis for a national strategy to reduce the impacts of stormwater and nonpoint source pollution, they are not 100% effective. According to the Caltrans BMP Retrofit Pilot Program Final Report (CTSW-RT-01-050), also cited by TCA, the proposed sand media filters can be expected to trap about 90% of suspended sediment, 87% of total lead, and 50% of copper. The proposed detention basins fare even worse trapping only 72% of suspended sediment, 72% of total lead, and 58% of total copper. In other words, the proposed toll road will discharge between 42- 50% of the copper, 13- 28% of the lead, and 10-28% of the suspended sediment generated from automobiles into the San Mateo Creek, San Juan Creek, and San Onofre Creek watersheds. Clearly, the heavy metal impacts would not be completely mitigated. Considering that no toll road currently exists through San Mateo Creek watershed, nor in the watersheds on either side of it, this project will increase discharges of heavy metals and other automobile-generated pollutants into the upper parts of the watersheds even if those pollutants are being reduced in the lowest parts of the watersheds. Given that these heavy metal impacts would not be completely mitigated and will be discharged into a previously unaffected watershed, this is clearly not a watershed benefit as stated by TCA. In addition, as mentioned in the Staff Report, the San Diego Regional Water Quality Control Board staff have indicated that BMPs that are proposed by TCA would be required on any portions of I-5 undergoing significant construction.

Finally, TCA's RMP cites flow duration plots at four points (two detention basins and two flow splitters) as evidence of insignificant changes in flow duration between the pre- and post-project conditions. While this type of analysis is helpful for "onsite" runoff, it completely ignores "offsite" runoff. Hence these four plots do not present the complete picture of how the construction of the proposed toll road, and its associated impervious surfaces, will impact the hydrology of the watershed. Therefore this analysis has limited application. PWA has suggested that one possible way to account for both "onsite" and "offsite" runoff would be to to prepare pre- and post-project flow duration curves for each of the existing drainage channels along San Mateo and Christianitos Creeks. This would present a more complete picture of the

hydromodification associated with the proposed toll road. PWA further outlines key concerns to be addressed:[21]

1. *How well the drainage network for "offsite" runoff performs to maintain existing drainage patterns within each of the existing drainage channels? Are certain existing drainage channels overloaded with increased runoff while other channels handle less runoff?*
2. *What impact does routing low-flows along long stretches of highway have on the flow duration curves for existing drainage channels downstream of proposed sand media filters and extended detention basins? Will increases in discharge volumes cause destabilization of the five drainage channels downstream of the proposed SFBs and EDBs along San Mateo and Cristianitos Creeks.*

Best Management Practices Summary
TCA asserted in its *Response to CCC Staff Report* that there will not be a new source of fine sediment associated with the proposed toll road. In so doing, TCA has created the difficult task of demonstrating that its RMP for both "onsite" and "offsite" runoff will effectively prevent all potential sources of erosion. As described above, it has not demonstrated that the increased flow from two of the channels discharging onsite runoff will not increase erosion.

Similarly, TCA also fails to ensure erosion will not occur for its "offsite" runoff. The "offsite" runoff, combining runoff from the undisturbed portions of the watershed with runoff from 530 acres of cut and fill slopes, will not be subjected to treatment control BMPs. TCA instead relies solely on source BMPs, such as hydroseeding, to prevent erosion. Undisturbed hillsides have slopes based on an equilibrium between factors that maintain the hillside (such as vegetation and soil cohesiveness) and erosive factors. Removing the topsoil and vegetation weakens the factors holding up the hillside and are likely to cause increased erosions, especially where the finished slopes are as steep as proposed (3 to1). The probability that all of the source BMPs will work 100% effectively 100% of the time, given the magnitude of the area, the soil and slope characteristics, and TCA's track record, is low. Although TCA says that it has learned from mistakes on previous toll road projects, it has not shown that they can conduct the massive grading proposed without significantly impacting sediment transport and water quality. Hence TCA fails to demonstrate erosion will not occur for "offsite" runoff. Any changes to sediment transport will have lasting impacts on the surfing resources downstream at Trestles.

In addition, the Commission would prefer to have the full picture of the impacts of hydromodification. TCA has only prepared an analysis of impacts from "onsite" runoff and has not adequately accounted for impacts from "offsite" runoff.

[21] *See* Footnote 1.

Lastly, since treatment control BMPs do not typically remove 100% of pollutants there will be an addition of heavy metals discharged into each of the three watersheds along the proposed toll road. Again, this is not a watershed benefit as claimed by TCA.

Watershed Impacts

The Commission notes that the scale used to assess impacts to the watershed is critical. As the Surfrider study revealed, when impacts are assessed at a sub-watershed scale (the scale at which the impacts will be experienced) the results are dramatically different. The lowest sub-watershed is projected to have 70% of its area occupied by the proposed toll road and 29% of its area will become impermeable. Impacts at this scale are clearly not insignificant. In contrast, the TCA study compared projected impacts to a 2 mile segment of the lower San Mateo Creek within the context of the entire 139 square mile watershed. Given the great differences in size between these two areas, it is difficult to see how impacts of any magnitude to these 2 miles could cumulatively affect the much larger 139 square mile area. This is why TCA's study concluded that impacts would be insignificant. The Commission concludes that assessing impacts at the local or sub-watershed level, is not only warranted but essential, particularly because the consequences of underestimating the impact of potentially permanent changes to the watershed, given the significance of Trestles, could be profound.

Summary of High Quality Wave Formation Analysis

In summary, the Commission concludes from the studies reviewed above that the cobbles are essential to the preservation of wave formation. Although the cobbles may continue to descend through their normal routes from their source point in the eastern portion of San Mateo watershed towards the lower San Mateo Creek, their eventual delivery and/or the delivery of the ratio of sediment to cobbles may be reduced. The studies submitted to the Commission neither definitively prove nor disprove that the proposed toll road will ~~affect cobble delivery to the ocean~~impact these deliveries. But the potential for impacts due to an increase in fine sediment appears high and probable. ~~to cobble delivery clearly does exist.~~ Assurance that fine sediments will not increase is ~~of successful cobble delivery appears~~ dependent on the proposed BMPs functioning exactly as they have been modeled to function *and* their ability to retain the same grain-size characteristics of sediment that currently exist. TCA contends that its BMPs will function properly and the problems that arose for the SJHTC will not occur again because of BMP improvement. ~~Even if the BMPs function well, questions remain over whether they will be able to preserve the same grain size characteristics of sediment that occur today.~~ Because TCA has not addressed the issue of grain size or provided the more realistic sub-watershed analysis discussed above, the Commission agrees that, "The effects of the project on sediment processes, with and without the BMPs, are not addressed sufficiently to assess the project impacts on downstream areas."[22] (Exhibit 21). ~~Therefore, the Commission finds that TCA has not established that the proposed toll road will avoid adverse impacts and protect the cobble delivery and, by extension, the surfing resources.~~

[22] Philip Williams & Associates, *Orange County Toll Road- Best Management Practices (hereafter "BMP Letter"*, Letter to Mark Rauscher, Surfrider Foundation, May 9, 2007 at 1.

The Commission notes that the one attempt in California to create a surfing area as mitigation for lost surfing was the unsuccessful surf reef effort offshore from El Segundo. Surf mitigation may be possible; however such projects would have resource impacts and would replace other existing offshore resources. Surfing mitigation is not a proven science and mitigation for ~~a~~ world-class surfing resources has never been attempted.

TCA's Response to CCC Staff Report
TCA submitted six pages of comments regarding the surfing resources in its *Response to CCC Staff Report*. As referenced above, TCA stated that there will be no increase in fine sediment delivery from the proposed toll road and therefore no impact to the surfing resources. TCA limited its reasoning to criticism of the PWA report. As discussed extensively above, the Commission does not agree.

TCA commented that the Surfrider study (authored by PWA) is flawed and that the data presented regarding the percentage of sub-watersheds occupied by the proposed toll road is inflated and should not be relied upon to base conclusions relating to the destabilization of sub-watersheds.

PWA has clarified that the data presented is the percentage of the sub-watershed area **upstream** of the road crossing that will be disturbed by the road prism (or footprint). An upstream watershed is defined as the area draining to the proposed road crossing culvert. For example, TCA points out that sub-watersheds SM-04 and C-13 are listed as being 100% occupied by the road prism. TCA argues that this cannot possibly be true because simply looking at the figures provided reveals they are not. However TCA has misinterpreted the data. The portions of sub-watersheds SM-04 and C-13 that lie upstream of the road crossing are 100% occupied by the road prism, not the entire sub-watersheds.

For example, SM-04 has a total watershed of 219 acres, and an upstream sub-watershed of 29 acres. The proposed road prism will occupy about 29 acres of this upstream sub-watershed area. This indicates that 100% of this portion of the sub-watershed will be disturbed by the proposed road prism. Similarly, sub-watershed C-13 has an upstream sub-watershed of about 6 acres. The proposed road prism will occupy about 6 acres of this upstream sub-watershed area. This indicates that 100% of this portion of the sub-watershed will be disturbed by the proposed road prism.

PWA also provided the rationale for why calculating the portion of a sub-watershed that lies above the proposed toll road is the best way to assess impacts.[23]

> *The analysis is conducted in this way because numerous studies have shown that stream channel erosion (which generates fine sediment that is subsequently transported downstream to the river mouth) is highly sensitive to the percentage of the upstream*

[23] Philip Williams & Associates, *Response to TCA comments on PWA watershed analysis*, Letter to Patrick Kruer, Chairman of the California Coastal Commission, January 17, 2008.

watershed that is impermeable or disturbed (Bledsoe, 2001; Booth, 1990; 1991; Coleman and others, 2005; MacRae, 1992; 1993; 1996). Stream and watershed flows from the sub-watershed upstream of the proposed road crossing will be concentrated and discharged into the receiving creeks and through culverts on the downstream edge of the road prism at this point. We therefore calculated the percentage of the upstream contributing watershed that is disturbed at the point of discharge into the receiving water.

Assessing channel erosion impacts at the point where the proposed project discharges into a receiving water body gives a more accurate measurement of the true scale of project impacts on headwaers tributaries and watersheds. This is especially important in headwaters areas since while these areas constitute a relatively small portion of the total watershed area *for San Mateo Creek, they are the source of most of the eroded* sediment, *the other areas being dominated by sediment transport or deposition. Simply looking at the percentage of the total watershed impacted by impervious area ignores these localized but highly significant stream impacts. Studies in California and elsewhere have shown that the erosion impact to a stream channel is exponentially proportional to the percentage of the upstream watershed that is impermeable (see figure below).*

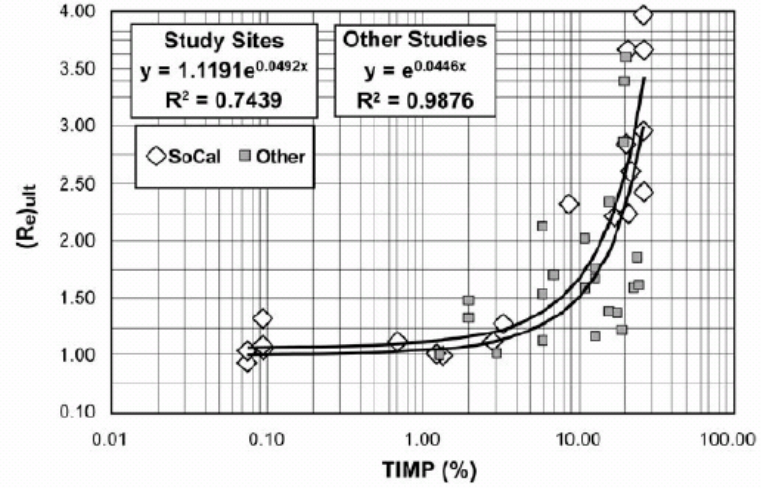

Figure ES-2. Enlargement Curve for Southern California.

Upper curve and data points are for southern California channels in the current study. Lower curve is based on data from other locations in North America.

The figure above (source: Coleman and others, 2005) shows the percentage of a watershed that is impermeable upstream of a point along a channel (TIMP) versus the ratio of channel enlargement through erosion that results (Re). As can be seen, increases in the area of the upstream watershed that is impermeable of between 5-10% cause channels to erode until they have enlarged their volume by 25-50%, with increases in impermeable area between 10 and 20% causing channel sizes to double or

more. This process of channel enlargement generates large volumes of sediment that is transported downstream to the main river channel and ultimately to the river mouth.

The Commission concurs with the methodology presented by PWA and finds that TCA has misinterpreted PWA's data. The Commission therefore continues to rely on this study to demonstrate that impacts at the sub-watershed level will not be insignificant.

Modification: Page 178, beginning at the second paragraph, is modified as follows.

Conclusion

Assessing potential impacts to systems for which there is only an imprecise understanding is difficult. However the Commission does not consider it a mere conincidence that the best wave in Southern California is found at the mouth of one of the last undeveloped watersheds in Southern California. The Commission finds that there is a link between the two. ~~But~~ Ggiven the requirement in Section 30220 that surfing shall be protected, the magnitude of the project, and the value of the resource, the Commission believes a precautionary approach for assessing impacts is therefore warranted.

The proposed toll road will be constructed through three previously undeveloped watersheds. It will introduce 41 million yards of cut and fill, expose 530 acres of wide and steep cut and fill slopes to the elements and hillslope erosion, and create 136 acres of impervious surface. Whether its impacts can be mitigated 100% as stated by TCA is highly questionable.

The Commission concludes it is quite probable that an increase in fine sediments will occur because there is a potential for erosion to occur for both "onsite" and "offsite" runoff. These fine sediments may blanket the cobbles lining the bottom of the San Mateo Creek because it is transport capacity-controlled as noted earlier. During large storm events, this increase in fine sediment will reduce cobble transport and delivery and/or alter the ratio of fine sediment to cobbles delivered to the mouth. Additionally, the flow velocities in the San Mateo Creek are likely to be reduced as a result of the treatment BMPs. Any reduction in these peak flow rates will affect cobble delivery to the nearshore. Either result will impact the continued existence of the cobble delta and the persistence of the high quality wave formation at Trestles. Therefore, the Commission concludes that the proposed toll road will likely affect the specific mix of sediments, sands, and cobbles thus resulting in an impact to the surfing resources. ~~Given the information above the Commission is left, at best, with the knowledge that there are potential impacts to cobble delivery that will most likely affect wave formation.~~ The Commission takes these potential impacts very seriously because they are irreversible-- there is no way to mitigate for the loss of the surfing resources if the impacts were to occur.

TCA acknowledges that the only assurance it can provide to the Commission that this project will not increase fine sediments is 100% contingent upon the success of the proposed BMPs. This would include successful implementation, maintenance, and emergency repairs for all BMPs for the lifetime of the proposed toll road. TCA has assured the Commission this is possible, despite the fact that Caltrans will be responsible for BMP maintenance. The

Commission disagrees with TCA and finds its confidence has not been borne out by the evidence presented to date.

The Commission finds that TCA has not adequately demonstrated that surfing at Trestles will be protected if the toll road is built. In addition, the Commission finds that the proposed toll road would adversely affect the aesthetics. Because TCA cannot provide assurance to the Commission that the high-quality waves will be protected, and because the Commission has determined that the aesthetics will not be protected, the Commission concludes that the proposed toll road is inconsistent with Section 30220.

Section 30213 requires that lower cost recreational facilities shall be protected. Impacts to the surfing resources would clearly affect a low-cost recreational activity. The Commission finds the proposed toll road would adversely effect, either directly or indirectly the surf community, beachgoers, residents and visitors, the City of San Clemente and its local businesses, and SOSB. Thus using the same reasoning discussed above regarding Section 30220, the Commission also finds the proposed toll road inconsistent with Section 30213.

Issue: Water Quality

Modification: Add a reference to Section 20230 of the Coastal Act to the beginning of the Water Quality Findings (page 180).

Section 30230 of the Coastal Act provides:

> *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Modification: Remove unnecessary text from the excerpts of water quality discussion in TCA's consistency certification (pages 179-180):

> ~~***Comment and Analysis***~~

> ***Improvement of existing water quality.*** *As discussed in detail above, coastal waters and wetlands are currently degraded by untreated runoff from several miles of the I-5 freeway. The receiving waters in the vicinity of FTC-S are San Mateo Creek and San Onofre Creek, which discharge directly into the Pacific Ocean. Roadway runoff along this segment of the I-5 currently is not treated by any storm water pollution control facility (Focused Summary, Section 4.1.1). Nearly one million gallons of runoff per design water quality storm event from existing I 5 would receive treatment with the construction of FTC-S. Over the past two years of record, approximately five design water quality events have occurred annually. Using this estimate,* ***the project would treat approximately five million gallons of water each year that currently flow untreated from existing I-5 into San Onofre and San Mateo Creeks, and ultimately, the Pacific Ocean.***
>
> ~~*For a detailed discussion of water quality treatment infrastructure provided as part of FTC-S, see the Consistency Review for Section* ***30230****, above.*~~

TCA's supplemental Section 30230 analysis stated:

> ***Summary.*** *FTC-S is consistent with Section* ***30230*** *of the Coastal Act requiring the maintenance, enhancement, and restoration of marine resources by significantly improving coastal water quality from existing conditions and not affecting sediment transport in coastal waters. Because of the incorporation of water treatment infrastructure to a segment of I-5 that currently drains untreated storm water runoff from the road into the San Mateo and San Onofre Creeks, FTC-S will enhance the biological productivity of coastal waters.*
>
> ~~***Comment and Analysis***~~

Improvement of existing water quality. *Currently, coastal waters are degraded by untreated runoff from several miles of...*

Modification: Insert the Coastal Commission's analysis (page 180):

Coastal Commission Analysis

The applicants' observations that the stormwater from the described sections of I-5 are currently untreated appear to be valid. Although it did not provide evidence of measurable degradation by highway-generated pollutants, impacts to marine resources or biological productivity, it is reasonable to expect that the lower portions of the San Mateo and San Onofre creeks would be adversely impacted by stormwater runoff. TCA's estimation that it could install BMPs to treat five million gallons of stormwater per year is reasonable.

Nevertheless there is no way to evaluate whether the installation of these BMPs will provide a measurable improvement to the water quality and biological productivity in these creeks without a comprehensive baseline study. Baseline data should be provided consistent with the commitments of the EIR, see for example EIR Table 4.9-6. The limited information on water

quality in these creeks shows that they have good water quality and better than most streams in Southern California. Although there have been infrequent low scores on Heal the Bays Beach Report Card for some portions of San Onofre State Beach, the beach water quality is very good most of the time. The Beach Report Card scores are based on bacterial indicators, which are unlikely to come from highways, and can be caused by discharges of lagoon waters into the ocean even in the absence of human pathogens.

Since BMPs are not 100% effective at removing pollutants and no toll road currently exists through San Mateo Creek watershed and the watersheds on either side of it, this project will increase discharges of heavy metals and other automobile-generated pollutants into the upper parts of the watershed even if those pollutants are being reduced in the lowest parts of the watersheds. Before considering the addition of structural BMPs to a portion of I-5 as mitigation for water quality impacts in the San Mateo creek watershed, a comprehensive baseline monitoring program for biological productivity and water quality conditions would be required.

In addition, the San Diego Regional Water Quality Control Board staff has indicated that BMPs that are proposed by TCA would be required on any portions of I-5 undergoing significant construction. In order for the BMPs to be considered to offset automotive pollutants higher in the watershed, they would have to be installed on portions of the freeway that are adversely impacting coastal waters and are not slated for improvements that would otherwise require installation of structural BMPs.

Modification: Insert heading "TCA description of the interception and conveyance system" and show modifications of the TCA description that indicate the substitution of Sand Filter Basins for Extended Detention Basins in some areas of the proposed project and insert associated Coastal Commission analysis (page 180):

TCA description of the interception and conveyance system:

> ***Runoff Interception and Conveyance Systems (On-Site Drainage).*** *Roadway, or "on-site" drainage, along I-5 from the north side of San Mateo Creek to a point southward approximately two miles, will be retrofitted to provide storm water treatment to on-site runoff. This will be accomplished by constructing storm drain systems along I-5 and along the proposed FTC-S/I-5 connectors that will tie into the existing storm drains. This storm drain network will consist of two systems, the first conveying storm water to Sand Filter Basin (SFB)[24] ~~an extended detention basin (EDB)~~ adjacent to San Onofre Creek ("System 1") and the second conveying storm water to an SFB~~EDB~~ adjacent to San Mateo Creek ("System 2").*
>
> System 1 runs along I-5 from Basilone Road southward for approximately 1.5 miles, conveying flows to the east side of I-5 into a 3.7 acre-feet extended detention basin

[24] The Extended Detention Basins in the Coastal Zone described here for "System 1" and "System 2" are now proposed to be replaced with Sand Filter Basins, which are discussed below.

located at the south embankment of San Onofre Creek. After treatment, the SFB ~~EDB detention basin~~ will outlet into a pipeline routing the treated runoff to San Onofre Creek. For erosion control, the outlet will consist of a 100 square foot riprap energy dissipater located on the south embankment of San Onofre Creek (Focused Summary, Section 4.1.2).

System 2 includes a storm drain system running along I-5 from Basilone Road northward to San Mateo Creek, conveying flows to the east side of I-5 where it will connect to a SFB ~~2.5 acre-feet EDB~~ located on the south side of San Mateo Creek. After treatment, the EDB will outlet into a pipeline routing the treated runoff to San Mateo Creek. For erosion control, the outlet will consist of a 100 square foot riprap energy dissipater located on the south embankment of San Mateo Creek. System 2 will also include storm drains at the toe of the embankment along the east side of I-5 to convey storm flow from the above-grade FTC-S Connector structures. Deck drainage from these bridges will be routed down columns, outletting to the System 2 storm drains. All System 2 storm drains will connect to the SFB~~EDB~~ prior to discharge into San Mateo Creek (Focused Summary, Section 4.1.2).

On-site runoff for the area north of San Mateo Creek, at the Cristianitos Road crossing will be conveyed to treatment BMPs via storm drain systems equipped with flow splitters that capture and convey water quality flows to the BMPs and allow peak flows to continue on their original flow path. In this way, the on-site low flows and off-site flows are always separated. Treatment BMPs in this vicinity include a detention basin and a series of biofiltration swales (Focused Summary, Section 4.1.2).

Two storm drain systems (Systems 4 and 5) intercept and convey the on-site runoff in this area. System 4 includes a series of pipelines that direct flow from the shoulders into the median where a series of 300-feet long biofiltration swales will treat storm water runoff. The swales will outlet into grated catch basins that connect to the offsite System 3, which ultimately outlets to San Mateo Creek after water treatment.

System 5 includes a storm drain system that intercepts and conveys on-site runoff to a 1 acre-foot SFB~~EDB~~ located 2,500 feet north of the San Mateo Creek crossing. Where possible, this system is equipped with flow splitters that convey water quality flows to the SFB~~EDB~~ which outlets to off-site System 3 (Focused Summary, Section 4.1.2).

Runoff Interception and Conveyance Systems (Off-Site Drainage). *Storm water drainage that does not come from the roadway, or "off-site drainage", is conveyed by San Onofre and San Mateo Creeks under the I-5 at its bridge structures. Proposed improvements at San Onofre Creek consist of widening the existing bridge structure on both the upstream/northbound side (42.5 feet to 52.0 feet) and on the downstream/southbound side (37.0 feet to 52.7 feet) of I-5. The widened structure would be constructed on pier walls similar to the existing structure, with the same two foot width as the existing pier walls. The proposed widening creates an increase in water*

surface of 0.6 feet at the upstream face of the proposed bridge widening. The increase diminishes to 0 approximately 66 feet upstream of the bridge (Focused Summary, Section 4.2.2).

Proposed improvements at San Mateo Creek include construction of two connector bridges to FTC-S over San Mateo Creek, upstream of the I-5 bridge structures. The northbound bridge structure (northbound I-5 as it transitions to northbound FTC-S/SR-241) over San Mateo Creek will be approximately 3,860 feet long with 15 column supports. The bridge crosses San Mateo Creek at a skew angle ranging from 45 degrees at the creek crossing to approximately 70 degrees near the north abutment. The southbound bridge structure (southbound FTC-S/SR-241 as it transitions to southbound I-5) will be approximately 3,910 feet long with 14 column supports. The bridge crosses San Mateo Creek at a skew angle ranging from 60 degrees at the creek crossing centerline to approximately 70 degrees near the north abutment. The proposed bridges will result in a maximum increase in water surface elevation of 0.4 feet upstream of the I-5 bridge structure, diminishing to zero approximately 0.75 mile upstream of the proposed bridge structures (Focused Summary, Section 4.2.2).

The proposed off-site system for storm water generated uphill of FTC-S and Cristianitos Road consists of culverts and longitudinal ditches that intercept and convey surface water. The culverts are designed to pass the 10-year flood without causing the headwater elevation to rise above the inlet top of culvert and to pass the 100-year flood without causing objectionable backwater depths, outlet velocities, or ponded water outside the right-of-way. One 36-inch cross-culvert is proposed where a major flow path is located along the hillside approximately 5,000 feet north of the San Mateo Creek crossing. South of this location, off-site runoff consists mainly of sheet flow, which is intercepted and conveyed through a storm drain system (designated as System 3) to a riprap lined section of San Mateo Creek located immediately north of I-5 (Focused Summary, Section 4.2.2).

Coastal Commission Analysis
This description of the interception and conveyance system appears to be current except that three of the extended detention basins have been replaced with sand filter basins because these BMPs, although more expensive to build and maintain, are more effective at treating typical highway pollutants.

Modification: Insert heading "TCA description of Water Pollution Control Elements" and show modifications of the TCA description that indicate the substitution of Sand Filter Basins for Extended Detention Basins in some areas of the proposed project and associated Coastal Commission comments and analysis (page 182).

TCA description of Water Pollution Control Elements

Water Pollution Prevention Control Elements. *Several Best Management Practices (BMPs) for the prevention of water pollution are incorporated into FTC-S, including the incorporation of flow-splitters, protection-in-place of desirable vegetation, the use of rock slope protection and other erosion prevention measures, and soil stabilization strategies.*

In order to mimic pre-project flows, inlet flow splitters have been incorporated into the design of the storm drain systems. The flow splitters capture and convey water quality flows to extended EDBs or SFBs and allow peak flows to continue on their original flow path (Water Quality Technical Report Update, Section 6.1). In general, the project would result in a minor increase in impervious surface in the watersheds for San Onofre and San Mateo Creeks, which can be expected to translate into minor localized increases in runoff. However, lag time between the peak runoff of these major streams and that from the freeway runoff is large, i.e. the peak flow from the freeway will have substantially subsided by the time the watershed peak occurs. This, coupled with the minor increase in impervious surface (approximately 0.2 percent of the San Mateo Creek watershed and less than 0.1 percent of the San Onofre Creek watershed), results in an insignificant increase in peak flows found in San Onofre and San Mateo Creeks (Focused Summary, Section 6.1).

Additionally, existing desirable vegetation and landscaping will be protected in place, where possible. The project will include demarcation of the limit of disturbed soil area during construction to ensure that adjacent vegetation is preserved (Focused Summary, Section 6.2).

Risks due to erosion or washout will be minimized through the use of rock slope protection, hydroseeding, ground cover, mulch, and longitudinal ditches and down drains. Velocity dissipation devices, flared end outlets, headwalls, transition structures, and splash walls will be incorporated into the design where necessary at culvert inlets and outlets to prevent erosion. Lined longitudinal ditches will be incorporated at the uphill side of FTC-S to intercept sheet flow where necessary and to convey it to culverts or bridges that cross under the roadway. Culvert outlets will be equipped with appropriate energy dissipating devices (Focused Summary, Section 6.3).

Various slope and surface protection measures will be used to address site soil stabilization and reduce deposition of sediments in the adjacent surface waters. Typical measures include the application of soil stabilizers such as hydroseeding, rock slope protection, velocity dissipation devices, flared end sections for culverts and others. The project will be constructed to minimize erosion by incorporating retaining walls to reduce the steepness of slopes or to shorten slopes; providing cut and fill slopes flat enough to allow re-vegetation and limit erosion to pre-construction rates; and by collecting concentrated flows in stabilized drains and channels. Energy dissipaters in the form of riprap, impact basins or velocity control rings will be provided at storm drain outlets to control erosion. Riprap sizes and thicknesses will be shown on the plans

and stone gradation/ placement methods will be defined in the specifications (Focused Summary, Section 6.4).

Water Pollution Treatment Control Elements. *BMPs for pollution treatment will be designed and implemented to reduce the discharge of pollutants from the on-site storm drain system for all highway runoff from FTC-S and two miles of I-5, to the maximum extent practical, consistent with objectives set forth by Caltrans before discharging to natural channels. Currently, runoff from I-5 in this location is not being treated. Treatment BMPs considered feasible and practicable for the project include extended detention basins (EDBs), sand filter basins (SFB) and biofiltration swales (Focused Summary, Section 7.1).*

As described above, two SFBs~~EDBs~~ are proposed within the coastal zone; one proposed adjacent to San Onofre Creek and one adjacent to San Mateo Creek. The runoff area tributary to the San Onofre Creek SFBs~~EDB~~ is 62 acres, which includes those sections of I-5 and FTC-S from Basilone Road to the south. The runoff area tributary to the San Mateo Creek SFBs~~EDB~~ is 41 acres, which includes those sections of I-5 and FTC-S from the San Mateo Creek crossings southward to Basilone Road. The water quality volumes are 3.7 acre-feet and 2.5 acre-feet for the San Onofre Creek SFBs~~EDB~~ and San Mateo Creek SFBs~~EDB~~, respectively (Focused Summary, Section 7.1).

Three biofiltration swales are proposed within the coastal zone. These will be located immediately north of the FTC-S crossing of San Mateo. Here, the vegetated trapezoidal swales will be located in the median of FTC-S at a slope of less than two percent, with 4:1 side slopes and lengths ranging from 200 to 500-feet. Swales will be designed to Caltrans standards which require water quality flow velocities (equal to the flow generated from the 85th percentile storm) to be low enough to keep hydraulic residence times in the swale greater than 5-minutes. The swales will be vegetated with native grasses and will treat runoff from FTC-S for the area north of San Mateo Creek from the connector structures to the Cristianitos Road crossing. The downstream ends of the swales shall connect to grated inlet structures which outlet to an adjacent off-site storm drain system (that ultimately conveys the treated flow to the north bank of San Mateo Creek) (Focused Summary, Section 7.1).

Coastal Commission Analysis

- The Coastal Commission finds that it is critical for this project that existing hydrologic functions be maintained in order to mimic the current conditions sediment transport, hill slope erosion and water quality. TCA has indicated that it believes it can match that hydrology using flow splitters to convey offsite runoff and onsite runoff exceeding the two year return frequency storm under the Toll Road to existing creeks and channels. Opponents of the project have made arguments that the analysis used by TCA to show that it can mimic the hydrology is "somewhat misleading." For example, a Philip Williams &

Associates letter to Chairman Kruer, dated January 22, 2008 (Exhibit 6 of the list of exhibits included in this addendum) stated:

> *Hydromodification is the effect that the addition of impervious surfaces has on stream channels that may result in the erosion/sedimentation caused by increased runoff. The TCA attempts to address hydromodification concerns in the SR-241 RMP by presenting flow duration plots for two flow splitters and two of the EDBs along San Mateo Creek. The flow duration plots are meant to show that the duration of the range of flows modeled over a 20-year period does not significantly change between the pre-project and post-project with EDB scenarios. However, the flow duration plots are somewhat misleading in that they actually represent the discrete discharge from the flow splitters and EDBs for "onsite" highway runoff. By examining hydrologic modeling results only at the discharge of specific BMPs, the total impacts associated with the entire project including the "offsite" and "onsite" runoff management strategies cannot be determined*

Modeling used by TCA is of a scale and accuracy more appropriate for flood control than for balancing the competing needs of flood control and protection of water quality. Given the potential consequences in this watershed, TCA needs to fully demonstrate that it can mimic the existing hydrological functions and that this is the most appropriate model for addressing potential impacts to biological productivity and water quality.

- The Coastal Commission finds that given the risk associated with this project to biological productivity and water quality associated with this project a comprehensive monitoring program for those resources is required. The monitoring plan should enable TCA and others to evaluate the current hydrologic, biological productivity and water quality baselines and monitor changes to those resources caused by the project. In addition, a contingency plan is required that proposes corrective actions that will be taken if the proposed project is shown to have adverse impacts on the hydrologic functions, biological productivity or water quality of the San Mateo, San Juan or San Onofre watersheds based on the comprehensive monitoring plan.

  TCA has stated above that " *the project would result in a minor increase in impervious surface in the watersheds for San Onofre and San Mateo Creeks, which can be expected to translate into minor localized increases in runoff" and that the "minor increase in impervious surface (approximately 0.2 percent of the San Mateo Creek watershed and less than 0.1 percent of the San Onofre Creek watershed), results in an insignificant increase in peak flows."* Opponents to the project have pointed out that because of the specifics of this project (below) that impacts of the development need to be considered at the subwatershed scale. In fact, TCA's preferred alternative would cross 20 subwatersheds draining to San Mateo creek and disturb as much as 100% of the individual subwatershed areas (Philip Williams &

Associates letter to Surfrider dated January 11, 2006). Another PWA letter commenting on the Toll Road Runoff Management Plan and dated January 22, 2008 (Exhibit 6 of the list of exhibits included in this addendum) states the following:

> *The proposed highway will have major impacts to 20 individual subwatersheds that currently have little development and related impervious area and drain to small channels that convey runoff to San Mateo Creek and Cristianitos Creek. These sand and silt dominated watersheds and related stream systems have developed in equilibrium with the existing rainfall-runoff dynamics. These fragile watersheds are prone to instability and rapid degradation with relatively minor changes in runoff patterns caused by changes in land use. Introducing a new highway through these undeveloped watersheds is likely to result in drastic impacts to both sediment production and channel habitat structure. Thus, the proposed SR-241 with the associated 41 million yards of cut and fill, 530 acres of wide exposed cut and fill slopes, and over 136 acres impervious surface could easily cause potentially significant impacts in the San Mateo Creek watershed.*

- TCA plans to use source control BMPs such as rock slope protection, hydroseeding, ground cover, and mulch, to keep from increasing the supply of fine sediments to the creeks. This appears to to be an unreasonable expectation given the removal of topsoil, final slopes of 3H:1V, the landslide prone nature of this part of the coast and TCA's past performance. The Commission notes that these source control BMPs would have to be extremely effective to keep the cut and fill slopes from becoming a new source of fine sediment because there are no detention basins or any other type of treatment control BMP proposed as a backup to the source control BMPs for the offsite runoff. Without detailed plans showing how TCA will ensure its source control BMPs will prevent increases in sediment supply to the creeks, the Commission is not convinced that TCA can "virtually eliminate" additional contributions of fine grained sediment to the creeks, as it claims.

- Undisturbed hillsides develop slopes based on the equilibrium between factors that stabilize the hillside (such as vegetation and soil cohesiveness) and erosive factors. Removing the topsoil and vegetation weakens the factors holding up the hillside and are likely to cause increased erosion, especially where the finished slopes are as steep as proposed (3 to1). Although TCA says that it has learned from mistakes on previous toll road projects, it has not shown that it can conduct the massive grading proposed without significantly impacting sediment transport and water quality.

- A comprehensive monitoring plan designed to demonstrate the effectiveness of this project's erosion control features, coupled with a feedback mechanism to ensure that any adverse impacts to the San Mateo or San Onofre watersheds are corrected, is needed for the project to be protective of biological productivity and water quality.

Modification: Insert heading, "TCA description of Storm Water Pollution Prevention Plan Elements," add Commission comments and analysis and delete unneeded text. (page 184):

TCA description of Storm Water Pollution Prevention Plan Elements

Mitigation of Water Quality Construction Impacts. *Mitigation measures and storm water regulations will protect marine resources from adverse water quality impacts from construction. Section 402(p) of the Water Quality Protection Act of 1987 requires that a Storm Water Pollution Prevention Plan (SWPPP) be prepared for construction projects that disturb more than one acre of land as part of the National Pollution Discharge Elimination System (NPDES). In California, the State Water Resources Control Board (SWRCB) is responsible for implementing this requirement through the RWQCB and Caltrans (Focused Summary, Section 3.1).*

TCA is required to obtain coverage under the Caltrans Construction General Permit for discharge of storm water from a construction activity prior to the start of construction of the project. A Storm Water Pollution Prevention Plan (SWPPP) will be prepared once final design documents are available. The selection of construction Best Management Practices (BMPs) will be determined as a part of the development of the SWPPP; however the Final SEIR and supporting technical documents describe the following general construction BMPs for the project (Focused Summary, Section 5.1):

- Source identification and control (through covering and containing) of potential pollutants
- Erosion control techniques for temporary, permanent and wind conditions. Types of erosion control to be considered include rolled erosion control products (RECPs) and hydraulically applied mulches.
- Sediment control techniques with the specific objective of maintaining sediment loads consistent with pre-construction levels. Types of sediment control BMPs to be considered include fiber rolls, silt fence, drainage inlet protection and sediment traps and basins.
- Control of non-storm water through elimination of sources.

In addition, the RMP stipulates that the SWPPP include a storm water runoff sampling plan to ensure that BMPs are functioning effectively during construction (Focused Summary, Section 5.1).

The temporary residual increased sediment loads from construction areas are unlikely to alter the hydrologic response (i.e., erosion and deposition) downstream in the San Juan Creek and San Mateo Creek watersheds and, subsequently, the sediment processes in these watersheds. With implementation of the Storm Water Management Plan (SWMP) and SWPPP, there is minimal potential for impact in the southern part of the

San Onofre Creek watershed upon construction of the Proposed Project (Focused Summary, Section 4.9).

Coastal Commission Analysis
This description of the Stormwater permit and Storm Water Pollution Prevention Plan (SWPPP) requirements appear to be accurate. No SWPPP or adequate storm water runoff sampling plans have been submitted to the Coastal Commission. Although the final versions of these documents are often submitted by the selected contractor shortly before start of construction the Commission typically requires that a conceptual SWPPP describing the types and applications of construction stormwater BMPs that are applicable to the specific construction site issues and a conceptual storm water sampling plan, indicating likely methods, locations, frequency and duration of sampling, be submitted for approval by the Executive Director before major projects can be authorized or consistency with Coastal Act policies can be determined.

~~***Minimization of stream alteration.*** *As described above, proposed improvements at San Onofre Creek consist of widening the existing bridge structure on both the upstream/northbound side (42.5 feet to 52.0 feet) and on the downstream/southbound side (37.0 feet to 52.7 feet) of I-5. The widened structure would be constructed on pier walls similar to the existing structure, with the same 2-feet width as the existing pier walls. The proposed widening creates an increase in water surface of 0.6 feet at the upstream face of the proposed bridge widening. The increase diminishes to 0 approximately 66 feet upstream of the bridge (Focused Summary, Section 4.2.2). Proposed improvements at San Mateo Creek include construction of two connector bridges to FTC-S over San Mateo Creek, upstream of the I-5 bridge structures (Focused Report, Section 4.2.2).*~~

Modification: Add title "Regional Water Board Concerns," and modify text (page 185):

Regional Water Board Concerns:
~~Thus,~~ TCA believes the proposed toll road will improve water quality because it will incorporate Best Management Practices (BMPs) and treat additional runoff from two miles of I-5.[25] On September 17, 2007, TCA submitted it's most recent Runoff Management Plan (dated July 26, 2007) to the Commission staff. ~~As of the date of this mailing, the Commission staff has not had time to review this prior to the mailing for the October Commission meeting. Review of this plan will be discussed in an addendum to this report.~~

San Mateo and San Onofre Creeks are healthy, unimpaired and among the healthiest streams in southern California, because their watersheds are far less developed than most southern California watersheds. The ~~proposed detention basins~~BMPs ~~on I-5~~ that TCA proposes to construct on I-5 may help offset impacts on the watershed from the increased runoff and

[25] Transportation Corridor Agencies, *Coastal Consistency Certification and Analysis for the Foothill Transportation Corridor-South (FTC-S), Marine Corps Base Camp Pendleton, California*, March 23, 2007 (hereafter "Consistency Application") at 33.

pollutant loadings from 8-9 miles of highway being constructed along San Mateo Creek and its tributary, Cristianitos Creek, but it is not clear how a benefit over current conditions in San Mateo or Cristianitos Creeks would be provided by this project. Even if BMPs on non-project roads can reduce the total loading of pollutants in the watershed, BMPs are not 100% efficient and the toll road will introduce a new and significant source of pollutants upstream from I-5 in the San Mateo, San Onofre and San Juan creek watersheds. In addition, while TCA states it is providing these collection facilities voluntarily, and beyond what would be required for its project, the San Diego Regional Water Quality Control Board (RWQCB) refutes this assertion, stating (letter dated September 24, 2007,Exhibit 22) that because the project includes improvements along I-5, and because State Water Board policies require installation of BMPs when improving existing roads that:

> *Our expectation is that if I-5 is widened as part of the ... [proposed toll road], then post construction BMPs must be added pursuant to the Caltrans NPDES permit. It is unclear at this point whether TCA is proposing to treat runoff from a larger section of I-5 than would be required by the Caltrans NPDES permit.*

The RWQCB further states that none of the available data suggest an existing water quality impairment, that the lower portions of San Onofre and San Mateo Creeks have not been proposed to be listed as impaired, and, further, that:

> *Quantifying benefits from the proposed project is difficult without baseline data. Baseline data are currently lacking for both runoff quality and receiving water quality. The current pollutant loading from the I-5 highway and expected reductions from the proposed storm water detention basins may be estimated from existing Caltrans studies. Estimating the environmental benefits, however, requires pre-project data that are not available.*

Concerning TCA's latest Runoff Management Plan (dated July 26, 2007), the RWQCB stated in a letter dated September 24, 2007 (Exhibit 22), that TCA had not provided sufficient information to enable the RWQCB to review the adequacy of the plan to protect water quality. The RWQCB requested additional information including additional evaluation of media filters for the San Mateo and San Onofre Creek EDBs. TCA responded to the RWQCB's request on January 4, 2008. In response to the RWQCB's request for information on the applicability of Sand Filter Basins (SFBs), TCA agreed to substitute SFBs for three Extended Detention Basins (EDBs) without providing the requested analysis. Although SFBs are more expensive to install and maintain, they are more effective at removing highway pollutants and will provide better quality runoff to the lower reaches of San Mateo and San Onofre creeks.

~~Concerning TCA's latest Runoff Management Plan (dated July 26, 2007), the RWQCB states that TCA has not provided sufficient information to enable the RWQCB to review the adequacy of the plan to protect water quality. The RWQCB has requested additional information (Exhibit 22) including:~~

1. ~~additional evaluation of media filters for the San Mateo and San Onofre Creek EDBs;~~
2. ~~soil types and comparisons in areas proposed for EDBs;~~
3. ~~assurances that environmentally sensitive species in the San Mateo and San Onofre Creek receiving areas will be protected;~~
4. ~~information about particle sizes that will be captured in EDBs;~~
5. ~~information about the effect of EDB lining materials;~~
6. ~~clarification about which EIR mitigation measures will be incorporated into the RMP~~
7. ~~clarifications about assumed contaminant reductions from the EDBs;~~
8. ~~clarifications about hydromodification assumptions;~~
9. ~~an improved explanation of how flow splitters will capture first flush runoff for each roadway segment;~~
10. ~~clarification of whether fill and cut slope runoff will be routed to EDBs;~~
11. ~~a number of questions about the methodology and adequacy of offsite habitat mitigation plans.~~

~~The RWQCB also questioned, in the absence of adequate baseline information, how TCA could compare pre- and post project conditions, stating: "As a result, the investigation is insufficient for documenting pre-project water quality and for assessing effects of post-project discharges."~~

~~The RWQCB further requests that: "A water quality monitoring plan that is designed to assess both the quality of water discharged to receiving waters from the project and the quality of representative receiving waters should be submitted."~~

Based on the RWQCB's concerns, it would appear premature for the Commission to concur with TCA's water quality assessment that the project is consistent with Sections 30230 and 30231 of the Coastal Act. As noted above, the Commission staff will prepare an addendum to supplement this analysis.

Modification: Insert Conclusion (page 187):

Conclusion
Based on the concerns described above, it would be premature for the Commission to concur with TCA's water quality assessment that the project is consistent with Sections 30230 and 30231 of the Coastal Act.

Issue: Archaeological Resources

Modification to Staff Recommendation: Entire ***Commission Analysis***, beginning on page 207 is modified as follows:

Commission Analysis

Section 30244 requires that "reasonable mitigation" be provided for impacts to cultural resources. There is no dispute that the proposed toll road will have adverse impacts on multiple cultural resources located both in and out of the coastal zone. The question before the Commission is: Are the proposed mitigation measures for these adverse impacts reasonable? This question is analyzed ~~impacts~~ by considering: 1) location and significance of the resources, 2) impacts to the resources ~~impacts, and mitigation,~~ 3) impacts to present day Juaneño descendants, ~~and~~ 4) proposed mitigation, and 5) the SHPO's recommendations. This is followed by an analysis of what constitutes reasonable mitigation.

Location and Significance of Resources
Commission staff consulted several different archaeologists regarding the appropriateness of reviewing impacts to only those cultural resources found within the coastal zone. All experts consulted indicated that cultural resources found throughout the study area are linked to each other, including to cultural resources within the coastal zone. These resources are linked together by virtue of the fact they are all various types of remains from the Juaneño. These experts indicated the entire area was inhabited and used by the Juaneño people and impacts to any one particular resource will reflect on the overall integrity of the remaining resources. They explained that often times boundaries between resources are arbitrary and devised only as a means of general identification. Therefore, the Commission considered impacts to all 34 cultural resources within the disturbance limits to affect coastal zone archaeological resources.

There is a potential that more resources than these exist that simply have not yet been discovered. Therefore the total number of resources directly impacted (within the disturbance limits) is at least 34 and could possibly be more. The total number of resources indirectly impacted (outside the disturbance limits but within the 328-foot buffer of the study area) is at least 12 and could possibly be more.

~~*Resource*~~ *Impacts to the Resources~~and Mitigation~~*
As reviewed above~~ccording to TCA's estimates~~, 34 cultural resources distributed throughout the disturbance limits will be adversely impacted during construction~~destroyed~~. ~~TCA believes they will be able to mitigate impacts to below a level of significance for most of the 34, primarily by surveying and collecting data prior to earth movement. However, TCA will not be able to mitigate impacts for resources eligible for the National Register under Criteria A, B, or C. This is because the particular attributes that qualify cultural resources for inclusion on the National Register under A, B, or C, such as integrity and setting, are impossible to mitigate for. There are at least three resources, all of which are located within *Panhe* and the coastal zone, that would be impacted in this manner. Therefore, there is no mitigation for these resources.~~This includes the ten cultural resources found within the coastal zone. *Panhe* constitutes three of these ten resources. The Commission staff requested TCA to explain the basis for finding that construction impacts would be adverse and received this response:[26]

[26] See *Cultural Resources Response* at A-7.

> *Per Section 106, ground disturbances made to National Register resources prior to treatment are adverse……Because the FTC-S results in ground disturbance, it is an undertaking that has the potential to affect cultural resources. Some of the sites within the ADI are eligible for the National Register, and these National Register eligible sites will be directly impacted by construction of the FTC-S. Therefore, the project will cause an adverse impact on a historical resource as defined by 36 CFR Part 800.*

Consequently, the Commission requested TCA to provide an assessment of impacts[27] for each of the qualifying criteria for resources eligible for the National Register. TCA did not provide this assessment. Instead it stated that all of the resources eligible for the National Register qualified under either Criteria A or D. No further details about *how* the individual qualifying characteristics of each resource would be altered so as to diminish the integrity of the location, design, setting, materials, workmanship, feeling, or association of the resources were provided.

In addition, 12 more cultural resources lie within the buffer. T~~t~~he Commission disagrees with TCA's assertion that only cultural resources located within the disturbance limits will be impacted. Even though cultural resources located in the 328-foot buffer of the proposed toll road will not be physically destroyed, they may have the following impacts: 1) visual, 2) sound, 3) access issues (possible increase in scavenging and possible decrease for Native American use), and 4) setting, feeling, association, ~~quality, value~~ and other attributes that may suffer from the nearby presence of a six-lane highway.

According to 36 CFR Part 800 § 800.5(a), the assessment the Commission requested above for the resources within the disturbance limits is also extended to those in the buffer. Although TCA declined to provide this, as stated above, it could have potentially analyzed the visual, noise, access, and other impacts. These PHP regulations include some of these potential impacts in its examples of adverse effects:

> *(i) Physical destruction of or damage to all or part of the property;*
> *(ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines;*
> *(iii) Removal of the property from its historic location;*
> *(iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;*

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[27] Regulations found in 36 CFR Part 800 § 800.5(1) of the Protection of Historic Properties provides a detailed definition of the assessment of adverse effects. *An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property.*

> *(v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;*
> *(vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and*
> *(vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.*

~~TCA states there are 12 cultural resources located in the 328-foot buffer.~~ According to maps provided by TCA to the Commission, three of the six cultural sites of ~~*the District*~~*Panhe* are located in the buffer ~~and~~ in very close proximity to the proposed toll road (the other three are located within the disturbance limits). The Commission believes the type of assessment requested above would have provided ~~these potentially damaging impacts need a~~a more thorough assessment of impacts to resources in the disturbance limits and buffer. ~~and set of mitigation measures.~~

Impacts to Present Day Juaneño Descendants
Camp Pendleton currently grants permit access to an enclosed 5 acre area for Juaneño/Acjachemen people to gather and carry out religious and ceremonial activities. This ceremonial site also serves as a reburial site for remains discovered in adjacent areas. According to the Juaneño descendants who continue to gather at *Panhe*, the proposed toll road will have severe and irreparable impacts on the ceremonial use of the site. Currently the ceremonial site is in a pristine natural state, the stars are easily visible at night (the Acjachemen are often called star people for their ancient knowledge of stars), and the noise level is generally low. If the toll road is built it will literally be adjacent to this ceremonial site, coming within mere feet of it. The integrity of the site will obviously be compromised and it will be extremely difficult for Acjachemen people to engage in traditional religious practices due to the extreme proximity of the proposed toll road. The proposed toll road will also have a detrimental impact on the ability of tribal members to gather natural resources used in traditional cultural and ceremonial activities such as sage.[28]

Aside from the San Mateo Campground, this 5 acre site is the only site within all of *Panhe* that Juaneño/Acjachemen people currently have legal access to. The proposed toll road will impact both of these sites, resulting in either the direct loss of or greatly diminished functional use of areas used for ceremonial, burial, and religious practices. TCA has suggested that the 16-foot high, 4,000-foot long sound wall proposed as mitigation for San Mateo Campground will also sufficiently mitigate for the proximity of the six-lane highway to the ceremonial site and its associated noise, traffic, air quality, visual, and aesthetic impacts. However, TCA's General Layout Plan (Exhibit 3A) makes it clear that the proposed ~~sound wall~~sound wall falls short of the ceremonial site and does not provide any protection from the proposed toll road. Hence, there appears to be absolutely no mitigation at all for the impacts to the ceremonial site. The

[28] *See* Footnote 111.

Commission inquired about this but has received no response from TCA. The Commission does not agree with TCA's assertion that impacts from the proposed toll road~~his~~ are minimal, indirect, and will not impact usage of the site.

The Commission notes that the Juaneño Band of Mission Indians, Acjachemen Nation passed three resolutions entitled~~the~~ *Resolution Supporting the Protection of Panhe and the Tribe's Full Sovereign Participation In Any and All Land and Water Use Decisions Likely to Impact the Ancient Acjachemen/Juaneño Village of Panhe* on May 19, 2007, July 10, 2007 and July 21, 2007. These resolutions make it clear that the Acjachemen have determined the proposed toll road to be a threat to *Panhe* that would cause severe and irreparable damage to this sacred ceremonial site and burial ground. They further assert their sovereign right to be consulted and support the pending legal action brought by the Native American Heritage Commission.

Proposed Mitigation
As reviewed above, the proposed mitigation measures AR 1-3 do not contain any avoidance measures. The Commission asked TCA what, if any, mitigation is proposed that would avoid impacts and received this response:[29]

> *The extensive, 6-year alternatives development and refinement process is described in several documents, including Chapter 2.0 of the Final SEIR, and is summarized in the attached letter from FHWA to the SHPO. In summary, the Preferred Alternative has been designed and selected to avoid sensitive resources to the maximum extent feasible. However, given the density of resources in the area, avoidance of all resources is impossible.*

The Commission reviewed both the Final SEIR and the FHWA letter, but neither contained any discussion of when or which alternatives were reviewed for impacts to cultural resources and selected to avoid them. This is underscored by the SHPO's letter to FHWA (see Page 193) that maintains the SHPO has never been a participating party nor was his comment ever sought on the selection of the preferred alternative. The SHPO asked if TCA's alternative selection process has taken into account impacts to *Panhe* and Trestles and if it yet retained the flexibility to accommodate a substantive consideration of these resources.

Although TCA asserts that the proposed toll road was selected to avoid sensitive resources, the Commission has not seen any supporting evidence that "sensitive resources" included cultural resources, especially *Panhe* and Trestles. Rather, the questions posed by the SHPO and some statements in the FHWA letter[30] referred to by TCA (excerpted below) suggest that they have not.

> *In addition, the origin of all alignments is fixed at the current terminus of SR-241. Another major goal of the project is to establish a direct tie-in to I-5. There are two*

[29] *See* Cultural Resources Response at A-11.
[30] Gene Fong, US Department of Transportation, Federal Highway Administration, Document #P55478, Letter to Milford Wayne Donaldson, State Historic Preservation Officer, California Office of Historic Preservation, September 26, 2006.

> *possible alternatives that link to the I-5, one that follows Segunda Deshecha (CC Alternative variants), and another that links to the I-5 along San Mateo Drainage just within the San Diego County (the Preferred Alternative)…..the FHWA/TCA concluded that the socioeconomic impacts of the Segunda Deshecha alternatives cannot be appreciably avoided by specifically refining those alternatives.*

In TCA's *Response to CCC Staff Letter*, TCA stated the following:

> *Other potential build alternatives for the extension of the FTC-S were studied and were shown to impact other ethnographic village sites. Many of these villages have a higher percentage of intact archaeological deposits than those shown within the SMAD.*

Despite this assertion, no additional supporting information was provided that disclosed these analyses. Given the lack of information indicating otherwise and TCA's incomplete responses when asked, the Commission remains unconvinced that the alternatives selection process included the avoidance of cultural resources. Furthermore, TCA declined to provide specific reasons or evidence for why avoidance is impossible (as stated in the former quote), but also that it *has* avoided other villages with more intact resources (as stated in the latter quote).

The mitigation measures that are proposed for the toll road will not be sufficient for all resource impacts as indicated by TCA[31]:

> *Impacts to other eligibility criterion (A) cannot be mitigated below a level of significance; therefore, a Statement of Overriding Considerations was adopted by TCA when the FEIR was certified.*

The Commission staff requested TCA to explain why impacts under Criterion A cannot be mitigated below a level of significance, and TCA responded that:[32]

> *It is more difficult to mitigate to below a level of significance those resources that are eligible for listing under Criteria A, B, C. This is because what makes these sites significant are often traditional values and associations of place with a significant event, period, or person in history that cannot be sampled, collected, or recovered through archaeological excavation. Therefore, it is not always possible to reduce impacts to resources that are eligible under Criteria A-C to below a level of significance because of the values that make the site eligible under these criteria.*

Given this information, the Commission concludes that for resources qualifying to the National Register under Criteria A, B, or C, avoidance would appear to be a mitigation measure that would prevent significant and adverse impacts from occurring and therefore be most reasonable.

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[31] *See* Cultural Resources Response at A-8.
[32] Id.

As reviewed above, TCA believes it will be able to mitigate impacts to below a level of significance for most of the 34 cultural resources, primarily by surveying and collecting data prior to earth movement. However, ~~TCA will not be able to mitigate impacts for resources eligible for the National Register under Criteria A, B, or C. This is because the particular attributes that qualify cultural resources for inclusion on the National Register under A, B, or C, such as integrity and setting, are impossible to mitigate for.~~ t~~T~~here are at least three resources, ~~all of which are located within *Panhe* and the coastal zone, that would be impacted in this manner. Therefore, there is no mitigation for these resources.~~(CA-SDI-4282, CA-SDI-4535, CA-SDI-11,929) that will sustain impacts that cannot be mitigated to below a level of significance (because of their Criterion A qualifications) with the mitigation measures proposed. These three resources are all part of *Panhe* and the San Mateo Archeological District, they are all listed on the National Register (qualifying under Criteria A and D), and they are all found in the coastal zone. Avoidance mitigation measures would prevent these significant, adverse impacts. Avoidance of these three sites would require moving the proposed toll road to a different location, a mitigation measure that was not proposed by TCA.

SHPO's Recommendations
Following the guidance of the SHPO, as required by § 30244, the Commission concentrated its analysis on two specific resources: *Panhe* and Trestles. It is apparent that there will be direct, adverse, physical impacts to three of the six sites located within *Panhe* and that these impacts will ~~not~~ be significant and adverse~~mitigated~~. The remaining three sites located within *Panhe* are located within the buffer and will be indirectly adversely impacted. TCA has not evaluated Trestles as a cultural and/or historical resource, and the Commission therefore finds TCA's evaluation of cultural resources to be inadequate. The CDPR indicated it is taking steps to submit information to the SHPO for Trestles' inclusion on the California Register and the National Register.

However, the primary issue is that neither *Panhe* nor Trestles were evaluated by TCA as Traditional Cultural Properties. This is important because both the SHPO and the ACHP requested TCA to conduct these analyses to better inform impact assessment and mitigation. ~~As stated above, neither agency has received a response from TCA.~~ The Commission inquired if TCA would be performing these analyses in the future and its written response indicated it would not.[33] In TCA's *Response to Coastal Commission Staff Report*, it was again made clear that TCA will not perform a Traditional Cultural Property analysis for either *Panhe* or Trestles. TCA submitted the following comments in lieu of the requested Traditional Cultural Property evaluations:

> *The status of Panhe as a TCP is not in question: it is recognized by the fact that the San Mateo Archaeological District (SMAD) has been determined eligible under both Criteria A and D. The Criterion A eligibility is centered on the status of the site as Panhe (an ethnographic village) and is based on oral descriptions and traditional use.*

[33] *See* Cultural Resources Response at A-14.

Since the eligibility of the District has been established, the impacts have been assessed in accordance with that status.

Whether or not Trestles represents a historic resource, and potentially a TCP, the Trestles property lies entirely outside of the project area and will not be impacted directly or indirectly by the project. Both the Old Highway 101 bridges and Amtrak rail line are between the proposed project connectors and the proposed Trestles historic district. In addition, the study referenced in the Staff Report addresses the entire San Onofre surfing area, an area much larger than the Trestles resource. The proposed project will have no impact on the Trestles Surfing Area.

While TCA has acknowledged that, in its opinion, *Panhe* is a Traditional Cultural Property, a Traditional Cultural Property evaluation is still needed because, according to the SHPO, it will assist in identifying which are contributing and non-contributing elements of the historical resources. This analysis will evaluate how the resource was used historically and whether that historic use continues today. By undertaking this study, it will be possible to evaluate if the proposed toll road will have an effect on the historical resources and what might be the means of mitigating such effects.

TCA's explanation for not performing a Traditional Cultural Property evaluation for Trestles, because the proposed toll road is outside of the "Trestles property," reflects a misunderstanding of the resource as a cultural resource in addition to its value as a recreational resource. The Commission understands that the proposed toll road will not be built in the middle of the four surf breaks that constitute what is known as Trestles. However, it does not need to be in order to impact Trestles. The point of a Traditional Cultural Property evaluation is to assess who has been using the Trestles surfing resource and for how long in order to place potential impacts in their proper historical context. This type of evaluation will identify the full range of impacts and their ramifications on the surfing community if the proposed toll road were to impact Trestles. Because, as discussed in the surfing section of the Staff Report beginning on page 173, the Commission has found the project would adversely affect surfing, the Commission disagrees with TCA that there will be no impacts to surfers and therefore no need for a Traditional Cultural Property evaluation. The Commission also found there will be adverse impacts to the aesthetics (see Staff Recommendation page 176) and the viewshed (see Staff Recommendation page 151) for surfers. Simply because the proposed toll road would not be built in the surf zone does not relieve TCA of the obligation to perform this evaluation.

~~Section 30244 requires the Commission to seek the SHPO's identification of adverse impacts to cultural resources.~~ The SHPO has indicated to the Commission that absent the Traditional Cultural Property evaluations for *Panhe* and Trestles, it is impossible to assess the full suite of impacts. Traditional Cultural Property evaluations will enable the SHPO to assess impacts to *Panhe* beyond just physical impacts, and it will allow an assessment of impacts for Trestles[34].

[34] Personal communication between Commission staff and Michael McGuirt, RPA, Associate State Archaeologist, California Office of Historic Preservation (speaking on behalf of the SHPO), on June 4, June 28, August 27, and September 20, 2007.

Section 30244 ~~also~~ requires that the Commission ensure "reasonable" mitigation measures are provided for adverse impacts to cultural resources~~. The results of the Traditional Cultural Property evaluations will have direct bearing on the SHPO's ability to assess mitigation. Mitigation cannot be assessed before all of the impacts are known. The SHPO maintains that all of the impacts will not be known until Traditional Cultural Properties are performed for both *Panhe* and Trestles.~~ The Commission finds that under Section ~~30244 of the Coastal Act,~~ 930.58 of the Coastal Zone Management Act regulations, ~~the SHPO's opinion must be followed and~~ that TCA must perform Traditional Cultural Property evaluations for *Panhe* and Trestles before impacts can be adequately assessed and mitigation be deemed reasonable~~. The Commission finds that it is therefore premature to evaluate whether or not proposed mitigation is adequate or meets the requirement of Section 30244, that reasonable mitigation measures shall be required.~~
(The SHPO has also indicated to the Commission that as a member of the Section 106 Consultation process it will not concur with an impacts assessment and proposed mitigation until these Traditional Cultural Property evaluations are complete and have been provided to the SHPO for review.[36])

Reasonable Mitigation
The Commission is required to ensure "reasonable" mitigation measures are provided for adverse impacts to cultural resources. A generally accepted framework of mitigation measures pertaining to archaeological resources is the California Environmental Quality Act (CEQA) § 21083.2 and CEQA Guidelines (CG) § 15126.4. These regulations require that mitigation is provided for "unique archaeological resources," and that agencies first seek to avoid impacts to archaeological resources. Allowing resources to be preserved in place or left in an undisturbed state is the preferred method of mitigation. One example of this would be to plan construction to avoid archaeological sites. Only when all efforts have been exhausted to preserve in place or leave a resource undisturbed might other forms of mitigation be considered. The Commission utilizes these standards as guidance for what constitutes "reasonable" mitigation.

Therefore, when assessing whether mitigation is "reasonable," the Commission considers an important factor, among others, to be whether the proposed mitigation measures comply with the standards of CEQA § 21083.2 and CG § 15126.4(b)(3) which identifies that resources "preserved in place or left in an undisturbed state" are preferred mitigation measures. Next, if avoidance measures are not included, the Commission considers the case for why avoidance is not possible.

The Commission does not find the proposed sound wall to be "reasonable" mitigation for the adverse impacts to the Juaneño/Acjachemen ceremonial site of *Panhe* because avoidance measures are not included, nor is there any evidence that an effort was made during the

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Id.
[36] Id.

alternative selection process to avoid this area. No case has been made for why avoidance of the ceremonial site is not possible. Lastly, maps indicate there is currently no sound wall designed for the ceremonial site. This leaves impacts completely unmitigated and clearly not "reasonable."

The Commission does not find the proposed mitigation of AR-1, AR-2, and AR-3 to be "reasonable" mitigation for the adverse impacts to the three resources of *Panhe* that will sustain impacts that cannot be mitigated to below a level of significance because avoidance measures are not included, nor is there any evidence that an effort was made during the alternative selection process to avoid this area. A case has been suggested that there are too many resources which makes avoidance impossible and also that there are other ethnographic villages with more and better resources that have been avoided. These reasons are contradictory and unsubstantiated. Therefore it appears that more protective mitigation measures (avoidance) are possible, so the proposed mitigation measures of AR 1-3 cannot be considered "reasonable."

In its *Response to Coastal Commission Staff Report*, TCA asserted the following:

> *The project is consistent with the requirement in Section 30244 that "reasonable mitigation" be required through compliance with Section 106 of the National Historic Preservation Act of 1966 (as amended) and 36 CFR Part 800, and by identifying specific minimization, avoidance, monitoring, preservation, and recordation minimization measures. A Historic Property Treatment Plan is being prepared as part of the Section 106 compliance, and that treatment Plan will include implementation level details of the adopted mitigation.*

The Commission disagrees with TCA. Participation in the Section 106 Consultation process and future development of plans and measures do not enable the Commission to determine consistency with Section 30244 of the California Coastal Act and does not automatically satisfy federal consistency requirements under the Coastal Zone Management Act. Moreover, the Section 106 Consultation process is ongoing and the very products that TCA believes provide "reasonable mitigation," such as the Historic Property Treatment Plan, have yet to be written. Absent this final product, the Commission has no assurance that future plans will contain "reasonable mitigation."

The Commission has recently been in consultation with the SHPO to identify reasonable mitigation measures to take affects of the proposed toll road into account.[37] As previously noted, without additional studies, it is difficult to identify the full range of effects much less means to mitigate. The SHPO acknowledges the deep cultural significance of *Panhe* to the Juaneño. To date, the SHPO concurs with the Commission's conclusion that reasonable

[37] Personal communication between Commission staff and Milford Wayne Donaldson, FAIA, State Historic Preservation Officer, California Office of Historic Preservation, throughout January 2008.

mitigation measures that would reduce effects to less than significant have not been proposed or likely to be fully developed without the Traditional Cultural Property evaluations.

Conclusion

~~Based on the advice of~~ Consistent with the SHPO's opinion, the Commission finds that TCA has not provided sufficient information to enable the Commission to identify the full range of adverse impacts to cultural resources and their potential mitigation. Both Traditional Cultural Property evaluations and the Historic Treatment Plan would bridge this information gap, but neither has been provided to the Commission. Absent this level of analysis, the Commission is not convinced all mitigation options (specifically avoidance) have been explored. Therefore, the Commission finds the proposed mitigation measures to be premature and not "reasonable." ~~The Commission is therefore unable to assess whether the proposed mitigation qualifies as "reasonable mitigation" as required under Section 30244 of the Coastal Act. Traditional Cultural Property evaluations for *Panhe* and Trestles would provide the Commission with the information necessary to assess the full suite of impacts and mitigation.~~

In addition, the impact analysis performed by TCA has revealed at least three resources for which the proposed mitigation will not reduce adverse impacts to below a level of significance. This is further substantiated by the need to adopt a Statement of Overriding Considerations during FEIR certification. In addition, the impacts to the Juaneño/Acjachemen people who currently use the ceremonial site are completely unmitigated. TCA has neither included avoidance measures in its proposed mitigation for these impacts, nor has it demonstrated why avoidance mitigation measures could not be incorporated. This would appear to leave the Commission's preferred mitigation measure (avoidance) available, precluding the proposed mitigation from being "reasonable".

Based on these two findings, t~~T~~he Commission therefore concludes that it lacks sufficient information and that ~~to determine whether~~ the proposed toll road, in this location, is inconsistent with § 30244.

Issue: Greenhouse Gases

Modification: Modify the last sentence of the first full paragraph on p. 222 as follows:

~~TCA has not provided any analysis of or mitigation for these impacts.~~ *TCA's Response to CCC Report*, p. 95-99, provides clarification that it may use asphalt rather than concrete paving, estimates a carbon footprint for construction of 268,000 tons of CO_2 for paving and another 58,200 tons for construction equipment, for a total of 326,670 tons of CO_2. However TCA maintains this will be offset within 5 years by operational improvements and reduced vehicle hours traveled through traffic congestion relief. TCA estimates a vehicle travel time reduction of 32,000 hours/day. TCA also maintains the project will not induce growth within the coastal zone.

The Commission notes that when comparing the emissions from vehicles in the baseline and project condition, TCA assumes average speeds. If the project reduces the number of cars idling and replaces them with cars going at faster speeds, there will be an increase in fuel usage PER MILE because vehicles use more fuel at greater speeds, particularly when compared to idling. In addition, the assumptions that go into TCA's traffic study are critical to its GHG emissions estimate; in other words, if there is a net increase in the number of vehicles on the road, as is usually the case when new roads are constructed, the calculations of GHG emissions resulting from the project are underestimated.

The Commission is also unable to reproduce TCA's GHG emission numbers using the reference cited. For example, assuming a density of 148 pcf for asphaltic concrete, the Commission calculates that 400,000 cy of asphaltic concrete will yield a lifetime emission of 797524.3014 tonnes of CO_2. Finally, it is unclear how the tailpipe emissions related to construction activity was arrived at; nor is there adequate documentation of the CO_2 rates reportedly calculated using the EMFAC2007 emission factor model employed by TCA.

Modification: Modify the next two paragraphs on p. 222-223 as follows:

The Commission also finds that TCA's contention that long term operational impacts will be beneficial is unsupported and unlikely. The studies by the California Energy Commission staff and Professor Johnston demonstrate that reducing vehicle miles traveled in California is critical to achieving reductions in greenhouse gas emissions, and that adding highway capacity will increase vehicle miles traveled. TCA asserts that the reduced congestion and increase speed of vehicles on the toll road will offset any increase in vehicle miles traveled. However, while vehicle emissions on the toll road might be less, per vehicle, than vehicles on I-5 during its peak congestion periods, the project will ultimately foster continued growth (outside the coastal zone), low density housing and inefficient transit patterns and the overall traffic system will be equally or more congested than it is currently. Thus toll road emissions are more likely to additive, rather than subtracting from vehicle emissions on I-5. Further, TCA's argument that greenhouse gas emissions from vehicle tailpipes are not within its jurisdiction is misleading. TCA is proposing to build a road that will likely lead to increased VMT and therefore increased greenhouse gas emissions. Regulation of tail-pipe emissions is a separate matter; the road will likely lead to increased greenhouse gas emissions regardless of the standards set by other agencies for tail-pipe emissions. The Commission also finds TCA's argument unpersuasive because it did not compare the project to alternative "build" scenarios, which would involve a lesser length of pavement, and because any of these alternative would provide reductions from traffic relief. Finally, full mitigation of this release, in the form of reduced emissions, carbon sequestration, or purchase of carbon credits is feasible. To properly address this issue, the Commission believes TCA should initially fully mitigate construction emissions, and continue to monitor traffic conditions, and only after establishing that operational benefits are valid, could it be allowed to take credit for these reductions and not be required to provide additional mitigation. Because TCA has not provided an alternatives analysis ~~fully calculated~~ or agreed to mitigate the total greenhouse gas emissions attributable to

the construction phase of the project, or analyzed use of potentially less damaging alternative types of cement, the Commission cannot find that the greenhouse gas emissions of the project have been mitigated, or that the project is consistent with the requirement of Section 30253 that it minimize energy consumption and vehicle miles traveled. TCA has therefore failed to establish that the project will avoid, minimize, or mitigate adverse impacts to a wide range of coastal resources, including public access, recreation, marine resources, wetlands, ESHA, agriculture, natural land forms, and existing development. The Commission exhorts TCA to join OCTA, as recommended by the Attorney General in taking "…a truly 'visionary' role in shaping the transportation and environmental landscape of Orange County for the next quarter century."

Issue: Conflict Resolution

Modification: Modify the last full paragraph on p. 230 as follows:

~~TCA has not provided evidence that the benefits it claims the project would bring could only be obtained if the project goes forward,~~ *TCA's Response to CCC Report*, p. 127-135 reiterates TCA's position regarding the project's benefits to coastal resources, adding the $100 million offer for regional recreational improvements to the consideration of the project's overall benefits, provides an estimate of the quantity of certain pollutant constituents it believes would be removed from San Mateo Creek from its proposed detention basin along I-5, and focuses on two previously-reviewed projects in support of its assertion that the project can be authorized under Section 30007.5. ~~, and t~~The Commission disagrees with TCA that the project even poses a conflict between Coastal Act policies.

The first of the two previously-reviewed projects cited by TCA, Route 56, is discussed above. TCA has cited an additional case it wishes the Commission to consider: the San Joaquin Hills Toll Rd. (CC-63-92/CDP 5-92-232, TCA SJHTC). While the Commission indeed authorized that project using the conflict resolution section, the Commission disagrees that the previous toll road was comparable to the current toll road. The SJHTC toll road raised only one inconsistency with Chapter 3, which was that the project was not an allowable use for wetland fill. In all other respects the Commission found adverse effects would be adequately mitigated, and no feasible less environmentally damaging alternatives were available. That project did not affect recreation, ESHA, or archaeological resources in the coastal zone. The SJHTC's effects on coastal zone resources were fairly minimal, and fully mitigable, neither of which is the case for the proposed toll road.

Modification: Modify indented subparagraph (b) on p. 231 as follows:

(b) ~~that the proposed benefits cited by TCA have not been quantified or established~~ that while TCA has attempted to quantify the constituents the I-5 detention basin would remove, the RWQCB staff continues to believe it does not have sufficient information to warrant a conclusion that the project would provide overall water quality benefits;

Modification: Modify the first sentence of the last paragraph on p. 233 as follows:

Even if the benefit of getting existing beach users to the coast faster were present, and even with the $100 million offer TCA has made for regional recreational improvements, the project's benefits ~~it~~ would be far outweighed by the project's direct and severe adverse effect on recreation at SOSB, as described in the Public Access and Recreation, Public Views, and Surfing Sections of this report.

Exhibits (to be added (and renumbered) to the exhibits in the Staff Recommendation):

1. Conservation Biology Institute (1-18-08) on jurisdictional delineation and other wetlands issues
2. Conservation Biology Institute (1-10-08) on proposed mitigation in Crystal Cove State Park
3. Conservation Biology Institute (1-17-08) on Pacific pocket mouse issues
4. Robert Hamilton (1-16-08) on coastal sage scrub and California gnatcatchers in the coastal zone
5. Philip Williams & Assoc. (1-17-08) response on watershed impacts analysis
6. Philip Williams & Assoc. (1-22-08) on proposed BMPs for water quality
7. Philip Williams & Assoc. (1-17-08) response on AIP-R run-off management plan issues
8. Robert Lovich (1-22-08 and 8-16-07) responses on arroyo toad issues (plus figure)
9. Richard Halsey (1-22-08) on fire hazard issues
10. Jon E. Keeley (1-22-08) on fire hazard issues (plus resume)
11. Bergmann Associates (1-23-08) peer review of Smart Mobility report
12. Retrocession Documents
13. Smart Mobility, Inc. (1/16/08) Response to TCA and Caltrans Review of September 2007 Smart Mobility Report

14. *TCA's Response to CCC Report*, at 475 pages has not been reproduced for inclusion in this report – please **click here** to access a digital version of this document. The letter from TCA consultant Dr. Dennis Murphy can be found on page 146 and the letter from TCA consultant Dr. Roy Ramey can be found on page 180.
15. Exhibit 15 (Revised) – Currently and Previously Designated Critical Habitat for Threatened and Endangered Species

Separate Attachments

Appendices B & C – Significant correspondence, separated into supporters and opponents (this correspondence does not include the over 7,000 postcards and over 7,000 emails received)

Appendix F - Smart Mobility, Inc. (1-16-08) response to TCA (Corridor Design Management Group), Caltrans, and Orange County Public Works on AIP-R alternative

(Appendices A, D, & E were included in the initial mailing)