

**FOOTHILL/EASTERN TRANSPORTATION CORRIDOR
AGENCY**

CC No. CC-018-07

**RESPONSE TO COASTAL COMMISSION STAFF REPORT ADDENDUM
RELEASED JANUARY 25, 2008**

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TRANSPORTATION CORRIDOR AGENCIES

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ATTACHMENTS

1. Letter by Rob Roy Ramey, Ph.D., February 3, 2008.
2. Map of Camp Pendleton Arroyo Toad Locations, prepared by BonTerra Consulting.
3. Memorandum prepared by Glenn Lukos Associates, February 5, 2008.
"Response to Comments from the Conservation Biology Institute Regarding the CCC Jurisdictional Delineation for the Foothill Transportation Corridor – South, Orange County, California (Glenn Lukos Associates December 17, 2007).

I. INTRODUCTION

The Transportation Corridor Agency (TCA) has carefully reviewed the Coastal Commission Staff Report Addendum and Second Addendum (Addendum) for construction of the portion of the extension of the 241 Toll Road (SR-241) that is within the California coastal zone. TCA has also reviewed the letters submitted by a variety of other parties, in particular, non-staff opponents, which are referenced in, and in some cases, attached to, the Staff Report.

Our review of the Addendum and the environmental group letters reveals that, for the most part, there are no new issues that require additional response. The Addendum acknowledges some of the information provided by TCA in its Response to the Staff Report dated January 9, 2007, but continues to discount and disregard the facts and technical analysis supplied by TCA. In the Addendum, Staff continues to rely on zealous non-staff opponents for information, while refusing to acknowledge the mitigation measures already determined acceptable by federal environmental regulatory agencies, including the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency.

The following response is provided to briefly respond to the Addendum. This response does not respond to all the misrepresentations and allegations in the Addendum, because they are largely the same as the original Staff Report, and we have already responded to that report.

II. ALTERNATIVES

A. The “AIP-R Alternative” is Still Flawed, Unsafe, and Infeasible.

CCC STAFF CLAIM: The revised report prepared by Smart Mobility, Inc. and accompanying Peer Review provides ample data to show that the AIP-R alternative is logistically and technically feasible, as well as less costly, less socially damaging, and less environmentally damaging than the proposed toll road or the I-5 Widening Alternative described by TCA.

TCA RESPONSE: It is obvious that Smart Mobility has taken the comments from TCA, Caltrans and the County of Orange and has been forced to correct the substantial errors contained in their original 2007 Report. The changes made by Smart Mobility have subsequently resulted in a higher number of residential and commercial takes, increased project costs and revised interchange designs for their AIP-R alternative.

TCA understands that project designs typically evolve over time and usually grow in scope when confronted with the realities of other stakeholders, regulations and standards. Smart Mobility, in all of their reports, is simply making unilateral claims of the acceptability of their design. These have not survived the test of scrutiny by any of the agencies responsible for their eventual implementation. Through the design process a single entity cannot unilaterally claim that a certain alternative meets a referenced standard. Buy-in from all responsible authorities regarding the acceptability of the design element needs to be obtained to ensure that all required safety, maintenance, operations or other concerns are addressed.

Smart Mobility, in their revised report, has gone a step beyond simply claiming that their alternative designs are acceptable. They intentionally mislead the reader by stating that these alternative designs are either approved by or suitable to the local agencies. This has been done in two instances:

- ***Ortega Highway Interchange.*** The two options presented by Smart Mobility for the Ortega Interchange come from a suite of five alternatives being advanced for further study in the Project Report stage (see exhibit¹ on following page). They have conveniently selected two of the design alternatives (Alts 1 & 2) with the least community impacts, and they then offer them as having “Caltrans approval”. This is not the case. These layouts are being evaluated as part of an overall study and they are simply alternatives. To unilaterally represent them as approved by Caltrans ignores the extensive evaluation remaining to be undertaken by the governing authorities.
- ***Avenida Pico Interchange.*** Smart Mobility takes the same approach at the Pico interchange. The single point interchange layout is simply an alternative that was under consideration². They offer that, because this alternative exists in the report, it is suitable for this design. They neglect to show the numerous other alternatives, or even discuss the eventual outcome of the evaluation in which this single point interchange was dismissed from further evaluation! This misrepresentation of the facts is disingenuous at best.

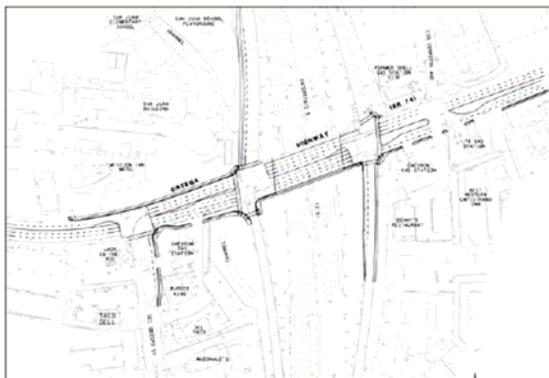
¹ From <http://www.sanjuancapistrano.org/Modules/ShowDocument.aspx?documentid=1671>

² Avenida Pico at I-5 Improvements, Preliminary Alternative Study, dated February 17, 2006 by Moffatt & Nichol prepared for the City of San Clemente, Project 35801

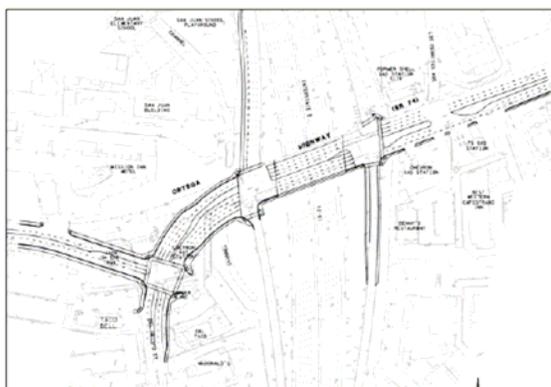
I-5/Ortega Highway Interchange Improvement Project Alternatives



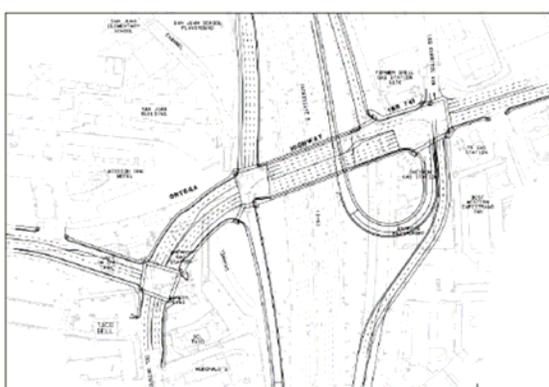
EXISTING CONDITIONS



ALTERNATIVE 1



ALTERNATIVE 2



ALTERNATIVE 3



ALTERNATIVE 4



ALTERNATIVE 5

Other errors still exist in the revised Smart Mobility report and their subsequent correspondence, on the basis of which CCC staff has offered this alternative as *less costly, less socially damaging, and less environmentally damaging than the proposed toll road*, including the following claim:

SMART MOBILITY CLAIM: 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.

A close examination of the AIP-R alternative shows that its purported “benefits” are not feasible at the planning design level or review, or any further detail of review. Just some of the reasons for this are:

- The AIP alternative relies on widening of the local arterial Avenida La Pata, a four-mile segment of which has yet to even be constructed.
- The carpool and mixed-flow lanes have been corrected in the revised SMI report. Auxiliary and climbing lanes, however do not match the SOCTIIP design. In fact, over 30% of the project length from Lake Forest Drive to Basilone Road is missing at least one lane.
- The Crown Valley interchange is now on its third layout iteration by Smart Mobility, Inc., now with a longer transition for the south-east transition ramp after it goes beneath Crown Valley Parkway. It is worthy to note that even the Bergmann Associates review of the alternative states that “It appears the flyover ramp may have to be extended further south than shown in order to achieve sufficient elevation to cross over I-5 and the northbound ramp.”
- We see that some (but not all) of the water quality basins included in the revised SMI report have been relocated from the hillsides adjacent to the freeway. For instance at Avenida Pico, extended detention basin (EBD) 3-F has been moved to within the islands of the single point interchange at Pico. The location of these water quality basins within the intersection presents problems for access for maintenance, which will most certainly need to be addressed with Caltrans. We are not aware that Caltrans has

ever approved such a design. Yet Smart Mobility offers these and others as reasonable solutions.

- SMI does not provide any water quality treatment facilities for a 2 mile section of Interstate 5 from Presidio to Cristianitos directly adjacent to San Clemente State Beach.

SMART MOBILITY CLAIM: In their January 29, 2008 memorandum to James Birkelund of NRDC, Smart Mobility claims that (regarding capacity to handle traffic “The Toll Road will fail if it is only four lanes.” The referenced locations are all outside the coastal zone boundary.

TCA RESPONSE: It is refreshing to see that Smart Mobility now theorizes that the proposed Foothill South corridor will be utilized so extensively that it may fail from too much traffic. The reviewer however did not take into account the proposed future improvements, outside the coastal zone, that are planned to be made when traffic reaches the point of negatively impacting the level of service. The size of the project is 4 lanes within the coastal zone.

B. Staff Misrepresents the Selection of the Preferred Alternative.

CCC STAFF CLAIM: TCA’s comparison of impacts from the project alternatives and the weight given to community disruption do not take into account the quality of the resources being affected.

TCA RESPONSE: In 1996, as a result of the 1994 NEPA/Clean Water Act (CWA) Section 404 Integration Process for Surface Transportation Projects, the FHWA initiated coordination with the federal resource agencies for the environmental review of the project. The NEPA/Section 404 process involved the FHWA, Caltrans, U.S. Army Corps of Engineers (ACOE), U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service, TCA, and the Department of the Navy. These agencies were collectively referred to as the Collaborative.

In March 1999, pursuant to the NEPA/Section 404 Memorandum of Understanding, a purpose and need statement was approved for the proposed project. In November 2000, the Collaborative members concurred on the alternatives to be evaluated in the EIS/SEIR. The Collaborative members

participated in the (1) review of the scopes of work for the technical reports, (2) review of the technical reports, and (3) evaluation of the alternatives for consideration in the EIS/SEIR. In August 2003, based on the findings of the technical analyses, the Collaborative members agreed to remove some alternatives from detailed consideration in the EIS/SEIR, based on their inability to meet the purpose and need and/or on the environmental impacts of those alternatives.

During the Collaborative alternative evaluation process, key environmental issues were selected to measure the environmental consequences of the project. This was accomplished through the development of the evaluation measures that were agreed upon by the Collaborative members. Using the associated measured parameters, specific impacts were calculated for each of the 16 corridor and three non-corridor build alternatives. The evaluation measures were applied equally to all the alternatives. The quality of resources affected was taken into account. Extensive fieldwork and analysis was conducted to provide such information. The quality of resources affected was taken into account. As just one example, as stated on page 2-16 of the Final SEIR, the evaluation and screening of alternatives included evaluation according to the NEPA/404 evaluation criteria. These criteria include factors such as wetlands and aquatic ecosystems, water quality, endangered species, parks and historic sites. This process resulted in the elimination and/or substitution of 10 of the alternatives that were being evaluated. Based on the alternatives evaluated, the proposed project before the Coastal Commission, the Collaborative selected the Least Environmentally Damaging Practicable Alternative (LEDPA). It was the federal Collaborative agencies that compared the impacts of the alternatives, not solely the TCA, as stated by staff.

III. SURFING RESOURCES

A. Staff Incorrectly Claims Trestles Waves May Be Adversely Affected.

CCC STAFF CLAIM: Any increase in fine sediment or decrease in peak flow rate in the watershed may decrease the transport of gravel and cobbles, which will then impact the high quality wave formation at Trestles.

TCA RESPONSE: This statement is unsupported and without reference and is factually incorrect. V.A.Vanoni notes that, "The presence of high concentrations of fine suspended sediment enhances the capacity of the stream to transport coarser sediments."³ Further, it is common practice in modeling bed sediment transport to include a correction factor to increase bed sediment transport when there is a high concentration of fines in the discharge. The correction factor ranges up to 100 times the normal transport.⁴

Importantly, TCA has demonstrated that the project hydrology will not be changed in the post project condition, and that manufactured slopes will be adequately protected against erosion, therefore, there is no physical basis to either assess or expect a change in the sediment grain sizes or composition.

CCC STAFF CLAIM: 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.

TCA RESPONSE: At first glance this would appear to be a technical statement. However, examination of the Philip Williams & Associates (PWA) January 22, 2008 letter upon which the CCC staff's statement is based, reveals that there is no reference for this "recent research" and no specification of what is meant by fine sediment. In an effort to determine what role if any fine sediment plays in

³ V.A. Vanoni (1977) "Sedimentation Engineering, ASCE Manuals and Reports on Engineering Practice – No. 54," prepared by the ASCE Task Committee for the Preparation of the Manual on Sedimentation of the Sedimentation Committee of the Hydraulics Division.

⁴ Colby, B. R. 1964. Practical computations of bed-material discharge, Proceedings, American Society of Civil Engineers, Vol. 90, No HY2.

the movement of cobble under wave action, two coastal processes experts at the Scripps Institution of Oceanography were contacted by Dave Skelly of GeoSoils, Inc on behalf of TCA. Both Dr. Reinhard Flick, who is also the California Department of Boating and Waterways Oceanographer, and Dr. Scott Jenkins agreed that fine sediments, silts, do not deposit in the surf zone and play no role in surf zone cobble transport. Both scientists were not aware of any research as implied by PWA and agreed that the concept put forth by PWA is obviously counter intuitive.

CCC STAFF CLAIM: TCA misinterpreted the data presented in the January 2006 PWA report.

TCA RESPONSE: TCA did not misinterpret the data in the report. It was presented in an incorrect and misleading manner. Since that time PWA has restated the results in a letter to CCC dated January 17, 2008. We would like to point out for the record that their original discussion relative to sub-watershed scale analysis was ambiguous at best and although well clarified in the subject response letter, the previous work was also 'misinterpreted' by others - propagating the mistakes into the Coastal Commission staff report. PWA has clarified that the percentages of the subwatershed disturbed by the road prism are as a percentage of the subwatershed that lies upstream of the road crossing. Thus, the percentages relate to a sub-subwatershed that is much smaller than the subwatershed impacts implied in the original report. This sub-subwatershed approach contrasts with statements in the Summary and Conclusions section (pg. 2) of their January 11th, 2006 study including, "The cut and fill limits of the road in the Donna O'Neil Land Conservancy will occupy on average 47% of each sub-watershed..." The Coastal Commission addendum to the staff report still contains incorrect statements such as, "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." (dated January 23rd, page 47). The qualifier of 'upstream' is again missing from the statement; the correct values are 14.2% and 5.6% respectively for the way the staff report is written.

B. Staff Discounts Mitigation and Best Management Practices (BMPs).

CCC STAFF CLAIM: TCA has not provided supporting evidence that Best Management Practices (BMPs) will prevent increases in flow rates and erosion, and prevent increased runoff volume discharged into channels downstream.

TCA RESPONSE: A sediment transport study, with sediment rating curves, was previously completed and submitted to the Commission. A detailed continuous simulation model was used to model the hydrology at a subwatershed scale and demonstrate unequivocally, that the post-project hydrology will be virtually unchanged from the pre-project condition.

CCC STAFF CLAIM: TCA has proposed only typical BMPs and has excluded large portions of runoff from receiving BMP treatment at all. Because this runoff would not be routed through BMPs, it will be discharged back into the subwatershed untreated and could cause erosion downstream.

TCA RESPONSE: Large portions of runoff have not been excluded from receiving treatment. TCA has demonstrated, numerically, that the discharge from the project downstream of the roadway will be virtually equal to the pre-project condition. TCA is treating all runoff from the project. There is no requirement or need to treat areas other than the impervious roadway surface.

CCC STAFF CLAIM: There is no assurance that the BMPs will be 100% effective at preventing development of new sources of fine sediment..

TCA RESPONSE: The BMPs must reflect the rate of erosion experienced during the existing (pre-project) condition. The BMPs proposed are easily capable of meeting this standard and they provide the necessary level of effectiveness.

C. Staff Ignores Extensive Modeling and Analysis Provided by TCA.

CCC STAFF CLAIM: TCA should (as suggested by PWA) prepare pre- and post-project flow duration curves for each of the existing drainage channels along San Mateo and Cristianitos Creeks.

TCA RESPONSE: This is precisely what was done in the Runoff Management Plan submitted to the Commission. This is another example of the Staff ignoring or dismissing, without thorough review, information and analysis submitted by TCA.

CCC STAFF CLAIM: PWA's analysis shows that the concentrated stream and watershed flows from within each subwatershed upstream of the project will be

concentrated and discharged through culverts on the downstream edge of the road causing highly significant stream impacts.

TCA RESPONSE: The PWA analysis ignores the fact that the project will provide MITIGATION for the changes in watershed imperviousness. With detention basins ensuring that pre-project hydrology remains UNCHANGED in the post-project condition, the analysis described by PWA is irrelevant. The studies cited by PWA relative to erosion in the watershed are for cases where no hydromodification mitigation was provided.

TCA completed a watershed analysis at a subwatershed scale, appropriate for protection of water quality and the assessment of the potential for increased sediment transport. The flow duration plots were computed downstream of the roadway AFTER the runoff from the roadway (onsite) and the runoff from areas not impacted by impervious surface (offsite) were combined.

IV. WATER QUALITY

A. Staff Ignores Numerical Proof of Water Quality Benefits.

CCC STAFF CLAIM: The 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 watershed, and therefore the project cannot provide a net watershed benefit as state by TCA.

TCA RESPONSE: The sand media filters proposed are state of the art BMPs for the roadway meeting or surpassing the Maximum Extent Practicable (MEP) standard for the treatment of storm water effluent under the Federal Clean Water Act and State Porter Cologne Act.

TCA has demonstrated, numerically, (and shown again on the following table) that there will be a net project benefit in the Trestles surf area for constituents commonly found in highway runoff.

B. Staff Erroneously Implies TCA Will Not Follow Standard Protocols.

CCC STAFF CLAIM: The baseline water quality monitoring plan TCA submitted to the San Diego Regional Water Quality Control Board (RWQCB) is inadequate.

TCA RESPONSE: The RWQCB has not yet provided comments on the baseline water quality monitoring plan submitted as part of the 401 application. In order to receive a 401 water quality certification for the project, TCA will respond to all RWQCB comments and revise the plan to satisfy the RWQCB. We also point out that e-mail correspondence between the RWQCB and the CCC staff indicates that the RWQCB has reviewed TCA's water quality information, including information also submitted to the CCC, and confirmed the reductions in pollutants from the proposed sand filters and water quality system.

Comparison of Constituents Removal – No Project and Project Conditions (Average Annual)

Constituent	Typical Highway Concentration*	Expected Effluent Concentration (sand filter) **	Load (Current Conditions - No Treatment)	Load (Project Conditions with Filters)	Average Annual Watershed Benefit (kg)
Total Suspended Solids (TSS)	104. mg/L	7.8 mg/L	11752 kg	2091 kg	9661
Total Copper	58.0 ug/L	23.4 ug/L	6.6 kg	6.3 kg	0.3
Total Lead	68.0 ug/L	7.8 ug/L	7.7 kg	2.1 kg	5.6
Total Zinc	265.0 ug/L	39.3 ug/L	29.9 kg	10.5 kg	19.4

* from RVTS Study CTSW-RT-03-028 (edge of pavement at San Onofre Site)

** from CT BMP Retrofit Pilot Program Final Report CTSW-RT-01-050

CCC STAFF CLAIM: TCA should provide a Storm Water Pollution Prevention Plan (SWPPP) to demonstrate the effectiveness of the project's erosion control features.

TCA RESPONSE: The project's BMPs for erosion control can meet the standard to maintain current erosion rates from the project area during construction. A Conceptual SWPPP can be submitted to the Commission as a condition of approval. As the Commission itself states, the final SWPPP is often submitted by the selected contractor shortly before start of construction.

V. ESHA & LISTED SPECIES

A. Staff Wrongly Downplays or Ignores Proposed Mitigation.

CCC STAFF CLAIM: Based on Wayne Spencer's letter, mitigation is inappropriate and not available at Crystal Cove State Park.

TCA RESPONSE: The proposed mitigation for coastal scrub within the coastal zone is neither inappropriate nor piecemeal. The proposed mitigation is a reasoned approach that contains on-site mitigation as well as mitigation within a State Park that is part of the NROC Coastal Subregion. The mitigation will replace habitat within the resources of the coastal zone and contiguous open-space blocks.

CCC staff quotes a letter from Wayne Spencer, which makes two points concerning the FTC-S proposed mitigation for coastal scrub impacts within the coastal zone based on several mischaracterizations. First, in attacking the proposed mitigation of 150 acres of coastal scrub at Crystal Cove State Park (CCSP), he ignores the on-site restoration (28.8 acres), within the coastal zone along the reconstructed I-5 slopes and slopes along the FTC-S where the impacts occur. The coastal scrub is indeed an important component of the surrounding habitat mosaic, which is exactly why appropriate areas within the impact zone will be restored to coastal scrub as the FTC-S is constructed. Most of the existing coastal scrub that will be impacted in the coastal zone is along the I-5 slopes and bridge abutments, as well as a large area of former agricultural land that has recently been reclaimed through natural processes. TCA has a documented record of mitigation, successfully re-vegetating and restoring 485 acres of roadway slopes, landfill slopes, and abandoned orchard slopes resulting in habitat for a variety of coastal scrub plant and wildlife species including the California gnatcatcher. Site documentation shows that re-vegetated habitat was successfully occupied by breeding California gnatcatchers within 3 to 4 years of seeding/planting. Additionally, soil ecosystem function was documented in the restored habitats. Therefore, Spencer's letter ignores the fact that in-kind and on-site restoration of appropriate areas is proposed as mitigation for impacts to coastal scrub. Additional mitigation is proposed through the restoration of coastal scrub within CCSP, which is part of the Coastal Subregion of the Nature Reserve of Orange County (NROC).

Second, Spencer's letter questions that there are enough appropriate areas for coastal scrub restoration within CCSP. In determining if appropriate mitigation acreage exists, TCA consulted soil maps of CCSP (NRCS 1978). The soil maps were compared with vegetation maps from the *Habitat Restoration and Enhancement Plan, Central Coastal Subregion, Nature Reserve of Orange County* (LSA 2003), 2007 aerial photographs, and local knowledge to determine appropriate opportunities within CCSP for coastal scrub restoration. While TCA acknowledges CCSP has conducted restoration efforts especially on the bluff side of the park, there still remain at least 150 acres of annual grass dominated areas and artichoke thistle dominated areas with soils appropriate for coastal scrub restoration. Most of the appropriate acreage is located well within a mile of the coast contrary to Dr. Spencer's allegation of being at least one mile inland.

Additionally, the NROC report states that annual grasslands are the lowest priority for NROC funding because these areas are expensive and difficult to restore (LSA 2003). Since these are identified as expensive to restore and given the present state of the State Park's budget and the State of California's economy, it is questionable as to what time frame Wayne Spencer is referring to when he states that these areas will be restored with or without TCA.

CCC STAFF CLAIM: Project will not protect ESHA against significant disruption of habitat values.

TCA RESPONSE: Habitat values will be maintained, and for some resources, increased. For example, the wetland mitigation will increase the functional values. As in the original Staff Report, the Commission's analysis continues to pointedly ignore the extensive, detailed and binding mitigation measures included by TCA as part of the Project. Staff's analysis pointedly ignores the extensive, detailed and binding mitigation measures included in the certified Final SEIR and included by TCA as part of the Project described in the consistency certification, including effective procedures and Best Management Practices (BMPs) mandated by State and federal law to avoid or minimize environmental impacts, and that have proven to be successful in cases similar to the project. Throughout the Coastal Commission staff reports and addendums, they have clearly avoided the mention of mitigation measures that have been proven by successful implementation by the resource agencies, to provide the protection to listed species during construction and operation of a project.

B. Staff Denounces Preliminary USFWS “No Jeopardy” Finding.

CCC STAFF CLAIM: Staff implies that the Preliminary No Jeopardy Finding from the USFWS did not fully understand the project.

TCA RESPONSE: Given the fact that the USFWS has been actively involved in the project for over 20 years, this staff implication does not give credit to this federal resource agency charged with enforcement of the Endangered Species Act. For their most recent efforts on the project, the USFWS was involved in the Collaborative process previously described, several USFWS staff members were involved from 1996 to the present (over 11 consecutive years), culminating in hundreds of meetings and thousands of hours of analysis by USFWS staff.

C. Staff Incorrectly Identifies Critical Habitat and Asserts Jurisdiction.

CCC STAFF CLAIM: Project will impact critical habitat for several species.

The Commission is not utilizing current critical habitat designations from the USFWS. Therefore, any reliance on EHSAs designated by staff that utilize these out of date designations, are subject to error and inappropriately applied to the project. There are currently NO critical habitat designations within the project area.

CCC STAFF CLAIM: US Fish & Wildlife Service (USFWS) critical habitat designations function as a proxy for the indisputable presence of sensitive species and are therefore considered ESHA.

TCA RESPONSE: None of the project site is designated as critical habitat. Recent regulatory actions by the USFWS has excluded from the boundaries of critical habitat Camp Pendleton land because it has determined that the existing Integrated Natural Resources Management Plan provides a conservation benefit to the listed species and protects the essential components of their habitat (see, e.g., Final Rule Designating Critical Habitat for Tidewater Goby, 73 Fed. Reg. 5919, 5925 (Jan. 31, 2008); see also Final Rule Designating Critical Habitat for Coastal California Gnatcatcher, 72 Fed. Reg. 72,009, 72,016, 72,044 (Dec. 19, 2007)). And, as noted in our previous response document, USFWS recognizes that the toll road project is consistent with its determination based on commitments in Pendleton’s 2007 INRMP, which agreed that (among other

provisos) an on-Base alignment of the toll road could be evaluated provided “that any adverse environmental impacts created as a result of siting this route on the Base * * * must be fully and properly mitigated.” Moreover, the Marine Corps is implementing the INRMP, including actions benefiting the tidewater goby, within the San Mateo Creek and San Onofre watersheds.

Finally the claim that USFWS’ and NMFS’ exclusions from the boundaries of critical habitat are legal determinations that do not reflect the conservation importance of the lands is simply false. Exclusions of Department of Defense lands operating under a current INRMP pursuant to the federal Endangered Species Act section 4(a)(3) requires a determination that the INRMP provides a benefit to the listed species. Such “benefit determinations” are supported by reference to specific management and conservation measures provided in the INRMP. The exclusion, then, is justified because INRMP ensures and USFWS recognizes that the species and its habitat are appropriately managed and conserved.

CCC STAFF CLAIM: Project will impact 50 acres of ESHA within the proposed project disturbance limits.

As TCA explained in its previous submittal, the EIR describes nearly 50 acres of coastal sage scrub in the project area, in ruderal situations and areas formerly in agriculture. The scrub is distributed as fragments from several acres to more than a dozen acres in size, in diverse condition and varying plant species composition, all having been subjected to substantial recent disturbance events, and all adjacent to roadways and other development. The EIR reports three gnatcatcher territories distributed across these sage community elements, suggesting that they have low suitability as habitat for the bird species.

Moreover, in his January 16, 2008 letter, of the 50 acres identified as potential gnatcatcher habitat, Hamilton reports observing 27 acres of coast sage scrub in varying conditions, distributed as small, irregularly shaped patches of vegetation, directly adjacent to developed lands. He notes occupancy of one of those patches by a single pair of gnatcatchers.

CCC STAFF CLAIM: The project impacts of the CP Alignment and the proposed project are similar in magnitude and extent.

TCA RESPONSE: The CP Alignment bridge designs for San Mateo and San Onofre creeks would have resulted in a total of 666 square feet of permanent impacts in these areas. The current bridge designs have reduced these impacts by approximately 182 square feet, to approximately 484 square feet. This represents a reduction of 27 percent from the CP alignment impacts to these areas

CCC STAFF CLAIM: Commission has jurisdiction over habitat outside of the coastal zone.

TCA RESPONSE: TCA disagrees that the Commission has jurisdiction outside of the coastal zone, but, even if we did not disagree, we point out that the northern portion of the road is in an area already approved for development through both the County of Orange and the USFWS approval of the southern subregion NCCP/HCP. The environmental organizations that oppose the FTC-S project (Endangered Habitats League, Natural Resources Defense Council, Sea and Sage Audubon Society, Laguna Greenbelt, Inc., and Sierra Club), signed a Settlement Agreement with Rancho Mission Viejo regarding the Ranch Plan. The northern portion of the alignment is almost entirely within the Ranch Plan development and/or infrastructure areas. The footprint of the FTC-S is consistent with the Southern Subregion NCCP/HCP, which established areas for habitat preservation and development, including infrastructure.

D. Staff Treatment of Impacts to Pacific Pocket Mouse (PPM) is Inaccurate and Misleading.

CCC STAFF CLAIM: Project will hasten the extinction of the entire Pacific pocket mouse (PPM) species.

TCA RESPONSE: This statement is blatantly impossible, since two of the populations are isolated by development and are over 14 miles (Oscar One population) and 8.5 miles (Dana Point Headlands population) from the project site. The Commission has in fact approved the Dana Point Headlands project which is immediately adjacent to a known population of the PPM.

Several similarities exist between the proposed project and the Dana Point Headlands project which was approved by the Coastal Commission in July of

2004. A brief summary table below outlines these two projects' relationships with the Pacific pocket mouse, and highlights the Coastal Commission staff inconsistencies in the treatment of the two projects.

RESOURCE ISSUE	HEADLANDS	SR 241	COMMISSION ACTION
Does the project participate in and is consistent with the NCCP/HCP?	Yes-Central/Coastal NCCP	Yes-Southern Subregion NCCP	Commission approved Headlands, but discounts TCA's contribution to NCCP resource conservation.
Does the project avoid PPM?	Yes	Yes	Commission approved Headlands, but does not acknowledge that the same science was utilized on Headlands site, including trapping results and habitat suitability.
Does the project provide and fund long term habitat management?	Yes	Yes	Commission approved Headlands, but does not acknowledge the value of TCA's plan for reserve management and funding.

CCC STAFF CLAIMS: See Dr. Engel's Memorandum dated January 30, 2008 regarding the Pacific Pocket Mouse.

TCA RESPONSE: The points in Dr. Engels's Memorandum are responded to in detail in Attachment 1, a letter from Dr. Rob Roy Ramey to the Coastal Commission.

E. Staff Treatment of Impacts to Arroyo Toad is Inaccurate and Misleading.

CCC STAFF CLAIMS: The project would result in the loss of the only remaining coastal population of the arroyo toad.

TCA RESPONSE: Currently there are over 500 man-made structures that separate potential arroyo toad habitat on either side of the existing I-5. The Coastal Commission staff does not provide the required scientific evidence to support the finding that an additional 4 support structures, totaling no greater than 0.011 acre, would then render this area incapable of supporting this species.

Moreover, Coastal Commission staff has fabricated a “coastal population” of arroyo toads upon which it has concluded that the project would have “substantial adverse impacts. In the addendum, Commission staff cite a letter that in turn cites two unpublished source of information in support of their conclusions: an unpublished masters thesis (Shanahan 1998) and an incomplete thesis project Lovich (thesis research in progress)). The underlying data for both of these purported sources of information are unavailable. Mr. Lovich's citation of information from Shanahan (1998) leads to the complete opposite conclusion regarding the genetic uniqueness of coastal toads: *"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"* (emphasis added). In simple terms, gene flow prevents the differentiation of populations.

That fact that arroyo toads move up and down the San Mateo watershed, as noted by Mr. Lovich, and documented in the peer-reviewed scientific literature (Griffin and Case 2001), shows that the existence of a genetically distinct population of coastal toads is contrary to the available scientific evidence. *CCC STAFF CLAIMS: A review of the Final SEIR/EIS by the Commission 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.*

TCA RESPONSE: The 16 mile long project depicted biological impacts on 11-inch by 17-inch color maps of the study area at a scale of 1-inch=4,000-feet. The analysis done by the biologists for the project involved analyzing the data at a much greater detail with the use of GIS (often times at a scale of 1-inch=300-feet or smaller). As illustrated in Attachment 2, which clearly shows the coastal zone area in question relative to the arroyo toad locations within the GIS database, the 4 toad locations area as follows: (a) Camp Pendleton data from Dan Holland, record occurs within paved parking lot (not a valid location); (b) Camp Pendleton data from Dan Holland, record occurs within existing I-5 (not a valid location); (c) Camp Pendleton data from Dan Holland, record occurs west, and outside the limits of disturbance in San Mateo Creek (valid record); and (d) Camp Pendleton data from Dan Holland, record occurs south, and outside the limits of disturbance in San Mateo Creek (valid record).

CCC STAFF CLAIMS: The use of 40 acres of previously designated arroyo toad critical habitat in and around San Mateo Creek would result in the loss of upland and riparian habitat, increased sedimentation and habitat alteration, and would increase the potential for direct mortality.

TCA RESPONSE: Coastal Commission staff continually ignores the mitigation measures that avoid direct and indirect impacts to toads that were included in the EIS/SEIR and will be conditions of the Biological Opinion issued by the USFWS for the project. The USFWS relied on these measures when it determined its preliminary No Jeopardy Opinion for the project. These measures are similar to those recently approved and implemented by the USFWS and Caltrans for the State Route 74 Safety Improvements Project in the County of Orange, California.

CCC STAFF CLAIMS: TCA has provided no evidence to suggest large diameter culverts will be successful in providing access for toads to cross under the toll road. CCC staff 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.

TCA RESPONSE: Mesh fencing, as described for the wildlife undercrossings are used routinely by herpetologist to funnel animals into traps for research. This type of low barrier is used by research scientists, and will likely function to funnel small animals such as toads to crossings.

There are numerous articles and research projects that support this methodology. An excellent source of information is available in the 2005 and 2005 Proceedings of the International Conference on Ecology and Transportation (ICOET). The ICOET proceedings bring together real-world solutions to issues regarding transportation projects and the natural environment. Many local, state, federal, and international transportation planners and biologist contribute to these proceedings, including, but no limited to, the Center for Transportation and the Environment (CTE), Institute for Transportation Research and Education (ITRE) at North Carolina State University (NCSU), Federal Highway Administration (FHWA), U.S. Forest Service (USDA-FS), U.S. Fish and Wildlife Service (USFWS), U.S. Environmental Protection Agency (USEPA), Washington State Department of Transportation (WashDOT), Florida Department of Transportation

(FDOT), Caltrans, University of California –Davis, Humane Society of the United States, and Defenders of Wildlife.

CCC STAFF CLAIMS: Arroyo toads are significantly different genetically in coastal portions of San Mateo and San Onofre Creek than populations farther inland or in other watersheds.

TCA RESPONSE: The TCA stands by its assertion that the Coastal Commission staff has fabricated a “coastal population” of arroyo toads upon which it has concluded that the project would have “substantial adverse impacts. In the addendum, Commission staff cites a letter that in turn cites two unpublished sources of information in support of their conclusions: an unpublished master’s thesis (Shanahan 1998) and an incomplete thesis project (Lovich, thesis research in progress). The underlying data for both of these purported sources of information are unavailable and the assertions of Mr. Lovich are subjective. In fact, Mr. Lovich's citation of information from Shanahan (1998) is contrary to any genetic uniqueness of coastal toads: "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." In simple terms, gene flow prevents the differentiation of populations.

That fact that arroyo toads move up and down the San Mateo watershed, as noted by Mr. Lovich, and documented in the peer-reviewed scientific literature show that the existence of a genetically distinct population of coastal toads is contrary to the available scientific evidence.⁵

F. Staff Treatment of Impacts to Tidewater Goby is Inaccurate and Misleading.

CCC STAFF CLAIM: Vital habitat areas for the tidewater goby will be adversely affected by the proposed project and the area may be rendered unsuitable for re-colonization due to the effects of landform alteration, sedimentation, shading and erosion.

⁵ P.C. Griffin and T.J. Case (2001) Terrestrial habitat preferences of adult arroyo southwestern toads. The Journal of Wildlife Management, 65(4):633-644.

TCA RESPONSE: No supporting information is provided for these opinions. Specifically in regards to landform alteration, sedimentation, and erosion, staff ignores the opinions of professional and degreed geologists, geomorphologists, hydrologists, and engineers, several of whom have PhDs in their area of expertise. This also ignores the opinion of the agency charged with protecting this species, the USFWS who provided a preliminary opinion that the project will not jeopardize the species or its critical habitat.⁶ This is based on the following project minimization and mitigation measures:

- (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

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.

G. Staff Treatment of Impacts to Coastal California Gnatcatcher is Inaccurate and Misleading.

CCC STAFF CLAIM: Biologist Robert Hamilton recently conducted successful gnatcatcher specific habitat surveys within the proposed project's disturbance footprint during a 1 and ½ hour site visit.

TCA RESPONSE: Mr. Hamilton's conclusions are not inconsistent with the project EIR, nor with information TCA provided to the Commission. Hamilton visited the project area in January 2008, and reports observing 27 acres of coast sage scrub in varying conditions, distributed as small, irregularly shaped patches

⁶ On January 31, 2008 the USFWS excluded Camp Pendleton, and thus the project site within the coastal zone, from critical habitat for goby, 73 Fed. Reg. 5919.

of vegetation, directly adjacent to developed lands. He notes occupancy of one of those patches by a single pair of gnatcatchers.

These observations, rather than contradicting previous documents, confirm them. The EIR describes nearly 50 acres of coastal sage scrub in the project area, in ruderal situations and areas formerly in agriculture. The scrub is distributed as fragments from several acres to more than a dozen acres in size, in diverse condition and varying plant species composition, all having been subjected to substantial recent disturbance events, and all adjacent to roadways and other development. The EIR reports three gnatcatcher territories distributed across these sage community elements, suggesting that they have low suitability as habitat for the bird species. Hamilton reports fewer acres of sage scrub, lesser apparent occupancy by gnatcatchers, and similar sage community condition.

CCC STAFF CLAIM: The project has the potential to negatively affect the gnatcatcher population throughout the region.

TCA RESPONSE: Coastal Commission staff has not defined “region”. For the USFWS, the “region” refers to the action area of the project which includes the grading limits plus a 500 foot area beyond those limits. In addition, because the project includes the preservation and management (including habitat restoration) of the Upper Chiquita Canyon Conservation Area and the San Mateo North PPM Management Area, the action area/region includes these areas. Evaluation of the regional impacts to a given species must also consider the regional conservation commitments for a species (see additional discussion below).

CCC STAFF CLAIM: The project will have irreparable harm to the gnatcatcher’s local and regional population.

TCA RESPONSE: Coastal Commission staff laments status of the global population of the gnatcatcher, choosing to ignore a scientific report prepared by LSA Associates documenting approximately 5000-6000 pairs in the United States. In fact, TCA has made significant contributions to this species’ long term survival and recovery. In addition to onsite and coastal mitigation proposed for the project, the TCA has protected and enhanced more than 1,180 acres of habitat in the Upper Chiquita Canyon Conservation Area, within the endorsement of the resource agencies. This conservation area has been identified as a “key location” by the USFWS in the Southern Subregion NCCP program, which

provides for the protection and recovery of this species. The value of the TCA conservation area is supported by the Sea & Sage Audubon, one of the organizations that Coastal Commission staff has relied on in their analysis. Scott Thomas wrote on the Sea & Sage Audubon website that “this area is believed to be the “most densely populated California Gnatcatcher habitat anywhere.” The Coastal Commission cannot deny the biological value of the TCA Conservation Area in Upper Chiquita that has been lauded by both the resource agencies and the opposition.

VI. WETLANDS

CCC STAFF CLAIM: The minor fill of wetlands associated with the project does not qualify as an "incidental public service purpose" under Section 30233(a)(5).

TCA RESPONSE: The Commission relies on the Court of Appeal decision in *Bolsa Chica Land Trust v. Superior Court (1999) 71 Cal.App.4th 493*. There, the court simply accepted, without critical analysis, a restatement of Section 30233(a)(5) in the Commission's 1981 wetland guidelines that "incidental public service purposes" are limited to those that "temporarily impact the resources of the area" and a footnote in the guidelines that roadway and bridge expansions are limited to that "necessary to maintain existing traffic capacity." The court, however, did not address (a) the plain language of Section 30233(a)(5), which contains no such qualification, (b) the evolution of the guidelines in which the above limitations were simply added to the plain language of the provision, without explanation, or (c) the Commission's actions on other substantial new, permanent development (e.g., new Transpacific fiber optic cable projects) which the Commission has concluded constitutes an "incidental public service purpose.

In this case, the project qualifies because the portion of the project in the coastal zone is a "connector" between two highways -- I-5 and the SR 241 extension, and thus, by definition, is an incidental public service purpose, and thus an allowable use in the very small wetland areas impacted.

CCC STAFF CLAIM: Staff references questions about the functional analysis raised in a letter from Michael White, Conservation Biology Institute.

TCA RESPONSE:

TCA confirms that the functional assessment was properly prepared and that there will not be a loss of regionally significant wetland functions and values due to the project. Please see Attachment 3, a memorandum from Glenn Lukos Associates, which addresses the referenced letter in detail.

VII. SAN ONOFRE STATE BEACH (SOSB)

A. Staff Assessment of Visual Impacts is Inaccurate.

CCC STAFF CLAIM: Visual simulations provided in the project EIS/SEIR indicate the proposed project would clearly be visible from portions of Trestles Beach and adjacent waters.

TCA RESPONSE: The Commission staff appears to rely on view simulations included as Exhibit 32 of the California Coastal Commission (CCC) Staff Recommendation to determine that the proposed project would be visible from Trestles. However, as shown in Figures 4.18-58 and 4.18-60 of the Final SEIR (and attached as Exhibit 32 of the Coastal Commission Staff Report), the view is from the ocean, located at a distance from the shoreline looking towards the beach. The Commission does not have jurisdiction on views from the ocean. View simulations provided to the Commission on January 9, 2008 clearly show that the project is not visible from the sand on Trestles Beach.

Additionally, the view location shown on the inset map of Figure 4.18-59 of the Final SEIR (VP 33F) is incorrect in the EIR, and therefore the Staff Report. This view location is not at the mouth of San Mateo Creek, but approximately 2,160 feet (or one half mile) south of San Mateo Creek at Lower Trestles, facing existing Interstate 5, Basilone Road, and Camp Pendleton development. This view simulation is correctly showing the proposed south-to-south connector on to the existing Interstate 5. However, overall views from Trestles Beach would not be substantially impacted because the distance between the proposed project and the beach is such that the Interstate 5 connectors would be a relatively small component of a larger sweeping view of the topography. An additional view simulation from the mouth of San Mateo Creek at Trestles Beach (Upper Trestles) was provided to the Commission on January 9, 2008, as View 2. As shown in View 2, views of the proposed project from the beach at the mouth of San Mateo Creek are clearly not visible.

B. Staff Assessment of Lighting Impacts is Inaccurate.

CCC STAFF CLAIM: The project's lighting requirements would likely result in additional adverse visual. Because lights would be included on the elevated

connector structures, these lights and possibly their associated support structures could be visible from distant locations including Trestles Beach and the San Mateo Campground.

TCA RESPONSE: The Commission assumes the current baseline conditions to the project area are unlit; however, within the coastal zone the proposed connector will be connecting to the existing I-5, which is an existing lit facility. The nearest proposed light to the San Mateo Campground would be approximately 590 feet, directed downward and shielded to reduce glare, and therefore will not create a substantial amount of nighttime lighting within San Mateo Campground. The project includes the following mitigation, which would further reduce lighting impacts:

- **Measure AS-3.** Lighting per Caltrans policies and procedures as set forth in the Caltrans Traffic Manual shall be installed by the TCA or implementing agency or agencies along the corridor or I-5, if one of these build Alternatives is selected. Lighting shall be such that Partial Interchange Lighting (PIL) with two electroliers at each interchange ramp, positioned per Caltrans standards, is provided. Additional and/or supplemental lighting shall be provided where necessary for safety. Toll collection plazas and their adjacent roadways shall be continuously lit. The mainline corridor shall not be continuously lit.
- **Measure AS-4.** In conjunction with operation of the corridor Alternatives, light shall be applied as effectively as possible by the TCA, minimizing both the glare of any light source and the spillover of light onto areas outside of the corridor right-of-way. The vertical or horizontal illuminance from roadway lighting sources shall not illuminate any surface outside of the right-of-way greater than 1/10 of the road's average horizontal illuminance. On the segment of a build Alternative through The Conservancy, there shall be no illumination of any surface in The Conservancy outside the right-of-way of the SOCTIIP Alternative.

In addition, project design features have been incorporated to reduce the visual impacts with regard to lighting:

- **Lighting for the Corridor Alternatives (PDF-18-1).** The corridor Alternatives will include pole-mounted lighting at the toll plazas, ramps, and other locations as required by Caltrans standards. Lighting in areas away from the toll plazas, ramps, and other locations as required by Caltrans standards will be minimized to avoid unnecessary light effects in more rural areas adjacent to the corridor. In addition, all lighting along the corridors will be shielded and directed to focus the light on the corridor and its facilities to minimize light leakage outside the corridor limits.

The project will result in additional light fixtures, but, given the presence of existing lighting along I-5, the project is not introducing a new source of lighting to an unlit area within the coastal zone. The additional nighttime lighting introduced near the San Mateo Campground is at a distance of 590 feet, directed downward and shielded to reduce glare; therefore, no nighttime lighting impacts would occur within the San Mateo Campground. The CCC does not have jurisdiction over views within the San Mateo Campground.

VIII. CULTURAL RESOURCES

A. Staff Overstates Impacts to Resources and Assumes that all Resources are Equally Valuable.

CCC STAFF CLAIM: 34 cultural resources will be adversely impacted during construction.

TCA RESPONSE: TCA disagrees that the Commission has jurisdiction over sites outside the coastal zone. But, even if TCA did not disagree, the Commission's lumping together of the 34 sites is inappropriate. First, only 24 sites and 10 isolates are present within the Area of Direct Impact (ADI). Isolates, by definition, are not eligible, they are single isolated artifacts that are not considered further in the planning process. Of the remaining 24 sites, 4 are now confirmed to be outside of the ADI for the project (CA-ORA-1560, CA-ORA-920, CA-ORA-1028, and CA-SDI-17544), 4 have been completely removed by previous residential and infrastructure construction (CA-ORA-914, CA-ORA-915, CA-ORA-1075, and CA-SDI-1074), and two have been substantially impacted by previous development (CA-ORA-362, and CA-ORA-916). Of the remaining 14 sites, 6 are outside the coastal zone, distributed along the alignment and not all next to each other. The remaining 8 are associated with the San Mateo Archaeological District. Due to the linear nature of the project, resources at the upper end of the project have little direct relationship with those within the coastal zone.

The Commission lumps all the archaeological sites under the same classification. However, groupings of cultural resource sites as related sites should be made based on both the geographic and temporal extent of the sites. Many sites within the San Mateo Archaeological District are older than the actual village of Panhe.⁷

There are 10 cultural resources within the project disturbance limits within the coastal zone. Four of the resources are isolates only and therefore are not significant and not eligible for inclusion in the National or California Registers of Historic Places. Four of other cultural resources are considered elements of the San Mateo Archaeological District (SMAD). The remaining two represent highly

⁷ Berryman, Stan, personal communication, radiocarbon dates from features excavated from CA-SDI-13325 evidence a date of occupation for that site at 700AD.

disturbed areas within Camp Pendleton that have little or no potential for significance. More than half of the sites are already known not to be significant.

B. Staff Discussion of the Reburial Area and Access to Panhe is Factually Inaccurate.

CCC STAFF CLAIM: the site is used as a reburial site, is in a pristine natural state and the stars are easily visible at night (the Acjachemen are often called star people for their ancient knowledge of the stars). Aside from the campground, the 5-acre site is the only site within all of Panhe that Juaneno/Acjachemen people currently have legal access to.

TCA STAFF RESPONSE: TCA understands the importance of the five acre enclosure on Camp Pendleton land to the Juaneno's and responds only to set the record straight on factual matters. Reburials have not been allowed at this site for over ten years.

The area is not in a pristine natural state. The enclosure area includes a variety of structures and furniture. Numerous non-native trees were planted within the enclosure over 15 years ago. The area is not used during the nighttime hours.

The SMAD extends from the Carls' Jr. parking lot, along the I-5 and north on the northern bank of the San Mateo Creek and drainage to the campground. All of the areas to the north of Cristianitos Road are accessible to tribal people, including areas of SMAD that are more intact than the areas within the FTC-S disturbance limits. Tribal people can also visit the area on the south side of Cristianitos Road on the upper, middle and lower stream terraces.

C. Staff Ignored the Archaeological Evaluation of All Resources.

CCC STAFF CLAIM: Alternatives were not reviewed for impacts to cultural resources or selected to avoid them.

TCA RESPONSE: The FSEIR evaluated all alternatives at an equal level of detail. Thus, the cultural resources section of the FSEIR addressed the cultural resources impacted by each alternative. The Addendum only cites to an early section of the FSEIR that summarized the alternatives evaluation process, but ignored section 4.16 of the FSEIR and the technical study.

D. FHWA Determined that the Project is Outside any Trestles Traditional Cultural Property Boundary.

CCC STAFF CLAIM: Trestles should be evaluated as a Traditional Cultural Property (TCP) and the point of such an evaluation is to assess who has been using the resource and for how long in order to place potential impacts in their proper historical context.

TCA RESPONSE: Staff's statement on the purpose of assessing a resource as a TCP is incorrect. The goal of such an assessment is to allow the resource to be evaluated within the four criteria for inclusion on the National Register. The first step of defining a cultural resource is to define its boundaries and determine if the proposed undertaking will impact the cultural resource. As previously documented, FHWA determined that the Trestles resource (assuming for the moment that it would qualify as such a resource) is wholly outside of the project area of potential effect. As such, there is no need for further evaluation as part of the proposed project.

IIX. GREENHOUSE GASES (GHGs)

A. Staff Assessment Exaggerates Greenhouse Gas Emissions.

CCC STAFF CLAIM: The project cannot reduce GHG emissions if it does not reduce vehicle miles traveled (VMT).

TCA RESPONSE: The Commission staff appears to rely on broad policy-level documents to conclude that VMT is the sole determining factor of GHG emissions from mobile sources, rather than relying upon the United States Environmental Protection Agency (EPA) approved methodology in the EMFAC air quality model. The EMFAC model considers multiple factors when calculating emissions of various constituents, such as carbon dioxide (CO₂), from mobile sources—the VMT, vehicle hours traveled (VHT), and average vehicle speeds are several of the key components of the calculations. The project results in a very slight increase in regional VMT, 0.0004 percent, or, 4 thousands of 1 percent. At the same time, the project results in reduced congestion and improved travel speeds; therefore, the net result is a reduction in GHG emissions from mobile sources.

CCC STAFF CLAIM: There is inadequate documentation of the CO₂ emissions rates in EMFAC2007.

TCA RESPONSE: The emissions rates are based on grams per mile, vehicle speeds, or VMT divided by VHT. The information regarding the GHG emission calculations is disclosed in the April and December submittals to the Commission and the calculations are easily reproducible using information contained in Appendix B of the Traffic and Circulation Technical Report (Austin-Foust Associates, Inc., December 2003) and the EMFAC2007 emission factor model. According to the ARB's EMFAC2007 Technical Support Document, "Emission rate data are collected on individual vehicles in a laboratory setting. These tests are performed primarily by the ARB and U.S. EPA." EMAC2007 is the emission model that is currently approved for use in California by the U.S. EPA and the California Air Resources Board (ARB). The model is available on a number of web sites, including ARB's (http://www.arb.ca.gov/msei/onroad/latest_version.htm) and EPA's (<http://www.epa.gov/fedrgstr/EPA-AIR/2008/January/Day-18/a876.htm>).

CCC STAFF CLAIM: The Commission is also unable to reproduce TCA's GHG emission numbers for asphaltic concrete.

TCA RESPONSE: The response to the staff report erroneously used the estimated quantity of asphaltic concrete for the project of 400,00 cubic yards as included in the Commission staff report. The actual estimated quantity is less than 300,000 cu yds. Assuming paving quantity of approximately 250,000 cubic yards and a pavement density of 140 pcf, the asphaltic contribution to GHG emissions is estimated at approximately 472,500 tons, which, combined with the other construction sources of GHG emissions, will be offset by the project benefits in approximately 5 years. TCA is continuing to refine the estimated quantities of construction materials as it develops detailed pavement design plans, and is also continuing to investigate the use of lower emission asphaltic pavement materials that could further reduce construction emissions. Regardless, the project's operational reductions to GHG emissions will far offset the construction emissions.

CCC STAFF CLAIM: 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.

TCA RESPONSE: The Commission's reliance on per-mile emission factors without considering VHT implies that traffic congestion reduces emissions, which is patently false. Congestion results in vehicles operating for longer periods of time than they would under less congested conditions. The increase in VHT results in increased emissions. VHT is one of the many emission factors reflected in the EMFAC emissions calculations.

CCC STAFF CLAIM: There is usually a net increase in the number of vehicles on the road when new roads are constructed, and that the calculations of GHG emissions resulting from the project are underestimated.

TCA RESPONSE: The Staff Report Addendum is based on general statements that do not reflect the reality of south Orange County and northern San Diego County. Growth levels in the project vicinity are already established. The area is almost entirely built out. Those portions that are not already constructed have

been approved for development. The largest of these development areas is Rancho Mission Viejo (RMV), which is not conditioned on the FTC and can be built with or without the FTC-S. The same environmental groups that are opposed to the FTC-S project also entered into a Settlement Agreement with RMV and the County to allow development of RMV at levels that included 14,000 dwelling units and commercial and industrial development. In signing the Settlement Agreement, the environmental groups agreed that the intensity and location of the development was appropriate. To now say that FTC-S will result in growth and therefore its GHG emissions are underestimated, when the RMV project has already been approved, defies logic.

CCC STAFF CLAIM: The staff report misrepresents or misunderstands the information provided by TCA, for example, by stating that the TCA conclusion is based on improved speeds on the toll road compared to I-5.

TCA RESPONSE: The Commission is correct in asserting that traffic flow on the proposed FTC-S will be free-flowing; however, the GHG analysis is based on VMT and speeds in the traffic subregion, and includes travel on Interstate 5 (I-5) and arterial roads as well as on the proposed FTC-S. Therefore, the Commission's statement that the "toll road emissions are more likely to [be] additive, rather than subtracting from vehicle emissions on I-5" is incorrect, because the toll road is one of many components of the transportation system in the subregion that was considered in the analysis.

CCC STAFF CLAIM: Project alternatives could involve a shorter length of pavement, and therefore reduced construction emissions.

TCA RESPONSE: The Commission is correct in asserting that Build Alternatives that result in less pavement would have reduced construction emissions compared with the project, and the Build Alternatives that provide some level of traffic congestion relief would result in some operational reduction in GHG emissions. But, GHG emissions are only one factor in selecting an alternative. Those alternatives were determined to either have significant impacts or to not provide a level of traffic relief that warranted pursuing that alternative. In addition, the project will have a net benefit on GHG emissions.

CCC STAFF CLAIM: Mitigation is warranted for the short-term construction emissions of GHG.

TCA RESPONSE: Emissions from construction equipment are mitigated as reflected in the Final SEIR. Emissions from the use of asphalt cannot be mitigated onsite as the emissions are inherent to the application of the material. Off-site mitigation in the form of sequestration or carbon credits is not warranted because the project results overall in a net decrease in GHG emissions. With the congestion relief benefits that are realized after project opening, the GHG emissions reductions from the operational improvements would offset the construction emissions in 5 years. GHG emissions that contribute to Global Climate Change are not a short-term impact, but rather a long-term and cumulative impact. The proposed project results in a reduction in the long-term, cumulative contribution to Global Climate Change compared to future conditions without FTC-S.

CCC STAFF CLAIM: The project is not consistent with the requirements of Section 30253 that a project minimize energy consumption and vehicle miles traveled.

TCA RESPONSE: The proposed project is consistent with the requirements of Section 30253 because it results in reduced VMT and incorporates strategies to further reduce GHG emissions.

First, the project is consistent with adopted strategies that would reduce transportation-related or energy use emissions including:

- **Vehicle Climate Change Standards and Other Light Duty Vehicle Technology:** These are California Air Resources Board (ARB) enforced standards. As these standards are developed and implemented, an increasing number of the vehicles that access the project will comply with the strategy.
- **Diesel Anti-idling:** Posted signs that restrict idling and on-site education for truck drivers regarding the health impacts of diesel.

- **HFC Reduction:** This measure applies to consumer products. When the ARB adopts regulations for these reduction measures, an increasing number of products will comply with the measures.
- **Transportation Refrigeration Units (TRUs), Off-Road Electrification, Port Electrification:** In projects where TRUs access the site, implement measures to reduce emissions. Install electrification in applicable projects (i.e., truck stops, warehouses).
- **Heavy-Duty Vehicle Emission Reduction Measures:** These are ARB-enforced standards. As applicable, vehicles that access the project will comply with the strategy.
- **Water Use Efficiency:** Features to increase water use efficiency include the use of both potable and non-potable water to the maximum extent practicable, low-flow appliances (i.e., toilets, dishwashers, washing machines), automatic shut-off valves for sinks in restrooms, drought-resistant landscaping, and “Save Water” signs near water faucets.

Second, the project incorporates a number of commitments to further reduce GHG emissions as identified in the January 9, 2008 Response to the Coastal Commission Staff Report. The implementation of FTC-S will result in a reduction in emissions of CO₂, largely as a result of improved travel speeds in the region. With the congestion relief benefits that are realized after project opening, the GHG emissions reductions from the operational improvements would offset the construction emissions in less than 5 years. This reduction in emissions of CO₂, a GHG, is consistent with the objectives of Assembly Bill (AB) 32 to reduce GHG emissions in California.

IX. COMMISSION JURISDICTION

A. Staff Asserts Jurisdiction for Project Components Outside of Coastal Zone that Have No Impact on Coastal Zone Resources.

CCC STAFF CLAIM: TCA's assertion that the Commission's jurisdiction is limited to the coastal zone 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 CZMA, and, finally, with TCA's own originally submitted consistency certification.

TCA RESPONSE: No court has decided whether the Commission may exercise consistency review jurisdiction over a development project inland of the coastal zone boundary for which a federal permit is required. The Staff Report and opponents suggest that the entire alignment of the 16 mile project, not merely the 2.2 mile portion in the coastal zone, may be reviewed by the Commission. Presumably, the staff view would be the same for any inland project requiring a federal permit, such as a new freeway in Riverside County or major development inland as far as the Continental Divide. Further, while the effort is made to extend jurisdiction, it is lacking in specifics, and, in any event, the portion of the project outside the coastal zone does not affect any land or water use or natural resource of the coastal zone.

First, the Commission lacks consistency review authority over development projects inland of the coastal zone boundary because state law does not authorize it to exercise any such jurisdiction. This is elementary. The coastal zone boundary is defined specifically by a series of maps on file with the California Secretary of State. The California Supreme Court recently held that the Commission lacks authority to exercise permit and regulatory authority inland of the mapped boundary. (*Sierra Club v. California Coastal Com.* (2005) 35 Cal.4th 839; see also Pub. Resources Code sections 30008, 30103, 30200(a), 30604(d).)

An indication of the geographic scope of the Commission's regulatory authority is expressed in the definition of "coastal zone" in Section 30103. Section 30103 extends the Commission's jurisdiction "seaward to the state's outer limit of

jurisdiction," and thus extends to all oil drilling activities in offshore waters within the regulatory scheme of the Act, no such expansive language applies to areas inland of the coastal zone boundary which is defined and limited instead by the maps adopted by the Legislature. Section 30200 further assigns responsibility for considering the policies of the Coastal Act outside the coastal zone to other public agencies, not the Commission.

The issue of the Commission's jurisdiction inland of the coastal zone boundary was extensively discussed during the legislative discussion leading up to the enactment of the Coastal Act in 1976. The Bill's author, Senator Jerry Smith, explained in a letter including in the California State Senate Journal as a statement of legislative intent:

"The planning and regulatory requirements of this bill do not apply inland of these boundaries of the coastal zone," and "the area outside the specifically mapped coastal zone remains under the exclusive jurisdiction of existing units of local and state government . . ."

Nothing in the CZMA compel coastal states to review federal permits or licenses for consistency. The CZMA merely permits consistency review, if a State has an approved coastal management program that contains enforceable policies and specifies both the types of permits it wishes to review and the geographical location in which consistency review will be exercised. The Legislature, in specifying in Section 30008 that the Coastal Act "shall constitute California's coastal zone management program within the coastal zone," expressly did not extend the Commission's jurisdiction inland of the coastal zone boundary.

ATTACHMENTS

1. Letter by Rob Roy Ramey, Ph.D., February 3, 2008.
2. Map of Camp Pendleton Arroyo Toad Locations, prepared by BonTerra Consulting.
3. Memorandum prepared by Glenn Lukos Associates, February 5, 2008.
"Response to Comments from the Conservation Biology Institute Regarding the CCC Jurisdictional Delineation for the Foothill Transportation Corridor – South, Orange County, California (Glenn Lukos Associates December 17, 2007).

1. Letter by Rob Roy Ramey, Ph.D., February 3, 2008.

February 3, 2008

California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Dear Commissioners,

I am writing in response to Coastal Commission Staff Report Addendum 2 on the Coastal Consistency Determination for the Foothill Transportation Corridor South. In particular, I address a January 30, 2008 memorandum by Coastal Commission staff member Dr. Jonna Engel to Mark Delaplaine on the subject of "TCA toll road, Pacific pocket mouse (*Perognathus longimembris pacificus*), and Pacific pocket mouse habitat."

I respectfully disagree with a number of points made by Engel and find her conclusions inadequately founded in science. Specifically, Engel opined that trapping data on Pacific pocket mice, as well as soils, and vegetation data are insufficient to conclude that Pacific pocket mice do not occupy the Coastal Zone or FTC-South disturbance limits. She also opined that additional data were needed: "*for interpreting*" capture data and other information. Yet no thresholds were advanced by Engel that could be used to potentially falsify her claims if any additional data were gathered. It is because Engel's approach almost wholly relies on speculation rather than data, and subjective *post hoc* interpretations rather than testable hypotheses, that her conclusions appear to be based on something other than science.

I would like to reemphasize that no data exists that the San Mateo North population of Pacific pocket mouse subspecies currently exists at anything other than at an extremely low level and in an extremely limited area. That area is entirely outside the coastal zone and outside of the Foothills South project alignment. This conclusion is based on over ten years of trapping and over 75,000 trap nights of data, all of which was conducted with the approval of the U.S. Fish and Wildlife Service.

Presently, no management is occurring for the pocket mouse at San Mateo North: there is nothing to stop feral cats or other predators from hunting the mice; former agricultural fields surround a small patch of occupied habitat (a slope untouched by agriculture); human use is unrestricted; and the vegetation is overgrown. To paint a picture of the present situation surrounding this small mouse population: immediately to the west of occupied habitat there is a fire break and housing development, to the east is unfenced Cristianitos Road and San Mateo Campground, to the north there are steep slopes and the Gun Club Road, and to the south, across the former agricultural fields and old access roads are paved parking lots for beach access and a Carl's Jr. restaurant. The Coastal Zone in this area includes the former agricultural fields, housing developments, existing roads, and parking lots that are unsuitable to Pacific pocket mice.

Staff member Engel suggests that when more trapping effort is made more mice are captured. However, mice can only be captured in areas where they actually exist. Mice cannot be captured in areas where they do not exist, regardless of effort expended.

Immediate and intensive management actions offer the best opportunity to recover the North San Mateo population of Pacific pocket mouse. Those adaptive management actions are detailed in the Pacific Pocket Mouse Resource Management Plan (PPM RMP).

Contrary to Engel's assertions, the PPM RMP is entirely compatible with the U.S. Fish and Wildlife Service Recovery Plan. In fact, the PPM RMP documents how each adaptive management action in the PPM RMP is compatible with the U.S. Fish and Wildlife Service's Recovery Plan. It also provides a detailed discussion of how the PPM RMP contributes to overall recovery of the subspecies, by showing how the plan contributes to the fulfillment of specific down-listing and delisting criteria in the U.S. Fish and Wildlife's Recovery Plan.

Engel went to great lengths to magnify relatively minor points of criticism with data presented in the PPM RMP. In doing so, Engel attempted to obfuscate and draw attention away from the real reason *why* Johnson and I gathered additional data and mapped the soils, former agricultural areas, slope, and vegetation. We gathered these data to develop a quantitative habitat model that would objectively allow ranking of areas according to habitat suitability. Such an effort is critical to understanding why mice are present or absent in certain areas. It is also essential for allocating habitat enhancement efforts to areas where it will do the most good for Pacific pocket mice. We recognized the need to develop a quantitative habitat suitability model because previous experience has shown that subjective habitat assessments can be very inaccurate. This has been clearly demonstrated by published papers by Turner et al. (2004, 2006) and by Johnson and Gillingham (2004). (I am an author on Turner et al. 2004 and 2006).

Once we created composite ranking of these variables and mapped them (please refer to Exhibit 10 in the PPM RMP), the reason why mice are restricted to a limited area known as "Mouse Mountain" became clear. It is an island of high and very-high quality habitat that is surrounded by what is mostly low quality habitat and non-habitat, the majority of which consists of former agricultural areas. And while a handful of captures have occurred along the edge of former agricultural areas, it is illustrative that there are no captures more than a few meters inside former tilled and cultivated fields.

Engel levels a number of criticisms regarding the adaptive management actions detailed in PPM RMP, and seeks to cast doubt on their effectiveness. Yet Engel does not acknowledge that these adaptive management actions are based on either proven conservation measures for other species (e.g. culverts under the trans-Canadian highway) or plausible cause-and-effect mechanisms (e.g. competitive exclusion with the western harvest mouse). Additionally, Engel fails to acknowledge that PPM RMP is based on the

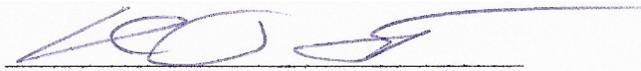
principles of *adaptive management*, where expected outcome(s) from each action and measures of success are clearly laid out in a scientifically-based hypothesis testing framework. In that approach, unsuccessful actions may be winnowed out quickly while effective actions are retained and expanded. This approach is based on experimental evidence rather than speculation.

Regrettably, Engel chose not to recognize that development and implementation of the PPM RMP has been, and will continue to be, a collaborative effort. The current PPM RMP made extensive use of input from the U.S. Fish and Wildlife Service and the U.S. Marine Corps. It is the product of agencies and individuals working towards a common goal of Pacific pocket mouse recovery. And implementation of PPM RMP, while funded by the TCA, involves a collaborative decision-making process and shared responsibility among the TCA, U.S. Fish and Wildlife Service, and U.S. Marine Corps.

It is unclear why Engel chooses to make a number of categorical assertions without any supporting information or in the face of contrary information. For example, she states that: "*These habitat manipulations do not require realization of TCA's proposed toll road in order to be implemented.*" Yet Engel does not state how that would be accomplished or identify *any* funding source. Similarly, Engel opines that: "*These recommendations are based on optimistic assumptions and ignore the considerable uncertainty of success.*" However, the adaptive management actions are based on testable assumptions and scientific reasoning. And contrary to Engel's dire prediction, considerable success has been achieved with intensive management of other species (e.g. peregrine falcons, California condors, whooping cranes, bighorn sheep, cheetah, and black rhino). While risk of failure must be acknowledged, intensive management through well-funded conservation efforts, like that proposed for the Pacific pocket mouse, has been shown to be the single largest contributing factor to the recovery of endangered species (Ferraro et al. 2007).

Thank you for this opportunity to comment.

Sincerely,



Rob Roy Ramey II, Ph.D.
Wildlife Science International, Inc.
P.O. Box 386
Nederland, CO 80466

Literature Cited:

Ferraro, P.J., C. McIntosh, and M. Ospina (2007) The effectiveness of the US endangered species act: An econometric analysis using matching methods. *Journal of Environmental Economics and Management* 54:245–261.

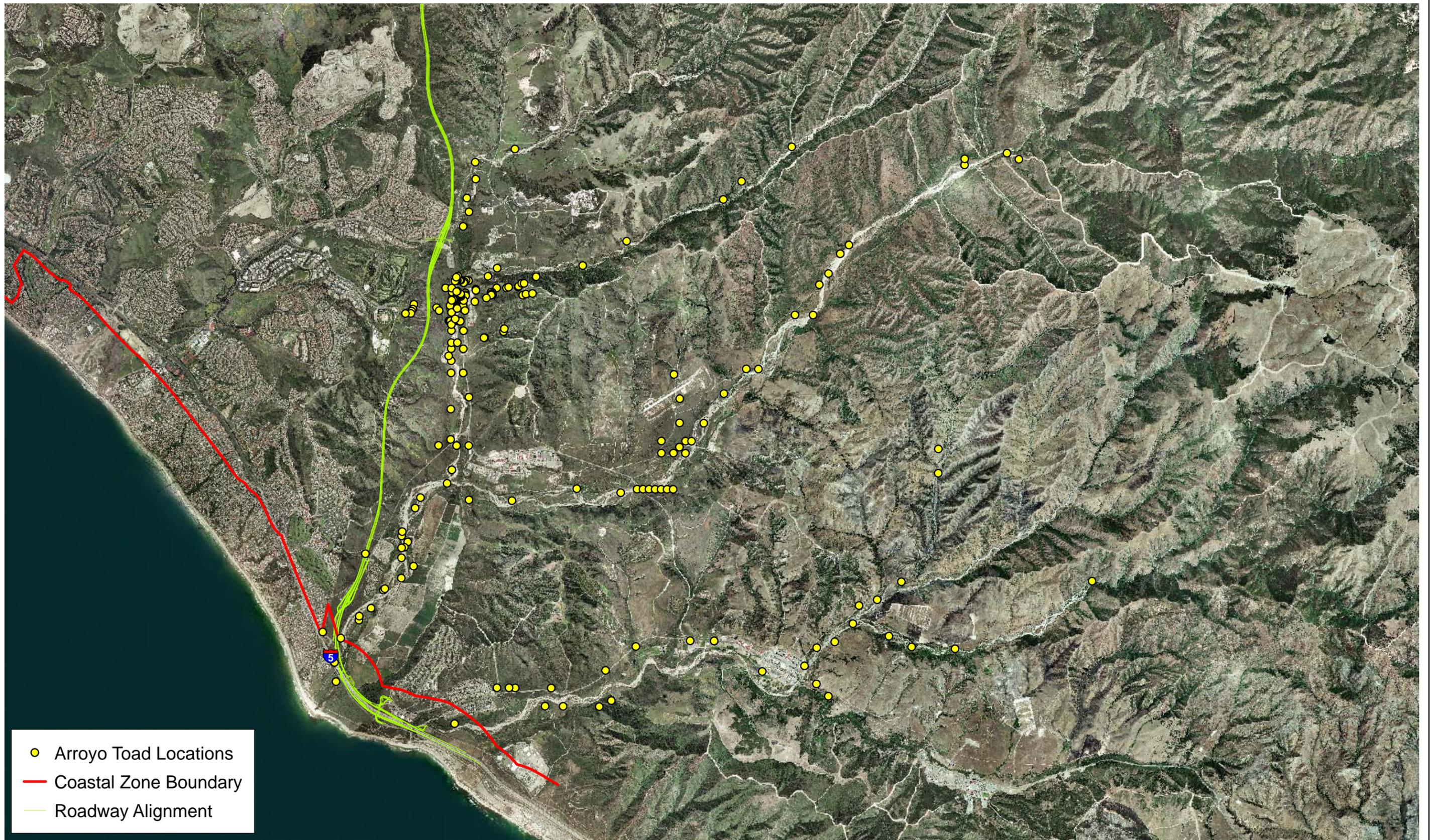
Johnson, C.J. and M.P. Gillingham (2004) Mapping uncertainty: sensitivity of wildlife habitat ratings to expert opinion. *Journal of Applied Ecology* 41:1032–1041.

Turner, J.C., C.L. Douglas, C.R. Hallum, P.R. Krausman, and R.R. Ramey (2004) Determination of critical habitat for the endangered Nelson's bighorn sheep in southern California. *Wildlife Society Bulletin*. 32(2):427-448.

Turner, J.C., C.L. Douglas, C.R. Hallum, P.R. Krausman, and R.R. Ramey (2006) Osterman's assumption of a flawed habitat model is premised on facts not in evidence: Turner et al. (2005) response to Osterman et al. (2005). *Wildlife Society Bulletin* 33(4):1465-1473.

2. Map of Camp Pendleton Arroyo Toad Locations, prepared by BonTerra Consulting.

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- Arroyo Toad Locations
- Coastal Zone Boundary
- Roadway Alignment

Camp Pendleton Arroyo Toad Locations

San Mateo Creek Area

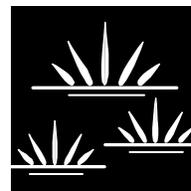


- 3. Memorandum prepared by Glenn Lukos Associates, February 5, 2008. "Response to Comments from the Conservation Biology Institute Regarding the CCC Jurisdictional Delineation for the Foothill Transportation Corridor – South, Orange County, California (Glenn Lukos Associates December 17, 2007).**

MEMORANDUM

GLENN LUKOS ASSOCIATES

Regulatory Services



PROJECT NUMBER: 00190009FOOT

TO: Valarie McFall

FROM: Thienan Ly

DATE: February 5, 2008

SUBJECT: Response to Comments from the Conservation Biology Institute Regarding the CCC Jurisdictional Delineation for the Foothill Transportation Corridor – South, Orange County, California (Glenn Lukos Associates December 17, 2007)

Glenn Lukos Associates (GLA) has received and reviewed the January 18, 2008 letter (Letter) from Michael D. White, Ph.D. of the Conservation Biology Institute San Diego Office. The Letter provided comments regarding the functional assessment conducted as part of the jurisdictional delineation and the proposed mitigation measures to compensate for impacts to wetland resources in the California Coastal Zone. Following is GLA's response to the Letter.

The Letter describes the wetland resources in the Coastal Zone as being located within a larger, biologically rich complex of habitats that includes vernal pools, coastal sage scrub, coastal chaparral, and native grasslands supporting numerous highly rare and endangered species. In short, the Letter states that the proposed FTC-S project would irrevocably degrade the regionally important wetland and riparian resources supported by these watersheds (San Mateo and San Onofre Creek watersheds) and impact ecological processes to a level that is not mitigable.

GLA does not disagree with the overall description of the wetland habitat quality as described in the Letter, which is also consistent with the description of the habitat provided in the Environmental Impact Report (EIR). However, GLA disagrees with the characterization of the very limited impacts to wetland habitat in the coastal zone are characterize as well as the statement that the direct and indirect impacts to wetland and riparian resources were not addressed and that the proposed impacts are not adequately mitigated.

I. DIRECT IMPACTS

In describing the actual impacts to wetland habitat, the Letter fails to recognize that the permanent impacts would be limited to 0.16 acre, an amount that equates to less than 1% of the total coastal wetland acreage within the study area. Specifically, permanent impacts to CCC wetland within San Mateo Creek are limited to four 10-foot by 7-foot bridge piers (70 square feet

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February 5, 2008

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each) and permanent impacts to CCC wetland within San Onofre Creek are limited to the extension of three existing 2-foot wide bridge bents (averaging 73 square feet each). The remaining 0.147-acre of permanent impact to CCC wetland consists primarily of arroyo willow (*Salix lasiolepis*, FACW) that is rooted in fill placed to construct Toby's Road. Although this community exhibits a predominance of hydrophytes and provides habitat function, it provides little if any hydrologic function.

Of these permanent impacts, 97% or 0.155 acre, occur along the southern fringe of the San Mateo Marsh East, an area that is approximately 100 feet from the existing edge of the I-5 freeway. Therefore, these 0.155-acre of wetland habitat are currently subject to adverse edge effects such as those described in the letter. By not accounting for the fact that 97% of the wetland habitat to be impacted is within 100 feet of the existing edge of the I-5 freeway, and therefore already "permanently degraded by the negative indirect impacts" of the I-5, the implication is that the FTC-S project would impact pristine wetland habitat. This misleading characterization becomes part of the basis for rejecting the one-acre mitigation site.

II. TEMPORARY IMPACTS

Temporary impact areas are those that will have habitat removed during construction but will exhibit the pre-construction topography, hydrology, and vegetation community upon restoration. It is important to note that the majority of the temporary impacts proposed occur under the existing I-5. Therefore the wetland habitat proposed for impact has been subject to the same temporary disturbance in the past and has recovered to provide, as described by Dr. White, a mosaic of high quality willow riparian woodland, willow scrub, and coastal freshwater marsh. As a result, there is no reason to believe that temporary disturbances from bridge construction would "be so severe that recovery of the current conditions would be impossible." It is understood that temporal loss does occur when habitat is removed and replaced at a later date, and as demonstrated following the temporary impact associated with construction of the I-5, temporal loss does not affect the long-term function of the habitat or the species that depend upon the habitat.

III. INDIRECT IMPACTS

GLA disagrees that temporary impacts and indirect impacts were confused. As indicated by Dr. White, edge effects resulting from change in land use can extend well into adjacent undisturbed habitats. However, the extent that these indirect effects impact aquatic function is often species specific and dependent upon which effect [introduction of exotic species, increased ambient noise and light, degradation of water quality, etc] is being analyzed.

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It was not the intention of the CCC Wetland Functional Assessment to provide species-specific analysis. Species-specific impact analysis, including analysis of direct and indirect impacts to primary constituent elements, was provided in the project EIR, Consistency Analysis and Response to Coastal Staff Report. These analyses found that no indirect impacts from introduction of exotic species, increased ambient noise and light or degradation of water quality are expected, mainly as a result of mitigation measures such as shielded lighting, sand media filters, and invasive/exotic plant control.

Since species-specific analysis of indirect impacts were addressed individually in the EIR, GLA asserts that the limits of the indirect impact analysis for aquatic function [100-feet beyond direct impacts], which was based on the typical buffer zone required for preserved wetlands by the California coastal commission in past projects, is adequate.

Additionally, GLA contends that the HFA does provide a means for simulating changes to hydrology (altered runoff) [HFA Metrics: Water Source, Hydroperiod, Floodplain Connection, Altered Hydraulic Conveyance, Surface Water Persistence/Recharge, Floodprone Area], buffer condition [HFA Metrics: Average Width of Buffer, Buffer Condition, Percentage of Area with Buffer], exposure to nutrient, pesticide, hydrocarbon or sediment loading [HFA Metrics: Sediment Regime, Land Use/Land Cover] and invasive species [Ratio Native:Non-Native, Buffer Condition, Invasive, Exotic Plant Species] that could affect adjacent riparian areas as a result of FTC-S construction.

IV. FUNCTIONAL ASSESSMENT METHODOLOGY

Dr. White asserts that the functional assessment methodology used is biased against a landscape level analysis that would better address conservation value. GLA agrees that the Hybrid Functional Assessment [HFA] methodology used has limits in its application. However, no single methodology has been made widely available that provides a means to consistently quantify all functions provided by aquatic features, either at a landscape or local level. As described in the Hybrid Functional Assessment [HFA], the HFA methodology was developed by combining components of three well-established and field tested functional assessment methods including the Hydrogeomorphic Functional Assessment method¹, California Rapid Assessment

¹ Smith, R.D., Ammann, A., Bartoldus, C., and Brinson, M.M. 1995. "An approach for assessing wetland functions using hydrogeomorphic classification, reference wetlands, and functional indices," Technical Report WRP-DE-9, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Brinson, M.M., Hauer, F.R., Lee, L.C., Nutter, W.L., Rheinhardt, R.D., and Whigham, D. 1995. "A guidebook for application of hydrogeomorphic assessments to riverine wetlands," Technical Report WRP-DE-11, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Peer Review Draft Guidebook to Hydrogeomorphic Functional Assessment of Riverine Waters/Wetlands in the Santa Margarita Watershed. (Santa Margarita River HGM = SMR HGM) This HGM guidebook was developed for use in Southern California, and the reference domain is located in San Diego County.

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method² and the Landscape Level Functional Assessment method.³ In contrast to the statement that only one metric considers the wetlands in context of the overall landscape, several metrics actually evaluate the wetlands at the landscape level in addition to Land Use/Land Cover. These include Altered Hydraulic conveyance, Sediment Regime and Riparian Corridor Continuity.

GLA asserts that the methodology is adequate as a relative measure of function for comparing the function of the impacted wetlands to the proposed created wetlands, assuming that the landscape position and connectivity mentioned by Dr. White are not significantly different for the impacted wetlands when compared with the proposed created wetlands. Given that the proposed created wetland would occur within a few hundred feet of the proposed direct impacts and would actually provide a net increase in riparian and wetland habitat between San Mateo Creek and San Mateo Marsh East upon completion, the created wetland occupies an equivalent landscape position and is expected to provide equivalent or improved connectivity as compared to the impacted wetland.

Dr. White also asserts that GLA provides no justification for the scores are provided. Given that the score for each metric is defined using well-established, field tested, detailed and/or quantifiable descriptions (Tables 1 through 30), a separate justification for each score is not required as part of the assessment. It is understood that some of metrics rely on descriptive characteristics that may result in slight variation if scored by different evaluators. However, it should be noted that the existing wetlands exhibit relatively high scores when compared with the proposed mitigation.

Specifically in regards to the Percent Buffer metric that is questioned, note that the definition of the metric excludes intensive uses such as pastures, parks and agricultural cropland as buffers, but does not exclude all dirt roads or abandoned agricultural fields. Based on these descriptors, only the sand media filter was excluded as buffer. By definition, the two other buffer metrics serve to provide additional data regarding the width and condition of the buffer. Therefore, a feature that is surrounded by 100-feet or greater of native habitat will receive a higher overall score.

² *Draft California Rapid Assessment Method for Wetlands.* (CRAM) This method is currently being developed for use by California Department of Fish and Game (CDFG).

³ *Assessment of Riparian Ecosystem Integrity: San Jacinto and Upper Santa Margarita River Watersheds, Riverside County, California.* (Landscape Level Functional Assessment = LLFA) This method was developed for use in Special Area Management Plan (SAMP) projects that are ongoing in Orange and Riverside Counties.

V. MITIGATION

Details regarding the proposed mitigation are provided in the Conceptual Habitat Mitigation and Monitoring Plan prepared by GLA and dated August 31, 2007. GLA agrees that, if comparing the 1.0-acre mitigation site [Functional Capacity Score = 17] to 1.0 acre of San Mateo Creek [Functional Capacity Score = 20], the function provided is not equivalent. However, impacts to aquatic features exhibiting surface hydrology [San Mateo and San Onofre Creeks] total less than 500 square feet and are distributed over seven different locations which is expected to further minimize potential impacts to aquatic function, and the remaining impacts consist of one-parameter CCC wetland rooted on a fill slope. Also, as described above, 97-percent of the impacted areas are within 100-feet of I-5, while the proposed mitigation site is greater than 100-feet from the proposed road edge. Additionally, the consolidated 1.0-acre of created wetlands within the coastal zone will act as intermediate refuge for species dispersing between the San Mateo Creek and San Mateo Marsh East. As such, it is expected to improve connectivity between the creek and existing isolated marsh as well as providing habitat for vertebrates, invertebrates and vascular plants. Finally, in contrast with the 0.16-acre of wetland to be impacted, the created wetland will not receive untreated flows from the I-5. Therefore, in addition to meeting CCC requirements that the site be located near impacts and within the coastal zone, the mitigation site, providing 6.3 times as much habitat as that being permanently impacted, does sufficiently mitigate for permanent impacts to 0.16 acre of CCC one-parameter wetland and indirect impacts to CCC one-parameter wetlands within 100-feet of the FTC-S as well as providing conservation value.

GLA agrees with the general premise of the statement in the Letter, "In riverine systems, altered hydrology, such as from runoff from the impervious surface cover of roadways, can completely change the structure and function of biological communities within downstream areas (Poff et al. 1997, White and Greer 2001). This statement, however, does not reflect the project design features (PDFs) that have been included to address construction and operation impacts. As described in the EIR, multi-objective PDFs were identified and developed to address these potential impacts of the FTC-S related to water quality. For water quality, the PDFs are comprised of both pollution prevention BMPs and treatment BMPs. Pollution prevention BMPs are used to address design phase elements, construction and spill mitigation. Treatment BMPs are used in the design to meet regulatory water quality requirements at specific locations. Both pollution prevention and treatment BMPs are included in the FTC-S to the maximum extent practicable (MEP). PDFs for hydrology and erosion and sedimentation, were developed to provide multiple benefits; primarily increasing storage and reducing project discharges to pre-project levels. Groundwater water quality is ensured through treatment of surface water discharges before they reach receiving waters. With the PDFs, the runoff from the roadway will be attenuated and the pre-project flow characteristics will be maintained. PDFs that distribute the roadway slope runoff (flow splitter structures), which is separated from the roadway runoff, will be distributed into each water course to help mimic pre-project runoff conditions. To protect

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the structure and function of biological communities within downstream areas of the FTC-S project, the Applicant has proposed to construct a sand filter to detain and treat runoff before it is cleanly discharged to receiving waters or infiltrated. In contrast, the existing I-5 freeway does not utilize storm water treatment best management practices within the Coastal Zone. The FTC-S project proposes to capture runoff from approximately 2 miles of I-5 and treat those flows within its extended detention basins and sand filter. This action would substantially benefit the structure and function of biological communities within the San Mateo and San Onofre Creeks.

Please review the enclosed information and contact me at (949) 837-0404 ext. 34 with any questions.

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