Volume III- Response to Comments/Errata

Final

Program Environmental Impact Statement/ Environmental Impact Report (EIS/EIR)

San Diego Creek Watershed Special Area Management Plan/ Watershed Streambed Alteration Agreement Process (SAMP/WSAA Process)

Prepared by:

U.S. Army Corps of Engineers, Los Angeles District, Regulatory Division

California Department of Fish and Game,
Habitat Conservation South Coast Region
San Diego, California

State Clearinghouse #2001081007

February 2009

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SECTION

1 INTRODUCTION

In accordance with the National Environmental Policy Act (NEPA) (Council on Environmental Quality (CEQ) Regulations Section 1503.4) and California Environmental Quality Act (CEQA) (14 C.C.R. Section 15132), the United States Army Corps of Engineers (Corps), as the lead Federal Agency, and the California Department of Fish and Game (Department), as the lead State Agency, have prepared responses to comments received on the Draft Program Environmental Impact Statement/ Environmental Impact Report (Program EIS/EIR) for the San Diego Creek Watershed Special Area Management Plan/Watershed Streambed Alteration Agreement Process (SAMP/WSAA Process). This Evaluation of and Response to Comments/Errata document represents Volume III of the Program EIS/EIR.

All comment letters and e-mail correspondence received on the draft Program EIS/EIR are included in Section 3 of this *Evaluation of and Response to Comments/Errata* document. The Corps and Department's responses to comments are provided in Section 3, as well. As necessary to address the comments, revisions to the Program EIS/EIR have been made and are compiled together in Section 4. As such, the Evaluation of and Response to Comments/Errata document *(*Volume III*),* along with the Draft Program EIS/EIR (Volume I) and the Technical Appendices (Volume II) comprise the Final Program EIS/EIR for the San Diego Creek Watershed SAMP/WSAA Process. Consequently, no other environmental review document will be published.

The SAMP document is considered somewhat of a "living document" and the Corps has revised it as necessary in response to comments received on the Draft Program EIS/EIR. Further, the Corps anticipates it will need to review and update the SAMP document periodically as SAMP implementation evolves.

The Corps and the Department released the Draft Program EIS/EIR for public review and comment on March 7, 2008. The public review period ended on April 21, 2008. The Corps and the Department received a few specific requests for late submittals and the lead Agencies accepted agency and individual/organization comments after the closure of the public review period.

This Evaluation of and Response to Comments/Errata document has been organized as five sections: Section 1 provides the introduction; Section 2 is a list of respondents to the Draft Program EIS/EIR; Section 3 contains the comments received and the Corps and Department's evaluation of and response to comments; Section 4 identifies modifications and revisions to the Program EIS/EIR text; and Section 5 includes reference materials. Additionally, a revised Table of Contents for the entire Program EIS/EIR has been included at the front for convenience.

2 LIST OF RESPONDENTS

The following is a list of the public agencies, persons, and organizations that submitted comments on the Draft Program EIS/EIR. The comments included written and e-mail correspondence. No oral comments or comment cards were provided at the April 1, 2008 Public Meeting held in Newport Beach, California. Comments have been numbered and responses have been developed; both comments and responses are provided in Section 3.

Commenter Number	Comments Submitted by	Date of Correspondence	Page Number
Federal Agencies			
F-1	Nova Blazej, Manager, Environmental Review Office, US EPA, Region IX	April 21, 2008	3-2
State Agencies			
S-1	Ryan Chamberlain, Branch Chief, Local Development/ Intergovernmental Review, California Department of Transportation, District 12	April 21, 2008	3-10
S-2	Adam Fischer, Environmental Scientist, CWA Section 401 Coordinator, California Regional Water Quality Control Board, Santa Ana Region 8	April 22, 2008	3-12
Special Districts/ Regional Governments			
R-1	Jacob Lieb, Program Manager, Southern California Association of Governments	April 15, 2008	3-21
R-2	Paul Brenner, Principal Environmental Analyst, Transportation Corridor Agencies	April 21, 2008 and May 14, 2008	3-23
Local Agencies			
L-1	Comments received by Douglas Williford, Director of Community Development, City of Irvine, California	April 11, 2008	3-25
L-2	Ronald L. Tippets, Chief, Current and Environmental Planning, Orange County Public Works	May 2, 2008	3-27

Commenter Number	Comments Submitted by	Date of Correspondence	Page Number
L-3	Nardy Khan, Regulatory Permits, Project Management, Orange County Public Works	May 5, 2008	3-43
L-4	Dave Kiff, Assistant City Manager, City of Newport Beach, California	May 8, 2008	3-48
L-5	Paul Weghorst, Principal Water Resources Manager, Irvine Ranch Water District	May 5, 2008	3-50
Individuals/ Organizations			
IO-1	Robert Uram, Sheppard, Mullin, Richter & Hampton for The Irvine Company	April 21, 2008	3-53
IO-2	Robert Uram, Sheppard Mullin Richter & Hampton for Heritage Fields El Toro, LLC	April 23, 2008	3-57
IO-3	Jan D. Vandersloot, M.D. of Newport Beach, CA, representing Stop Polluting Our Newport, Sierra Club San Diego Creek Task Force, and Friends of Harbors, Beaches and Parks	May 5, 2008 and May 8, 2008	3-59
IO-4	Sandra Genis, of Costa Mesa, representing Stop Polluting Our Newport, Sierra Club San Diego Creek Task Force, and Friends of Harbors, Beaches and Parks	May 5, 2008 and May 8, 2008	3-64
Public Meeting: April 1, 2008			
Oral Comments – None Received			

3 COMMENTS RECEIVED AND RESPONSES TO COMMENTS

Comments received during the public review period on the Draft Program EIS/EIR addressed a range of issues. The comments included written and e-mail correspondence. No comment cards were submitted and no oral testimony was given at the public meeting held in the city of Newport Beach on April 1, 2008.

Insert Letter Commenter F-1

3.1 Responses to Comments from Federal Agencies

COMMENTER F-1

United States Environmental Protection Agency, Region IX
Dated: April 21, 2008

Response 1

Comment noted.

Response 2

Issues raised in the cover letter are addressed in subsequent responses to the U.S. Environmental Protection Agency (EPA).

Response 3

Alternatives Analysis

Reasonableness of Alternatives – Practical and Feasible
The Corps and the Department believe the range of alternatives presented in Volume I of the Program EIS/EIR for the San Diego Creek Watershed Special Area Management Plan/Watershed Streambed Alteration Agreement Process (SAMP/WSAA Process) (Program EIS/EIR, February 2008 and as revised by Volume III, February 2009), represents a reasonable range of alternatives for a Program EIS/EIR, and this response provides additional explanation and background information.

First, it is helpful to frame this discussion with a brief reminder of the program-level nature of this EIS/EIR, as discussed in CEQ NEPA Regulations (Section 1508.18(b)) and CEQA Regulations (Section 15168). Under consideration in the Program EIS/EIR is the adoption of the SAMP/WSAA Process, including the aquatic resource-based alternate permitting procedures and mitigation policies for agency implementation within the San Diego Creek Watershed. The proposed Federal and State actions would be undertaken in connection with plans and policies to govern the conduct of their respective continuing regulatory programs as they are implemented within the San Diego Creek Watershed. The agencies are not proposing any site-specific project(s); hence, the concept of "alternatives" as it applies to the SAMP/WSAA Process and their analysis reflects the program level nature of the proposed action.

Second, the range of alternatives presented in the Program EIS/EIR is the result of a joint, deliberative process involving the lead Federal and State agencies as well as the cooperating Federal agencies (EPA and USFWS), the primary participating applicant (The Irvine Company), and early input from the NEPA/CEQA Scoping process. The preliminary alternatives identified during the NEPA/CEQA Scoping process, which involved a public Scoping Meeting held on August 14, 2001, consisted of the following three alternatives:

- *No-Proposed-Action Alternative*, which corresponds to the *No Project (Existing Case-by-Case Permitting) – Alternative 1* described in Volume I of the Program EIS/EIR
- *No-Aquatic-Resource-Impact Alternative*, which corresponds to the *Complete Avoidance (No Permits Issued) – Alternative 2* described in Volume I
- *SAMP and MSAA Alternative*, which corresponds to the *SAMP/WSAA Process – Alternative 5,* i.e., the Proposed Federal/State Action described in Volume I

In the early stages of the SAMP formulation process, the SAMP Coordination Team added to the list of preliminary alternatives presented in the Program EIS/EIR two alternatives identified after the Scoping Report (Jones and Stokes, May 2002) was prepared:

- *Avoidance Except for Bridges and Utility Lines (Limited Permitting) – Alternative 3*
- *General Plan Build-out without Avoidance (Full Permitting) – Alternative 4*

Taken together, the range of alternatives represents both required alternatives as well as a gradient of impacts to aquatic resources from planned development projects, as represented by the local jurisdictional general plans and zoning requirements and categories of Participating Applicants' anticipated regulated activities. With the range of alternatives presented, the Corps and the Department believe diverse interests from the environmental and development communities are represented. The initial choice to focus on the impacts to aquatic resources associated with development projects stems from the preliminary scope of the SAMP and the types of activities anticipated to need Corps and Department authorizations, which originally were associated primarily with The Irvine Company's planning areas and their planned commercial, residential, institutional development projects.

The Corps and the Department, in consultation with the resource agencies, identified a "resource-based alternative," which included proposed impact avoidance areas within the San Diego Creek Watershed. The resource-based alternative was the basis for the proposed SAMP/WSAA Process Alternative Analytical Framework and the proposed avoidance areas became the SAMP aquatic resource integrity areas, identified through the sequential application of several criteria, as discussed in Section 2 of the SAMP document (Corps, 2009). These criteria were developed in consideration of the goals of the SAMP for aquatic resource protection as articulated in the SAMP tenets (Corps, 2009).

As the SAMP formulation process evolved and other Participating Applicants became involved, other types of anticipated regulated activities from future applicants, not necessarily involved in the SAMP formulation process were identified. It became evident that a program-level approach to the SAMP was needed and a Program EIS/EIR would be more appropriate than a project-based approach. Consequently, the proposed SAMP/WSAA Alternative came to incorporate not only the Analytical Framework, but also corresponding permitting processes, including a mitigation framework, a Strategic Mitigation Plan, and a Mitigation Coordination Program.

The Corps and the Department's range of alternatives represents alternatives that are practical and feasible in terms of considering a range of impacts at the watershed scale

and for a watershed-based, resource-based plan for changes in permitting procedures of existing regulatory programs. We considered alternatives outside the responsibility of the Corps or the Department to carry out. NEPA Regulations (Section 1502.14) requires the EIS to examine all reasonable alternatives to the proposal, even if it is beyond the Corps and the Department's capability for carrying out a particular alternative. For example, Alternative 4 and the implementation of the local jurisdictions general plans is practical and feasible, so it is reasonable; albeit beyond the scope of the agencies' respective mandates and it does not fulfill the purpose of the SAMP. Similarly, based on the same rationale, Alternative 3 may be considered reasonable, but it does not fulfill the purpose or objectives of the SAMP.

The Corps believes that both Alternatives 1 and 2 are No Action alternatives and as such are appropriate and in compliance with NEPA (Section 1502.14(d)). Alternative 1 is the No Action/No Project/No SAMP alternative, which is a continuation of existing permitting conditions at baseline without formal adoption of the SAMP. It is the Federal No Action alternative insofar as the Corps is a proponent of modifications to application of a plan and permitting procedures under an existing regulatory program. In Alternative 2, the Corps as a permitting authority, has extended its typical analysis of a Federal No Action alternative or no 404 permit for a particular project to the watershed scale, which is the relevant area of study for the SAMP. The Corps acknowledges such a scenario is beyond the authority of the Corps and is infeasible for the Corps to carry out. Nonetheless, Alternative 2 is a Federal No Action alternative and we believe it must be considered pursuant to NEPA. Likewise, both Alternatives 1 and 2 are No Project alternatives for the Department under CEQA (Section 15126.6)

Many possible alternatives could be considered reasonable, including several permutations of permitting procedures, criteria for selecting the aquatic resource integrity areas, or proposed mitigation plans. Nevertheless, considering the Corps and the Department's goals for the SAMP and given the characteristics of the Watershed, i.e., mostly urban condition of the central Watershed with less developed northern and southern portions, the range of alternatives is appropriate for the condition of the aquatic resources in the Watershed. Moreover, the Corps and the Department believe the range of alternatives is reasonable considering the proposed action (SAMP Alternative 5) is the adoption of a plan for regulation, incorporating the following elements: an RGP, LOP procedures, thresholds for triggering an SIP process, WSAA Process, mitigation policies, a Strategic Mitigation Plan, and a preliminary plan for coordinating mitigation among stakeholders.

Analysis of Alternatives

During the SAMP formulation process, the Corps contracted the US Army Engineer Research and Development Center (ERDC) experts to conduct a preliminary alternatives impact analysis of six development scenarios. Initially, the objective of the alternatives analysis was an exercise to help the Corps assess potential direct and indirect impacts of each alternative on probable waters of the United States and associated riparian ecosystems. The preliminary assessment of alternatives was conducted in consideration of the landscape level functional assessment (LLFA) (Smith, 2000; Appendix B-2). The changes that could be expected to occur in each riparian reach as a result of each alternative were simulated and indicators metrics were assessed under the simulated conditions.

The ERDC assessment provided the Corps and the Department with information during the pre-application consultations with the resource agencies and The Irvine Company in early planning and redesign of development bubbles for The Irvine Company's planned projects. The ERDC assessment was not directly relevant for Corps/Department permit decisionmaking; rather, the information allowed the Corps and the Department to inform the resource agencies about the differences between potential direct and indirect impacts to aquatic resource integrity considering different impact avoidance areas. Moreover, with the change in focus from a project-oriented to a program-oriented SAMP, the use of the ERDC assessment effectively provided information to support the formulation of a resource-based SAMP alternative, including the aquatic resource integrity areas that would be ineligible for streamlined permitting procedures.

Other Alternatives Considered, but Eliminated

One alternative was considered and eliminated from co-equal analysis in the Program EIS/EIR. Alternative 3 – *Avoidance Except for Bridges and Utility Lines (Limited Permitting)* was previously comprised of two different preliminary sub-alternatives: 3a - the Partial Avoidance with Bridges and Full Master Plan of Arterial Highways (MPAH); and 3b – Partial Avoidance with Bridges and Partial MPAH. Together, the variations of Alternative 3 represented impacts to waters associated with linear crossings, either road crossings, utility crossings, or both. The understanding implicit in Alternative 3 is that road crossings, except for bridges, would result in permanent, measurable changes to the landscape and consequently to the aquatic resources, whereas, both bridges and utility lines would result primarily in temporary impacts to aquatic resources.

For ERDC's assessment of alternatives, the Corps used planned road impacts to understand the potential direct and indirect impacts such permanent, linear features would have on aquatic resources. Based on the analyses, the Corps determined Alternative 3 as included in the Program EIS/EIR would represent additional avoidance and minimization on a gradient of effects than would preliminary Alternatives 3a or 3b.

Definition of Bioengineering

Comment noted. Although the Corps Regional General Permit (RGP) No. 70 for Bioengineered Bank Stabilization Activities (issued June 24, 2008) does allow for a single row of ungrouted rock along the toe of the bank and along the face of the bank, to avoid confusion the Corps will provide a revised example and clarify the definition of bioengineering.

Response 4

Cumulative Effects Analysis

Past Impacts to Aquatic Resources

The baseline information described in Section 3 of this Program EIS/EIR, together with the results of the ERDC's LLFA defined the baseline conditions in semi-quantitative terms the "integrity" or "health" of the aquatic resource. The data from the baseline assessment and the LLFA were used by the Corps to evaluate the potential direct and indirect effects, including cumulative effects of future permitted activities on the aquatic environment. Any deviation from the maximum integrity score can be used to infer the past cumulative impacts, irrespective of the Corps 404 permit program or the Department 1600 program. This approach is consistent with CEQ's 2005 Guidance Memorandum, whereby "Agencies are not required to list or analyze the effects of individual past actions unless such information is necessary to describe the cumulative effect of all past actions combined…Generally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions." The LLFA and baseline of the Program EIS/EIR do this, even if Section 6 did not expressly reiterate the extensive baseline info as an historical cumulative effects analysis.

Although this Program EIS/EIR may not adhere to the structure outlined in the eight-step approach for developing a cumulative effects analysis described in the Cumulative Impact Guidance jointly prepared by Caltrans/FWHA/EPA recommended by EPA, the Corps believes that each of the pertinent elements is addressed by the Program EIS/EIR. The Program EIS/EIR identified the aquatic resources considered, defined the study area, described the current health and historical context, identified direct and indirect impacts that could contribute to a cumulative impact, identify other reasonably foreseeable actions affecting aquatic resources, assessed potential cumulative impacts, reported results, and finally, assessed the need for mitigation. Nevertheless, the Corps will consider following the outlined approach for future SAMP environmental documents.

Historical Ecology Study

The Corps believes a separate historical ecology study for the Watershed would add very little substantive information or benefit to the SAMP formulation process to develop a plan for regulation under the Corps and the Department's regulatory programs. ERDC's LLFA (Smith, 2000; Appendix F) used a *culturally unaltered* reference condition as a standard of comparison to assess riparian ecosystem integrity in the Watershed at baseline. The culturally unaltered reference condition is the condition under which riparian ecosystems achieved and sustained a high level of integrity and included not only conditions in the riparian ecosystem proper, but the lands adjacent and upstream of the riparian ecosystem that influence its integrity. As described in ERDC's LLFA:

> In southern California riparian ecosystems, the culturally unaltered reference condition implies conditions that existed prior to grazing, agriculture, fire suppression, water resource management, transportation corridors, urbanization, and other cultural alterations that can be identified. It is synonymous with what McCann (1999) referred to as pre-Columbian, meaning the conditions that existed prior to the influence of European explorers and subsequent immigrants.

> The least culturally altered reference condition refers to those conditions that currently exist in a watershed or region and most closely reflect culturally unaltered conditions. Culturally unaltered was selected as reference condition for this project for the following reasons. First, it represents the physical, chemical, and biological conditions under which riparian ecosystems have naturally evolved, and therefore, presumably represents the physical, chemical, and biological conditions that the Clean Water Act mandates should be maintained. While it can be argued that the culturally unaltered reference condition does not exist in southern California due to widespread existence of grazing, fire suppression, urban development, nonpoint air pollution, the disruption of historical metapopulation dynamics (Hastings and Harrison 1994), and a host of other factors, it is possible to make reasonable speculations as to what culturally unaltered conditions were like (Sedell and Luchessa 1981; Schubauer-Berigan 2000). It can also be argued that while it is impossible to restore culturally unaltered conditions, it may be feasible to restore some of the larger, isolated and remote areas to a condition that functionally approximates the culturally unaltered condition given adequate time and resources, and appropriate management.

Effectively, the LLFA provided a comparison of baseline conditions to reference condition for the riparian resources within the Watershed, thereby providing information by which to understand the historical (and current baseline) integrity of the riparian resources. Additionally, the SAMP Strategic Mitigation Plan, based on ERDC's Riparian Ecosystem Restoration Plan (Smith and Klimas, 2004), identified potential opportunities appropriate for the landscape context. The restoration plan classified each riparian area in terms of its geomorphic characteristics, characterized the current condition of each riparian area, and assigned an appropriate restoration template given the geomorphic characteristics and current condition of each riparian area.

Additionally, *Section 3.3.1 – Historical Drainage* of this Program EIS/EIR (Volume I) provides an overview the Watershed's known prominent historical drainage features and Figure 3-10 depicts an historic watershed hydrography. The Corps believes the historical drainage information, along with LLFA and restoration plan provides at least as much information that an historical ecology study would provide. The information compiled for the SAMP was used to inform the formulation of the SAMP Analytical Framework and will be used in implementation of the Strategic Mitigation Plan.

Response 5

Proposed SAMP Process

Revocation of Selected Nationwide Permits

As part of the SAMP formulation process, the Corps and the Department identified a suite of planned activities that would likely require permits/agreements for associated jurisdictional impacts. Those regulated activities in the Watershed that the Corps had authorized under nationwide permits (NWPs) were identified. The selection of NWPs proposed for revocation represents those associated with planned activities and past impacts for which the Corps determined alternate permitting mechanisms (e.g., Regional General Permit, Letter of Permission, or Standard Individual Permit) would provide a

more appropriate level of review than NWPs. NWPs rarely used within the Watershed, or with very narrow application such as for temporary impacts would be retained.

Insert Commenter S-1

3.2 Reponses to Comments from State Agencies

COMMENTER S-1

California Department of Transportation, District 12
Dated: April 21, 2008

Response 1

Comment noted. The SAMP/WSAA Process would have no effect on Caltrans requirements for encroachment permits.

Response 2

Corps staff met with Caltrans staff in the field in spring of 2008 and discussed Caltrans' concerns. The SAMP/WSAA Process would not affect Caltrans ability to maintain existing structures. Permitting procedures, namely RGP and LOP procedures for the Corps and WSAA templates for the Department, would be available for authorization of temporary impacts associated with maintenance of existing structures that previously would have been permitted by NWPs. Emergency activities would continue to receive priority processing under Corps RGP 63 for projects that comply with the terms and conditions of RGP 63. Permit applications for permanent jurisdictional impacts associated with linear transportation projects would be evaluated under LOP procedures or a standard individual permit for the Corps or WSAA template or SBAA for the Department. Mitigation would be required in accordance with the SAMP/WSAA Process mitigation framework, pursuant to the Department's authority and the Corps authority and requirements of Section 404(b)(1) Guidelines at 40 CFR part 230 and the Final Mitigation Rule at 33 CFR parts 325 and 332 (73 FR 19594) issued by the Corps and EPA on April 10, 2008.

Response 3

Comment noted. The SAMP/WSAA Process would have no effect on Caltrans requirements for biological, cultural, or water quality standards.

Insert Commenter S-2

COMMENTER S-2
California Regional Water Quality Control Board, Santa Ana Region 8
Dated: April 22, 2008

Response 1

Comment noted. We clarify here that the term applied in the SAMP/WSAA Process is "aquatic resource integrity areas," not "aquatic resource areas." Additionally, the Department has proposed implementing a WSAA Process not a MSAA in this Watershed.

Response 2

The Regional Board is a responsible agency for the Program EIS/EIR because the agency has discretionary approval authority over future CEQA projects (e.g., projects requiring a 401 certification) in the Watershed that would also require approval from the Corps and the Department. As a responsible agency, the Regional Board was available to the Department and the Corps for early consultation on the formulation of the SAMP/WSAA Process, and provided guidance on applicable water quality-related issues. The Program EIS/EIR, Section 1.4.4, Involved Agencies and Participating Applicants, pages 1-11 through 1-12, has been revised.

Response 3

The Corps believes that since the SAMP/WSAA Process employs a watershed approach to aquatic resource management, the SAMP/WSAA Process will improve the planning, implementation, and management of aquatic resources in the Watershed. The special focus provided by the SAMP Strategic Mitigation Plan and mitigation framework support improved compensatory mitigation projects by emphasizing a landscape context when selecting compensatory mitigation sites. Moreover, the SAMP/WSAA Process expands the information and analytical foundation for ensuring that both authorized impacts and mitigation are considered on spatial and temporal scales well beyond the scope of any one particular project.

Additionally, digital, spatial data tools will be available to complement the "analog information management systems" referenced by the Regional Board staff. More importantly, however, is that the SAMP document and associated technical materials provide a source of information and analyses compiled in one place that can only assist the resource agencies and regulatory staff in implementing their associated regulatory programs, whether the staff are new or seasoned.

Response 4

See Responses 3 and 4 to Commenter F-1.

The Corps regulatory authority over activities pursuant to Section 404 of the CWA is triggered when a proposed project activity would result in the discharge of dredged or fill material within waters of the U.S., i.e., a direct impact to waters of the U.S. In evaluating permit applications, the Corps considers the biological, physical, and chemical effects of

an activity on the integrity of the aquatic environment. Furthermore, in compliance with the Corps NEPA regulations and 404(b)(1) Guidelines, the Corps considers the direct, indirect, individual, and cumulative effects of a permit action on the aquatic environment.

The Regional Board staff comment suggests all effects to waters of the U.S. must be addressed because of any incidental involvement of a Corps permit, regardless of whether such indirect impacts occur from the discharge of fill material, changes in impervious cover, or increase in urban runoff pollutants. The Regional Board staff must be aware of the limits of the Corps authority that preclude the regulation of activities that do not result in a discharge of dredged or fill material in jurisdictional areas. In accordance with Appendix B of 33 CFR Part 235, the Corps scope of analysis is limited to waters of the U.S. and may be extended to those activities in upland areas over which the Corps has "sufficient control and responsibility." It is not enough for an activity to have an effect on waters of the U.S. in order for the Corps to exercise its regulatory authority. Thus, upland development, changes in runoff patterns, and placement of development adjacent to waters are not automatic triggers for Corps action to address those stressors. Even if extensive modifications of upland areas occur (e.g., 500 acres of development) associated with the discharge of dredged or fill material in a small amount of waters of the U.S. (e.g., 0.15 acre of waters of the U.S.), the Corps authority to address issues for the entire project associated with the discharge of fill material should not be presumed. The effects of extensive upland activities are beyond the Corps statutory authority of regulating the discharge of dredged or fill material in waters of the U.S. and the immediate indirect effects of the discharge. As the Corps scope of analysis allows, which is determined on a case-by-case basis, the Corps would address indirect impacts, but not in the extensive way the Regional Board staff recommends.

However, even with such limitations in Corps regulatory authority, it is through the SAMP that the Corps is able to consider at a broader watershed level the indirect impacts to hydrology and water quality. In formulating the SAMP Analytical Framework, the Corps used both the LLFA (Smith, 2000) and ERDC's assessment of alternatives (Smith, 2004), as well as the Corps additional cumulative impact analysis. Consequently, the Corps believes the direct, indirect, individual, and cumulative effects of certain classes of activities were evaluated at the landscape level. Hydrologic and water quality integrity indicators incorporated in the LLFA and assessment of alternatives allowed the Corps to simulate changes in integrity scores resulting from anticipated activities.

Specifically, for hydrologic integrity ERDC selected indicators that focused on the factors influencing the frequency, magnitude, and temporal distribution of stream discharge, and the hydrologic linkage between the stream channel and the active floodplain and adjacent terraces. The following four indicators were selected to reflect degree of cultural alteration in a drainage basin with the potential to influence stream discharge: Altered Hydraulic Conveyance at the Drainage Basin scale; Surface Water Retention; Perennialized Stream Flow; and Import, Export, or Diversion of Surface Water. Two additional indicators of hydrologic integrity were selected to represent the degree of interaction between the stream channel and the floodplain: Altered Hydraulic Conveyance at the Riparian Reach scale; and Floodplain Interaction. Additionally, four indicators of water quality were selected to reflect the condition of in land use in the drainage basin: Land Use / Land Cover - Nutrient Increase; Land Use / Land Cover - Pesticide Increase; Land Use / Land Cover – Hydrocarbon Increase; and Land Use / Land Cover – Sediment Increase. Five indicators were selected to reflect the condition

of the stream system that transports pollutants, including all the same indicators used to assess hydrologic integrity with the exception of Floodplain Interaction. Three additional indicators of water quality were selected to reflect the condition of riparian ecosystem with respect to it ability to physically capture and biogeochemically process pollutants: Floodplain Interaction; Sediment Regime; and Area of Native Riparian Vegetation.

The Corps believes the Regional Board staff overstated the potential for the concept of permit thresholds to impact water quality. The Regional Board staff's would retain its ability to evaluate proposed activities for compliance with Section 401 of the CWA as well as the Porter Cologne Act in accordance with the Regional Board's authority. The Regional Board staff will be responsible for issuing 401 certifications and/or waste discharge requirements for proposed projects. The Corps will seek a 401 certification from the State Water Board for the proposed RGP for maintenance activities and each project must demonstrate compliance with the terms and conditions of the RGP, and by extension the 401 certification. For LOPs, an applicant must obtain a project-specific 401 certification from the Regional Board. Therefore, the Regional Board staff will have the opportunity to condition the 401 certification to ensure against unmitigated adverse impacts to water quality, irrespective of whether or not the Corps threshold for a particular permitting mechanism, or at what acreage limit that threshold is set.

The Corps and the Department believe that the EIS/EIR for SAMP/WSAA Process, together with the SAMP document, provides a tool for not only Lead Agencies and other interested parties who evaluate projects under CEQA, but is a transparent tool to be used by project proponents when planning projects, including mitigation of project impacts. Changes were made to the Program EIS/EIR as shown in Section 4 to improve clarity on this matter.

Footnote 1 about Nationwide Permits
The use of thresholds that trigger different permitting mechanisms, such as with the Corps NWPs, is one of several tools available to regulatory agencies. The Corps believes that NWPs and other streamlined permitting mechanisms offer incentives for applicants to avoid and minimize direct impacts to meet the terms and conditions of a permit. However, we doubt a Corps permit threshold is the only consideration given by an applicant since compensatory mitigation requirements, agreements, and 401 certifications place additional requirements for the applicant to meet. Besides cost, feasibility, and technical considerations, often further conservation measures in compliance with ESA, NHPA, and CZMA influence project planning by the applicant. Consequently, we disagree with Regional Board staff that any threshold would effectively serve as an upper limit to the amount of avoidance applicants would perform once they "hit the number." Moreover, the Corps is satisfied that the cumulative effects analysis and alternatives assessment performed for the SAMP provide a sufficient baseline for assessing future impacts. Furthermore, the terms and conditions of the RGP and LOP procedures are more than adequate to ensure minimal, or minor impacts to the aquatic environment.

Response 5

The Corps acknowledges the SAMP's focus on retaining and improving the ecological, chemical, physical, and biological integrity of the riparian ecosystem in the Watershed. In consideration of the Regional Board staff's prioritization of anthropogenic uses of the

aquatic resources and the Basin Plan's (Santa Ana Regional Board, 2008) concepts of beneficial uses, the Corps had engaged Regional Board staff in informal discussions in an attempt to bridge the concepts of SAMP indicators and beneficial uses. The approach is reiterated herein below.

The Basin Plan characterized the beneficial uses of the San Diego Creek Drainage, for Reach 1 below Jeffrey Road, Reach 2 above Jeffrey Road to the headwaters, and other tributaries, including Bonita Creek, Serrano Creek, Peters Canyon Wash, Hicks Canyon Wash, Rattlesnake Canyon Wash, Sand Canyon Wash, and other tributaries to these creeks. Beneficial uses identified were for some of the drainages and included Groundwater (GWR) on an intermittent basis, the potential for Water Contact Recreation (REC-1) and Non-contact Water Recreation (REC-2), the presence or potential for WARM and WILD uses, and RARE for one tributary. The Basin Plan notes that the County of Orange prohibits access and thus REC-1 and REC-2 uses in Reach 1 of the San Diego Creek.

The SAMP indicators of integrity from the LLFA are as follows:

Hydrologic
- Altered Hydraulic Conveyance (Drainage Basin and Riparian Reach; DB and RR)
- Surface Water Retention
- Perennialized Stream Flow
- Import, Export, or Diversion of Surface Water
- Floodplain Interaction

Water Quality
- Land Use/Land Cover (Nutrients, Pesticide, Hydrocarbon, and Sediment)
- Altered Hydraulic Conveyance (DB and RR)
- Surface Water Retention
- Perennialized Stream Flow
- Import, Export, or Diversion of Surface Water
- Floodplain Interaction
- Area of Native Riparian Vegetation

Habitat
- Area of Native Riparian Vegetation
- Riparian Corridor Continuity (DB and RR)
- Land Use/Land Cover (Riparian Ecosystem Boundary)
- Land Use/Land Cover (Upland Buffer)

The Corps believes that for each beneficial use relevant to the Watershed there is a suite of corresponding SAMP indicators of integrity (Table 1). Although the potential for REC-1 and REC-2 uses may not have been expressly prioritized by the SAMP, the SAMP indicators of water quality integrity address the Basin Plan's designations that were "intended to indicate that the uses exist or that the water quality of the waterbody could support recreational uses." Furthermore, the elements of the SAMP, permitting processes, mitigation framework, Strategic Mitigation Plan, and Mitigation Coordination Program would not affect a change in the beneficial uses of the drainage. Rather, under the SAMP, proposed activities that may have been authorized under existing permitting procedures would likely undergo different permit review procedures, and would have to comply with mitigation policies developed in consideration of integrity of the aquatic resources in addition to impact acreages.

Table 1 – Relationship between the Basin Plan's designated beneficial uses and the SAMP indicators of integrity.

Beneficial Use	SAMP Indicator
GWR	Altered Hydraulic Conveyance (DB and RR) Floodplain Interaction Land Use/Land Cover – Upland Buffer
REC-1	Land Use/Land Cover (Nutrients, Pesticide, Hydrocarbon, and Sediment) Perennialized Stream Flow
REC-2	Altered Hydraulic Conveyance Native Riparian Vegetation Land Use/Land Cover – Upland Buffer
WARM	Native Riparian Vegetation Riparian Corridor Continuity (DB and RR) Land Use/Land Cover – Riparian/Upland Boundary Land Use/Land Cover – Upland Buffer
WILD	Native Riparian Vegetation Riparian Corridor Continuity (DB and RR) Land Use/Land Cover – Riparian/Upland Boundary Land Use/Land Cover – Upland Buffer
RARE	Native Riparian Vegetation Riparian Corridor Continuity (DB and RR) Land Use/Land Cover – Riparian/Upland Boundary Land Use/Land Cover – Upland Buffer

Response 6

Comment noted.

Response 7

The Corps and the Department certainly understand the tremendous importance of the deliberations during the SAMP/WSAA Process formulation phase and permit/SBAA pre-application phases. However, the Agencies believe it would be an untenable task to convey the intricacies of a multi-year/multi-party iterative process for project-specific planning and design that resulted in modifications to projects. The Participating Applicants' efforts to conform their planned projects with the SAMP/WSAA Process involved consideration of the SAMP Tenets, avoidance and minimization of impacts to aquatic resources, especially in aquatic resource integrity areas, identifying mitigation sites among the prioritized mitigation opportunities, and ESA/CESA compliance as required.

Moreover, the decision by the Corps and the Department to prepare a Program EIS/EIR instead of a project-based EIS/EIR for the SAMP/WSAA Process underscores the importance of focusing on future program changes rather than past project-level changes. The SAMP/WSAA Process is complex, and in preparing the SAMP document and the Program EIS/EIR, the Agencies made a conscious effort to provide a

comprehensive, yet relatively concise explanation and program-level evaluation of the SAMP/WSAA Process. The Agencies believe the inclusion of specific project-level details would incorrectly imply that specific projects were a result of the "SAMP/WSAA" or otherwise endorsed or proposed by the Corps/Department. Specific details about projects would also add another level of complexity to the already comprehensive and voluminous appendices provided with the Program EIS/EIR. Providing these details would add several hundred more pages, resulting in a document that is more encyclopedic than analytic and in conflict with the NEPA mandates that seek to promote meaningful study of issues for the sake of making substantive decisions (see 40 CFR 1502.2(a),(c)). Interested individuals and organizations may submit specific requests to the Corps for additional permit-level information as needed.

No change will be made to the text of the SAMP/WSAA Process document or the Program EIS/EIR in relation to this Comment.

Response 8

Comment noted. Changes were made to the final Program EIS/EIR shown in Section 4 and the SAMP/WSAA Process document (Corps, revised February 2009).

Response 9

Comment noted. Changes were made to the final Program EIS/EIR shown in Section 4 and the SAMP/WSAA Process document (Corps, revised February 2009).

Response 10

The Corps and the Department disagree that any inconsistency exists. Stream reaches or upland areas that under baseline conditions do not meet the criteria for being identified as an aquatic resource integrity area, as described in the SAMP/WSAA Process Analytical Framework (SAMP Section 2), upon restoration may acquire characteristics such that the Corps and the Department could evaluate them for identification as aquatic resource integrity areas. The criteria for identifying aquatic resource integrity areas are intended for the assessment of existing conditions, not restoration potential. In contrast, the SAMP Strategic Mitigation Plan and the ERDC restoration plan (Smith, 2004) address the restoration potential of sites.

Response 11

Consistency evaluations were completed in draft Program EIS/EIR. Please see Section 4, Tables 4-6 through 4-8.

Response 12

See Response 11 above.

Response 13

See Response 3 to Commenter F-1.

Footnote 3 about Nationwide Permits

Most soft-bottom channels would be ineligible for conversion to hard-bottom under an abbreviated permit because they are in aquatic resource integrity areas or within one of the five major creeks (see Volume I, Table 2-5). Specifically, 79% of the channels are ineligible for abbreviated permitting for conversion from soft to hard-bottom channels. A portion of the remaining 21% of channel acreage are already hard bottom channels and are of such low hydrologic and water quality integrity that their ability to attenuate pollutant loading is questionable. As shown in the LLFA, water quality integrity is a function of pollutant-generating land uses, conveyance of pollutants, and capacity to treat the pollutants (see Response 4 for a summary of indicators). Aquatic resources that exhibit low water quality integrity show high pollutant loadings combined with a low capacity to treat pollutants. The existing soft-bottom channels that are located outside of the aquatic resource integrity areas or are reaches of the five major creek systems, are surrounded by high levels of urban development and exhibit limited amounts of native vegetation, floodplain interaction, and natural sediment regimes, making effective treatment of large pollutant loads severely compromised. The Corps and Department disagree with the Regional Board staff's generality that "soft-bottom channels [are] important buffers to removing pollutants in urban storm water discharges" without any appropriate qualifiers that acknowledge the localized differences in relative pollutant loads and pollutant treatment capacities.

Also, the analysis of Alternative 1 – No SAMP/WSAA Process is a No Action alternative required by NEPA Regulations (Section 1502.14), and a No Project alternative as defined by CEQA (Section 15126.6(e)(2)), which requires the analysis to discuss the existing conditions at the time of the notice of preparation (NOP) is published. The baseline at the time of the NOP (August 2001) was prior to the SAMP formulation process. Therefore, Alternative 1 is appropriate and complies with CEQA and NEPA.

Concerning Alternative 4, the baseline condition is at the time of the NOP (August 2001), which was prior to the SAMP formulation process and the intervening permitted actions (although the permit actions were captured in the cumulative effects analysis for the Program EIS/EIR). It is solely because of the SAMP/WSAA Process that there are additional studies, data, and analyses available for the agencies and other stakeholders. It does not make sense to the Corps and the Department to incorporate those benefits into the other alternatives and it is impossible to use a moving target as a baseline condition from which to evaluate the alternatives.

Lastly, the alternatives analysis does show the marginal protective benefits of the SAMP in relation to Alternative 4. The Regional Board staff correctly noted that 72% of the aquatic resource integrity areas are already protected as a result of the NCCP. Consequently, 28% of the aquatic resource integrity areas are outside of the NCCP and in areas that would receive additional protections with the SAMP. Page 10-2 of Volume I also shows that 248 acres of high and medium integrity riparian habitat within aquatic resource integrity areas lies outside of the boundaries protected by the NCCP. Protective benefits of the SAMP as compared with the existing NCCP are shown.

Response 14

An Initial Study/CEQA checklist is not required per CEQA (CEQA Guidelines Sections 15063 and 15081) when it is clear to the Lead Agency that an EIR is needed. From the

beginning, the Department and the Corps had planned to prepare a joint EIS/EIR document. Consequently, no CEQA checklist was prepared. No change will be made to the Program EIS/EIR in relation to this Comment.

Response 15

Comment noted. Interested individuals and organizations may submit specific requests to the Corps for information or comment letters submitted during the Scoping process. No change will be made to the Program EIS/EIR in relation to this Comment.

Response 16

Future activities that could be development projects or channel improvement projects would need to undergo project-specific CEQA review in accordance with CEQA requirements. Such regulated activities would require evaluation by the Corps and the Department in accordance with the SAMP/WSAA Process permitting procedures and the mitigation framework. The SAMP/WSAA Process would not affect the Regional Board's requirements, including any anti-degradation of water quality analysis.

Insert Commenter R-1

3.3 Reponses to Comments from Special Districts and Regional Governments

COMMENTER R-1
Southern California Association of Governments
Dated: April 15, 2008

Response 1

The EIS/EIR will be amended in Volume III, Section 4 to reflect SCAG projections from the 2004 RTP.

Responses 2 through 9

Comments noted.

Insert Commenter R-2

COMMENTER R-2
Transportation Corridor Agencies
Dated: April 21, 2008 and May 14, 2008

Response to April 21 Letter

Response 1

Corps provided TCA the requested information.

Responses to May 14 Letter

Response 1

The Corps and the Department do not intend to identify carve-out areas previously identified as aquatic resource integrity areas in consideration of planned facilities not expressly designed or redesigned to help implement the tenets of the SAMP. As described in Section 2 of the SAMP document (Corps, 2009), the identification of aquatic resource integrity areas over aquatic resources and their upland areas of influence resulted from the application of criteria to identify riparian ecosystems of moderate to high integrity or that serve habitat functions in the Watershed. The aquatic resource integrity areas are not subject to modification based on future or planned activities; rather, regulated activities would be subject to the permitting procedures and mitigation requirements of the SAMP/WSAA Process.

Aquatic resource integrity areas do not convey any new regulatory authority to the Corps and the Department. Under the SAMP/WSAA Process, the type of permit/agreement and the mitigation requirements may change, but the geographic extent of jurisdiction will not. If an applicant plans to conduct regulated activities affecting the Corps or Department's jurisdictions, then the applicant must seek a 404 permit from the Corps and a SBAA from the Department whether or not the SAMP/WSAA Process is in effect.

For example, TCA or other entities that retain use easements over lands, or have plans for expanded or new facilities affecting uplands that the Corps and the Department consider upland areas of influence within aquatic resource integrity areas, would not be subject to new regulation because of the SAMP. Except in cases where a conservation easement or other deed restriction was placed over an upland area as a permit condition (i.e., conservation buffers to protect aquatic resources), the Corps and the Department would continue to have no authority over activities in the upland areas.

Appendix 4 of the SAMP document (Corps, 2009) does include a discussion of actions land managers can undertake to reduce adverse indirect effects their land use/land management practices may have on the riparian ecosystem. The Corps and the Department commend Appendix 4 of the SAMP document for TCA's consideration when performing or planning activities in the aquatic resource integrity areas.

Insert Commenter L-1

3.4 Reponses to Comments from Local Governments

COMMENTER L-1
City of Irvine, Community Development
Dated: April 11, 2008

Response 1

Comment noted.

Insert Commenter L-2

COMMENTER L-2
Orange County Public Works, Current and Environmental Planning
Dated: May 2, 2008

Comments from OC Public Works, Regulatory Permits

Response 1

The same criteria for identifying aquatic resource integrity areas, as described in Section 2 of the SAMP (Corps, 2009), would be applied to areas that undergo riparian ecosystem restoration in accordance with the SAMP Strategic Mitigation Plan described in Section 4 of the SAMP (Corps, 2009) and ERDC's restoration plan (Smith and Klimas, 2004), included in this Volume II of this Program EIS/EIR as Appendix B-3.

No formal coordination process has been developed for modifying the aquatic resource integrity areas. As a SAMP Participating Applicant and major stakeholder in the Watershed, it is assumed the County would participate in the Mitigation Coordination Program described in Section 5 of the SAMP as a member of the Coordination Committee to facilitate mitigation and coordinated aquatic resource management in the Watershed.

No time limit is associated with the determination of whether previously permitted projects fall within or outside aquatic resource integrity areas. However, Corps permits have expiration dates and permittees would need to seek authorization should existing permits lapse before the permitted activities are completed.

Response 2

The County and other permittees would be subject to conduct compensatory mitigation as described as the SAMP mitigation framework in Section 3.6 of the SAMP document (Corps, 2009), and as revised herein in Section 4 of this final Program EIS/EIR. In other words, the SAMP mitigation framework would apply only when a permit or an agreement is issued for permanent impacts to jurisdictional areas.

The SAMP mitigation framework is comprised of mitigation policies currently applied by the Corps and the Department within southern California with not enough strategic focus. The SAMP mitigation framework provides more predictability to the regulated public and offers consistency across the two Agencies.

In April 2008, the Corps, together with the EPA issued new national regulations governing compensatory mitigation for activities authorized by permits issued by the Department of the Army (33 CFR Parts 325 and 332 [40 CFR Part 230]). Under the "Final Mitigation Rule," mitigation plans for all wetland compensatory mitigation projects must contain the following twelve elements: objectives; site selection criteria; site protection instruments (e.g., conservation easements); baseline information (for impact and compensation sites); credit determination methodology; mitigation work plan; maintenance plan; ecological performance standards; monitoring requirements; long-term management plan; adaptive management plan; and financial assurances. Although

the draft Program EIS/EIR for the SAMP/WSAA Process was released for public review just prior to the publication of the Final Mitigation Rule, the Corps anticipated the new mitigation requirements when developing the SAMP mitigation framework described in Section 3.6 of the SAMP document.

As described in the Final Mitigation Rule (33 CFR Sections 332.6(b) and (c)), applicable Corps permits will require the permittee to prepare a mitigation plan that contains a monitoring period of no less than five years. The mitigation plan should also contain provisions that address long-term management, including adaptive management to sustain the conservation values of a site after a compensatory mitigation project has met its performance standards. As described in the Final Mitigation Rule, the aim of the long-term management element of the management plan should be to prohibit incompatible uses that might otherwise jeopardize the conservation values and objectives of the compensatory mitigation project. The main concern is to guard against incompatible uses and environmental stressors (e.g., trash, invasive exotic species, etc.). However, the Corps and the Department would not normally condition its permits or agreements to require the permittee to submit monitoring reports beyond the active maintenance and monitoring period. Instead, it was envisioned as part of the SAMP/WSAA Process that long-term management of aquatic resources in the aquatic resource integrity areas would be coordinated through the voluntary efforts of the land managers under the Mitigation Coordination Program.

Delays in implementing compensatory mitigation projects

As described in the Corps/EPA Final Mitigation Rule (2008), "temporal loss is the time lag between the loss of aquatic resource functions caused by the permitted impacts and the replacement of aquatic resource functions at the compensatory mitigation site. Higher compensation ratios may be required to compensate for temporal loss. When the compensatory mitigation project is initiated prior to, or concurrent with, the permitted impacts, the district engineer may determine that compensation for temporal loss is not necessary, unless the resource has a long development time" (33 CFR 332.2). "The district engineer must require a mitigation ratio greater than one-to one where necessary to account for…temporal losses of aquatic resource functions...The rationale for the required replacement ratio must be documented in the administrative record for the permit action" (33 CFR 332.3(e)(2)). "Implementation of the compensatory mitigation project shall be, to the maximum extent practicable, in advance of or concurrent with the activity causing the authorized impacts. The district engineer shall require, to the extent appropriate and practicable, additional compensatory mitigation to offset temporal losses of aquatic functions that will result from the permitted activity" (33 CFR 332.3(m)). Acknowledging that there may be situations beyond the control of the permittee that would result in delays in implementation of mitigation, the language of the SAMP mitigation framework provides that the "Corps will give due consideration to special circumstances and may waive the penalty," for certain types of delays. Moreover, a permittee is responsible for submitting monitoring reports in accordance with the special conditions of the permit. Failure to submit monitoring reports in a timely manner may result in compliance action by the Corps and could result in the assessment of administrative penalties.

To ensure conformance with the Final Mitigation Rule, changes were made to the final Program EIS/EIR shown in Section 4, and to Section 3.6 of the SAMP/WSAA Process

document and its corresponding sections in the final LOP Procedures and the WSAA Process Streambed Alteration Agreement Templates Master Conditions List.

Comments from OC Public Works, Operations & Maintenance

Response 3

The Corps applied terminology used by the County. The Corps intended the term "Capital Improvement Project" to mean any project proposed by the County that was considered a capital project contained in the County's five-year Capital Improvement Plan (CIP) for the projected fiscal years applicable or forecasted in 2004. The Corps received a memorandum from the Orange County Public Works Manager of Roads, dated August 17, 2004, that included a list of planned (Master Plan of Arterial Highway) road facilities. The list distinguished between projects in the County's five-year CIP without reference the applicable fiscal period and projects considered part of their ongoing maintenance program. Similarly, the Corps understood other agencies of the County routinely compiled lists of significant projects funded as "Capital Projects" in the County's budget process and their agencies' budget processes, based on cost of the projects irrespective of whether they are conventional capital projects or maintenance and repair projects. The Corps intended the term to mean new facilities, expansions of existing facilities, or repair or replacement of existing facilities that would result in differing uses or constitute deviations in the structure's configuration or impacts that the Corps or the Department would not consider minor. Replacing displaced rock from an existing riprap-lined channel is not considered a capital improvement project.

No change will be made to the Program EIS/EIR or the SAMP document in relation to this Comment.

Response 4

To ensure consistency with the WSAA Process Streambed Alteration Agreement Templates Master Conditions List, changes were made to the final Program EIS/EIR shown in Section 4, and to Sections 3.3 and 3.4 of the SAMP document (revised February 2009) and its corresponding sections in the final LOP Procedures, RGP, and WSAA Process Streambed Alteration Agreement Templates Master Conditions List.

Response 5

The use of the terms "abandoned" and "timely manner" are in the SAMP document are consistent with the way the Corps describes maintenance activities in the Nationwide Permits (33 CFR part 330; 72 FR 11126 and 72 FR 11172). If a flood control facility can be considered abandoned because of neglect, then the RGP would not authorize the work needed to reconstruct that facility. The Corps does not believe further clarification of these terms is needed as they are commonly used in Corps regulations. Therefore, no change will be made to the Program EIS/EIR or the SAMP document in relation to this Comment.

Response 6

The Corps and the Department believe that the mitigation framework reflects existing practices that have not been applied in a coordinated manner. With promulgation of the Final Mitigation Rule, legal assurances and long-term management are required for most compensatory mitigation projects. The Corps and the Department encourage the establishment of third-party mitigation programs and coordinated resource management efforts to help improve efficiency and reduce long-term costs. The Mitigation Coordination Program (Section 5 of the SAMP document) describes options under consideration. The Corps and the Department do not believe that implementation of the SAMP mitigation framework will result in substantial increases in compliance costs. Moreover, we believe strategic planning and implementation of other aspects of the SAMP mitigation framework and Mitigation Coordination Program are necessary to improve the success of compensatory mitigation in the Watershed. Nevertheless, the Corps will consider costs when evaluating compensatory mitigation options, since practicability is one factor in determining compensatory mitigation requirements for permits. Any third-party mitigation program would need to comply with the Final Mitigation Rule as well as the Department's relevant requirements.

Comments from OC Public Works, Flood Control Programs

Response 7

The Corps and the Department believe that the Program EIS/EIR for SAMP/WSAA Process and the SAMP document serve as references for Lead Agencies and other interested parties who evaluate projects under CEQA, and should be considered a transparent tool to be used by project proponents when planning projects, including compensatory mitigation. Consequently, the County Flood Control can refer to the SAMP document and Program EIS/EIR when planning capital projects and maintenance activities, as well as when seeking permits and agreements from the Corps and the Department, respectively.

Changes were made to the final Program EIS/EIR shown in Section 4 of this document.

Response 8

In many cases, activities involving the conversion of soft-bottom channels to concrete-lined channels and channelization of major stream systems would have necessitated a standard individual permit (SIP) from the Corps and a standard agreement from the Department prior to the SAMP/WSAA Process. In other cases, such activities may have been eligible for Corps NWPs, but under the SAMP permitting framework, the activities would require review for a SIP or standard agreement. Even so, compliance with NEPA, 404(b)(1) Guidelines, and CEQA requirements are standard practice and are not new obligations due to the SAMP/WSAA Process. Pursuant to the 404(b)(1) Guidelines, the onus has been and remains on the project proponent to demonstrate that a proposed activity is at once the least environmentally damaging practicable alternative (LEDPA) and that it would not cause or contribute to significant degradation of the aquatic ecosystem (40 CFR Section 230.10). Given the SAMP Analytical Framework, the Corps

and the Department have compiled data and analyses to inform the Agencies' decisions about potential direct and indirect effects of proposed activities. With the SAMP/WSAA Process, the County would be able to seek authorization using LOP procedures and the WSAA Process templates for regulated activities that would result in minor impacts to smaller drainages located outside the aquatic resource integrity areas, but proposed conversions of major stream systems would necessitate full review under SIP or standard agreement.

Tables 3-1 and 3-5 associated text in Sections 3.3 and 3.4 of the SAMP document (Corps, 2009) describe the permitting framework. The Corps provided the geospatial data for the aquatic resource integrity areas to the County Public Works for its use.

The referenced projects may have required a SIP and standard agreement under pre-SAMP/WSAA Process conditions. Without detailed project information, the Corps and the Department are unable to respond with specificity about permitting procedures. For these and myriad other reasons, the Corps and the Department continue to encourage early pre-application consultation for large-scale projects proposing substantial impacts to aquatic resources.

Response 9

The Corps and the Department disagree that there is contradictory information pertaining to the eligibility of types of activities for certain permitting processes. Table 2-5 of the Program EIS/EIR does not list projects, but identifies stream systems. The SAMP/WSAA Process permitting framework considers whether an activity would result in temporary or permanent impacts as well as whether or not a proposed activity would affect aquatic resource integrity areas or a major stream system.

For example, a proposed maintenance project with temporary impacts to aquatic resources within the aquatic resource integrity area may be eligible for LOP procedures and the WSAA Process. In contrast, a capital improvement project with greater than 0.1 acre of permanent impacts to aquatic resources within the aquatic resource integrity areas would be ineligible for LOP procedures and the WSAA Process regardless of whether the County calls it a "maintenance" project. The Corps and the Department may define "maintenance" and "capital projects" differently than the County. See Response 3 to Commenter L-2.

No change will be made to the Program EIS/EIR or the SAMP document in relation to this Comment.

Response 10

As described on page 2-16 of Volume I of the Program EIS/EIR (Section 2.1.2), the Corps and the Department shall use to the extent permissible the NEPA and CEQA information contained in the Program EIS/EIR when making permit decisions and issuing agreements, respectively. Such program-level analysis is not intended to replace the need for individual projects, including flood control projects, to comply with CEQA and NEPA as required by law. In some or many instances, the Program EIS/EIR may streamline future NEPA and CEQA documents as it relates to aquatic resources because the assessment of baseline conditions and assessment of the severity of

impacts based on geographic location provide usable information for future environmental compliance documents.

Response 11

The SAMP/WSAA Process does not affect the Corps regulations. Authorization from the Corps is required for activities that result in a discharge of dredged or fill material into waters of the United States. The Corps regulations at 33 CFR 323.2(d)(3)(ii) define the discharge of dredged material as not including "activities that involve only the cutting or removing of vegetation above ground (e.g., mowing, rotary cutting, and chain sawing) where the activity neither substantially disturbs the root system nor involves mechanized pushing, dragging, or other similar activities that redeposit excavated soil material". However, irrespective of the Corps regulations, an agreement from the Department may be required. Furthermore, authorization from or non-regulation by the Corps does not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations that may be required by law, including compliance with the Federal Endangered Species Act and California Endangered Species Act (CESA).

Response 12

See Response 9 to Commenter L-2.

Response 13

An applicant may be required to submit a mitigation plan and complete compensatory mitigation to offset unavoidable impacts to aquatic resources. The SAMP Strategic Mitigation Plan describes opportunities for riparian ecosystem restoration and enhancement within the Watershed that are priority sites for compensatory mitigation. In accordance with the Final Mitigation Rule and the SAMP/WSAA Process, certain requirements must be met; however, the Corps and the Department will work with applicants to identify appropriate compensatory mitigation. Conditions of the WSAA Process template agreements, LOP procedures, and RGP incorporate measures to minimize the impact of the activity on breeding/nesting birds. However, the SAMP/WSAA Process does not alter the requirements under CESA.

Response 14

The County's Flood Control Master Plan is referenced in the Baseline Conditions (Section 3) of Volume I of the Program EIS/EIR. The SAMP/WSAA Process is not a project and does not propose any direct impacts to flood control facilities. Moreover, no element of the SAMP/WSAA Process would result in irrevocable commitments that prevent the implementation of County's Flood Control Master Plan for San Diego Creek. Therefore, the Corps and the Department disagree that it is necessary or relevant to discuss whether the SAMP/WSAA Process complies with the County's Flood Control Master Plan for San Diego Creek.

Comments from OC Public Works, Road/Bridge Design

Response 15

Figures 2-2 and 2-3 of Volume I in Program EIS/EIR correspond to Figures 2-1 and 2-2 of the SAMP document and represent the SAMP Analytical Framework. The figures show the aquatic resource integrity areas, which include aquatic resources and their contributing upland areas. In this context, other aquatic resources are those aquatic resources that did not meet selection criteria, so are located outside of the aquatic resource integrity areas.

Figures 3-2 and 3-3 of the SAMP document depict how the SAMP permitting framework would apply to the aquatic resources. As described in the corresponding text, the LOP procedures and SIPs and WSAA template agreements would be available for eligible activities proposing to affect aquatic resources within the aquatic resource integrity areas. The RGP, LOP procedures, and SIPs and WSAA template agreements would be available for eligible activities proposing to affect aquatic resources outside the aquatic resource integrity areas. More specifically, these figures distinguish between major stream systems outside aquatic resource integrity areas that are ineligible for LOP procedures or WSAA template agreements to authorize channelization, and the remaining other aquatic resources located outside the aquatic resource integrity areas.

Response 16

The Corps and the Department did not ignore the existence of planned activities or projects; rather, the permitting framework was created to accommodate broad classes of activities requiring authorization from the Corps and the Department. The mitigation framework, including the Strategic Mitigation Plan was developed to help protect and restore the riparian ecosystem in a manner that will maximize the ecosystem benefits of compensatory mitigation efforts. Regulated activities, including those associated with planned facilities and master plans, will require prior authorization and will be evaluated under the SAMP/WSAA Process. Therefore, applicants should consider how their specific activities might support or inhibit implementation of the SAMP tenets and how proposed activities can best avoid and minimize any permanent, adverse affect on aquatic resources, especially those within the aquatic resource integrity areas.
Also, see Response 7 to Commenter L-2.

Response 17

Significance thresholds are explained in Section 4 of Volume I of the Program EIS/EIR.

Response 18

Supplement CEQA/NEPA analysis refers to those analyses required by law in addition to the analyses provided by the Program EIS/EIR. No new, additional, or different CEQA or NEPA requirements are being proposed within the Watershed as a result of the SAMP/WSAA Process.

Also, see Response 10 to Commenter L-2.

Response 19

In Sections 1.2 and 1.3 of the SAMP, the Corps describes both the Need (Section 1.2) and the Purpose (1.3) of the SAMP, as well as what the Corps considers reasonable in terms of development and infrastructure needs. The Corps understands the importance of considering the needs of the local cities and the County, as reflected in local zoning and general plans. However, conformance with local plans is not the purpose of the SAMP or of any subsequent authorization. When evaluating the reasonableness of alternatives to specific proposed activities and "economic development and infrastructure needs," the Corps will consider the importance of local goals, as described on page 1-4 of the SAMP document (Corps, 2009).

Response 20

Section 2.2.4 (g) of the SAMP and its corresponding Section 2.1.1.3(g) of the Program EIS/EIR describe the SAMP Tenet that addresses a need to reduce environmental stressors on sensitive riparian ecosystems and consider landscape context, i.e., to maintain adequate buffers for protected riparian corridors. The Corps and the Department established SAMP Tenets as overarching principles for the Watershed based on scientific principles. A buffer will not be required outright under the SAMP/WSAA Process permitting framework. Instead, a project applicant is encouraged to include an appropriate buffer or setback as part of a comprehensive mitigation strategy for their project and such a buffer could count towards fulfillment of compensatory mitigation requirements for preservation and restoration areas. As discussed in the Final Mitigation Rule, "To qualify as providing compensatory mitigation credit, adjacent upland habitat must contribute to the long-term viability of the adjoining aquatic resources" (73 FR 19635).

The consideration of landscape context and contributing upland areas are well within the Agencies' respective purviews. The Corps and the Department disagree that the Agencies contemplated or proposed any expansion of jurisdiction beyond statutory limits. Furthermore, the Agencies disagree that any property takings would be a consequence of considering the contribution of upland buffers in affecting riparian ecosystem condition as a SAMP Tenet or guiding principle.

Response 21

The Corps and the Department agree the County was an important Participating Applicant during the formulation of the SAMP/WSAA Process and continues to be a major stakeholder and local partnering agency. By providing a list of planned projects, the County contributed to the Agencies' understanding of the type of activities planned that would need permits and agreements. However, except for the flood control maintenance activities for the foothill basins, the County's projects were not necessarily planned with the SAMP in mind or discussed in sufficient detail with the resource agencies at SAMP Coordination Team meetings to assist the County in demonstrating avoidance or minimization of impacts pursuant to the Corps and Department's existing or planned regulatory requirements or the SAMP goals. Furthermore, at the time of this writing, the County had yet to provide a final maintenance and operations manual for its

foothill basins that reflects the discussions between the County and the Agencies and the other cooperating federal and state agencies.

Other Participating Applicants brought specific projects to undertake an extensive pre-application process and redesigned projects to avoid aquatic resources within the SAMP aquatic resource integrity areas and selected compensatory mitigation sites consistent with the Strategic Mitigation Plan. Nevertheless, the program-level nature of the SAMP/WSAA Process allows the Corps and the Department to apply the permitting framework and mitigation framework to all prospective applicants, including the County of Orange.

Additionally, the County provided valuable input and feedback to the Corps and the Department about the practicability of implementation agreements related to aquatic resource management among other issues. Looking forward, the County has an opportunity to participate in the implementation of the SAMP/WSAA Process as a major land manager within the Watershed and as a member of the proposed Coordination Committee for the SAMP Mitigation Coordination Program.

Also, see Responses 1 and 3 to Commenter L-2.

Response 22

The Fencing of Project Limits condition of both the LOP procedures and RGP was a common permit special condition for the Corps for a number of years. Subsequently, it was replaced with the following new standardized special condition, which does not specify a particular ratio:

> "The Permittee shall clearly mark the limits of the workspace with flagging or similar means to ensure mechanized equipment does not enter preserved waters of the U.S. and riparian wetland/habitat areas shown on Figure __. Adverse impacts to waters of the U.S. beyond the Corps-approved construction footprint are not authorized. Such impacts could result in permit suspension and revocation, administrative, civil or criminal penalties, and/or substantial, additional, compensatory mitigation requirements."

To support program consistency, changes were made to the final Program EIS/EIR shown in Section 4, and to Sections 3.3 and 3.4 of the SAMP Process document (Corps, revised February 2009) and its corresponding sections in the final LOP Procedures, RGP, and the WSAA Process Streambed Alteration Agreement Templates Master Conditions List.

See Response 2 to Commenter L-2 regarding Delays in Implementation of Compensatory Mitigation. Changes were made to the final Program EIS/EIR shown in Section 4, and to Section 3.6 of the SAMP/WSAA Process document (Corps, revised February 2009).

Changes were made to the final Program EIS/EIR shown in Section 4, and to Section 3.6 of the SAMP/WSAA Process document (Corps, revised February 2009) regarding Temporal Loss.

See Responses 2 and 13 to Commenter L-2 regarding Compensatory Mitigation for Permanent Impacts. Changes were made to the final Program EIS/EIR shown in Section 4, and to Section 3.6 of the SAMP/WSAA Process document (Corps, revised February 2009).

Response 23

By providing pre-set compensatory mitigation ratios, including those for Oak/Walnut/Sycamore Woodlands, the Corps and the Department are responding to requests from the regulated public to provide some interagency consistency in compensatory mitigation requirements and improved certainty of expectations. Therefore, no changes will be made to the SAMP/WSAA Process document or Program EIS/EIR in response to this comment.

See Responses 2 and 6 to Commenter L-2 regarding Long-term Conservation.

Comment noted. Also, see Response 6 to Commenter L-2 regarding Third-Party Mitigation Program or Mitigation Bank.

Response 24

See Response 21 to Commenter L-2.

Response 25

Within the Watershed, the SAMP/WSAA Process would apply and if a proposed activity meets the terms of the WSAA template agreements, then the County would seek such an agreement. On the other hand, if the proposed activity were ineligible for a WSAA template agreement, the Agencies would work with the County to modify the project description to become eligible. Otherwise, the County would need to seek authorization under a standard agreement.

Also, see Response 7 to Commenter L-2.

Response 26

See Response 3 to Commenter F-1.

Response 27

See Response 23 to Commenter L-2.

Response 28

Comment noted. Changes were made as shown in Section 4 of this final Program EIS/EIR.

Response 29

Comment noted. Changes were made as shown in Section 4 of this final Program EIS/EIR.

Response 30

Comment noted. No changes were made to this final Program EIS/EIR in response to this comment.

Response 31

Although the County references an extension to Culver Drive (in Comment 31), no extension is shown on Figure 3-17, nor is it mentioned in the corresponding text of the Program EIS/EIR. Due to SAMP formulation discussions, The Irvine Company, redesigned circulation elements of planned development projects such that would the area would no longer rely on a new extension of Culver Drive north of Portola Parkway. The Irvine Company successfully completed a MPAH amendment to delete the extension of Culver Drive north of Portola Parkway.

Changes were made as shown in Section 4 of this final Program EIS/EIR.

Also, see Response 21 to Commenter L-2.

Response 32

The most current version of the Master Plan of Arterial Highways (MPAH) (OCTA, 2007) depicts Alton Parkway between Irvine Boulevard and Towne Center Drive, Portola Parkway, and Culver Drive as completed roadways. In other words, no proposed roadway extensions for these roadways are shown on the MPAH. Consequently, Figure 3-17, Table 3-24, and corresponding text of the Program EIS/EIR reflect roadway conditions as depicted by the MPAH.

Changes were made as shown in Section 4 of this final Program EIS/EIR.

Response 33

See Responses 31 and 32 to Commenter L-2.

Changes were made as shown in Section 4 of this final Program EIS/EIR.

Comments from OC Public Works

Response 34

See Response 8 to Commenter L-2.

Comments from OC Watershed Program

Response 35

See Responses 2 to Commenter L-2.

Comments from OC Resource Management

Response 36

Comment noted. The baseline condition is at the time of the NOP (August 2001), which was established prior to many of the name and boundary modifications specified in the comment. Changes were made to the text pertaining recreational facilities within the Watershed, including Figure 3-16, as shown in Section 4 of the final Program EIS/EIR.

Response 37

Comment noted.

Comments from OC Waste and Recycling

Response 38

Comment noted.

The Corps and the Department are aware of the changes that occurred at the FRB Landfill due to the major landslide of 2002. Furthermore, at the time of this Program EIS/EIR, the Agencies had already permitted the first phase of the Master Development Plan for the FRB Landfill that would result in permanent impacts to much of the aquatic resources (non-mitigation sites) within the landfill boundaries. As the Corps has previously explained to OC Waste and Recycling (formerly Integrated Waste Management Department) staff, the studies conducted by the Corps represent baseline conditions for the SAMP formulation. NEPA Regulations (Section 1502.14) requires the environmental analysis to discuss the existing conditions at the time of the notice of preparation (NOP) is published. The baseline at the time of the NOP (August 2001) was prior to the SAMP formulation process and the landfill's landslide activities or authorized impacts.

In response to the comments received, changes were made to the final Program EIS/EIR shown in Section 4, as well as to Figures 4-6 and 4-11 and corresponding their corresponding tables in the SAMP document (Corps, revised February 2009).

The Corps has received previous comment letters from OC Waste and Recycling and other sectors of the County and has incorporated many of the suggested recommendations, which are reflected in the SAMP/WSAA document and the Program EIS/EIR. The Corps and the Department disagree with OC Waste and Recycling that

their comments have gone unheeded, and the Corps previously has communicated this to the County. Since the County has obtained a long-term permit for the first phases of the Master Development Plan for FRB Landfill and the full build-out is anticipated, the effect of the SAMP/WSAA Process on the operations of the FRB Landfill is negligible. The Corps previously explained to the OC Waste and Recycling the what the SAMP/WSAA Process would mean for the FRB Landfill, and addressed the County's concerns directly, as shown in the following excerpts from SAMP/WSAA Process document:

> (Section 2.3.3): **Bee Canyon Wash –** The Bee Canyon Wash subwatershed originates in the Lomas de Santiago foothills and drains southwesterly into the San Diego Creek subwatershed. Although upstream of the Foothill Transportation Corridor the subwatershed is mostly non-urbanized, the Bowerman Landfill represents a substantial land disturbance. However, the landfill operations, existing habitat mitigation sites, phased nature of the landfill operations and expansion, and the expected future condition after closure, it is expected that near natural areas would be compatible with providing habitat functions and values relevant to the aquatic resources and the upland areas of influence over the long term. Downstream of the Foothill Transportation Corridor, the subwatershed is moderately urbanized, with most of the area occupied by portions of the former MCAS El Toro. Large portions of the middle reaches are within agricultural production. The subwatershed has approximately 85 acres of riparian and other natural and constructed aquatic resources, including spreading grounds and detention basins, ephemeral streams, riparian herb, and coast live oak woodlands. Due to the moderate integrity of most of the aquatic resources within the subwatershed, approximately 49 acres (58%) were identified as aquatic resource integrity areas.

As described in the LOP procedures (Section 3.3.2) of the SAMP/WSAA Process document, any maintenance and repair of landfill concrete channels and sedimentation basins (consistent with an established maintenance baseline) could be approved.

Furthermore, the SAMP/WSAA Process document (Appendix 4) addresses the landfill in the discussion of how land-use practices in upland areas of influence may affect aquatic resource conditions:

> *Landfill Operations* –General information concerning ongoing activities or expansions at the only remaining operational landfill in the study area, i.e., Frank R. Bowerman Landfill along Bee Canyon, or project-level maintenance needs at the closed landfills, was provided to the Corps and the Department, but not in sufficient detail at the time of the SAMP formulation stage to be included as a specific activity for the SAMP process. However, subsequently the Corps and Department authorized jurisdictional impacts associated with a master development expansion. Further, routine maintenance activities affecting aquatic resources are planned and it is likely such routine maintenance resulting in minor impacts to jurisdictional waters would be eligible for LOP procedures and WSAAs. Any proposed expansion

> or remediation activities affecting aquatic resources would be evaluated under a Standard Individual Permit and conventional Streambed Alteration Agreement and in consideration of the additional information about the conservation values of the aquatic resources that was ascertained through the SAMP development process. With regards to land use effects on aquatic resources, the assumption herein is that natural and near natural areas provided upon a landfill's closure or associated with an active landfill can be actively managed in a manner to maintain the conservation values of nearby aquatic resources in the aquatic resource integrity areas. Review of management strategies may be appropriate to increase long-term conservation of aquatic resources.

Comment from the County of Orange

Response 39

During the SAMP Scoping process in 2001, the Corps and the Department invited interested parties in the Watershed to participate in the SAMP formulation process. The County voluntarily agreed to participate in the multi-year effort. Several sectors of the County were represented intermittently at the regularly scheduled SAMP Coordination Meetings that occurred throughout the SAMP formulation process. [Note: Early administrative draft documents cited the County of Orange as a Participating Applicant, but comments received from County Counsel indicated the Orange County Flood Control District should be listed as the sole Participating Applicant from the County.]

Preliminary concepts for the SAMP incorporated a model similar to the NCCP whereupon Participating Applicants would sign implementation agreement(s) that would obligate them to participate in an aquatic resource conservation program as compensatory mitigation for any master streambed alteration agreements and a long-term master permits. The Agencies shared administrative working drafts of the documents to the Participating Applicants, including the County. Feedback received after several months of iterative reviews concluded with the County's rejection of an implementation agreement without knowing all the projects from the various departments and the permits/agreements that would be needed. In turn, the Corps determined it was unable to enter into to an implementation agreement for compensatory mitigation without the agreement(s) being linked directly to specific permit authorization(s). Consequently, the Corps and the Department determined the NCCP-based model was ill suited to this situation due to the lack of specificity available for some of the Participating Applicants' anticipated activities. In response, the Agencies developed a permitting framework, including a mitigation framework that would apply broadly to all prospective applicants. It would not benefit anyone, agencies or the regulated public alike to have more than one type of permitting process active in the Watershed, i.e., SAMP/WSAA Process and Non-SAMP/WSAA Process. Therefore, the SAMP/WSAA Process would become effective in the Watershed and would not distinguish between participants and non-participants.

Likewise, the Mitigation Coordination Program was proposed as a voluntary program to help with the implementation of an aquatic resource management program that is one important facet of the broader efforts of watershed management. As discussed in

Response 21 above, the County has provided valuable input and feedback to the Corps and the Department. The Agencies invite the Participating Applicants, including whichever sectors of the County wish to be involved to participate on a voluntary basis in the implementation of the SAMP/WSAA Process both as land managers within the Watershed and as members of the proposed Coordination Committee for the SAMP Mitigation Coordination Program. It is through the Mitigation Coordination Program that many of the aquatic resource management issues that are yet undetermined will be fleshed out.

Insert Commenter L-3

COMMENTER L-3
Orange County Public Works, Regulatory Permits, Project Management
Dated: May 5, 2008

Comments from OC Public Works, Regulatory Permits Section/Project Management

Response 1

See Response 1 to Commenter L-2.

Response 2

See Response 2 to Commenter L-2.

Response 3

See Response 3 to Commenter L-2.

Response 4

See Response 7 to Commenter L-2 and Response 4 to Commenter S-2.

Comments from OC Public Works, Operations and Maintenance

Response 5

See Response 3 to Commenter L-2.

Response 6

See Response 4 to Commenter L-2.

Response 7

See Response 5 to Commenter L-2.

Response 8

See Response 6 to Commenter L-2.

Comments from OC Public Works, Flood Control Programs

Response 9

See Response 7 to Commenter L-2.

Response 10

See Response 8 to Commenter L-2.

Response 11

See Response 9 to Commenter L-2.

Response 12
See Response 10 to Commenter L-2.

Response 13
See Response 11 to Commenter L-2.

Response 14
See Response 12 to Commenter L-2.

Response 15
See Response 13 to Commenter L-2.

Response 16
See Response 14 to Commenter L-2.

Response 17

The Corps has established a nationally recognized definition of "maintenance baseline" for its NWP 31. To maintain intra-program consistency, the Corps will retain its definition for the SAMP/WSAA Process LOP procedures and RGP.

No changes will be made to SAMP/WSAA Process document, LOP procedures, RGP, or Program EIS/EIR as a result of this comment.

Comments from OC Public Works, Road/Bridge Design

Response 18

See Response 15 to Commenter L-2.

Response 19

See Response 16 to Commenter L-2.

Response 20

See Response 17 to Commenter L-2.

Response 21

See Response 18 to Commenter L-2.

Response 22

See Response 19 to Commenter L-2.

Response 23

See Response 20 to Commenter L-2.

Response 24

See Response 21 to Commenter L-2.

Response 25

See Response 22 to Commenter L-2.

Response 26

See Responses 22 and 23 to Commenter L-2.

Response 27

See Response 24 to Commenter L-2.

Response 28

See Response 25 to Commenter L-2.

Response 29

See Response 26 to Commenter L-2.

Response 30

See Response 27 to Commenter L-2.

Response 31

See Response 28 to Commenter L-2.

Response 32

See Response 29 to Commenter L-2.

Response 33

See Response 30 to Commenter L-2.

Response 34

See Response 31 to Commenter L-2.

Response 35

See Responses 32 and 33 to Commenter L-2.

Insert Commenter L-4

COMMENTER L-4
City of Newport Beach
Dated: May 8, 2008

Response 1

Comment noted. The Corps and Department confirm that consultation with the applicant during the permitting process does not diminish the authority of the Corps or the Department.

Response 2

Comment noted. As described in the SAMP/WSAA Process document (Section 5.2 and Appendices 6 and 7), the Corps and the Department envisioned the Mitigation Coordination Program as an important aspect of the ongoing Watershed management efforts. The proposed models for the Program presented to date are conceptual and for further consideration, along with any other potentially viable models.

Also, see Response 6 to Commenter L-2.

Response 3

Comment noted.

Insert Commenter L-5

COMMENTER L-5
Irvine Ranch Water District
Dated: May 5, 2008

Response 1

Comment noted.

Response 2

Comment noted. The Corps and the Department agree the Irvine Ranch Water District (IRWD) was an important Participating Applicant during the formulation of the SAMP/WSAA Process and continues to be a major stakeholder and local partnering agency. By providing information on the Natural Treatment Systems and planned activities, the IRWD contributed to the Agencies' understanding of the type of activities planned that would need permits and agreements. The RGP would be available for maintenance activities with temporary impacts to jurisdictional areas located outside the aquatic resource integrity areas. The LOP procedures would be available for maintenance activities inside the aquatic resource integrity areas and minor impacts associated with construction activities. Long-term LOPs or standard individual permits would be available on a case-by-case basis to cover maintenance and operations for more than one facility or for maintenance programs at single facilities. Jurisdictional status of these NTS facilities is beyond the scope of the SAMP. It is understood that these facilities constructed in uplands to address other requirements of the Clean Water Act are generally not waters of the U.S. (see the last sentence of 33 CFR 328.3(a)).

Response 3

The Corps and the Department would make a determination of whether or not any IRWD would be required to complete compensatory mitigation during the Agencies' permit evaluation processes and in accordance with the SAMP/WSAA Process mitigation framework.

Response 4

Comment noted.

Response 5

Comment noted. The Department has already met with IRWD to discuss this matters pertaining to an MSAA for the NTS.

Response 6

Comment noted. The referenced areas shown as aquatic resources within aquatic resource integrity areas are adjacent to known wetland and riparian habitats. No site-specific delineation was available to indicate otherwise. The jurisdictional status of these areas would be considered with a site-specific delineation, and at such time may be determined to be upland areas of influence areas instead of aquatic resources within the

aquatic resource integrity areas. No change will be made to the Program EIS/EIR in relation to this Comment.

Response 7

See Response 20 to Commenter L-2.

Response 8

Comment noted. The Corps and the Department appreciate the participation of all the SAMP Participating Applicants, including IRWD.

Insert Commenter IO-1

3.5 Reponses to Comments from Individuals/Organizations

COMMENTER IO-1
The Irvine Company
Dated: April 21, 2008

Response 1

The effective date will be posted in a subsequent Public Notice/Notice of Decision following the Corps Record of Decision and the Department's preparation of findings and certification of the Program EIS/EIR. The SAMP/WSAA Process will apply to applications for permits and agreements received after the effective date of the SAMP/WSAA Process.

Complete applications for permits and agreements received prior to the effective date will be processed in accordance with the previous permitting processes. Nevertheless, applications received prior to the effective date or in the application phase at the publication of this Program EIS/EIR should consider the SAMP tenets, Analytical Framework, mitigation framework, and Strategic Mitigation Plan to the maximum extent practicable. Since the Final Mitigation Rule became effective, the Corps and the Department believe many of the requirements of the Mitigation Rule are incorporated into the SAMP/WSAA Process mitigation framework. Furthermore, the Final Mitigation Rule endorses the use of watershed plans when available and the SAMP is an available watershed plan.

After the effective date, permittees with existing standard individual permits and standard or master streambed alteration agreements shall be eligible for extensions and minor modifications without triggering the SAMP/WSAA Process permitting processes. Significant increases in scope of a previously permitted activity will be processed as a new application for permits (33 CFR Section 325.7) and agreements, and as such will be subject to the SAMP/WSAA Process. However, the Corps and the Department will take into account whether applying the new SAMP/WSAA Process to a particular project would result in a substantial hardship to an applicant. The Agencies will consider whether the applicant can fully demonstrate that substantial resources have been expended or committed in reliance on previous permitting processes or compensatory mitigation in determining the extent to which new provisions under the SAMP/WSAA Process will apply. In most cases, final engineering design work, contractual commitments for construction, or purchase or long-term leasing of property will be considered a substantial commitment of resources.

After the effective date, activities authorized under current NWPs scheduled for revocation that have commenced or are under contract to commence by the effective date, will have twelve months to complete the activity under the terms and conditions of the current NWPs (33 CFR 330.6(b)). Activities completed under the authorization of an NWP which was in effect at the time the activity was completed will continue to be authorized by that NWP (33 CFR 330.6(b)). Activities that remain incomplete after the close of the grandfather period will require new authorization under the SAMP permitting processes.

Corps and Department-approved mitigation plans for compensatory mitigation projects associated with either previously authorized permits/agreements, or complete applications for permits and agreements that were received prior to the effective date, will remain valid.

Changes were made as shown in Section 4 of this final Program EIS/EIR and to the SAMP/WSAA document and associated LOP procedures.

Response 2

See Response 2 to Commenter L-2

Changes were made as shown in Section 4 of this final Program EIS/EIR and to the SAMP/WSAA document and associated LOP procedures.

Response 3

See Responses 2 and 22 to Commenter L-2.

Changes were made as shown in Section 4 of this final Program EIS/EIR and to the SAMP/WSAA document and associated LOP procedures.

Response 4

The Corps initiated an ESA Section 7 consultation (informal) with the USFWS for the RGP for maintenance activities. The conservation measures associated with the conclusion of the consultation were incorporated into the final terms and conditions of the RGP. Compliance with the agreed upon conservation measures for the RGP will help a project achieve compliance with CESA, but incorporating the measures are not intended to substitute for meeting CESA requirements.

The Corps did not initiate any consultation with the USFWS for the LOP procedures or standard individual permits because the Corps lacks specificity about future activities that could be authorized. However, it is expected that compliance with the agreed upon conservation measures for the RGP would help a project seeking authorization under LOP procedures or a standard individual permit minimize its impacts to federally listed species. Therefore, to maintain consistency between the RGP, the LOP procedures, and the WSAA Master List of Conditions, the same conservation measures will be applied to the LOP procedures and WSAA Master List of Conditions, as appropriate.

Nevertheless, the Corps will determine on a project basis its preliminary effects determination and will identify whether a Section 7 consultation is necessary. Again, compliance with the agreed upon conservation measures will help a project achieve compliance with CESA, but incorporating the measures are not intended to substitute for meeting CESA requirements.

Response 5

Comment noted. As described in the Final Mitigation Rule (33 CFR Sections 332.3, 332.4, and 332.7), most compensatory mitigation plans and related permit special conditions shall be required to incorporate provisions for site protections, long-term management, adaptive management, and financial assurances. Furthermore, the Final Mitigation Rule encourages the use of third-party mitigation programs to achieve compensatory mitigation. The SAMP/WSAA Process Mitigation Coordination Program proposes in broad terms objectives and possible strategies to help permittees fulfill such long-term management requirements for permittee-responsible compensatory mitigation sites through coordinated and strategic implementation. By cooperating, the Agencies believe permittees can satisfy management requirements for their permittee-responsible mitigation, such as long-term management, adaptive management, and financial assurances, while maximizing return and efficiency to achieve increased ecological benefits over the long term. More over, the SAMP/WSAA Process envisions that enhancement efforts to maintain or improve the function of aquatic resources located in the aquatic resource integrity areas could be coordinated or conducted through a third-party mitigation program sponsor that would provide additional options for satisfying compensatory mitigation for temporal loss or ratios after the 1:1 replacement mitigation has been achieved.

One of the next steps in the implementation phase is for the Corps and the Department to seek the cooperation and participation by the Participating Applicants and other interested parties in the Watershed to initiate the Mitigation Coordination Program Coordination Committee.

The Department and the Corps expressed the need for new sponsor(s) of third-party mitigation program(s) in the Watershed. However, proposed under the SAMP Mitigation Program is that the Coordination Committee will conduct the active search for a qualified sponsor. Both the Corps and the Department have their respective requirements that such sponsors must meet and only qualified sponsor(s) will be approved to operate third-party mitigation programs.

Insert Commenter IO-2

COMMENTER IO-2
Heritage Fields El Toro, LLC
Dated: April 23, 2008

Response 1

Comment noted.

Response 2

See Response 1 to Commenter IO-1.

Response 3

See Response 2 to Commenter L-2.

Response 4

See Response 3 to Commenter IO-1.

Response 5

See Response 4 to Commenter IO-1.

Response 6

See Response 5 to Commenter IO-1.

Insert Commenter IO-3

COMMENTER IO-3
Stop Polluting Our Newport, Sierra Club San Diego Creek Task Force, and Friends of Harbors, Beaches, and Parks (Jan Vandersloot M.D.)
Dated: May 5, 2008 and May 8, 2008

Response to May 5th Letter

Response 1

As part of the Scoping Process, the Corps and the Department provided the City of Newport and the Costal Commission the opportunity to attend all scoping and planning meetings for the SAMP formulation process. However, neither agency opted to participate. As part of the SAMP outreach process, the Corps and the Department held public workshops and made several presentations to the Newport Bay Watershed Committee to engage the agencies and other stakeholders in the Watershed. Nevertheless, the City of Newport and the Coastal Commission have jurisdiction in a relatively small portion of the San Diego Creek Watershed. Even though the San Diego Creek is the major tributary to the Newport Bay, the focus of the SAMP is the riparian ecosystem of the San Diego Creek Watershed, not the Bay. Consequently, it is reasonable that the City and the Coastal Commission remained disengaged in the SAMP formulation process.

The City provided comments on the draft Program EIS/EIR. See Response to Commenter L-4. The Agencies are encouraged by the renewed interest by the City to become involved in the Mitigation Coordination Program and support the City's involvement as the City determines appropriate.

As described in Section 9.1.7 of the Program EIS/EIR, the Corps initiated a request from the Federal Consistency Unit of the California Coastal Commission concurrence that the SAMP is consistent with the federal Coastal Zone Management Act as it applies to this type of federal action. Subsequent authorizations affecting aquatic resources within the Coastal Zone will require project-level determination of federal consistency.

Response 2

See Response 3 to Commenter F-1. The identification of aquatic resource integrity areas included the exclusion criterion (Criterion 3) of removing areas with a land use /land cover designation of "Developed with 15% of Impervious Surfaces." The 15% cutoff number was used because impervious cover has been shown to be an extremely important factor in ecological integrity of running waters (Arnold and Gibbons 1996, Booth et al. 2002). Several studies point to a threshold value of 15% impervious cover, above which substantial degradation of downstream waters occurs (Maxted and Shaver 1999, Yoder et al. 1999, Kauffman and Brant, 2000).

The importance of Criterion 3 is to help focus regulatory efforts of the Corps and the Department in areas where impacts to aquatic resources would be expected to result in a substantial change in integrity. This criterion reflects the understanding that surrounding land use of more urbanized areas contributes to the degradation and functions and services of the riparian ecosystem and the Agencies are unable to affect changes in land use directly. The Corps and the Department elected to focus regulatory

resources on areas with higher integrity to mitigate against further degradation of the riparian ecosystem.

Nevertheless, the Agencies acknowledge urban stream systems may be naturalized and provide services such as passive recreation opportunities. Local priorities for affecting zoning or land use changes or enhancement efforts to provide naturalized stream corridors through urban areas are not affected by the Corps and the Department's SAMP Analytical Framework. The major stream systems, even if outside aquatic resource integrity areas, provide important functions. Consequently, activities to channelize or convert soft-bottom reaches to hard-bottom will be ineligible for streamlined permitting procedures.

The Corps and the Department disagree that Criterion 8 ignores least Bell's vireo. On the contrary, this criterion reflects a concern of the resource agencies that was to minimize the potential for creating wildlife sink populations, either avian or mammal. Therefore, disconnected reaches with low habitat integrity were excluded from the aquatic resource integrity areas so that the Corps and the Department could focus regulatory resources on areas with moderate to high integrity, as well as to avoid potential wildlife sink areas.

The Corps and the Department believe that 65% is a majority of aquatic resources. These aquatic resources would not have abbreviated permitting. Additionally, Borrego Canyon Wash, Hicks Canyon Wash, Peters Canyon Wash, San Diego Creek, and Serrano Creek will not have abbreviated permitting for channel conversion projects, resulting in 79% of the watershed riparian resources ineligible for abbreviated permitting for conversion from soft-bottom to hard-bottom. In an urbanized watershed, it is expected that not all the aquatic resources would meet the criteria used to identify aquatic resource integrity areas. Nonetheless, as shown in Table 2-1, 62% of the aquatic resources within the aquatic resource integrity areas are outside the current NCCP Reserve System, an added benefit to aquatic resource conservation efforts for the Watershed. The agencies disagree that "we will lose 35% of our aquatic resources to expedited permitting" for three reasons. First, the statement implies that expedited permitting would result in outright obliteration of all aquatic resources. Streamlined permitting processes exist as the NWPs under the baseline conditions, irrespective of the integrity, functions, or services of the resource in terms of the Watershed. The Corps will revoke many of the NWPs and replace them with more appropriate LOP procedures that would incorporate pre-application coordination with the agencies, a level of review not standard for NWPs. Many past activities/projects that affected low integrity areas did not provoke comments from the public during standard individual review process. Those types of projects would be able to use the LOP procedures and gain shorter processing times and clearer expectations for compensatory mitigation for unavoidable impacts.

Second, streamlined permitting procedures do no promote projects or activities that would otherwise not be considered. Project proponents have various needs and considerations that inform their decisions to pursue an activity that requires a permit or agreement. Also, see Response 4 (re: Footnote 1 about Nationwide Permits) to Commenter S-2.

Third, the SAMP/WSAA Process includes a mitigation framework that would require the applicant to complete compensatory mitigation to offset unavoidable permanent impacts to aquatic resources. With the Final Mitigation Rule requiring approval of a project-specific mitigation plan before issuance of an individual permit (33 CFR 332.4(c)(i)), impacts would not occur until there is a plan to replace lost functions and services. A coordinated mitigation framework and a Strategic Mitigation Plan will ensure mitigation is more effective at compensating for the functions and services lost.

One of the SAMP tenets is to provide connectivity between the northern and southern portions of the NCCP Reserve within the constraints of the baseline Watershed. The aquatic resource integrity areas were identified using a set of criteria and the results are represented as the Analytical Framework. Also, see Response 10 to Commenter S-2.

The figures representing the aquatic resource integrity areas should have included the lower portion of San Diego Creek downstream of Michelson Drive. Upstream of Michelson, the adjacent land uses constrain the creek. Changes were made to relevant figures of the SAMP and in Section 4 of Volume III of this Program EIS/EIR as a result of this Comment.

Response 3

Comment noted. The Corps and the Department believe that SAMP/WSAA Process supports the implementation of restoration opportunities in two fundamental ways. First, the SAMP/WSAA Process Analytical Framework focuses on maintaining the moderate and high integrity aquatic resources in the Watershed. Accordingly, the SAMP/WSAA Process permitting framework would enable the Agencies support that objective. Second, by providing in one document, an Analytical Framework, a permitting framework, a Strategic Mitigation Plan based on a Restoration Plan (Smith and Klimas, 2004) that considers the Corps report on restoration opportunities (Corps, 2003), and recommendations for improved aquatic resource management, the Agencies support improved aquatic resource management practices within their regulatory purview in light of ongoing and anticipated land uses and activities that affect aquatic resources.

Response 4

See Response 1 to Commenter IO-3.

Response to May 8th Letter

Response 1

Both referenced studies by the Corps of Engineers were considered in the formulation of the SAMP/WSAA Process Strategic Mitigation Plan and referenced in the SAMP/WSAA Process document. For the SAMP/WSAA Process Strategic Mitigation Plan, the Corps compared the results of the Corps federal ecosystem restoration study (Corps, 2003) and the determined that overlap between sites identified in both studies was very high. The few differences were attributable to the different site selection methodology used by the studies. In its feedback to Jason Shea, Corps Planning study lead at the time, Corps Regulatory noted the Planning Division study relied on the Rapid Bioassessment

Protocol, which is an assessment methodology designed to assess streams inhabited by salmonids and other fishes. Nevertheless, due to the high level of overlap, it would have been redundant to use both studies in developing a Strategic Mitigation Plan for regulatory purposes. The Corps Planning Division restoration study results were incorporated into the Corps feasibility study (Corps, 2005a) that included the identification of potential restoration sites with federal interest for cost sharing with a local partner.

Peters Canyon Wash was considered for its regional connectivity value as indicated on Page 4-6 in the SAMP/WSAA Process document. The 10-kilometer distance remains an overwhelming factor limiting its corridor value. In addition, Peters Canyon Wash has not been considered for restoration as a part the Strategic Mitigation Plan because its proximity to urban development on both sides of the channel limits its potential restoration value. On a case-by-case basis, the Corps and Department would consider compensatory mitigation within Peters Canyon Wash if other suitable sites were unavailable. However, in 2007, for a project adjacent to Peters Canyon Wash, the Corps and the Department attempted to require compensatory mitigation within the channel in the form of nearly 2-acres of woody riparian vegetation, a proposal accepted by the permittee. However, the RWQCB, through their Section 401 authority prevented that compensatory mitigation restoration project because the staff were concerned about attracting wildlife to habitat in an area they believed had elevated levels of selenium in the water and soil.

Marshburn Channel was originally considered for restoration or enhancement to provide local connectivity and redundancy as part of the SAMP/WSAA Process Strategic Mitigation Plan. However, during SAMP Team Coordination Meeting discussions, the County of Orange indicated their intent to divert all water and the changes made to the County Drainage Area Master Plan, thereby, rendering the hydrology inadequate to support the implementation of restoration opportunities there.

Response 2

See Response 2 to May 5th letter from Commenter IO-3.

Insert Commenter IO-4

COMMENTER IO-4
Stop Polluting Our Newport, Sierra Club San Diego Creek Task Force, and Orange County Friends of Harbors, Beaches, and Parks (Sandra Genis)
Dated: May 5, 2008 and May 8, 2008

Response to May 5th Letter

Response 1

The 1980 Amendments to Coastal Zone Management Act (CZMA) (16 USC 1453(17)) defined the SAMP process as "a comprehensive plan providing for natural resource protection and reasonable coastal-dependent economic growth containing a detailed and comprehensive statement of policies, standards, and criteria to guide public and private uses of lands and waters; and mechanisms for timely implementation in specific geographic areas within the coastal zone." In 1986, the Corps Headquarters (HQUSACE) issued a Regulatory Guidance Letter (RGL 86-10) endorsing the Corps Districts' use of, or participation in, collaborative interagency planning processes for both coastal and non-coastal areas with sensitive resources. HQUSACE expected a definitive regulatory product to result from the Districts' participation in the SAMP process. As later described in RGL 05-09, HQUSACE provided updated guidance on SAMPs directing the Districts to develop and use SAMPs such that "developmental interests can plan with predictability and environmental interests are assured that individual and cumulative impacts are analyzed in the context of broad ecosystem needs."

The Corps as Federal Lead Agency, along with the Department as State Lead Agency, prepared the SAMP for the San Diego Creek Watershed and a Program EIS/EIR for the SAMP/WSAA Process. The Corps does not derive its authority from the CZMA. In this case, the SAMP is not a CZMA program or CZMA SAMP. The California Coastal Commission is not the state lead agency, but rather a responsible agency in CEQA terms, because it will have discretionary authority over future projects that will be conducted within the coastal zone and permitted under the SAMP/WSAA Process permitting framework.

The Corps developed its own SAMP process and expectations of products from the undertaking of a SAMP separate from any CZMA-authorized SAMP. The mouth of the San Diego Creek is within the Coastal Zone, but the majority of the Watershed falls outside of the Coastal Zone boundaries. Since the SAMP is a plan for regulation by the Corps pursuant to its authority under Section 404 of the CWA, and by the Department, the SAMP addresses the entire Watershed. The Corps and Department's focus for this SAMP is the sensitive riparian ecosystem, not coastal resources, per se.

The SAMP Analytical Framework, regulatory processes, including a mitigation framework, the Strategic Mitigation Plan, and Mitigation Coordination Program are aspects of the direct Federal activity subject to 15 CFR Subpart 930-C that will be undertaken in a manner consistent, to the maximum extent practicable, with the California Coastal Management Plan. These Federal actions and the corresponding State actions by the Department will not themselves result in direct effects to the resources of the Coastal Zone. The Program EIS/EIR provides the data and analysis to support the Agencies determination that the SAMP is consistent with the CZMA.

Given that the Corps expects to issue subsequent Federal permits under the new SAMP LOP procedures for future activities within and outside the Coastal Zone, it is anticipated that some future activities may require federal consistency determinations, as defined in 15 CFR Subpart 930-D. For any future activity that is likely to affect land or water uses or ecosystem resources in the Coastal Zone, the Corps will request a concurrence for consistency with the CZMA on a project-specific basis. The areas within the Coastal Zone would be ineligible for use of the maintenance RGP. The SAMP, the Special Public Notices for the LOP procedures and the RGP, the WSAA Process, and the Program EIS/EIR provide the details about the Corps and the Department's proposed permitting processes as well as the data and analysis to support the determination that the LOP procedures, the RGP, and the WSAA Process are consistent with the CZMA.

The Corps provided a 90-day notification to the California Coastal Commission of the Corps determination that the SAMP is consistent with the CZMA and requested concurrence from the Federal Consistency Unit of the Coastal Commission. To date, the Corps has not received any written response from the Coastal Commission.

Also, see Response 1 to May 5th letter from Commenter IO-3.

Response 2

The time lag of nearly seven years between the Notice of Intent/Preparation in August 2001 and the publication of the Program EIS/EIR was unanticipated at the beginning of the SAMP formulation process. As with any multi-party, multi-objective large-scale planning process, many factors contributed to the protracted period. The Corps and the Department addressed changes in the baseline to the degree practicable, especially with regards to cumulative impacts. However, baseline conditions by their very nature are a moving target. Nonetheless, the SAMP's baseline is compliant with NEPA and CEQA requirements. See Response 13 to Commenter S-2.

Response 3

See Response 5 to Commenter S-2 and Response 2 to May 5th letter from Commenter IO-3.

The focus of the HCP/NCCP is upland habitats and species, the Corps and the Department believed additional attention was needed to provide protections to aquatic resources. Therefore, although it may appear unnecessary on its face, the overlap between aquatic resource integrity areas is important for both the HCP/NCCP and the SAMP/WSAA Process. Moreover, the Agencies believe a certain level of conservation-oriented redundancy is a benefit to the long-term protection of riparian ecosystems in the Watershed. Compensatory mitigation for aquatic resources impacts may occur in NCCP Reserve areas as long as ecological benefits target the aquatic environment and will be beyond benefits expected from any local, state, or federally funded restoration or enhancement projects.

Response 4

Comment noted. The SAMP tenets were selected early in the SAMP formulation process and it not appropriate to add new tenets after-the-fact. Many state and federal agencies including the USFWS, the RWQCB, and the EPA helped develop the SAMP tenets. The SAMP Tenets were presented to the public for additional input on several occasions.

The SAMP Tenets do consider sensitive species. Tenet 'h' addresses the need to protect riparian areas and associated habitats supporting federally and state-listed sensitive species, and their critical habitat (see Page 2-6 of the SAMP/WSAA document). This resulted in addition of Criteria 4 and 5 in the aquatic resource integrity area identification process, allowing for the inclusion of sensitive habitat as aquatic resource integrity areas (see Page 2-9 of the SAMP/WSAA document). Also, sensitive plant species, including the mud nama (*Nama stenocarpum*) and the southern tarplant (C*entromadia parryi ssp. australis*), and sensitive animals species, including the southern pond turtle (*Actinemys marmorata pallida*), the California gnatcatcher (*Polioptila californica californica*), and the least Bell's vireo (*Vireo bellii pusillus*), are addressed as restoration priorities (see Table 4-4 of the SAMP/WSAA document).

A threat/risk assessment component is important for conservation planning and the fact the SAMP does not explicitly state threat abatement as a planning goal does not preclude the SAMP Mitigation Coordination Program or other stakeholder groups from developing goals, objectives, and strategies targeting threat abatement as it relates to aquatic ecosystem conservation in the Watershed.

Full construction of the Heritage Fields/Great Park/Irvine Wildlife Corridor project entails compensatory mitigation in the form of riparian ecosystem restoration beyond the project element of creating the Irvine Wildlife Corridor, which together will provide connectivity from the northern to the southern portions of the Watershed upon implementation.

Response 5

See Response 2 to May 5th letter of Commenter IO-3 and Response 3 to May 5th letter of Commenter IO-4.

Land use has been implicated as a major factor controlling receiving water quality (Osborne and Wiley, 1988; Johnson et al. 1997; Basnyat et al. 1999; Paul and Meyer 2001). It is well understood that non-natural land uses tend to produce large amounts of pollutants that wash into receiving water bodies. Based on this understanding and in–lieu of costly water quality sampling studies, water bodies receiving runoff from anthropogenic land uses are expected to have degraded water quality. We used a cutoff value of 15% impervious cover because this has been cited in the literature as a threshold, above which receiving water quality becomes substantially altered (see Response 2 of May 5th letter from Commenter IO-3).

Even though predominantly urban areas are not included in the aquatic resource integrity areas, there were certain parts of the urbanized watershed that were included within this SAMP. Within the city of Lake Forest, Serrano Creek Park and other park-like localities were included as areas ineligible for abbreviated permitting. The Corps and

Department support viewing these near natural sites as areas needing additional protection and review. Otherwise, areas that are predominantly urbanized and lacking any kind of buffer are not expected to have considerable water quality, habitat, or hydrology integrity that would warrant the most stringent permit review process available to the Corps, i.e., a standard individual permit.

Regarding mine tailings, such areas would be identifiable as human-disturbed land uses on any aerial photograph. As a non-urban land use that generates pollutants, any existing mine tailing sites were captured as either industrial or strip mines land use/land classification in the LLFA (see Table 7 of Appendix B-2; ERDC, 2000).

Response 6

The Planning Level Delineation (PLD; Lichvar et al., 2000) was used as a planning tool and was never expected to provide site-specific information about jurisdiction. The LLFA (Smith, 2000) used the information from the PLD. However, the LLFA of the riparian ecosystem, upon which the identification of SAMP aquatic resources and aquatic resource integrity areas were based, acknowledged that a riparian ecosystem assessment could not be accomplished by considering only the characteristics and processes of waters of the United States alone. The premise of the LLFA is that the functions of waters of the United States are significantly influenced by the characteristics of the entire riparian ecosystem, as well as the upland areas adjacent to the riparian ecosystem, and the drainage basin of the riparian ecosystem (Kratz et al. 1991; Hornbeck and Swank 1992; Bedford 1996). Thus, the functional riparian ecosystem, as well as the adjacent landscape and drainage basin are considered during the assessment in that the influence of the riparian ecosystem, adjacent uplands, and drainage basin were considered in assessing riparian ecosystem integrity and identifying the aquatic resource integrity areas. Riparian ecosystems were defined from a functional perspective as the areas along perennial, intermittent, and ephemeral streams where the interaction with surface and groundwater results in distinctive geomorphic features and vegetation communities. Consequently, both the Corps and the Department's jurisdictional areas are captured by the LLFA. When the Corps and the Department apply the results of the assessment in the context of a specific permit or SAA application under the 404 permit or 1600 Program, respectively, the specific geographical extent of each agency's jurisdiction at the site will be determined. The Corps retains its full authority under Section 404 of the Clean Water Act and associated regulations, and the Department retains it full authority under the Fish and Game Code; implementation of the SAMP will not affect either Agency's jurisdiction or authority to implement their respective programs. Therefore, when the Corps issues permits and the Department issues agreements, the geographic extent of authorized impacts may differ based on differences in jurisdiction.

Also, the PLD accounts for all aquatic resources within the watershed. In addition to three parameter wetlands, the PLD identifies ephemeral streams, unvegetated streambeds, and riparian habitat outside of streambeds. It is recognized that the Corps and the Department have separate jurisdictions. The PLD does account for both jurisdictions with the expectation that site-specific determinations would be needed for individual projects.

Response 7

By identifying an Analytical Framework for the Watershed that incorporates aquatic resource integrity areas, the Corps and the Department are providing additional information for the Agencies to use when evaluating future applications for permits and agreements, respectively, as well as a Strategic Mitigation Plan to prioritize potential restoration and enhancement opportunities based on selection criteria for compensatory mitigation. The assignment of selected aquatic resources and their contributing upland areas as aquatic resource integrity areas does not by extension infer that the Corps and Department consider all other areas as "expendable" as the Commenter suggests. On the contrary, the Agencies better understand which areas should receive the most agency review and prioritization for mitigation to gain foreseeable ecological benefits for the riparian ecosystem. Further, in terms of aquatic resource integrity, the Watershed would achieve increased ecological benefits from conservation actions targeted in the aquatic resource integrity areas, given the assumption that substantial land use changes are unlikely to occur in the near future.

Both the LLFA and the PLD relied on aerial photographs taken on May 31, 1999 under clear skies at a 1:4800 ratio scale or 1 inch to 400 feet scale. Given that most mapping efforts for these large areas use 1:24,000 scale photographs, the scale used for the PLD obviated the need for using multiple sets of photographs. In addition, the actual LLFA was based on field visits to every riparian reach within the watershed.

The successional stage of a reach of riparian habitat is not the determining factor for selecting aquatic resource integrity areas or prioritizing restoration areas. An unvegetated stream and a dense riparian forest could still score similarly under a LLFA due to the high level of ecological integrity.

Response 8

As noted above (Response 7 to Commenter IO-4), stage of habitat development does not affect the status of integrity areas. Fires and floods do not change the ecological integrity. These natural processes are understood to change the state of a riparian reach, resulting in a choice of assessment indicators that would not be affected by temporal changes. Incorporating the understanding of the dynamic nature of the riparian ecosystem, the LLFA was designed to be robust in all ecological situations and to develop appropriate baseline information consistent with the current understanding of the science.

Baseline information and jurisdictional extent are automatically part of any site-level decisionmaking process for any permit or agreement application process. The SAMP Analytical Framework, SAMP permitting processes, including mitigation framework will provide the context for making permit decisions. Likewise, the SAMP Strategic Mitigation Plan will provide context for planning compensatory mitigation.

Response 9

The Corps and the Department will standardize relevant conditions to the extent possible. For the conditions that pertain to federally listed species, the Corps will incorporate conditions that reflect the informal Section 7 consultation with the USFWS

for the RGP. To provide consistency, the Department agreed to use the same conditions.

Response 10

The ratios in the Master List are consistent with the SAMP mitigation policies that are part of the mitigation framework; as such, the ratios are the same as for compensatory mitigation for the Corps LOP procedures, or SIPs. The exception is the oak/walnut/sycamore compensatory mitigation requirements, which are the Department's ratios and not the Corps as those species are normally found outside the geographical scope of the Corps jurisdiction. The ratios are the minimum required insofar as there are no project delays with temporal losses to habitat or unauthorized impacts, since such impacts would indicate increased compensatory mitigation is needed to offset losses. The Corps and the Department believe a level of certainty about compensatory mitigation requirements is afforded by use of the mitigation ratios. Calculation of the mitigation requirements relies on integrity of the basin in which the aquatic resources occur.

Response 11

Based on prior experience of activities in the Watershed, the Corps predicts the temporary impacts will be staggered and there will be no need to add additional administrative burden to staff to regiment the timed use of the RGP.

No change will be made to the Program EIS/EIR in relation to this Comment. No changes were made to the SAMP or RGP based on this Comment.

Response 12

See Response 5 to Commenter IO-1. Also, see Section 5.2.1(a) of the SAMP document for additional information regarding the proposed Coordination Committee. The procedural details about the Mitigation Coordination Program, and specifically the Coordination Committee, will be deferred for the committee to establish for itself.

Response 13

The Corps and the Department disagree with the Commenter's insinuation that implementation of the SAMP will not be transparent. As described in various places in the SAMP and Program EIS/EIR, different aspects of SAMP implementation incorporate coordination with other agencies and interested parties. For example, the permitting framework includes pre-application, interagency coordination, as outlined in the LOP procedures. As proposed, the Mitigation Coordination Program is by its very nature a multi-stakeholder venue to coordinate and facilitate the implementation of the SAMP Strategic Mitigation Plan. Public outreach is envisioned as an aspect any sponsor of a third-party mitigation program. Additionally, public input will be formally sought through the public notices associated with any standard individual permits.

Response 14

Comment noted. This is a Program EIS/EIR, not a project EIS/EIR. In accordance with CEQ Regulations (Section 1508.18) and CEQA Regulations (Section 15168), the Program EIS/EIR evaluates the proposed SAMP/WSAA Process. The SAMP/WSAA Process, as described in the SAMP document and the Section 2.1 of the Program EIS/EIR, is a proposal to adopt a plan for a group of geographically related actions and to implement specific policies, associated with the Corps and the Department's continuing regulatory programs. The SAMP is a plan and consists of several elements. The conventional definition of "project description" with specifics on acreages of impacts and acreages of mitigation does not apply. Necessarily, the SAMP/WSAA Process "project description" is a description of the regulatory-oriented plan and its elements. Since complexity is integral to the plan, it is unavoidable in the "project description." However, the Agencies and their contractor for the Program EIS/EIR, undertook great effort to organize the Program EIS/EIR to reduce confusion associated with the SAMP/WSAA Process complexity. Also, see Response 3 to Commenter F-1.

The Agencies reduced the level of uncertainty as much as possible given the respective regulations. It remains the responsibility of the project proponent to select and propose a compensatory mitigation project. Through the SAMP/WSAA Process, the Corps and the Department seek to improve the efficacy of compensatory mitigation by providing a coordinated mitigation framework, a Strategic Mitigation Plan with a suite of restoration opportunities, landscape-appropriate restoration templates, a Mitigation Coordination Program, and proposals for third-party mitigation program as elements of the SAMP.

Response 15

See Response 3 to Commenter F-1, Response 13 to Commenter S-2, and Response 1 to May 5th letter from Commenter IO-4.

Response 16

See Responses 14 and 15 to May 5th letter from Commenter IO-4.

The Agencies believe the stated SAMP purpose and objectives (Sections 1.3 and 1.4 of the SAMP) are consistent with the requirements of NEPA and CEQA. No change will be made to the Program EIS/EIR in relation to this Comment.

Response 17

Any impacts associated with the construction of compensatory mitigation sites fall under the category of activities described as Habitat Restoration and Enhancement Projects, which were evaluated in Section 4.2.3 in Volume I of the Program EIS/EIR (URS Corp., 2008; pp. 4-21 through 4-23). No change will be made to the Program EIS/EIR in relation to this Comment.

Response 18

See Response 13 to Commenter S-2.

Response 19

Comments noted. The Corps and the Department will not respond to every question or direction for change (53 items) listed in this Comment 19. Many of the non-substantive issues were already addressed in prior responses to comments. No changes will be made to the Program EIS/EIR in relation to this Comment, unless otherwise noted.

Table of Contents
The absence of a Table of Contents for Volume II in Volume I was an oversight. Changes were made in the Table of Contents of this Program EIS/EIR (Volume III) to include a Table of Contents for all the volumes together (without pages for Volumes I and II).

Introduction
Item 1: See Response 13 to Commenter S-2.

Items 2 and 3: The Department and the Corps will make site-level jurisdictional determinations on a project-by-project basis. For the Corps, the determinations will incorporate current Corps guidance on *Rapanos/Carabell* and *Solid Waste* in effect at the time of the determination.

Project Description
Items 1 – 3: See Response 20 to Commenter L-2.

Items 4 – 5: The Department and the Corps will make site-level jurisdictional determinations on a project-by-project basis.

Item 6: Effectively, the aquatic resource integrity areas are stewardship zones and do include existing conservation areas. However, it is beyond the scope of this SAMP/WSAA Process and the authorities of the Corps and the Department to identify "set aside" conservation areas. It is the prerogative and responsibility of the local jurisdictions and landowners to assign specific lands for conservation.

Item 7: See Mitigation Coordination Program in Section 5 of the SAMP and Section 2.1.4 in Volume I of the Program EIS/EIR (pp. 2-81 through 2-83).

Items 8 – 9: Directional boring and bridges are the preferred methods. However, these methods may not always be the practicable alternatives, so determinations will be made on a case-by-case basis.

Item 10: Fire abatement activities were evaluated in Section 4.2.3 in Volume I of the Program EIS/EIR (pp. 4-38).

Items 11 - 12: See Response 14 to Commenter IO-4.

Item 13: See Table 2-2 of Volume I of the Program EIS/EIR (pp. 2-21).

Item 14: See Response 13 to May 5th letter from Commenter IO-4.

Item 15 - 17: Responses to these questions are answered in several responses to commenters (e.g., Response 8 to Commenter L-2). See Section 3 of the SAMP document and Section 2.1 of Volume I of the Program EIS/EIR.

Item 18: Monitoring of compensatory mitigation sites will be required in accordance with the SAMP mitigation framework, as revised to incorporate the Final Mitigation Rule (shown in Section 4 of this Volume III of the Program EIS/EIR).

Items 19 – 21: See Section 2.1.2.6 of Volume I of the Program EIS/EIR and as revised in Section 4 of this Volume III for full description of SAMP mitigation framework.

Items 22 – 27: The details of any third-party mitigation program will be memorialized in the approved banking instrument when a sponsor is identified and a third-party mitigation program has been negotiated with the Coordination Committee and approved by the interagency review team for mitigation banks and in-lieu fee programs.

Item 28: The Agencies believe the information here is sufficient. No change to the Program EIS/EIR will be made as a result of this Comment.

Items 29 – 30: The Corps and the Department have no authority over land management practices unless it is part of authorized activities, including compensatory mitigation, or as part of an approved third-party mitigation program.

Item 31: The Corps and the Department are seeking a sponsor for a third-party mitigation that would primarily conduct enhancement activities in aquatic resources located within aquatic resource integrity areas and secondarily conduct restoration activities in aquatic resources identified for restoration in the Strategic Mitigation Plan. The Agencies are proposing a program such that no terrestrial or aquatic resources providing substantial ecological benefit would be permanently “destroyed” or impacted.

Item 32: The mitigation framework and policies provide for ratios of no less then 1:1 area replacement, so no net loss of wetlands is assured for the Watershed. Further, the ratio considers condition or integrity and strives to have no net loss of aquatic resource integrity (i.e., hydrologic, water quality, and habitat) as measured at a subwatershed scale. Past efforts to fulfill the goal of no net loss of wetlands have fallen short because of the lack of a strategic approach to both the protection of important aquatic resources and the siting of compensatory mitigation projects in appropriate locations within a watershed. The SAMP and the mitigation framework and policies allows for more informed decision-making on these matters.

Item 33: See Responses 16, 31, 32, and 33 to Commenter L-2.

<u>Baseline Conditions</u>
Items 1 – 2: See Figures 3.2 and 3.3 as modified in Section 4 of Volume III of this Program EIS/EIR.

Item 3: The summary results of the PLD were included in Section 3 Baseline Conditions of Volume I of the Program EIS/EIR since the full PLD was included as Appendix B-1 in Volume II of the Program EIS/EIR.

Item 4: The identification and location of invasive non-native species throughout the Watershed was beyond the scope of the SAMP, but could be an undertaking addressed or coordinated by the Mitigation Coordination Program or a third-party mitigation program.

Items 5 – 6: Different stakeholders conduct water quality monitoring throughout the Watershed. There is room for improvement on coordinating data collection and data sharing. Potential options are identified in the draft Newport Bay/San Diego Creek Watershed Management Plan (Corps, 2005b). Nevertheless, the current scientific literature shows a causal link between land use and water quality and the Corps methods used in the LLFA are based on that assumption. The data from the LLFA served as a surrogate in the absence of sufficient water quality data. Point and non-point sources of contaminants are not expected to occur in (non-agricultural) undeveloped areas. Granted, naturally occurring constituents found at elevated background levels, such as selenium, would not be identified by the LLFA methodology. However, the Corps and the Department believe that for their regulatory purposes under Section 404 of the Clean Water Act and Section 1600 of the Fish and Game Code, respectively, the LLFA provides sufficient information for SAMP formulation. Site-specific data could be incorporated as necessary for a given permit decision or agreement.

Item 7: Table 3-6 denotes the low and moderate to high integrity resources previously permitted for impacts to the extent data were available. Low integrity resources would fall outside the aquatic resource integrity areas and moderate to high integrity resources would be within the aquatic resource integrity areas. Since the data are incomplete, it would not be meaningful to provide total acreages.

Item 8: Changes were made as shown in Section 4 of this Program EIS/EIR (Volume III).

<u>Impact Assessment</u>

Item 1: Aquatic resource impacts, including cumulative impacts are assessed. See Sections 4.2 and 6.0 of Volume I of the Program EIS/EIR.

Item 2: See Response 17 to May 5th letter from Commenter IO-4.

Item 3: The conditions for the RGP and LOP procedures are described in the main body of the Program EIS/EIR in Section 2.1.2.3. The master conditions for the WSAA templates are summarized in the body of the Program EIS/EIR in Section 2.1.2.4; however, due to the length of text and larger number of conditions, the full explanations are provided in Appendix D in Volume II of the Program EIS/EIR.

Item 4: See Response 2 to Commenter L-2.

Item 5: Ratios for compensatory mitigation will be determined at the time authorizations are granted. Permits and agreements with compensatory mitigation requirements will contain provisions for contingencies for delayed implementation. Compensatory mitigation completed in advance or concurrent with impacts will not typically be required to perform additional mitigation for temporal losses. As with any compensatory

mitigation project, established performance criteria must be met for a project to attain permit compliance. Contingencies for longer monitoring periods, additional management measures, or additional compensatory mitigation are incorporated into the approved habitat mitigation and monitoring plan.

Item 6: By rotating or alternating maintenance schedules of flood control facilities, riparian vegetation can grow in the facilities and provide interim habitat for wildlife. However, flood management practices can incorporate limits to size of woody vegetation that would otherwise reduce the capacity of the facilities. The Agencies will continue to work with the floodway managers to identify flood management strategies that accommodate public safety and environmental needs over the long term.

Item 7: Conditions 8 and 13 for the LOP procedures and conditions 9 and 14 for RGP require management of exotic species. Similar conditions are included in the master conditions list for the WSAA templates. Likewise, the pre-application process will address wildlife movement. Changes were made as shown in Section 4 of this Program EIS/EIR (Volume III).

Item 8: These areas would be reviewed under the LOP procedures rather than NWPs. The Corps and the Department disagree that aquatic resources adjacent to agricultural areas located outside the aquatic resource integrity areas would be less protected under the SAMP/WSAA Process.

Response 20

The Program EIS/EIR, including this Final Program EIS/EIR (Volume III – Evaluation of and Evaluation of and Response to Comments/Errata) was prepared in accordance with CEQ Regulations and CEQA Guidelines. CEQ Regulations Section 1502.9(c) describes the following conditions under which an agency shall prepare a supplement to a draft EIS: the agency makes substantial changes to the proposed action relevant to environmental concerns; or there are significant new circumstances or information relevant to environmental concerns that have bearing on the federal action or the impacts of the federal action. Similarly, CEQA Guidelines Section 15088.5 requires the recirculation of an uncertified (draft) EIR for public review when significant new information has been added to the document.

The Corps and the Department disagree with the Commenter that the Program EIS/EIR is so inadequate as to preclude meaningful analysis. Any substantive comments received on the draft Program EIS/EIR necessitated only minor changes to the Program EIS/EIR, and as such, the Agencies believe recirculation of the draft Program EIS/EIR or preparation of a supplement to the draft Program EIS/EIR is unwarranted. Therefore, in accordance with CEQ Regulations Section 1503.4 and CEQA Guidelines Section 15132, only the comments, the responses, and the errata, along with a new cover sheet will be filed as a final Program EIS/EIR.

Response to May 8th Letter

Response 1

See Response 19 (under Baseline Conditions) to May 5th letter from Commenter IO-4.

4 CLARIFICATIONS AND REVISIONS

Revisions and clarifications have been made to the Program EIS/EIR for the San Diego Creek Watershed SAMP/WSAA Process based on input received during the public review period and the preparation of responses to comments on the Draft Program EIS/EIR. This Clarifications and Revisions documents follows the organization of the Draft Program EIS/EIR. Only those sections of the Program EIS/EIR that have revisions and/or clarifications are included herein.

4.1 Section 1: Introduction

Text Changes

Section 1.2.3, EIS/EIR Purpose, page 1-6 has been revised to incorporate the following changes:

> This evaluation for the proposed RGP and LOP includes a discussion of compliance with applicable laws, consideration of public comments, an alternatives analysis, and a general assessment of individual and cumulative impacts, including the general potential effects on each of the public interest factors specified at 33 CFR 320.4(a). This EIS/EIR also provides the required environmental documentation under CEQA for issuance of Streambed Alternation Agreements under the WSAA Process as required under Section 1600 et seq. of the FGC. Finally, the EIS/EIR provides a platform for the tiering of future NEPA and CEQA compliance on specific actions affecting aquatic resources within the Watershed. Furthermore, the Corps and the Department believe that the Program EIS/EIR for SAMP/WSAA Process and the SAMP document serve as a reference not only for Lead Agencies and other interested parties who evaluate projects under CEQA, but is a transparent tool to be used by project proponents when planning projects, including mitigation of project impacts.

Section 1.4.4, Involved Agencies and Participating Applicants, pages 1-11 through 1-12, has been revised to incorporate the following changes:

> The Corps and the Department coordinated with other resource agencies to develop a cohesive, Watershed-specific plan to address anticipated permitting needs and compensatory mitigation, including long-term management of aquatic resources within the Watershed. Participation in the SAMP/WSAA Process was also undertaken in coordination with several applicants throughout an intensive pre-application procedure and in consideration of public comments. Participation

by RWQCB, USFWS, or EPA staff in meetings for the SAMP/WSAA Process shall not be construed to mean that these agencies share the opinions or accept the conclusions represented in the SAMP/WSAA Process Program EIS/EIR. The following state and federal resource agencies have been involved in development of the SAMP/WSAA Process:

- Corps;
- Department's South Coast Region Habitat Conservation ~~Planning Unit~~ Branch;
- RWQCB, Santa Ana Region;
- U.S. Fish and Wildlife Service (USFWS); and
- U.S. Environmental Protection Agency (~~U.S. EPA~~ EPA), Region IX.

Section 1.5.1, Clean Water Act, page 1-16 has been revised to incorporate the following changes:

In May 2004, the SWRCB issued Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdictions (Order No. 2004-0004-DWQ) to regulate some activities for which WDRs were previously waived (in particular non-federal waters, per the "SWANCC" decision by the U.S. Supreme Court[3]). Discharges that exceed the thresholds of Order No. 2004-0004-DWQ (or, as subsequently updated) will require separate, individual waste discharge requirements or a waiver thereof.

4.2 Section 2: Project Description

Text Changes

Section 2.1.1.5, Formulation of a SAMP Impact Avoidance Plan, page 2-12 has been revised to incorporate the following changes:

> The aquatic resource integrity areas encompass the vast majority of aquatic resources within the Watershed. Of the 2,552 acres of aquatic resources, about ~~1,644~~ 1,648 acres (~~64%~~ 65%), were identified as aquatic resource integrity areas. In considering riparian habitat only, ~~1,076~~ 1,080 acres (65%) of the total 1,666 acres of riparian habitat delineated in the Watershed are identified within aquatic resource integrity areas. Of the 570 acres of high quality riparian habitat, about 511 acres (89%) are within identified aquatic resource integrity areas. Of the 959 acres of high and medium quality riparian habitat, about 780 acres (81%) are within aquatic resource integrity areas. Section 3.1 of this document includes detailed breakdowns of the various aquatic resource types of high and medium integrity within each subwatershed.
>
> The Orange County Central-Coastal Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) Reserve System currently provides protection to 639 acres of aquatic resources, including 613 acres of riparian habitat. Using the SAMP Analytical Framework, the Corps and the Department identified an additional ~~1,025~~ 1,029 acres of aquatic resources, including ~~480~~ 484 acres of riparian habitat, as aquatic resource integrity areas.
>
> In addition to the identification of aquatic resource integrity areas, the Corps and the Department consider the major stream systems, including Serrano Creek, Borrego Canyon Wash, San Diego Creek, Peters Canyon Wash, and Hicks Canyon Wash, important aquatic resources in the network of aquatic resources within the Watershed. In light of the types and extent to which these major stream systems provide water quality, hydrologic, and potential habitat and connectivity functions and values within the Watershed, the Corps and the Department believe these major stream systems merit special consideration in the management of the Watershed's aquatic resources. Consequently, the Corps and the Department have incorporated these considerations into the SAMP Analytical Framework, and in the proposed modifications to implement the respective regulatory programs.
>
> Beyond the subwatershed unit, it is helpful to look at the SAMP aquatic resource integrity areas in terms the NCCP/HCP Reserve, the former Marine Corps Air Station (MCAS) El Toro, and the City of Irvine. Of the ~~17,133~~ 17,137 acres of

aquatic resources and their contributing upland areas of influence identified as aquatic resource integrity areas, 12,408 acres (72%) fall within the boundaries of the NCCP Reserve System (See Figure 2-4). Most of the aquatic resources, including ephemeral streams and riparian habitat found within the NCCP/HCP Reserve System, are captured as high quality resources within the aquatic resource integrity areas. For instance, 521 acres (67%) of the high and medium integrity riparian habitat identified as part of the aquatic resource integrity areas are located within the NCCP/HCP Reserve System. Table 2-1 in Section 2.3.2 of the Corps SAMP document (~~2008~~2009) contains a detailed breakdown of aquatic resource integrity areas in comparison to NCCP/HCP Reserve areas.

Section 2.1.1.5, Formulation of a SAMP Impact Avoidance Plan, page 2-14 has been revised to incorporate the following changes:

The former Marine Corps Air Station El Toro (MCAS El Toro) also falls within the Watershed and provides important connectivity opportunities within the Watershed. Because of its location at the base of the Loma de Santiago foothills, the development of MCAS El Toro could impede the connection of resources identified in the upstream reaches of the Watershed from those downstream. The SAMP analysis identified 6,820 acres of aquatic resources and their contributing upland areas as aquatic resource integrity areas in the portions of the Watershed north of the MCAS El Toro, including 561 acres of aquatic resources. South of MCAS El Toro, there are ~~10,313~~ 10,317 acres identified as aquatic resource integrity areas, including ~~1,084~~ 1,088 acres of aquatic resource habitats. Of the 561 acres of aquatic resources in the north and ~~1,084~~ 1,088 acres in the south, 30 and 16 acres, respectively, are ephemeral streams.

Section 2.1.2.2, Participating Applicants' Projected Activities, page 2-19 has been revised to incorporate the following changes:

Footnote 6: Other anticipated activities or planned projects were brought to the attention of the Corps and the Department during the SAMP formulation process. These included future County of Orange road (e.g., MPAH facilities), park and landfill capital improvement and maintenance projects, but either had insufficient level of detail to initiate the pre-application process, or else the pre-application process had not advanced to a stage for meaningful discussion when the impact avoidance and minimization plan was being developed.

Section 2.1.2.3, Table 2-3, Proposed General Conditions for San Diego Creek Watershed Letter of Permission, page 2-29 through 2-34 has been revised to incorporate the following changes:

Letter of Permission Condition	Description
1. Avoidance and Minimization	The permittee must provide a written statement describing avoidance and minimization measures used to minimize discharges to jurisdictional waters at the project site to the maximum extent practicable.
2. Ineligible Impacts	Projects not eligible for this LOP process include projects that substantially alter a compensatory mitigation site and projects that involve the conversion of a soft-bottom channel to a concrete-lined channel within San Diego Creek, Peters Canyon Wash, Hicks Canyon Wash, Serrano Creek, and Borrego Canyon Wash. Those proposed projects must be evaluated using a SIP.
3. Mitigation Policy	The permit must comply with the SAMP mitigation framework, including the Strategic Mitigation Plan, established in conjunction with the proposed permitting procedures. In accordance with the Final Mitigation Rule (33 CFR Section 332.3(k), for an LOP that requires permittee-responsible mitigation, the special conditions of the LOP shall: (i) Identify the party responsible for providing the compensatory mitigation; (ii) Incorporate, by reference, the final mitigation plan approved by the district engineer; (iii) State the objectives, performance standards, and monitoring required for the compensatory mitigation project, unless they are provided in the approved final mitigation plan; and (iv) Describe any required financial assurances or long-term management provisions for the compensatory mitigation project, unless they are specified in the approved final mitigation plan.
4. Soil Erosion and Siltation Controls	Appropriate erosion and siltation controls, such as siltation or turbidity curtains, sedimentation basins, and/or hay bales or other means designed to minimize turbidity in the watercourse to prevent exceedances of background levels existing at the time of project implementation, shall be used and maintained in effective operating condition during project implementation Projects are exempted from implementing controls if site conditions are such that the proposed work would not increase turbidity levels above the background level existing at the time of the work. All exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be stabilized at the earliest practicable date to preclude additional damage to the project area through erosion or siltation and no later than November of the year the work is conducted to avoid erosion from storm events.
5. Equipment	If personnel would not be put into any additional potential hazard, heavy equipment working in or crossing wetlands must be placed on temporary construction mats (timber, steel, geotextile, rubber, etc.), or other measures must be taken to minimize soil disturbance such as using low pressure equipment. Temporary construction mats shall be removed promptly after construction.
6. Suitable Material	No discharge of dredged or fill materials in jurisdictional waters may consist of unsuitable materials (e.g., trash, debris, car bodies, asphalt, etc.) and material discharged must be free from toxic pollutants in toxic amounts (See Section 307 of the Clean Water Act).

Letter of Permission Condition	Description
7. Management of Water Flows	To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. To the maximum extent practicable, the activity must provide for the retention of excess flows from the site and for the maintenance of surface flow rates from the site similar to pre-project conditions, while not increasing water flows from the project site, relocating water, or redirecting water flow beyond pre-project conditions unless it benefits the aquatic environment (e.g. stream restoration or relocation activities).
8. Removal of Temporary Fills	Any temporary fills must be removed in their entirety and the affected areas returned to their pre-existing conditions, including any native riparian and/or wetland vegetation. If an area impacted by such temporary fill is considered likely to naturally re-establish native riparian and/or wetland vegetation within two years to a level similar to pre-project or pre-event conditions, the permittee will not be required to restore the riparian and/or wetland vegetation. However, Exotic Species Management may be required to prevent the establishment of invasive exotic vegetation. (See Condition #13).
9. Preventive Measures	Measures must be adopted to prevent potential pollutants from entering the watercourse. Within the project area, construction materials and debris, including fuels, oil, and other liquid substances, shall be stored in a manner as to prevent any runoff from entering jurisdictional areas.
10. Staging of Equipment	Staging, storage, fueling, and maintenance of equipment must be located outside of the waters in areas where potential spilled materials will not be able to enter any waterway or other body of water.
11. Fencing of Project Limits	~~Prior to initiation of the project, the boundaries of the project's impact area must be delimited by the placement of temporary construction fencing, staking, and/or signage. Any additional jurisdictional acreage impacted outside of the approved project footprint shall be mitigated at a 5:1 ratio. In the event that additional mitigation is required, the type of mitigation shall be determined by the Corps in accordance with the SAMP mitigation framework and may include wetland enhancement, restoration, creation, or preservation.~~ The Permittee shall clearly mark the limits of the workspace with flagging or similar means to ensure mechanized equipment does not enter preserved waters of the U.S. and riparian wetland/habitat areas shown on the attached figure. Adverse impacts to waters of the U.S. beyond the Corps-approved construction footprint are not authorized. Such impacts could result in permit suspension and revocation, administrative, civil, or criminal penalties, and/or substantial, additional, compensatory mitigation requirements.

Letter of Permission Condition	Description
12. Avoidance of Breeding Season	With regard to federally listed avian species, avoidance of breeding season requirements shall be those specified in the Section 7 consultation for the LOP procedures. For all other avian species, initial vegetation clearing in waters of the U.S. must occur between September 15 and March 15, which is outside the breeding season. Work in waters may occur during the breeding season between March 15 and September 15, in accordance with the Department's WSAA Process and a signed agreement with conditions prescribing procedures for grading of mitigation sites or biological surveys and time restrictions. ~~if bird surveys indicate the absence of any nesting birds within a 50-foot radius.~~
13. Exotic Species Management	All giant reed (*Arundo donax*), salt cedar (*Tamarix spp*.), and castor bean (*Ricinus communis*) must be removed from the affected areas and ensure that the affected area remains free from these invasive, non-native species for a period of five years from completion of the project.
14. Site Inspections	The Corps shall be allowed to inspect the site at any time during and immediately after project implementation. In addition, compliance inspections of all mitigation sites must be allowed at any time.
15. Posting of Conditions	A copy of the LOP conditions shall be included in all bid packages for the project and be available at the work site at all times during periods of work and must be presented upon request by any Corps or other agency personnel with a reasonable reason for making such a request.
16. Post-Project Report	Within 60 days of completion of impacts to waters, as-built drawings with an overlay of waters that were impacted and avoided must be submitted to the Corps. Post-project photographs which document compliance with permit conditions, must also be provided.
17. Water Quality	An individual Section 401 water quality certification must be obtained (see 33 CFR 330.4(c)).
18. Coastal Zone Management	An individual California state coastal zone management consistency concurrence must be obtained or waived where the project may affect the Coastal Zone (see 33 CFR 330.4(d)).
19. Endangered Species	(a) No activity is authorized which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the ESA or which will destroy or adversely modify the critical habitat of such species. Non-federal permittee shall not begin work on the activity until notified by the Corps that the requirements of the ESA have been satisfied and that the activity is authorized. (b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. (c) Non-federal permittees shall notify the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that may be affected by the

Letter of Permission Condition	Description
	proposed work or that utilize the designated critical habitat that may be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until section 7 consultation has been completed. (d) As a result of formal or informal consultation with the USFWS or NMFS, the district engineer may add species-specific regional endangered species conditions to the RGP notices to proceed. (e) Authorization of an activity by an RGP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the USFWS or the NMFS, both lethal and non-lethal "takes" of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. USFWS and NMFS or their World Wide Web pages at ~~http://www.USFWS.gov/carlsbad/~~ http://www.fws.gov/carlsbad/ and http://www.noaa.gov/fisheries.html respectively. Activities authorized under LOP procedures shall comply with the following applicable conservation measures to ensure the activity will not adversely affect federally listed species; however, additional project-specific measures may be required pursuant to a Section 7 consultation for a specific project: (1) Removal of gnatcatcher habitat within non-Reserve areas of the Orange County Central/ Coastal NCCP/HCP will follow the Construction and Minimization Measures for the NCCP/HCP; (2) Removal of suitable habitat for the gnatcatcher and construction work within 300 feet of suitable habitat for the gnatcatcher will occur outside the gnatcatcher breeding season between February 15 and August 15. If work is necessary within 300 feet of suitable gnatcatcher habitat during the breeding season, a qualified biologist will perform protocol surveys in the area to determine whether any nesting gnatcatchers are present. If nests are absent, work will continue. If a nest is present, the permittee shall notify the Corps, the Department, and the Service of the location of the nest, a 300-foot buffer around the nest will be clearly demarcated, and the area avoided until the nest is abandoned. A biological monitor with authority to stop construction will be present onsite during breeding-season construction to ensure the limits of construction do not encroach into suitable gnatcatcher habitat or within 300 feet of a nesting gnatcatcher;

Letter of Permission Condition	Description
	(3) Removal of suitable habitat for the least Bell's vireo (LBV) and construction work within 300 feet of suitable habitat for the LBV will occur outside the LBV breeding season between March 15 and September 15. If work is necessary within 300 feet of suitable LBV habitat during the breeding season, a qualified biologist will perform protocol surveys in the area to determine whether any nesting LBVs are present. If nests are absent, work will continue. If a nest is present, the permittee shall notify the Corps, the Department, and the Service of the location of the nest, a 300-foot buffer around the nest will be clearly demarcated, and the area avoided until the nest is abandoned. A biological monitor with authority to stop construction will be present onsite during breeding-season construction to ensure the limits of construction do not encroach into suitable LBV habitat or within 300 feet of a nesting LBV; (4) Removal of suitable habitat for the southwestern willow flycatcher (flycatcher) and construction work within 300 feet of suitable habitat for the flycatcher will occur outside the flycatcher breeding season between May 15 and July 31. If work is necessary within 300 feet of suitable flycatcher habitat during the breeding season, a qualified biologist will perform protocol surveys in the area to determine whether any nesting flycatchers are present. If nests are absent, work will continue. If a nest is present, the permittee shall notify the Corps, the Department, and the Service of the location of the nest, a 300-foot buffer around the nest will be clearly demarcated, and the area avoided until the nest is abandoned. A biological monitor with authority to stop construction will be present onsite during breeding-season construction to ensure the limits of construction do not encroach into suitable flycatcher habitat or within 300 feet of a nesting flycatcher; and (5) If vernal pools are observed within a proposed project site under the LOP procedures, vernal pool/fairy shrimp protocol surveys will be performed and the permittee shall notify the Corps, the Department, and the Service of the results prior to initiating any ground disturbance.
20. Historic Properties	(a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the NHPA have been satisfied. (b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the NHPA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. (c) Non-federal permittees must submit with their application information on historic properties that may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the SHPO or Tribal Historic Preservation Officer (THPO), as appropriate, and the National Register of Historic

Letter of Permission Condition	Description
	Places (see 33 CFR 330.4(g)). The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties that the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed. (d) Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). If NHPA Section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed. (e) Prospective permittees should be aware that Section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, explaining the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.
21. Air Quality	No activity is authorized that causes or contributes to any new violation of national ambient air quality standards, increases the frequency or severity of any existing violation of such standards, or delays timely attainment of any such standard or interim emission reductions, as described in the applicable California State Implementation Plan for the South Coast Air Basin. As part of the Corps application package, the applicant shall submit an air quality emission and impact analysis for the proposed activity if the project would result in long-term or permanent stationary (point or area) source or indirect mobile source emissions, or if the proposed activity would result in area source and direct mobile source emissions that exceed the annual *de minimis* emissions thresholds for any criteria air pollutant or its precursors.

Section 2.1.2.3, Table 2-4, Proposed General Conditions for San Diego Creek Watershed Regional General Permit, page 2-35 through 2-40 has been revised to incorporate the following changes:

Condition	Description
1. Expiration	The RGP will expire five years from the date of its authorization. Further reauthorizations of the RGP will be contingent upon compliance with permit conditions, including the provision of notifications. Failure to comply with these conditions could result in the suspension or revocation of the permit prior to its expiration date, or its non-renewal.
2. Impact Limits	The RGP authorizes up to 0.5 acre of temporary impacts, of which up to 0.1 acre may be vegetated by predominantly native wetland vegetation. Non-native wetland vegetation does not count to the 0.1-acre threshold. For facilities with an established maintenance baseline, vegetation over 0.1 acre of vegetation may be removed only if the work is consistent with the established maintenance baseline.
3. Eligible Areas	The RGP shall be available for use in areas outside of the aquatic resource integrity areas (Figures 2-2 and 2-3).
4. Notification	The permittee must provide the Corps with prior notification for each separate maintenance activity at each site. A complete notification includes the following information: 1. Name, address and telephone numbers of the applicant, and appropriate point of contact and their address and phone number; 2. Project description of proposed activities; 3. Pre-project photographs of the project site; 4. A site location map and view of the project showing areas and acreage to be impacted, including any areas with native riparian and/or wetland vegetation; submit on 8.5" x 11" sheets; 5. Location coordinates: latitude/longitude or UTM's; 6. Volume, type and source of material to be temporarily placed into waters of the United States; 7. Total area of waters of the United States to be directly and indirectly affected; and 8. Proposed project schedule.
5. Soil Erosion and Siltation Controls	Appropriate erosion and siltation controls such as siltation or turbidity curtains, sedimentation basins, and/or hay bales or other means designed to minimize turbidity in the watercourse to prevent exceedences background levels existing at the time of project implementation, shall be used and maintained in effective operating condition during project implementation. Projects are exempted from implementing controls if site conditions preclude their use, or if site conditions are such that the proposed work would not increase turbidity levels above the background level existing at the time of the work. All exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be stabilized at the earliest practicable date to preclude additional damage to the project area through erosion or siltation and no later than November of the year the work is conducted to avoid erosion from storm events.
6. Equipment	If personnel would not be subjected to additional, potential hazardous conditions, heavy equipment working in or crossing wetlands must be placed on temporary construction mats (timber, steel, geotextile, rubber, etc.), or other measures must be taken to minimize soil disturbance such as using low pressure equipment. Temporary construction mats shall be removed promptly after construction.
7. Suitable Material	No discharge of dredged or fill materials into jurisdictional waters may consist of unsuitable materials (e.g., trash, debris, car bodies, asphalt, etc.) and material discharged must be free from toxic pollutants in toxic amounts (per Section 307 of the Clean Water Act).

Condition	Description
8. Management of Water Flows	To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. To the maximum extent practicable, the activity must provide for the retention of excess flows from the site and for the maintenance of surface flow rates from the site similar to pre-project conditions, while not increasing water flows from the project site, relocating water, or redirecting water flow beyond pre-project conditions unless it benefits the aquatic environment (e.g., stream restoration or relocation activities).
9. Removal of Temporary Fills	Any temporary fills must be removed in their entirety and the affected areas returned to their pre-existing conditions, including any native riparian and/or wetland vegetation. If an area impacted by such temporary fill is considered likely to naturally reestablish native riparian and/or wetland vegetation within two years to a level similar to pre-project or pre-event conditions, the permittee will not be required to do restore the riparian and/or wetland vegetation. However, Exotic Species Management may be required to prevent the establishment of invasive exotic vegetation. (See Condition #14).
10. Preventive Measures	Measures must be adopted to prevent potential pollutants from entering the watercourse. Within the project area, construction materials and debris, including fuels, oil, and other liquid substances, shall be stored in a manner as to prevent any runoff from entering jurisdictional areas.
11. Staging of Equipment	Staging, storage, fueling, and maintenance of equipment must be located outside of the waters in areas where potential spilled materials will not be able to enter any waterway or other body of water.
12. Fencing of Project Limits	~~Prior to initiation of the project, the boundaries of the project's impact area must be delimited by the placement of temporary construction fencing, staking, and/or signage. Any additional jurisdictional acreage impacted outside of the approved project footprint shall be mitigated at a 5:1 ratio. In the event that additional mitigation is required, the type of mitigation shall be determined by the Corps in accordance with the SAMP mitigation framework and may include wetland enhancement, restoration, creation, or preservation.~~ The Permittee shall clearly mark the limits of the workspace with flagging or similar means to ensure mechanized equipment does not enter preserved waters of the U.S. and riparian wetland/habitat areas shown on attached Figure 1. Adverse impacts to waters of the U.S. beyond the Corps-approved construction footprint are not authorized. Such impacts could result in permit suspension and revocation, administrative, civil, or criminal penalties, and/or substantial, additional, compensatory mitigation requirements.
13. Avoidance of Breeding Season	With regard to federally listed avian species, avoidance of breeding season requirements shall be those specified in the Section 7 consultation for the RGP (See RGP Condition 19). For all other avian species, initial vegetation clearing in waters of the U.S. must occur between September 15 and March 15, which is outside the breeding season. Work in waters may occur during the breeding season between March 15 and September 15, in accordance with the Department's WSAA Process and a signed agreement with conditions prescribing procedures for grading of mitigation sites or biological surveys and time restrictions. ~~if bird surveys indicate the absence of any nesting birds within a 50-foot radius.~~
14. Exotic Species Management	All giant reed (*Arundo donax*), salt cedar (*Tamarix spp.*), and castor bean (*Ricinus communis*) must be removed from the affected area and ensure that the affected area remains free from these invasive, non-native species for a period of five years from completion of the project.

Condition	Description
15. Site Inspections	The Corps shall be allowed to inspect the site at any time during and immediately after project implementation. In addition, compliance inspections of all mitigation sites shall be allowed at any time.
16. Posting of Conditions	A copy of the RGP general conditions shall be included in all bid packages for the project and be available at the work site at all times during periods of work and must be presented upon request by any Corps or other agency personnel with a reasonable reason for making such a request.
17. Water Quality	An Section 401 water quality certification must be obtained unless general Section 401 certifications are issued or waived for the RGP in the project area (see 33 CFR 330.4(c)).
18. Coastal Zone Management	An individual California state coastal zone management consistency concurrence must be obtained or waived where the project may affect the Coastal Zone (see 33 CFR 330.4(d)).
19. Endangered Species	(a) No activity is authorized which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the ESA or which will destroy or adversely modify the critical habitat of such species. Non-federal permittee shall not begin work on the activity until notified by the Corps that the requirements of the ESA have been satisfied and that the activity is authorized. (b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. (c) Non-federal permittees shall notify the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until section 7 consultation has been completed. (d) As a result of formal or informal consultation with the USFWS or NMFS, the district engineer may add species-specific regional endangered species conditions to the RGP notices to proceed. (e) Authorization of an activity by an RGP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the USFWS or the NMFS, both lethal and non-lethal "takes" of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. USFWS and NMFS or their World Wide Web pages at ~~http://www.USFWS.gov/carlsbad~~ http://www.fws.gov/carlsbad/ and http://www.noaa.gov/fisheries.html respectively.

Condition	Description
	Activities authorized under this RGP shall comply with the following applicable conservation measures resulting from the Corps informal Section 7 consultation to ensure the activity will not adversely affect federally listed species: (1) Removal of gnatcatcher habitat within non-Reserve areas of the Orange County Central/ Coastal NCCP/HCP will follow the Construction and Minimization Measures for the NCCP/HCP; (2) Removal of suitable habitat for the gnatcatcher and construction work within 300 feet of suitable habitat for the gnatcatcher will occur outside the gnatcatcher breeding season between February 15 and August 15. If work is necessary within 300 feet of suitable gnatcatcher habitat during the breeding season, a qualified biologist will perform protocol surveys in the area to determine whether any nesting gnatcatchers are present. If nests are absent, work will continue. If a nest is present, the permittee shall notify the Corps, the Department, and the Service of the location of the nest, a 300-foot buffer around the nest will be clearly demarcated, and the area avoided until the nest is abandoned. A biological monitor with authority to stop construction will be present onsite during breeding-season construction to ensure the limits of construction do not encroach into suitable gnatcatcher habitat or within 300 feet of a nesting gnatcatcher; (3) Removal of suitable habitat for the least Bell's vireo (LBV) and construction work within 300 feet of suitable habitat for the LBV will occur outside the LBV breeding season between March 15 and September 15. If work is necessary within 300 feet of suitable LBV habitat during the breeding season, a qualified biologist will perform protocol surveys in the area to determine whether any nesting LBVs are present. If nests are absent, work will continue. If a nest is present, the permittee shall notify the Corps, the Department, and the Service of the location of the nest, a 300-foot buffer around the nest will be clearly demarcated, and the area avoided until the nest is abandoned. A biological monitor with authority to stop construction will be present onsite during breeding-season construction to ensure the limits of construction do not encroach into suitable LBV habitat or within 300 feet of a nesting LBV; (4) Removal of suitable habitat for the southwestern willow flycatcher (flycatcher) and construction work within 300 feet of suitable habitat for the flycatcher will occur outside the flycatcher breeding season between May 15 and July 31. If work is necessary within 300 feet of suitable flycatcher habitat during the breeding season, a qualified biologist will perform protocol surveys in the area to determine whether any nesting flycatchers are present. If nests are absent, work will continue. If a nest is present, the permittee shall notify the Corps, the Department, and the Service of the location of the nest, a 300-foot buffer around the nest will be clearly demarcated, and the area avoided until the nest is abandoned. A biological monitor with authority to stop construction will be present onsite during breeding-season construction to ensure the limits of construction do not encroach into suitable flycatcher habitat or within 300 feet of a nesting flycatcher; and (5) If vernal pools are observed within a proposed project site under the RGP, vernal pool/fairy shrimp protocol surveys will be performed and the permittee shall notify the Corps, the Department, and the Service of the results prior to initiating any ground disturbance.

Condition	Description
20. Historic Properties	(a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the NHPA have been satisfied. (b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the NHPA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. (c) Non-federal permittees must submit with their application information on historic properties that may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the SHPO or Tribal Historic Preservation Officer (THPO), as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties that the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed. (d) Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). If NHPA Section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed. (e) Prospective permittees should be aware that Section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, explaining the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.
21. Mitigation Policy	Compensatory mitigation will not be necessary unless required through RGP general conditions 12, 17, 18, 19 or 20. Should compensatory mitigation be required, it shall be performed in conformance with the mitigation framework developed for the San Diego Creek SAMP, as described in the Corps SAMP document for this Watershed and the Special Public Notice for the San Diego Creek Watershed RGP.

Section 2.1.2.3, Table 2-5, Riparian areas in which certain activities may be ineligible for permitting under LOP procedures or the WSAA Process, page 2-41 has been revised to incorporate the following changes:

Subwatershed	Baseline Riparian Habitat	Riparian Habitat in Aquatic Resource Integrity Areas Ineligible for RGP, LOP Procedures, or WSAA Process		Additional Riparian Habitat Ineligible for RGP, LOP Procedures or WSAA Process for Soft-Bottom Channel Conversion Projects		~~Total~~ Total Area of Riparian Habitat Ineligible for RGP, LOP Procedures, or WSAA Process	
	Acres	Acres	%	Acres	%	Acres*	%*
Borrego Canyon Wash	169	142	84~~%~~	18	10~~%~~	160	95~~%~~
Hicks Canyon Wash	32	19	60~~%~~	12	38~~%~~	31	97~~%~~
Peters Canyon Wash	69	19	28~~%~~	44	64~~%~~	63	91~~%~~
San Diego Creek	404	~~225~~ 222	~~56%~~ 55	~~129~~ 124	~~32%~~ 31	~~354~~ 345	85~~%~~
Serrano Creek	145	108	75~~%~~	34	23~~%~~	142	97~~%~~
Other subwatersheds	847	~~573~~ 571	68~~%~~	0	0~~%~~	~~573~~ 571	~~68%~~ 67
Total	1666	~~1086~~ 1080	65~~%~~	~~237~~ 232	~~15%~~ 14	~~1323~~ 1311	79~~%~~

* Numbers do not add up due to rounding.

Section 2.1.2.6, SAMP Mitigation Framework, page 2-51 has been revised to incorporate the following changes:

> Proposed and future projects with jurisdictional impacts in the Watershed would be considered in light of the SAMP permitting program and mitigation framework, as consistent with the Corps/EPA's national regulations governing compensatory mitigation for activities authorized by permits issued by the Department of the Army (33 CFR Parts 325 and 332 [40 CFR Part 230]). Compensatory mitigation in the form(s) of preservation, ~~creation~~ establishment, restoration, and/or enhancement activities would be required to offset permanent and temporary impacts to aquatic resources. However, the Department and the Corps would retain their respective discretionary authorities to augment the mitigation framework requirements for any proposed project that is inconsistent with the SAMP or that fails to meet the terms and conditions of the LOP, RGP, retained NWPs, or WSAA Process. To implement the Strategic Mitigation Plan, the Corps proposes to implement the following mitigation policies (a-h) as part of its authorizations of regulated activities impacting aquatic resources within the Watershed. The Department's WSAA Process includes provisions for mitigation

to be performed in accordance with the SAMP mitigation policies and Strategic Mitigation Plan.

Section 2.1.2.6, SAMP Mitigation Framework, pages 2-51 through 2-60, have been revised to incorporate the following changes:

(a) Mitigation Sequencing

Under the SAMP, the mitigation sequencing required pursuant to the Section 404(b)(1) Guidelines (40 CFR Part 230 and the MOA between EPA and the Department of the Army, dated February 6, 1990), whereby the discharge of dredged or fill materials into aquatic resources within the Corps jurisdiction (i.e., waters of the U.S.) must first be avoided and/or minimized to the maximum extent practicable, is being applied to the watershed scale as well as the site scale. An activity seeking authorization under the SAMP permitting framework and evaluated in this Program EIS/EIR would be deemed to have undertaken the requisite avoidance measures by avoiding aquatic resources identified as part of the aquatic resource integrity areas. Projects directly and permanently impacting substantial amounts of aquatic resources with moderately to well-developed wetland or riparian vegetation located outside of aquatic resource integrity areas could still need to demonstrate avoidance, but without a formal alternatives analysis under the LOP procedures or RGP. Minimization measures would be met by demonstrating consistency with the LOP and RGP conditions. Compensatory mitigation would be required to offset any unavoidable impacts that would occur after avoidance and minimization measures have been implemented to the maximum extent practicable, pursuant to the 404(b)(1) Guidelines.

(b) No Net Loss in Acreage and Functions

Consistent with the Corps-EPA MOA and Corps' RGL 02-02 and the Final Mitigation Rule (33 CFR Parts 325 and 332 [40 CFR Part 230[), overall acreage, ~~values~~ services, and functions of wetlands should not be reduced within the Watershed on a program level. ~~All~~ In consideration of the SAMP/WSAA Process, all permanent impacts to aquatic resources (wetland and non-wetland) will be mitigated within the San Diego Creek Watershed. The amount of required compensatory mitigation must be, to the extent practicable, sufficient to replace lost aquatic resource functions. Appropriate functional or condition assessment methods (e.g., the SAMP Landscape Level Functional Assessment, California Rapid Assessment Method (CRAM), or Hydrogeomorphic Approach (HGM)), or other suitable metrics should be used to evaluate the impact site and to determine suitable compensatory mitigation. If a functional or condition assessment, or other suitable metric is not used, a minimum one-to-one (1:1; acreage created and restored to acreage permanently impacted) or linear foot compensation ratio shall be used.

Compensatory mitigation sites shall be designed and maintained to avoid impacts to any existing wildlife movement corridor. Upland or riparian buffers

that provide habitat or corridors necessary to maintain or promote a suite of ecological functions of the aquatic resources may be required as part of a compensatory mitigation site and credit will be provided for such buffers.

(c) Preparation of a Mitigation Plan

All habitat mitigation and monitoring plans ~~would need to~~ shall ~~conform~~ comply with the requirements of the Corps/EPA Final Mitigation Rule "Compensatory Mitigation for Losses of Aquatic Resources"(33 CFR Parts 325 and 332 [40 CFR Part 230]) and the "Los Angeles District's Final Mitigation Guidelines and Monitoring Requirements," (Corps, 2004~~)~~, or as subsequently revised). Should any differences in requirements arise, the Corps shall defer to Final Mitigation Rule until such time as the Corps (Los Angeles District) revises its local guidelines to conform to the Final Mitigation Rule. A copy of the Final Mitigation Rule is available online at http://www.usace.army.mil/cw/cecwo/reg/news/final_mitig_rule.pdf and the guidelines are available online at http://www.spl.usace.army.mil/regulatory/.

(d) Prioritization of Mitigation Sites

To the extent practicable, the selection of compensatory mitigation sites should be prioritized to support implementation of the Strategic Mitigation Plan (Section 2.1.3), which is informed by ERDC's restoration plan (Smith and Klimas, 2004) (Appendix B-3), and available online at http://www.spl.usace.army.mil/samp/sdc_rest.pdf

(e) Recommended Restoration

The Corps and the Department will evaluate restoration design plans for compensatory mitigation sites in consideration of the SAMP Strategic Mitigation Plan (Section 2.1.3 and site selection and design criteria provided by ERDC in a Watershed restoration plan for riparian ecosystems (Smith and Klimas, 2004). The ERDC restoration plan (Appendix B-3) provides recommended restoration goals in consideration of landscape setting.

~~(f) Delays in Implementation of Compensatory Mitigation~~

~~Implementation of compensatory mitigation should begin according to a Corps-approved construction schedule. The Corps and the Department expect the permittee to schedule the installation of mitigation projects to avoid and minimize temporal losses in function, such that offsite mitigation shall be initiated upfront, and onsite mitigation shall be scheduled to account for project site readiness. Any delays in implementation of compensatory mitigation beyond the Corps-approved final construction schedule that extends installation into the next year's growing season may result in penalties of up to 25% increase above the initial compensatory mitigation acreage for every 3-month delay beyond the expected construction season. If the permittee anticipates delays, the permittee should notify the Corps and the Department to provide explanations for the delay and the new~~

~~expected start date. The Corps and the Department will advise the permittee of each 3-month delay and re-calculate the compensatory mitigation acreage. The Corps will give due consideration to special circumstances and may waive the penalty in cases where delayed compensatory mitigation was a result of natural causes beyond the permittee's control, including without limitation, fire, flood, storm, and earth movement, or as a result of any prudent action taken by the permittee under emergency conditions to prevent, abate, or mitigate significant injury to persons and/or the property resulting from such causes. Note that any action undertaken during emergency conditions must receive prior authorization from the Corps if the action involves a discharge of dredged or fill material into aquatic resources within the Corps jurisdiction.~~

(f) Amount of Compensatory Mitigation

The Corps will determine mitigation ratios in consultation with the Department and the applicant in a manner to achieve a no net loss of aquatic resource function and acreage in the Watershed, as discussed above in subsection (b) No Net Loss in Acreage and Functions.

- Mitigation Ratios

Compensatory mitigation ratios will be based on area-weighted gain in functions at the compensatory mitigation site to compensate for area-weighted loss of functions at the impact site. Functions will be measured in terms of functional units with respect to hydrology, water quality, and habitat indices. ERDC calculated these three indices for all major reaches in the Watershed based on current conditions and after achievement of restoration goals. The Agencies will consider ratios for each of the three integrity indices as follows:

$AREA_{MIT} / AREA_{IMP} = FuLOSS_{IMP} / FuGAIN_{MIT}$, whereby

$AREA_{MIT} / AREA_{IMP}$ = mitigation ratio

$AREA_{MIT}$ = area of mitigation

$AREA_{IMP}$ = area of impact

$FuLOSS_{IMP}$ = loss in functional index at the impact site

$FuGAIN_{MIT}$ = gain in functional index at the mitigation site

and at a minimum, $AREA_{MIT} * FuGAIN_{MIT} = AREA_{IMP} * FuLOSS_{IMP}$.

The applicant will supply the $AREA_{IMP}$ and the Corps will use the data available from ERDC for $FuLOSS_{IMP}$. The applicant will work in consultation with the Corps and the Department to identify an appropriate mitigation site to offset impacts. $AREA_{MIT}$ will depend on the capacity for $FuGAIN_{MIT}$. Final site selection will take into account the available hydrology to support the proposed mitigation, site access, and other relevant parameters. Additionally, the Corps, in consultation with the Department will consider other functional or condition

assessments that provide site-specific information about both the impact and mitigation sites in determining the appropriate mitigation ratios. The Corps and the Department recommend the applicant conduct an assessment using generally acceptable methodologies such as the CRAM, approved site-level standardized monitoring protocols, or HGM to evaluate the baseline conditions of the impact and potential mitigation sites

Using the metric developed by the Corps to calculate compensatory mitigation in the Watershed will ensure that losses to any function of the aquatic resources will be offset. Specifically, compensatory mitigation shall ensure against loss of any function as characterized by all three area-weighted indices (i.e., for hydrology, water quality, and habitat). Even if there is a gain in one or two of the indices, the overall mitigation must ensure that there is not a loss in any of the three indices. Losses can be further offset by increasing the mitigation ratio.

For rarer, non-riparian/riverine resources such as estuarine wetlands, the formula does not apply. In such cases, the Corps, in consultation with the Department will use a functional and acreage-based assessment to determine the appropriate mitigation ratios. The Corps and the Department recommend the applicant conduct an assessment using generally acceptable methodologies such as the CRAM, approved site-level standardized monitoring protocols, or HGM to evaluate the baseline conditions of the impact and potential mitigation sites.

As a reminder, when using the integrity indices-based ratios, required mitigation shall always be greater or equal to 1:1 in terms of acreage, even if the actual calculated ratios to achieve functional replacement are less than 1:1, which would most likely to occur when the impacted resources have low functions as compared to the functions of the mitigation site. However, if the calculated ratio is less than 1:1, mitigation at 1:1 replacement of acreage will generate a functional gain that exceeds the calculated ratio and will reduce additional mitigation requirements for any temporal loss.

- Offsets for Temporal Loss

Temporary and permanent impacts to riparian habitat authorized by LOPs and standard individual permits shall be compensated through consideration of the time needed to ~~fully~~ recover temporarily impacted functions. Temporal loss will apply when compensatory mitigation does not occur prior to or concurrent with impacts, and only to the habitat index, since the other two indices (i.e., water quality and hydrology) should not have a temporal lag. In general, mitigation ratios for temporal loss will be determined on a functional integrity basis as

described above. Additional mitigation above a 1:1 ratio to offset temporal losses of habitat function will adhere to the following guidelines:

- impacts to unvegetated aquatic resources will not require additional compensatory mitigation~~.~~;
- impacts to herbaceous vegetation will require no more than an additional 0.5:1 ratio of compensatory mitigation;
- impacts to shrubby vegetation will require no more than an additional 1:1 ratio of compensatory mitigation~~.~~;
- tree vegetation will require no more than an additional 2:1 ratio of compensatory mitigation; and
- tree vegetation with dense understory vegetation will require no more than an additional 3:1 ratio of compensatory mitigation.

Compensatory mitigation required above replacement (1:1) may be satisfied through additional restoration and/or enhancement efforts within the aquatic resource integrity areas of the Watershed, or by contribution of fees equivalent to per acreage costs to a Corps and Department-approved third-party mitigation program or mitigation bank operating within the Watershed.

(g) Compensatory Mitigation for Temporary Impacts

The following mitigation measures would be required for projects or activities with temporary impacts to aquatic resources.

- Restoration On-Site

Following a temporary impact (e.g. construction impact), an area shall be restored to pre-construction elevations within one month. Re-vegetation shall commence within three months after restoration of pre-construction elevations and be completed within one growing season. If re-vegetation cannot start due to seasonal conflicts (e.g., impacts occurring in late fall/early winter shall not be re-vegetated until seasonal conditions are conducive to re-vegetation), exposed earth surfaces should be stabilized immediately with jute-netting, straw matting, or other applicable best management practice to minimize any erosion from wind or water.

- Offsets for Temporal Loss

Temporary impacts to riparian habitat authorized by LOPs and standard individual permits shall be compensated through consideration of the time needed to recover fully the temporarily impacted functions. Temporal loss will apply when compensatory mitigation does not occur prior to or concurrent with impacts, and only to the habitat index, since the other two indices (i.e., water quality and hydrology) should not have a temporal lag. In general, the ~~following~~

ratios of compensatory mitigation described above in subsection (f) Amount of Compensatory Mitigation will apply to offset temporal losses of habitat function~~:~~.

- ~~impacts to unvegetated aquatic resources will not require additional compensatory mitigation,~~
- ~~impacts to herbaceous vegetation will require an additional 0.5:1 ratio of compensatory mitigation;~~
- ~~impacts to shrubby vegetation will require an additional 1:1 ratio of compensatory mitigation,~~
- ~~tree vegetation will require an additional 2:1 ratio of compensatory mitigation; and~~
- ~~tree vegetation with dense understory vegetation will require an additional 3:1 ratio of compensatory mitigation.~~

~~Compensatory mitigation required above replacement (1:1) may be satisfied through additional restoration and/or enhancement efforts within the aquatic resource integrity areas of the Watershed, or by contribution of fees equivalent to per acreage costs to a Corps and Department-approved third-party mitigation program or mitigation bank operating within the Watershed.~~

- Preparation of a Compensatory Mitigation Plan

All on-site revegetation efforts require preparation of a habitat mitigation and monitoring plan, as described above in subsection (c) Preparation of a Mitigation Plan. ~~which~~ The plan must be approved by the Corps and the Department prior to implementation. ~~The plan shall conform with the "Los Angeles District's Final Mitigation Guidelines and Monitoring Requirements." (Corps, 2004), or as subsequently revised. All habitat mitigation and monitoring plans need to conform with the requirements of "Los Angeles District's Final Mitigation Guidelines and Monitoring Requirements," (Corps, 2004), or as subsequently revised.~~

(h) Compensatory Mitigation for Permanent Impacts

Projects with unavoidable permanent impacts to aquatic resources shall provide compensatory mitigation in conformance with the following requirements.

- Mitigation Ratios

The ratios for compensatory mitigation described above in subsection (f) Amount of Compensatory Mitigation will apply to compensatory mitigation for permanent impacts.

~~The Corps will determine mitigation ratios in consultation with the Department and the applicant in a manner to achieve a no net loss of aquatic resource function and acreage in the Watershed. Specifically, ratios will be based on~~

~~area-weighted gain in functions at the compensatory mitigation site to compensate for area-weighted loss of functions at the impact site. Functions will be measured in terms of functional units with respect to hydrology, water quality, and habitat indices. ERDC calculated these three indices for all major reaches in the Watershed based on current conditions and after achievement of restoration goals. The ratios will essentially be:~~

~~$AREA_{MIT} / AREA_{IMP} = FuLOSS_{IMP} / FuGAIN_{MIT}$, whereby~~

~~$AREA_{MIT} / AREA_{IMP}$ = mitigation ratio~~
~~$AREA_{MIT}$ = area of mitigation~~
~~$AREA_{IMP}$ = area of impact~~
~~$FuLOSS_{IMP}$ = loss in functional index at the impact site~~
~~$FuGAIN_{MIT}$ = gain in functional index at the mitigation site~~
~~and at a minimum, $AREA_{MIT} * FuGAIN_{MIT} = AREA_{IMP} * FuLOSS_{IMP}$.~~

~~The applicant will supply the $AREA_{IMP}$ and the Corps will use the data available from ERDC for $FuLOSS_{IMP}$. The applicant will work in consultation with the Corps and the Department to identify an appropriate mitigation site to offset impacts. $AREA_{MIT}$ will depend on the capacity for $FuGAIN_{MIT}$. Final site selection will take into account the available hydrology to support the proposed mitigation, site access, and other relevant parameters.~~

~~For rarer, non-riparian/riverine resources such as estuarine wetlands, the formula does not apply. In such cases, the Corps, in consultation with the Department will use a functional and acreage-based assessment to determine the appropriate mitigation ratios. The Corps and the Department recommend the applicant conduct an assessment using generally acceptable methodologies such as the California Rapid Assessment Method (CRAM) and approved site-level standardized monitoring protocols or the Hydrogeomorphic Approach (HGM) to evaluate the baseline conditions of the impact and potential mitigation sites.~~

~~As a reminder, implemented ratios shall always be greater or equal to 1:1, even if the actual calculated ratios to achieve functional replacement are less than 1:1, which would most likely to occur when the impacted resources have low functions as compared to the functions of the mitigation site. However, if the calculated ratio is less than 1:1, mitigation at 1:1 replacement of acreage will generate a functional gain that exceeds the calculated ratio and will reduce additional mitigation requirements for any temporal loss (see 3 below).~~

- ~~No Loss in Any Functional Type~~

~~Using the metric developed by the Corps to calculate compensatory mitigation in the Watershed will ensure that losses to any function of the aquatic resources will~~

~~be offset. Specifically, compensatory mitigation shall ensure against loss of any function as characterized by all three area-weighted indices (i.e., for hydrology, water quality, and habitat). Even if there is a gain in one or two of the indices, the overall mitigation must ensure that there is not a loss in any of the three indices. Losses can be further offset by increasing the mitigation ratio.~~

- Offsets for Temporal Loss

Temporal loss for permanent impacts will ~~use the same guidelines as for temporary impacts (Section 3.6(g)(2)). Temporal loss will~~ apply when compensatory mitigation does not occur prior to or concurrent with impacts and only to the habitat index, since the other two indices (i.e., water quality and hydrology) should not have a temporal lag. In general, the ~~following~~ ratios of compensatory mitigation described above in subsection (f) Amount of Compensatory Mitigation will apply to offset temporal losses of habitat function~~:~~.

~~- impacts to unvegetated aquatic resources will not require additional compensatory mitigation,~~
  ~~- impacts to herbaceous vegetation will require an additional 0.5:1 ratio of compensatory mitigation;~~
  ~~- impacts to shrubby vegetation will require an additional 1:1 ratio of compensatory mitigation,~~
  ~~- tree vegetation will require an additional 2:1 ratio of compensatory mitigation; and~~
  ~~- tree vegetation with dense understory vegetation will require an additional 3:1 ratio of compensatory mitigation.~~

~~Compensatory mitigation required above replacement (1:1) may be satisfied through additional restoration and/or enhancement efforts within the aquatic resource integrity areas of the Watershed, or by contribution of fees equivalent to per acreage costs to a Corps and Department-approved third-party mitigation program or mitigation bank operating within the Watershed.~~

- Long-term Conservation

Any compensatory mitigation associated with permanent, unavoidable jurisdictional impacts within the Watershed will require legal assurances to ensure the long-term protection of the site's aquatic resources against degradation of integrity at the Watershed scale over time, unless otherwise approved by the Corps and the Department. Legal assurances include, but are not limited to conservation easements, land dedications, and implementing agreements. The Final Mitigation Rule (33 CFR Section 332.7) and Section 3.6(h)(4) of the SAMP document (Corps, ~~2008~~2009) ~~contains~~ contain more details on legal assurances as well as requirements for long-term conservation management (including in-perpetuity maintenance, monitoring, identification of

conservation manager, estimate of annual costs and long-term funding mechanism).

- Third-Party Mitigation Program or Mitigation Bank

An alternative method to satisfy compensatory mitigation requirements is the purchase of credits or payment of fees to a Corps- and Department-approved third-party mitigation program within the Watershed, including a mitigation bank, conservation bank, or for the enhancement, establishment, or restoration of identified offsite aquatic resources. The Department requires that a WSAA (or other SAA) identify the specific location(s) of the compensatory mitigation, so the third-party mitigation program sponsor would be required to link the mitigation actions with the WSAA. Use of an approved third-party mitigation program conducting preservation and enhancement efforts of identified sites would be available to offset temporal loss or instead of contracting with a separate conservation manager or establishing a separate endowment for individual mitigation sites. Additionally, compensatory mitigation requirements for permanent impacts may be offset by contribution to a Corps- and Department-approved third-party mitigation bank that is conducting establishment (creation) and/or restoration efforts in the Watershed. All third-party mitigation programs must comply with the requirements of the Corps/EPA Final Mitigation Rule (33 CFR Section 332.8).

(i) Delays in Implementation of Compensatory Mitigation

Implementation of compensatory mitigation shall begin, to the maximum extent practicable, before or concurrent with the activity causing the authorized impacts to jurisdictional areas, and according to a Corps-approved plan and construction schedule. The Corps and the Department expect the permittee to schedule the installation of mitigation projects to avoid and minimize temporal losses in function, such that offsite mitigation shall be initiated upfront, and onsite mitigation shall be scheduled to account for project site readiness. To offset temporal losses of aquatic functions resulting from the permitted activity, the Corps and the Department may require, on a case-by-case basis, additional compensatory mitigation for delayed implementation of compensatory mitigation beyond the Corps-approved final construction schedule that extends installation into the next year's growing season[13]. Subsections (f) Amount of Compensatory Mitigation, (g) Compensatory Mitigation for Temporary Impacts, and (h) Compensatory Mitigation for Permanent Impacts describe the additional mitigation ratios to offset temporal

[13] Generally, the growing season for non-tidal wetland and riparian systems not subject to snowfall extends from March through September, although the season may begin earlier at lower latitudes and altitudes.

loss of habitat for mitigation sites with approved construction schedules that plan for delayed installation of mitigation after jurisdictional impacts occur.

Compounding of the additional compensatory mitigation requirements will not exceed a ratio of 25% above initial compensatory mitigation acreage for every three-month period beyond the expected construction season. If the permittee anticipates delays, the permittee should notify the Corps and the Department in advance to provide explanations for the delay and the new expected start date. The Corps and the Department will advise the permittee of each 3-month delay and the amount of additional mitigation or additional monitoring time, if any, that will be required to offset temporal losses of function and services. ~~re-calculate the compensatory mitigation acreage.~~

For example, a project was permitted with the expectation that the mitigation site work would begin during the construction impacts to jurisdictional areas and a 1:1 ratio (1 functional unit or 1 acre) for compensatory mitigation was required. The following year the Agencies learn that the permitted impacts occurred but the installation of the mitigation site had not. Thus, the Agencies required additional mitigation to offset further temporal loss by assessing up to 25% additional mitigation for each 3-month delay beyond the second year growing season until installation of the mitigation is complete. In this example, up to 25% of 1:1, which equals 0.25:1 and equivalent to 0.25 acre that would accrue for every 3-month delay, unless otherwise approved by the Agencies.

A variation on the example above is the project was permitted and the resources to be impacted consisted primarily of riparian tree vegetation with dense understory. Instead of 1:1 ratio as a base mitigation requirement, the base would be 1:1 ratio (1 functional unit or 1 acre), plus 3:1 ratio (3 acres) for initial temporal loss due to the lengthy development time for dense understory. Thus, delayed implementation as described in example above would result in up to 25% additional mitigation for each 3-month delay beyond the second year growing season. In this case, 25% of 4:1 is 1:1 and equivalent to a maximum of 1 acre that would accrue for every 3-month delay, unless otherwise approved by the Agencies.

The Corps and the Department will give due consideration to special circumstances and may waive the ~~penalty~~ requirement for additional compensatory mitigation in cases where no substantive temporal loss to functions or services occurred, or where delayed compensatory mitigation was a result of natural causes beyond the permittee's control, including without limitation, fire, flood, storm, and earth movement, or as a result of any prudent action taken by the permittee under emergency conditions to prevent, abate, or mitigate significant injury to persons and/or the property resulting from such

causes. [Note: ~~that any~~ Any action undertaken during emergency conditions must receive prior authorization from the Corps and the Department if the action involves a discharge of dredged or fill material into aquatic resources within the Corps jurisdiction or will impact Department jurisdictional streams.]

Section 2.1.3.1, Identification of Restoration Opportunities in the Watershed, Table 2-9, page 2-64, has been revised to incorporate the following changes:

ID	Priority Grouping	Subwatershed	Reach	Restoration Template[1]	Level of Effort[2]	Length (m)	Notes
1	a	Laguna Channel	LG-02-2	Natural	Light	736	Continuous with LG-02-1; adjacent to PA17 development
2	a	Borrego Canyon Wash	BG-12-2	Incised	Light	238	Adjacent to SR-241; continuous with BG-12-1
3	a	Hicks Canyon Wash	HK-03-1	Incised	Light	515	Continuous with HK-03-2
4	a	Hicks Canyon Wash	HK-03-2	Incised	Heavy	235	Continuous with HK-03-1
5	a	Rattlesnake Canyon Wash	RS-09-1	Incised	Light	988	Currently in agricultural production; upstream of PA1; continuous to RS-09-2
6	a	Rattlesnake Canyon Wash	RS-09-2	Incised	Heavy	552	Currently in agricultural production; upstream of PA1; continuous to RS-09-2
7	a	Rattlesnake Canyon Wash	RS-11-1	Incised	Light	343	Currently in agricultural production; upstream of PA1;
8	a	Central Irvine Channel	TB-01-8	Incised	Light	210	Downstream of Siphon Reservoir
9	a	Borrego Canyon Wash	BG-13-2	Natural	Heavy	497	Upstream of SR-241; in alignment of future Portola Parkway extension
10	a	San Joaquin Channel	SJ-03-1	Natural	Light	720	Continuous with SJ-02b-1 and SJ-03-2; adjacent to PA17 development
11	a	San Joaquin Channel	SJ-03-2	Natural	Light	682	Continuous with SJ-03-1; adjacent to PA17 development
12	a	Central Irvine Channel	TB-03-1	Natural	Light	335	Upstream of Siphon Reservoir
~~13~~	~~b~~	~~Bee Canyon Wash~~	~~BE-15-1~~	~~Incised~~	~~Light~~	~~826~~	~~Adjacent to Bowerman Landfill~~
14	b	Borrego Canyon Wash	BG-10-2	Incised	Light	773	Continuous with BG-11-1 and BG-12-1; identified as UNBWC[3] restoration site
15	b	Bommer Canyon	BM-04-1	Incised	Light	1129	Upstream end impacted by PA27 development
16	b	Bonita Creek	BO-09-1	Incised	Light	996	Downstream of San Joaquin Reservoir; identified as UNBWC[3] restoration site

ID	Priority Grouping	Subwatershed	Reach	Restoration Template[1]	Level of Effort[2]	Length (m)	Notes
17	b	Laguna Channel	LG-02-1	Incised	Light	451	Continuous with LG-02-2; adjacent to PA17 development
18	b	Marshburn Channel	MH-03b-2	Incised	Light	134	Upstream of SR-241; continuous with MH-03b-3
19	b	Rattlesnake Canyon Wash	RS-07-2	Incised	Heavy	606	Currently in agricultural production; upstream of PA1;
20	b	Sand Canyon Wash	SC-11a-2	Incised	Light	225	Continuous with SC-09-1; adjacent to PA22 development
21	b	Shady Canyon	SH-06-2	Incised	Light	455	Upstream of PA22 development
22	b	Borrego Canyon Wash	BG-14-2	Natural	Heavy	491	Upstream of SR-241; in alignment of future Portola Parkway extension
23	b	Sand Canyon Wash	SC-11b-2	Natural	Light	654	Upstream of SC-11a-2
24	b	San Joaquin Channel	SJ-02b-1	Natural	Light	675	Continuous with SJ-03-1; adjacent to PA17 development
25	c	Agua Chinon Wash	AC-09-2	Incised	Light	512	Upstream of SR-241
26	c	Bommer Canyon	BM-02d-1	Incised	Light	230	Continuous with BM-02c-1 and BM-05-1; between PA22 and PA27
27	c	Hicks Canyon Wash	HK-04a-1	Incised	Light	1641	Continuous with HK-041a-2
28	c	Hicks Canyon Wash	HK-04a-2	Incised	Light	837	Downstream of SR-241; continuous with HK-041a-1
29	c	Marshburn Channel	MH-03b-3	Incised	Light	309	Continuous with MH-03b-2
30	c	Rattlesnake Canyon Wash	RS-05-1	Incised	Light	976	Upstream of Rattlesnake Canyon Reservoir
31	c	Rattlesnake Canyon Wash	RS-08-2	Incised	Light	811	Downstream of SR-241
32	c	Shady Canyon	SH-01-1	Incised	Light	971	Restoration completed because of prior permit requirements
33	c	Shady Canyon	SH-04-1	Incised	Light	357	Upstream of PA22 development
34	c	Borrego Canyon Wash	BG-12-1	Natural	Light	1923	Within El Toro Conservation Lands; continuous with BG-10-2
35	c	Sand Canyon Wash	SC-05-2	Natural	Light	472	Continuous with SC-06-1; just upstream from Sand Canyon Res.
36	c	Sand Canyon Wash	SC-09-1	Natural	Light	245	Continuous with SC-11a-2; adjacent to PA22 development
37	d	Agua Chinon Wash	AC-08-1	Incised	Light	722	Upstream of SR-241; in alignment of future Portola Parkway extension
38	d	Borrego Canyon Wash	BG-04a-1	Incised	Light	808	Affected by alignment of Alton Parkway; identified as UNBWC[3] restoration site

ID	Priority Grouping	Subwatershed	Reach	Restoration Template[1]	Level of Effort[2]	Length (m)	Notes
39	d	Borrego Canyon Wash	BG-04b-1	Incised	Light	398	Affected by alignment of Alton Parkway; identified as UNBWC[3] restoration site
40	d	Bommer Canyon	BM-02c-1	Incised	Light	362	Continuous with BM-02d-1; between PA22 and PA27
41	d	Bommer Canyon	BM-05-1	Incised	Light	1184	Continuous with BM-02d-1; between PA22 and PA27
42	d	Bonita Creek	BO-08-1	Incised	Light	638	Upstream of compensatory mitigation site; adjacent to SR-73
43	d	Peters Canyon Wash	PC-04-2	Incised	Light	1050	Within Peter's Canyon Regional Park; identified as UNBWC[3] restoration site
44	d	Sand Canyon Wash	SC-06-1	Incised	Heavy	410	Continuous with SC-05-2 and SC-08a-1; adjacent to PA22 development
45	d	Sand Canyon Wash	SC-08a-1	Incised	Light	829	Continuous with SC-06-1 and SC-08b-1; adjacent to PA22 development
46	d	Sand Canyon Wash	SC-08b-1	Incised	Light	516	Continuous with SC-08a-1 and SC-12-1; adjacent to PA22 development
47	d	Sand Canyon Wash	SC-12-1	Incised	Light	586	Continuous with SC-08b-1; adjacent to PA22 development
48	d	Borrego Canyon Wash	BG-11-1	Natural	Light	2383	Continuous with BG-10-2

Section 2.1.5.3, Transition to the SAMP/WSAA Process, page 2-92, has been added as follows:

2.1.5.3. Transition to the SAMP/WSAA Process

The effective date will be posted in a subsequent Public Notice/Notice of Decision following the Corps Record of Decision and the Department's certification of the Program EIS/EIR. The SAMP/WSAA Process will apply to applications for permits and agreements received after the effective date of the SAMP/WSAA Process.

Complete applications for permits and agreements received prior to the effective date will be processed in accordance with the previous permitting processes. Nevertheless, applications received prior to the effective date or in the application phase at the publication of this Program EIS/EIR should consider the SAMP tenets, Analytical Framework, mitigation framework, and Strategic Mitigation Plan to the maximum extent practicable. Since the Final Mitigation Rule became

effective, the Corps and the Department believe many of the requirements of the Mitigation Rule are incorporated into the SAMP/WSAA Process mitigation framework. Furthermore, the Final Mitigation Rule endorses the use of watershed plans when available and the SAMP is an available watershed plan.

After the effective date, permittees with existing standard individual permits and standard or master streambed alteration agreements shall be eligible for extensions and minor modifications without triggering the SAMP/WSAA Process permitting processes. Significant increases in scope of a previously permitted activity will be processed as a new application for permits (33 CFR Section 325.7) and agreements, and as such will be subject to the SAMP/WSAA Process. However, the Corps and the Department will take into account whether applying the new SAMP/WSAA Process to a particular project would result in a substantial hardship to an applicant. The Agencies will consider whether the applicant can fully demonstrate that substantial resources have been expended or committed in reliance on previous permitting processes or compensatory mitigation in determining the extent to which new provisions under the SAMP/WSAA Process will apply. In most cases, final engineering design work, contractual commitments for construction, or purchase or long-term leasing of property will be considered a substantial commitment of resources.

After the effective date, activities authorized under current NWPs scheduled for revocation that have commenced or are under contract to commence by the effective date, will have twelve months to complete the activity under the terms and conditions of the current NWPs (33 CFR 330.6(b)). Activities completed under the authorization of an NWP which was in effect at the time the activity was completed will continue to be authorized by that NWP (33 CFR 330.6(b)). Activities that remain incomplete after the close of the grandfather period will require new authorization under the SAMP permitting processes.

Corps and Department-approved mitigation plans for compensatory mitigation projects associated with either previously authorized permits/agreements, or complete applications for permits and agreements that were received prior to the effective date, will remain valid.

Figure Changes

Figure 2-3, Aquatic Resource Integrity Areas (Southern Area), has been revised to incorporate changes to extent of the aquatic resource integrity areas overlaying San Diego Creek.

Figure 2-4, Relationship between the SAMP Aquatic Resource Integrity Areas and the Central-Coastal NCCP Subregional Reserve System Planning Areas, has been revised to incorporate changes to extent of the aquatic resource integrity areas.

Figure 2-5, Flow Diagram for Corps SAMP Permit Process for San Diego Creek Watershed, has been revised to correct missing pathway information.

Figure 2-7, Prospective Restoration Areas Connecting Aquatic Resources from North to the South Portions of the Orange County Central-Coastal NCCP Subregional Reserve System, Located within the Proposed Orange County Great Park, has been revised to incorporate changes to extent of the aquatic resource integrity areas overlaying San Diego Creek.

Figure 2-8 Prospective Restoration Sites within Existing Open Space, has been revised to incorporate changes to extent of the aquatic resource integrity areas overlaying San Diego Creek and to correct baseline information pertaining to the FRB Landfill.

Figure 2-9, Prospective Restoration Sites Connecting High/Medium Integrity Reaches, has been revised to incorporate changes to extent of the aquatic resource integrity areas overlaying San Diego Creek and to correct baseline information pertaining to the FRB Landfill.

Figure 2-10 Prospective Restoration Sites with Species that are Endangered, Threatened, or of Special Concern, has been revised to incorporate changes to extent of the aquatic resource integrity areas overlaying San Diego Creek and to correct baseline information pertaining to the FRB Landfill.

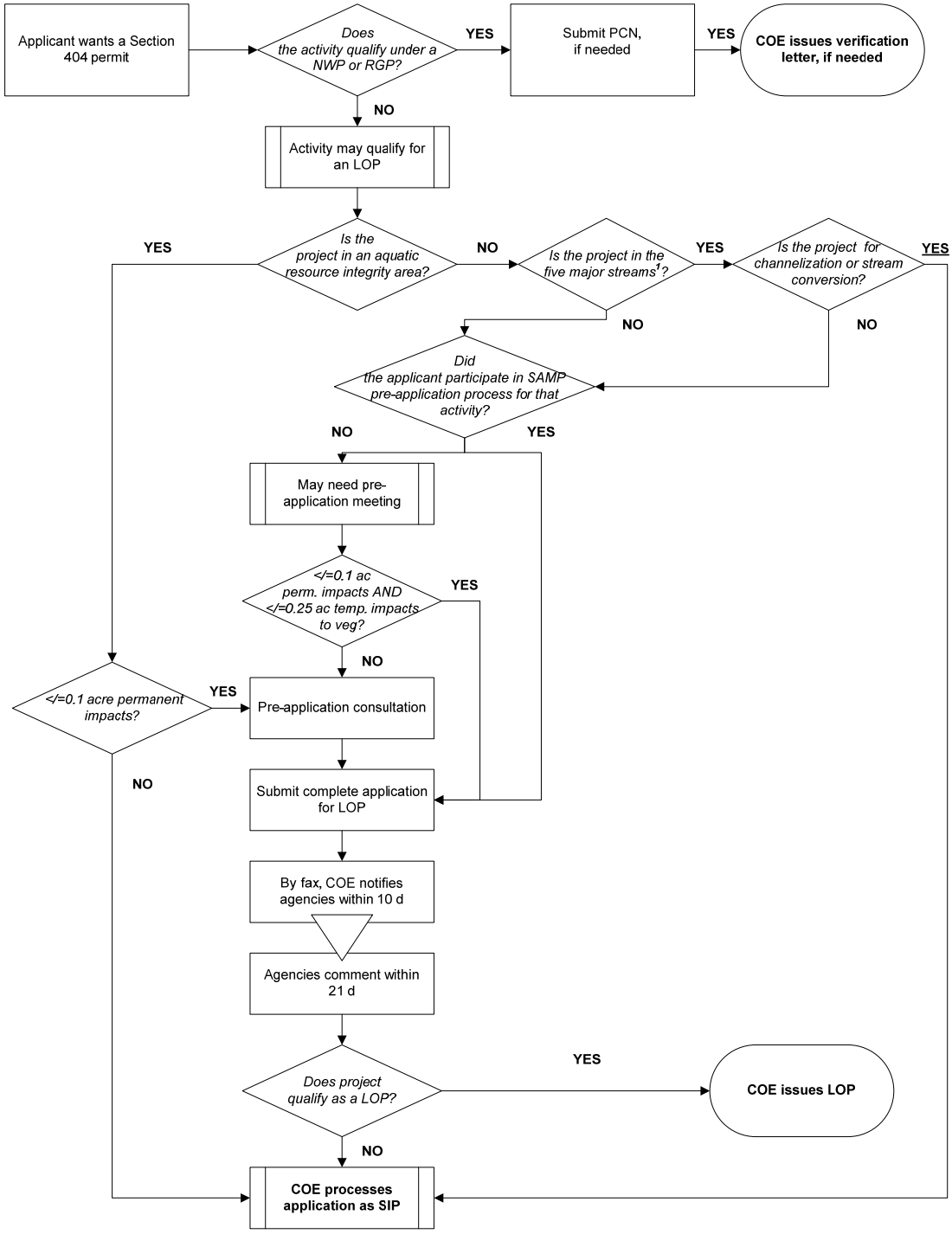
Figure 2-11 Remaining Prospective Restoration Sites, has been revised to incorporate changes to extent of the aquatic resource integrity areas overlaying San Diego Creek and to correct baseline information pertaining to the FRB Landfill.

Figure 2-12 Prospective Enhancement Sites, page 2-78 has been revised to incorporate changes to extent of the aquatic resource integrity areas overlaying San Diego Creek and to correct baseline information pertaining to the FRB Landfill.

Figure 2-3. Aquatic resource integrity areas (Southern Area)

Figure 2-4. Relationship between the SAMP Aquatic Resource Integrity Areas and the Central-Coastal NCCP Subregional Reserve System and Planning Areas

Figure 2-5. Flow diagram for Corps SAMP Permit Process for San Diego Creek Watershed.



[1] Five streams: Borrego Canyon Wash, Hicks Canyon Wash, Peters Canyon Wash, San Diego Creek, and Serrano Creek

Figure 2-7. Prospective restoration areas connecting aquatic resources from northern to southern portions of the Orange County Central-Coastal NCCP Subregional Reserve System, located within the proposed Orange County Great Park.

Figure 2-8. Prospective restoration sites within existing open space.

Figure 2-9. Prospective restoration sites connecting high/medium integrity reaches.

Figure 2-10. Prospective restoration sites with species that are endangered, threatened, or of special concern.

Figure 2-11. Remaining prospective restoration sites.

Figure 2-12. Prospective enhancement sites.

4.3 Section 3: Baseline Conditions

Text Changes

Section 3.1.3, Habitat Integrity, page 3-18, Table 3-5 has been renumbered to Table 3-4.

Section 3.2.1, Topographical Relief and Vegetation Communities, page 3-21, Table 3-6 has been renumbered to Table 3-5.

Section 3.2.3, Existing Upland Vegetation Communities, page 3-26, Table 3-7 has been renumbered to Table 3-6.

Section 3.2.4, Threatened and Endangered Wildlife Species, page 3-30 Table 3-8 has been renumbered to Table 3-7.

Section 3.2.5, Threatened and Endangered Plant Resources, page 3-37, Table 3-9 has been renumbered to Table 3-8.

Section 3.3.1, Hydrologic Conditions, page 3-48 has been revised to incorporate the following changes:

> The Watershed is presently drained by a series of ephemeral streams, lined and unlined channels and underground storm drains. The principal watercourse, ~~is~~ San Diego Creek, ~~that~~ drains the 122square mile~~s of the total~~ Watershed.

Section 3.3.1, Hydrologic Conditions, page 3-48, Table 3-10 has been renumbered to Table 3-9.

Section 3.3.1, Hydrologic Conditions, page 3-50, Table 3-11 has been renumbered to Table 3-10.

Section 3.3.2, Erosion and Sedimentation, page 3-54, Table 3-12 has been renumbered to Table 3-11.

Section 3.4.1, Surface Water Quality, page 3-60, Table 3-13 has been renumbered to Table 3-12.

Section 3.4.1, Surface Water Quality, page 3-61, Table 3-14 has been renumbered to Table 3-13.

Section 3.4.1, Surface Water Quality, page 3-62, Table 3-15 has been renumbered to Table 3-14.

Section 3.4.1, Surface Water Quality, page 3-63, Table 3-16 has been renumbered to Table 3-15.

Section 3.4.1, Surface Water Quality, page 3-65, Table 3-17 has been renumbered to Table 3-16.

Section 3.4.1, Surface Water Quality, page 3-66, Table 3-18 has been renumbered to Table 3-17.

Section 3.5.2, Air Quality, page 3-78, Table 3-19 has been renumbered to Table 3-18.

Section 3.5.9, Recreation, page 3-100 has been revised to incorporate the following changes:

Upper Newport Bay State Ecological Reserve/Upper Newport Bay ~~Regional Park~~ Nature Preserve

The Upper Newport Bay State Ecological Reserve/Upper Newport Bay ~~Regional Park~~ Nature Preserve is located in Newport Beach at the southwestern corner of the Watershed, beginning where San Diego Creek outlets to Upper Newport Bay at the Jamboree Road Bridge. Pacific Coast Highway, Back Bay Drive, Eastbluff Drive, Jamboree Road, the Orange County Regional Park, and the Dover cliff bluffs generally bound the reserve. This 756-acre reserve provides essential habitat for a number of state and federally-listed threatened and endangered species, including the salt marsh bird's-beak, California brown pelican, American peregrine falcon, light-footed clapper rail, California least tern, and Belding's Savanna sparrow. The ~~Park~~ Ecological Reserve is owned and managed by the ~~County of Orange~~ Department and the Department's land in the Nature Preserve is managed by the City of Newport Beach. Recreational activities include hiking, biking, equestrian riding, fishing, boating, and interpretive programs.

Section 3.5.9, Recreation, pages 3-102 through 3-103, have been revised to incorporate the following changes:

Limestone Canyon and Whiting Ranch Wilderness Park

Limestone Canyon and Whiting Ranch Wilderness Park is owned by the County and managed by the ~~Nature Conservancy~~ County. It is located within the foothills of the Cleveland National Forest, west of Santiago Canyon Road between Modjeska Canyon Road and Live Oak Road, and is bordered by the communities of Foothill Ranch and Portola Hills. The westerly portions of the park are within the Watershed. Adjacent to Whiting Ranch Wilderness Park is Limestone Canyon, also known as the Northern Reserve, which was donated to the County by The Irvine Company. A 640-acre portion of Limestone Canyon, known as the Hangman Tree area, was incorporated into the Whiting Ranch Wilderness Park in the fall of 1999, increasing the size of Whiting Ranch Wilderness Park to approximately 2,400 acres. The remainder of Limestone Canyon, approximately 7,000 acres, ~~while donated, has yet to be incorporated into the Whiting Ranch Wilderness Park~~ has been irrevocably offered for dedication to the County. Three streams flow through Whiting Ranch, including Borrego, Serrano and Aliso Creek; the latter is located outside the Watershed.

These streams are intermittent in the upper reaches and become more perennialized in the lower reaches. Recreational activities in Whiting Ranch include horseback riding, hiking, and mountain biking.

William R. Mason Regional Park

William R. Mason Park is located in the southern portion of the Watershed in the City of Irvine. The park is bounded by University Drive to the north and bisected by Harvard Avenue, Culver Drive, and Ridgeline Drive in Irvine. The 345-acre park, owned and managed by the County of Orange, contains open space, grassy knolls, and natural areas. The recreational opportunities include picnic areas, softball back stop, large turf areas, hiking and bicycling trails, three sand volleyball courts, a physical fitness vita course, three tot lot playgrounds, amphitheater, and nine acre lake (supplied with reclaimed water from IRWD). San Diego Creek is located near the Park, paralleling University Drive.

Proposed Regional Parks

The City of Irvine has proposed the Orange County Great Park as part of the re-use of the former MCAS El Toro, located in the central portion of the Watershed. The total project area encompasses approximately 4,800 acres, or 7.5 square miles. Proposed recreational land uses planned in the project area include open space/park, cultural facilities, golf courses, habitat preserve, and trails along wildlife and riparian drainage corridors.

Local and Regional Riding and Hiking Trails and Off-Road Bikeways

The County Recreation Element envisions a countywide system of regional riding and hiking trails. ~~for hiking, equestrian, and non-motorized biking uses.~~ A total of ~~349~~ 353 miles of trails is proposed, with approximately ~~96~~ 120 miles remaining to be constructed. When complete, the trail ~~The~~ system would connect ~~all~~ to beaches, parks, and other open space areas, allowing a user to travel from the ocean to the Cleveland National Forest. ~~Existing trails are largely~~ Trails are off-road and generally unpaved. Per the goals and objectives of the Recreation Element, these trails are intended to be used by people on a year-round basis. Public safety is a major consideration in trail design, construction, and maintenance. Acquisition is accomplished through a variety of means, including the land development process, public/private partnerships, and dedications.

The County Transportation Element of the General Plan similarly envisions a system of regional Class I (paved off-road) bikeways. Class I bikeway uses includes commuter and recreational cyclists. A total of 300 miles of Class I bikeways is proposed on County's Bikeway Plan and the Orange County Transportation Authority's Commuter Bikeways Strategic Plan. Class I bikeways provide routes for off-road travel throughout much of the developed part of the

county. Class I bikeways are paved with asphalt or concrete offering users all-weather riding throughout the year. Bikeways are often located along flood control channels and creeks and between communities. These commuter and recreation facilities are often built as part of new development, through partnerships and dedications.

Trails create a web of connective paths throughout the Watershed. They link many of the regional parks, and are adjacent to or alongside some of the drainage channels and other watercourses. Trails and Class I bikeways located or proposed to be within the boundaries of the Watershed are described below.

Section 3.5.9, Recreation, pages 3-103 through 3-104, has been revised to incorporate the following changes:

Atchison, Topeka ~~&~~ and Santa Fe (AT&SF) Bikeway
This existing and proposed ~~4-mile~~ 6.5-mile Class I (off road) bikeway extends along the AT&SF Railroad between Peters Canyon Bikeway ~~and Sand Canyon Road~~ in the City of Irvine to the Aliso Creek Bikeway in the City of Lake Forest.

Borrego Canyon Bikeway
This Class I bikeway is located along Towne Centre Drive near the intersection of the Foothill Transportation Corridor (SR-241) and Alton Parkway. An extension is proposed from this area north to the Irvine Multimodal Transportation Center, according to the County of Orange Bikeways Plan. The proposed bikeway would cross the eastern tributary of the Borrego Canyon Wash, underneath the Foothill Transportation Corridor (SR-241). The combination of existing and proposed bikeway segments will be approximately six miles long.

Hicks Canyon Riding/Hiking Trail and Bikeway
The ~~horseback~~ riding and hiking ~~portion of this~~ trail is proposed to extend approximately five miles from Limestone Canyon and Whiting Ranch Wilderness Park to connect with Peters Canyon trail. This trail would cross Hicks Canyon Wash, near the proposed Jeffrey Road extension, north of Portola Parkway. The Class I bikeway currently exists between ~~Culver Drive and east of Yale Avenue for approximately one-half mile~~ Portola Parkway and Peters Canyon Channel.

Irvine Coast Trail
This ~~existing~~ proposed trail commences at Upper Newport Bay ~~Regional Park~~ Nature Preserve, heads east along the San Diego Creek trail, enters William R. Mason Regional Park, borders the Turtle Rock area, goes south to Bommer Canyon, and finally connects to Crystal Cove State Park. This trail is

approximately 10 miles long and runs adjacent to and/or across San Diego Creek Channel, Sand Canyon Wash, and Bommer Canyon Creek.

Section 3.5.9, Recreation, pages 3-102 to 3-103, has been revised to incorporate the following changes:

Jeffrey Road Bikeway
This bikeway is both existing and proposed. The existing portion of this bikeway extends for two miles along Jeffrey Road between the 405 Freeway and the AT&SF Bikeway. The planned section will continue south to Mason Regional Park and north to the Irvine Lake area. The total length of the planned trail will be approximately 10.5 miles. This bikeway will cross or be adjacent to the Hicks Canyon Wash, Central Irvine Channel, Como Storm Channel, San Diego Creek Channel, San Joaquin Channel, and Sand Canyon Wash.

Peters Canyon Trail
This existing trail commences at ~~Peters Canyon Regional Park at Peters Canyon Reservoir,~~ Irvine Regional Park, heads south through Tustin, then along the Peters Canyon Wash Channel, the San Diego Creek Channel, and ends just north of ~~Campus Drive, where the Irvine Coast Trail crosses the San Diego Creek Channel~~ Edinger Avenue. ~~The length of this trail is approximately 10 miles~~ As proposed, the trail will be approximately 12 miles long when complete. There are 2-, 4-, and 8-mile loops along this trail within Peters Canyon Regional Park.

San Diego Creek Bikeway
The existing portion of this bikeway extends along San Diego Creek from Newport Beach to Jeffrey Road in Irvine. The planned extension will continue to follow San Diego Creek east of Jeffrey Road to Old Laguna Canyon Road~~,~~ and ~~will then divide; the southern portion~~ will extend just past the 405 Freeway ~~and the northern portion will connect with~~ to Lake Forest Drive. The existing portion of this bikeway is approximately eight miles long; the planned portion is approximately six miles long.

Sand Canyon Bikeway
This existing approximately 2-mile bikeway extends along the west side of Sand Canyon Avenue between the San Diego Freeway and the AT&SF Bikeway, just south of the I-5 Freeway. This bikeway crosses the San Diego Creek at Sand Canyon Avenue.

Serrano Creek Riding and Hiking Trail
This approximately 6-mile riding and hiking trail is located in the City of Lake Forest. The trail begins at Serrano Creek Park and follows the Creek to Whiting

Ranch Wilderness Park. For the past three years, the County, OCFCD, City of Lake Forest, and the Serrano Creek Conservancy along with other agencies and local citizens have been working to restore Serrano Creek. Programs have been implemented to control erosion along the Creek and plant trees in the Serrano Creek Park. Restoration of the creek is ongoing.

Section 3.5.10, Socioeconomics, pages 3-105 through 3-106, have been revised to incorporate the following changes:

The City of Irvine has reached the halfway point of its projected population growth. Population growth as a yearly percentage has slowed considerably as the City has matured. Between 1970 and 1980, population increases averaged 20 percent per year. Between 1980 and 1990, the average increase dropped to 8 percent per year; and since 1990, the annual increase has averaged 2 percent per year (City of Irvine 2003). Table 3-~~20~~19(a) Orange County Projects 2004 (OCP-2004) population in five-year increments for the City of Irvine and Orange County. Based on this table, Orange County is projected to grow by approximately 458,300 people by the year 2030. Tables 3-19(b-d) show the population forecasts from the 2004 Regional Transportation Plan (RTP) (SCAG, 2007) in five-year increments through 2035.

Table 3-~~20~~19(a). OCP-2004 Population[1]

	Population					
Jurisdiction	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**
Irvine	182,890	192,185	197,280	200,291	202,291	203,964
Orange County	3,094,461	3,291,628	3,402,964	3,485,179	~~3,537,559~~ 3,537,559	3,552,742

[1] *Source: Center for Demographic Research, California State University, Fullerton*

Tables 3-19(b-d). 2004 RTP Population Forecasts[1]

(b) Adopted SCAG Regionwide Forecasts	**2010**	**2015**	**2020**	**2025**	**2030**	**2035[2]**
Population	19,208,661	20,191,117	21,137,519	22,035,416	22,890,797	24,056,000
Households	6,072,578	6,463,402	6,865,355	7,363,519	7,660,107	7,710,000
Employment	8,729,192	9,198,618	9,659,847	10,100,776	10,527,202	10,287,000

(c) Adopted OCCOG[3] Forecasts	**2010**	**2015**	**2020**	**2025**	**2030**	**2035[2]**
Population	3,291,628	3,369,745	3,433,609	3,494,394	3,552,742	3,653,988
Households	1,034,027	1,046,473	1,063,976	1,081,421	1,098,474	1,118,490
Employment	1,749,985	1,801,602	1,848,135	1,887,542	1,921,806	1,981,901

(d) Adopted OCCOG[3] Unincorporated Area Forecasts	2010	2015	2020	2025	2030	2035[2]
Population	197,735	216,810	234,112	251,091	286,705	237,210
Households	65,939	70,509	76,264	82,267	94,243	74,598
Employment	58,855	63,148	67,279	71,005	82,903	47,695

[1]The 2004 RTP growth forecast at the regional, county, and subregional levels was adopted by SCAG's Regional Council in April 2004 and provided to the Corps and the Department in SCAG's comment letter for the draft Program EIS/EIR for the San Diego Creek SAMP/WSAA Process, dated April 15, 2008. City totals are the sum of small area data and were used for advisory purposes only.
[2] Source: Draft 2008 RTP Baseline Growth Forecast, as provided by SCAG in its comment letter dated April 15, 2008.
[3] Orange County Council of Governments

Section 3.5.10, Socioeconomics, page 3-106 has been revised to incorporate the following changes:

Housing

In Orange County, 1990-1994 housing production lagged demand by 13,600 units. In 1995-1997, the County's home construction lagged demand growth by nearly 25,000 units, or by 4.1 percent as compared to inventory (University of California Berkeley 2000). Tables 3-19(b-d) show the household forecasts from the 2004 RTP (SCAG, 2007) in five-year increments through 2035. Table 3-~~21~~20 provides a summary of OCP-2004 housing projections in five-year increments for the City of Irvine and Orange County.

Section 3.5.10, Socioeconomics, page 3-107, Table 3-21 has been renumbered to Table 3-20.

Section 3.5.10, Socioeconomics, page 3-107, Table 3-22 has been renumbered to Table 3-21.

Section 3.5.10, Socioeconomics, pages 3-107 through 3-108, have been revised to incorporate the following changes:

Existing and Projected Jobs

Tables 3-19(b-d) show the household forecasts from the 2004 RTP (SCAG, 2007) in five-year increments through 2035. Table 3-~~23~~22 shows OCP-2004 employment projections in five-year increments for the City of Irvine and Orange County. Jobs created in the County are expected to increase by approximately 419,400 by the year 2030.

Section 3.5.10, Socioeconomics, page 3-108, Table 3-23 has been renumbered to Table 3-22.

Section 3.5.11, Transportation/Circulation, Table 3-24, Major Arterial Roadways in Watershed, page 3-110 has been renumbered to Table 3-23 and revised to incorporate the following changes:

Alignment	Established Segments	Proposed Segments
Irvine Center Drive	6-lane Smart Street	None. Completed.
Irvine Boulevard/Trabuco Road	Major 6-lane divided	None. Completed.
Bake Parkway	Major 6-lane divided (southern) Primary 4- lane divided (northeastern)	Major 6-lane divided (southeastern)
Alton Parkway	Major 6-lane divided (northeastern and eastern) Primary 4- lane divided (central)	None shown on MPAH. Planned segment from Irvine Blvd to Towne Center Dr. ~~Completed.~~
Lake Forest Drive	Major 6- lane divided (southeastern) Primary 4- lane divided (northeastern)	Primary 4-lane divided (southeastern)
Ridge Route	Secondary 2-lane divided (northeastern and southeastern) Primary 4-lane divided (southeastern)	None. Completed.
Santa Maria Avenue	Secondary 2-lane divided (southern) Primary 4-lane (southeastern)	Primary 4- lane divided (southeastern)
Barranca Parkway/Muirlands Blvd.	Major 6- lane divided (western) Primary 4- lane divided (central, eastern)	None. Completed.
Portola Parkway	Major 6- lane divided (western) Primary 4- lane divided (eastern)	Primary 4-lane divided (eastern)
Jamboree Road	Major 6- lane divided	None. Completed.
Culver Drive	Major 6-lane divided (northeastern) Primary 4-lane divided (southwestern)	None shown on MPAH. ~~Completed.~~
Jeffrey Road	Major 6-lane divided (central) Primary 4-lane divided (southwestern)	Primary 4-lane divided (northeastern)

Source: Orange County Transportation Authority, Master Plan of Arterial Highways, ~~December 2005~~ August 2007

Section 3.5.11, Transportation/Circulation, page 3-111 (incorrectly numbered in Volume I as page 3-107) has been revised to incorporate the following changes:

As shown on Figure 3-17, major east-west corridors that transect the Watershed include Irvine Center Drive, designated a six lane "Smartstreet," and Irvine Boulevard, a major arterial for its full extent within the Watershed. Alton Parkway and Barranca Parkway also provide east-west continuity, although their status varies between major and primary arterial. North-south connectivity is provided by Jamboree Road, a major arterial. Jeffrey Road/University Drive will provide a

continuous north-south route throughout the Watershed once the extension of Jeffrey Road north of Portola Parkway is completed. According to the MPAH, Jeffrey Road is proposed to connect to SR-241 and continue northeasterly outside the Watershed boundary. The Jeffrey Road extension was planned concurrently with the NCCP/HCP Reserve and ~~is an~~ was approved under the NCCP/HCP as a new use. ~~within the Watershed under the NCCP/HCP~~ The MPAH also shows proposed extensions of Bake Parkway, Lake Forest Drive and Santa Maria Avenue south of Irvine Center Drive. These proposed extensions are each planned to connect to Laguna Canyon Road. The MPAH shows the following roadways as established, but some segments are planned, and at the time of this Program EIS/EIR not constructed: Alton Parkway from Irvine Boulevard to Towne Center Drive, a segment of Culver Drive, and a segment of Portola Parkway.

Figure Changes

Figures 3a and 3b, pages 3-16 and 3-17, have been renumbered to Figures 3-3a and 3-3b, respectively.

Figure 3-16 Regional Recreation Resources, page 3-101 has been revised to reflect name changes to facilities as requested.

Figure 3-16. Regional Recreation Resources

4.4 Section 4: Programmatic Impact Analysis of SAMP/WSAA Process and Regulated Activities

Text Changes

Section 4.2.3, Programmatic Impact Analysis – Proposed Regulated Activities, page 4-8 has been revised to incorporate the following changes:

- SAA Templates Master Conditions List of the WSAA Process: Conditions that relate to avoiding, minimizing, and compensating for impacts to wetland and riparian habitats as provided in the categories listed below as well as the SAMP mitigation framework.

1. Vegetation Removal	Conditions 24 - 34
2. Routine Channel Maintenance	Conditions 35 – 42
3. Exotic Vegetation Eradication Control	Condition 43
4. Placement of Instream Structures	Conditions 46 – 64
5. Turbidity and Siltation	Conditions 88 – 95
6. Equipment and Access	Conditions 96 – 109
7. Additional Mitigation Conditions	Conditions 131 – ~~140~~141
8. Additional Resource Protection	Conditions 142 – ~~154~~155
9. Fisheries Specific Protection	Conditions 156 - 162

Section 4.2.3, Programmatic Impact Analysis – Proposed Regulated Activities, page 4-14 has been revised to incorporate the following changes:

> Bridge and culvert projects across the entire Watershed may reduce the hydrologic and habitat connectivity of riparian reaches. Given the emphasis of the SAMP/WSAA Process on implementing a holistic approach to preserving the aquatic and riparian ecosystems, such potential fragmentation impacts would be addressed through the SAMP/WSAA Process program which will require proper design elements (e.g., large culverts to allow wildlife passage, or bioengineering solutions such as ~~un-grouted rip-rap~~ planting appropriate native vegetation to dissipate energy) or other avoidance or mitigation techniques. Through the SAMP/WSAA Process, and agency coordination between 2000 and 2006 by the SAMP Participating Applicants, many such reach- and watershed-scale direct and indirect impacts to the Watershed have been avoided and minimized. Under the SAMP/WSAA Process, future land development activities must comply with the terms and conditions associated with the SAMP/WSAA Process permitting and mitigation requirements. As a consequence, potential impacts to high and medium integrity riparian reaches would be avoided to the maximum extent practicable and remaining unavoidable impacts would be mitigated. Thus, impacts to wetland and riparian areas would be less than significant. Additionally, implementation of prioritized restoration plans (Corps 2004, 2006), as specified in the SAMP/WSAA Process Strategic Mitigation Plan and Mitigation Coordination Program, would serve to reconnect areas previously fragmented, and ensure the

sustainability of these aquatic resources. Thus, the permitting and mitigation requirements of the SAMP/WSAA Process would reduce potential fragmentation impacts from road/bridge construction to less than significant levels.

Section 4.5.1, Significance Thresholds, page 4-53, Table 4-5 has been renumbered to Table 4-4.

Section 4.5.2, Impacts, page 4-54, Table 4-6 has been renumbered to Table 4-5.

Section 4.5.2, Impacts, page 4-56, Table 4-7 has been renumbered to Table 4-6.

Section 4.5.2, Impacts, page 4-58, Table 4-8 has been renumbered to Table 4-7.

Section 4.6.2, Impacts, page 4-73, Table 4-9 has been renumbered to Table 4-8.

Section 4.6.6, Land Use, page 4-85, Table 4-10 has been renumbered to Table 4-9.

4.5 Section 8: Other Federal and State Impact Considerations

Text Changes

Section 8.3.3, Study Area Demographics, page 8-3, Table 8.3-1 has been renumbered to Table 8-1.

Section 8.3.4, Low Income Composition, page 8-3, Table 8.3-2 has been renumbered to Table 8-2.

4.6 Section 9: Consistency with Federal and State Laws

Text Changes

Section 9.1.1, Endangered Species Act, pages 9-1 through 9-4, has been revised to incorporate the following changes:

> The Corps has informally consulted with the USFWS throughout the SAMP formulation process to ensure any impacts to federally listed species, or their critical habitat, are not adverse. The Corps has determined that some future activities that would be authorized by the RGP and the LOP procedures may affect federally listed endangered species known to utilize habitat in the Watershed. ~~At this time, the Corps has sufficient information to initiate Section 7 consultation for the establishment of the RGP. Therefore, the Corps will initiate formal consultation on the RGP in a forthcoming letter, pursuant to Section 7 of the ESA.~~ The Corps completed an informal Section 7 consultation with the USFWS for the RGP. The recommended conservation measures were incorporated into the conditions of the RGP to ensure the activities authorized by the RGP will not adversely affect federally listed species. Since the Corps expects to issue subsequent Federal permits under the new SAMP LOP procedures for future activities that may affect federally listed species, the Corps will, on a project-specific basis initiate consultation with USFWS as appropriate. However, the Corps incorporated the same recommended conservation measures for the RGP into the condition for the LOP procedures. With respect to obligations under the ESA, mitigation and minimization in the LOP procedures and RGP are considered reasonable and prudent measures for all non-jeopardy Section 7 consultations. Nevertheless, for decisions on specific projects authorized under the LOP procedures that may affect federally listed species, the Corps may undergo separate Section 7 consultations with the USFWS. Similarly, future projects would also be subject to the Department's requirements for CESA. The proposed SAMP/~~WSAA Process~~ permitting process includes the following RGP and LOP general condition for use in the Watershed:
>
> > (a) No activity is authorized which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the ESA or which will destroy or adversely modify the critical habitat of such species. Non-federal permittee shall not begin work on the activity until notified by the Corps that the requirements of the ESA have been satisfied and that the activity is authorized. (b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. (c) Non-federal permittees shall notify the district

engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until section 7 consultation has been completed. (d) As a result of formal or informal consultation with the USFWS or NMFS, the district engineer may add species-specific regional endangered species conditions to the RGP notices to proceed. (e) Authorization of an activity by an RGP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the USFWS or the NMFS, both lethal and non-lethal "takes" of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. USFWS and NMFS or their World Wide Web pages at ~~http://www.USFWS.gov/carlsbad~~ http://www.fws.gov/carlsbad/ and http://www.noaa.gov/fisheries.html respectively.

Activities authorized under the RGP and LOP procedures shall comply with the following applicable conservation measures resulting from the Corps informal Section 7 consultation to ensure the activity will not adversely affect federally listed species:

(1) Removal of gnatcatcher habitat within non-Reserve areas of the Orange County Central/ Coastal NCCP/HCP will follow the Construction and Minimization Measures for the NCCP/HCP;
(2) Removal of suitable habitat for the gnatcatcher and construction work within 300 feet of suitable habitat for the gnatcatcher will occur outside the gnatcatcher breeding season between February 15 and August 15. If work is necessary within 300 feet of suitable gnatcatcher habitat during the breeding season, a qualified biologist will perform protocol surveys in the area to determine whether any nesting gnatcatchers are present. If nests are absent, work will continue. If a nest is present, the permittee shall notify the Corps, the Department, and the Service of the location of

the nest, a 300-foot buffer around the nest will be clearly demarcated, and the area avoided until the nest is abandoned. A biological monitor with authority to stop construction will be present onsite during breeding-season construction to ensure the limits of construction do not encroach into suitable gnatcatcher habitat or within 300 feet of a nesting gnatcatcher;

(3) Removal of suitable habitat for the least Bell's vireo (LBV) and construction work within 300 feet of suitable habitat for the LBV will occur outside the LBV breeding season between March 15 and September 15. If work is necessary within 300 feet of suitable LBV habitat during the breeding season, a qualified biologist will perform protocol surveys in the area to determine whether any nesting LBVs are present. If nests are absent, work will continue. If a nest is present, the permittee shall notify the Corps, the Department, and the Service of the location of the nest, a 300-foot buffer around the nest will be clearly demarcated, and the area avoided until the nest is abandoned. A biological monitor with authority to stop construction will be present onsite during breeding-season construction to ensure the limits of construction do not encroach into suitable LBV habitat or within 300 feet of a nesting LBV;

(4) Removal of suitable habitat for the southwestern willow flycatcher (flycatcher) and construction work within 300 feet of suitable habitat for the flycatcher will occur outside the flycatcher breeding season between May 15 and July 31. If work is necessary within 300 feet of suitable flycatcher habitat during the breeding season, a qualified biologist will perform protocol surveys in the area to determine whether any nesting flycatchers are present. If nests are absent, work will continue. If a nest is present, the permittee shall notify the Corps, the Department, and the Service of the location of the nest, a 300-foot buffer around the nest will be clearly demarcated, and the area avoided until the nest is abandoned. A biological monitor with authority to stop construction will be present onsite during breeding-season construction to ensure the limits of construction do not encroach into suitable flycatcher habitat or within 300 feet of a nesting flycatcher; and

(5) If vernal pools are observed within a proposed project site under the RGP, vernal pool/fairy shrimp protocol surveys will be performed and the permittee shall notify the Corps, the Department, and the Service of the results prior to initiating any ground disturbance.

Section 9.1.2, Section 401 of the Clean Water Act, pages 9-4 through 9-5, has been revised to incorporate the following changes:

According to 33 CFR ~~330.4~~ 320.3, Section 401 of the Clean Water Act (33 U.S.C. 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the U.S. to obtain a certification from the State in which the discharge originates or would originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the affected waters at the point where the discharge originates or would originate, that the discharge will comply with the applicable effluent limitations and water quality standards. A certification obtained for the construction of any facility must also pertain to the subsequent operation of the facility. ~~401 water quality~~

~~certification pursuant to section 401 of the CWA, or waiver thereof, is required prior to the Corps Section 404 authorization of a project.~~ The issuance of such certifications will be subject to the RWQCB's or SWRCB's relevant processing times and procedures. Any conditions of a section 401 certification will become conditions of a Corps Section 404 permit. Unless a pre-certification has been obtained (e.g., as with some NWPs or RGPs), a Corps Section 404 permit will not be issued until the applicant provides the Corps with the following information: a Section 401 water quality certification, a waiver thereof, or evidence that 60 days have passed since a complete application was submitted to the RWQCB for certification. In the case of the Corps' LOP procedures, if a Section 401 certification has not been issued within 45 days after submittal of a complete application and the application complies with the conditions of an LOP, the Corps will issue a provisional LOP. To finalize a Corps provisional LOP, the applicant would contact the Corps when the project receives a Section 401 certification or waiver (or when 60 days have passed since complete application was submitted). [Note: The RWQCB reserves the right to regulate discharges under Porter-Cologne in lieu of or in addition to CWA Section 401 certifications.]

4.7 Section 10: Consistency with Regional and Local Plans

Text Changes

Section 10.1.2, Relation to the Proposed SAMP/WSAA Process, page 10-2, has been revised to incorporate the following changes:

> The NCCP established a habitat reserve system for native habitat. The focus of the NCCP is to protect target sensitive species, such as the coastal California gnatcatcher. Of the ~~17,125~~ 17,137 acres identified as aquatic resource integrity areas, including aquatic resources and their contributing upland areas of influence, 12,408 acres or 72% fall within the boundaries of the NCCP Reserve system. With regard to the Watershed's aquatic resources omitted from coverage under the NCCP, some already lie within the NCCP Reserve (and other open space areas and have been afforded some level of site protection independent of the SAMP/WSAA Process). For instance, 521 acres or 67% of the high and medium integrity riparian habitat (also identified as an aquatic resource integrity area) are located within the NCCP Reserve system. However, the SAMP/WSAA Process would conserve an additional ~~248~~ 259 acres of high and medium integrity riparian habitat. Other riparian habitat is located in non-NCCP designated open space areas, including the City of Irvine's Open Space Preserve, and UCI's San Joaquin Freshwater Marsh Preserve.

4.8 Section 13: Acronyms and Glossary

Text Changes

Section 13.1, Acronyms, pages 13-2 through 13-7, has been revised to incorporate the following changes:

CRREL	Cold Regions Research and Engineering Laboratory (of the U.S. Army Corps of Engineers)
~~DoA~~ DA	Department of Army
ERDC	Engineering Research and Development Center (of the U.S. Army Corps of Engineers)
HBP	Harbors, Beaches and Parks, now known as Orange County Resource Management
IWMD	Integrated ~~Water~~ Waste Management Department, now known as Orange County Waste and Recycling
WES	Waterways Experiment Station (of the U.S. Army Corps of Engineers)

Section 13.2, Glossary, pages 13-9 through 13-26, has been revised to include modified definitions, as well as new terms as follows:

Buffer (area, zone, or habitat) or Vegetated Buffer – A buffer is an intervening upland, wetland, and/or riparian area ~~or other form of barrier~~ that separates aquatic resources from developed or disturbed areas and protects and/or enhances aquatic resource functions associated with wetlands, rivers, streams, lakes, marine, and estuarine systems from disturbances associated with adjacent land uses. Buffers reduce~~s~~ the impacts on the aquatic resources that may result from human activities. The critical functions of a buffer, associated with an aquatic system, include shading, input of organic debris and coarse sediments, uptake of nutrients, stabilization of banks, interception of fine sediments, storm flow attenuation during high water events, protection from disturbance by humans and domestic animals, maintenance of wildlife habitat, and room for variation of aquatic system boundaries over time due to hydrologic or climate effects. A vegetated buffer could be established by maintaining an existing vegetated area or planting native trees, shrubs, and herbaceous plants on land next to open waters. Mowed lawns are generally not considered vegetated buffers because they provide little or no aquatic habitat functions and values. The establishment and maintenance of vegetated buffers may be given consideration as compensatory mitigation to offset requirements after replacement has been satisfied at a ratio of 1:1 and when buffers are incorporated in conjunction with the restoration, ~~creation~~ establishment, enhancement, or preservation of aquatic habitats to ensure that activities authorized by the Corps and the Department's regulatory programs result in minimal adverse effects to the aquatic environment.

Compensatory Mitigation – For purposes of Section 404 of the Clean Water Act, compensatory mitigation is the restoration (re-establishment or rehabilitation), establishment (creation), enhancement, or in exceptional circumstances, preservation of wetlands and/or other aquatic resources to compensate for unavoidable adverse impacts that remain after all appropriate and practicable avoidance and minimization has been achieved.

Condition – Condition means the relative ability of an aquatic resource to support and maintain a community of organisms having a species composition, diversity, and functional organization comparable to reference aquatic resources in the region.

Enhancement – ~~Improving existing functions of a low quality or degraded aquatic resource or wetland.~~ The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to the decline in other aquatic resource function(s). Enhancement does not result in a gain of aquatic resource area.

Establishment – "Establishment" (creation) means the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area and function.

Functions – Functions means the physical, chemical, and biological processes that occur in ecosystems.

Impact – "Impact" shall mean adverse effect.

In-lieu Fee Program – "In-lieu fee program" shall refer to a program involving the restoration, establishment, enhancement, and/or preservation of aquatic resources through funds paid to a governmental or non-profit natural resources management entity to satisfy compensatory mitigation for Corps permits or Department agreements. Similar to a mitigation bank, the in-lieu fee program sells credits to permittees whose obligation to provide compensatory mitigation is transferred to the in-lieu fee program sponsor. The rules governing the operation and use of in-lieu fee programs are somewhat different from the rules governing operation and use of mitigation banks. The operation and use of an in-lieu fee program area governed by an in-lieu fee program instrument.

In-lieu Fee Program Instrument – "In-lieu fee program instrument" means the legal document for the establishment, operation, and use of an in lieu fee program. An in-lieu fee program instrument must be approved by an interagency review team, an interagency group of federal, tribal, state, and /or local regulatory and resource agency representatives that reviews documentation for, and advises the Corps on, the management of a mitigation bank or an in-lieu fee program.

Reference aquatic resources – A set of aquatic resources that represent the full range of variability exhibited by a regional class of aquatic resources as a result of natural processes and anthropogenic disturbances.

Riparian Ecosystem (also Riparian, Riparian Areas, Riparian Zone, Riparian Vegetation) – Riparian areas typically border rivers and streams such that the riparian zone usually is defined as the area that lies along a stream channel. "Riparian areas" are lands adjacent to streams, rivers, lakes, and estuarine-marine shorelines; they provide a variety of ecological functions and services and help improve or maintain local water quality. The term "riparian zone" implies some interaction with the channel (e.g., inputs of organic material), but the definition used for this and related studies, is based primarily on proximity and may include upland vegetation growing on a high terrace or overhanging a channel from the top of a cut bank as well as species that occur only in association with watercourses. In the technical reports prepared in support of the SAMP (Smith, 2000; Lichvar et al., 2000), the term "riparian vegetation" is reserved for the latter group of plants, such as sycamores, willows, and mulefat. Riparian areas are particularly important because they link and integrate across landscapes by serving as corridors through which water, materials, and organisms move. In arid regions, riparian areas are critical to maintaining regional biodiversity because they provide habitat for a disproportionately large number of species in spite of their limited areal extent. Riparian areas typically include a zone of frequent flooding (bankfull), that is regulated under existing federal and state law, as well as a less frequently flooded transition zone between these areas regulated under state law and adjacent uplands (active floodplain to floodplain terrace). These transition zones vary in regulated statute from jurisdictional waters (including wetlands) to uplands even though they contribute greatly to the habitat, hydrologic, and biogeochemical functions performed by riparian areas. For the purposes of the SAMP, including the WSAA Process, and in the related studies, the Corps and the Department identified and assessed, and proposed management that should focus on the bankfull channel and transition zone, together as a "functional" riparian ecosystem. However, regulatory processes will remain applicable to ~~jurisidictional~~ jurisdictional areas.

Temporal Loss – "Temporal loss" is the time lag between the loss of aquatic resources functions caused by the permitted impacts and the replacement of aquatic resource functions at the compensatory mitigation site. Higher compensation ratios may be required to compensate for temporal loss. When the compensatory mitigation project is initiated prior to, or concurrent with, the permitted impacts, the district engineer may determine that compensation for temporal loss is not necessary, unless the resource has a long development time.

Watershed Approach – EPA defines the watershed approach as a framework used to coordinate environmental management efforts of the private and public sectors to address the priority problems within a hydrologically defined geographic area that considers ground and surface water flows. As applied to the SAMP, the target is to develop regulatory tools using a watershed approach to improve the Corps ~~cand~~ and the Department's contribution to riparian ecosystem management within the ongoing broader watershed management efforts. In the context of compensatory

mitigation, an analytical process for making compensatory mitigation decisions that support the sustainability or improvement of aquatic resources in a watershed. It involves consideration of watershed needs, and how locations and types of compensatory mitigation projects address those needs. A landscape perspective is used to identify the types and locations of compensatory mitigation projects that will benefit the watershed and offset losses of aquatic resource functions and services caused by activities authorized by Corps permits and Department agreements. The watershed approach may involve consideration of landscape scale, historic, and potential aquatic resource conditions, past and projected aquatic resource impacts in the watershed, and terrestrial connections between aquatic resources when determining compensatory mitigation requirements for permits or agreements.

4.9 Section 14: References

Text Changes

A reference on page 14-10 was revised.

4.10 Appendix C-1: Corps Special Public Notice on the Proposed Letter of Permission for the San Diego Creek Watershed

No specific revisions to the previously circulated Special Public Notice will be described herein. Following the Corps Record of Decision, a Special Public Notice describing the Letter of Permission Procedures will be circulated. Changes to the Letter of Permission Procedures made in accordance with revisions described in Section 4.2 above will be included in the Special Public Notice.

4.11 Appendix C-2: Corps Special Public Notice on the Proposed Regional General Permit for the San Diego Creek Watershed

No specific revisions to the previously circulated Special Public Notice will be described herein. Following the Corps Record of Decision, a Special Public Notice describing the Regional General Permit will be circulated. Changes to the terms and conditions of the Regional General Permit made in accordance with revisions described in Section 4.2 above will be included in the Special Public Notice.

4.12 Appendix D: California Department of Fish and Game Levels 1 – 3 Streambed Alteration Agreement Templates and Streambed Alteration Agreement Templates Master Conditions List for the San Diego Creek Watershed

Text Changes

Streambed Alteration Agreement Templates Master Conditions List, Condition 1, pages 1 through 2, has been revised to incorporate the following changes:

~~**Mitigation Ratios:**~~

~~**Compensatory Mitigation for Temporary Impacts:**~~

- ~~**Restoration On-Site:** After a temporary impact, an area should be restored to pre-construction elevations within one month. Re-vegetation should commence within three months after restoration of pre-construction elevations and be completed within 1 growing season. If re-vegetation cannot start due to seasonal conflicts (e.g., impacts occurring in late fall/early winter should not be re-vegetated until seasonal conditions are conducive to re-vegetation), exposed earth surfaces should be stabilized immediately with jute-netting, straw matting, or other applicable best management practice to minimize any erosion from wind or water.~~

- ~~**Offsets for Temporal Loss:** Temporary impacts to riparian habitat will be compensated through consideration of the time needed to fully recover temporarily impacted functions. In general, impacts to unvegetated habitat will not require additional compensatory mitigation, impacts to herbaceous vegetation will require an additional 0.5:1 ratio of compensatory mitigation, impacts to shrubby vegetation will require an additional 1:1 ratio of compensatory mitigation, tree vegetation will require an additional 2:1 ratio of compensatory mitigation, and tree vegetation with dense understory vegetation will require an additional 3:1 ratio of compensatory mitigation.~~

- ~~**Preparation of Compensatory Mitigation Plan:** All on-site revegetation efforts require a mitigation and monitoring plan approved by the resource agencies.~~

- ~~**Delays in implementation of compensatory mitigation:** Any delays in implementation of compensatory mitigation will be penalized by an increase in 25% of the initial compensatory mitigation acreage for every 3-month delay. If a delay is expected to occur, the permittee should notify the U.S. Army Corps of Engineers Los Angeles District Regulatory Division (Corps) and the California Department of Fish and~~

~~Game (Department) to provide explanations for the delay and the new expected start date. The Corps and the Department will notify the permittee of each 3-month delay and re-calculate the compensatory mitigation acreage.~~

~~Compensatory Mitigation for Permanent Impacts:~~

- **~~Mitigation Ratios:~~** ~~Ratios will be determined based on area-weighted gain in functions at the compensatory mitigation site with respect to area-weighted loss of functions at the impact site. Functions will be measured in terms of functional units with respect to hydrology, water quality, and habitat indices. The Corps' Engineering Research and Development Center (ERDC) calculated these three (3) indices for all major reaches in the San Diego Creek Watershed based on current conditions and after achievement of restoration goals. The ratios will essentially be:~~

~~$AREA_{MIT} / AREA_{IMP} = FuLOSS_{IMP} / FuGAIN_{MIT}$ where~~

~~$AREA_{MIT} / AREA_{IMP}$ = mitigation ratio~~
~~$AREA_{MIT}$ = area of mitigation~~
~~$AREA_{IMP}$ = area of impact~~
~~$FuLOSS_{IMP}$ = loss in functional index at the impact site~~
~~$FuGAIN_{MIT}$ = gain in functional index at the mitigation site~~

~~As a reminder, implemented ratios shall always be greater or equal to 1:1 even if the actual calculated ratios are less than 1:1. However, if the calculated ratio is less than 1:1, mitigation at 1:1 will generate excess credits above the calculated ratio to reduce additional mitigation requirements for temporal loss (see below).~~

- **~~No Loss in Any Functional Type:~~** ~~Mitigation will insure that losses to any of the three area-weighted indices (hydrology, water quality, and habitat) do not occur. Even if there is a gain in one or two of the indices, the overall mitigation must insure that there is not a loss in any of the three indices. Losses can be avoided by increasing the mitigation ratio.~~

- **~~Temporal Loss:~~** ~~Temporal loss for permanent impacts will use the same guidelines as for temporary impacts. However, temporal loss will only apply to the habitat index, since the other two indices should not have a temporal lag. In addition, temporal loss can be offset by creating superior habitat. For example, if $FuLOSS_{IMP}$ is 10 (shrubby vegetation) and $FuGAIN_{MIT}$ is 20, then the mitigation ratio would be 0.5 for permanent impacts and there would be a temporal loss credit of~~

~~0.5. Given an additional need for 1.0 credits for temporal loss, only an additional 0.5 credit is needed.~~

- ~~**Delays in implementation of compensatory mitigation:** Compensatory mitigation should begin concurrently with project impacts or prior to project impacts. Any delays in implementation of compensatory mitigation will be penalized by an increase in 25% of the initial compensatory mitigation acreage for every 3-month delay. If a delay is expected to occur, the permittee should notify the Corps and the Department to provide explanations for the delay and the new expected start date. The Corps and the Department will notify the permittee of each 3-month delay and re-calculate the compensatory mitigation acreage.~~

Compensatory Mitigation for Impacts to Riparian and Riverine Habitat:

- **Conformance with SAMP Mitigation Framework:** Mitigation will be required as described herein and in the Section 2.1.2.6, SAMP Mitigation Framework of the Program EIS/EIR San Diego Creek SAMP/WSAA Process (Vol. I; February 2008) and as subsequently revised in the Final Program EIS/EIR (Vol. III; ~~December 2008~~February2009).

- **Preparation of a Compensatory Mitigation Plan:** All habitat mitigation and monitoring plans shall comply with the requirements of the Corps/EPA Final Mitigation Rule "Compensatory Mitigation for Losses of Aquatic Resources"(33 CFR Parts 325 and 332 [40 CFR Part 230]) and the "Los Angeles District's Final Mitigation Guidelines and Monitoring Requirements," (Corps, 2004), or as subsequently revised). Should any differences in requirements arise, the Corps shall defer to Final Mitigation Rule until such time as the Corps (Los Angeles District) revises its local guidelines to conform to the Final Mitigation Rule. A copy of the Final Mitigation Rule is available online at http://www.usace.army.mil/cw/cecwo/reg/news/final_mitig_rule.pdf and the guidelines are available online at http://www.spl.usace.army.mil/regulatory/.

- **Prioritization of Mitigation Sites:** To the extent practicable, the selection of compensatory mitigation sites should be prioritized to support implementation of the SAMP/WSAA Process Strategic Mitigation Plan, which is informed by ERDC's restoration plan (Smith and Klimas, 2004; available online at http://www.spl.usace.army.mil/samp/sdc_rest.pdf).

- **Recommended Restoration:** The Corps and the Department will evaluate restoration design plans for compensatory mitigation sites in consideration of the SAMP Strategic Mitigation Plan (Section 2.1.3 and site selection and design criteria provided by ERDC in a Watershed

restoration plan for riparian ecosystems (Smith and Klimas, 2004). The ERDC restoration plan (Appendix B-3) provides recommended restoration goals in consideration of landscape setting.

Mitigation Ratios:

- **Amount of Compensatory Mitigation:** Compensatory mitigation ratios will be based on area-weighted gain in functions at the compensatory mitigation site to compensate for area-weighted loss of functions at the impact site. Functions will be measured in terms of functional units with respect to hydrology, water quality, and habitat indices. ERDC calculated these three indices for all major reaches in the Watershed based on current conditions and after achievement of restoration goals. The Agencies will consider ratios for each of the three integrity indices as follows:

  $AREA_{MIT} / AREA_{IMP} = FuLOSS_{IMP} / FuGAIN_{MIT}$, whereby
  $AREA_{MIT} / AREA_{IMP}$ = mitigation ratio
  $AREA_{MIT}$ = area of mitigation
  $AREA_{IMP}$ = area of impact
  $FuLOSS_{IMP}$ = loss in functional index at the impact site
  $FuGAIN_{MIT}$ = gain in functional index at the mitigation site

  At a minimum, $AREA_{MIT} * FuGAIN_{MIT} = AREA_{IMP} * FuLOSS_{IMP}$.

  The applicant will supply the $AREA_{IMP}$ and the Corps will use the data available from ERDC for $FuLOSS_{IMP}$. The applicant will work in consultation with the Corps and the Department to identify an appropriate mitigation site to offset impacts. $AREA_{MIT}$ will depend on the capacity for $FuGAIN_{MIT}$. Final site selection will take into account the available hydrology to support the proposed mitigation, site access, and other relevant parameters. Additionally, the Corps, in consultation with the Department will consider other functional or condition assessments that provides site-specific information about both the impact and mitigation sites in determining the appropriate mitigation ratios. The Corps and the Department recommend the applicant conduct an assessment using generally acceptable methodologies such as the CRAM, approved site-level standardized monitoring protocols, or HGM to evaluate the baseline conditions of the impact and potential mitigation sites.

  Using the metric developed by the Corps to calculate compensatory mitigation in the Watershed will ensure that losses to any function of the aquatic resources will be offset. Specifically, compensatory mitigation shall ensure against loss of any function as characterized by all three area-weighted indices (i.e., for hydrology, water quality, and habitat). Even if there is a gain in one or two of the indices, the overall mitigation must ensure that there is not a loss in any of the three indices. Losses can be further offset by increasing the mitigation ratio.

For rarer, non-riparian/riverine resources such as estuarine wetlands, the formula does not apply. In such cases, the Corps, in consultation with the Department will use a functional and acreage-based assessment to determine the appropriate mitigation ratios. The Corps and the Department recommend the applicant conduct an assessment using generally acceptable methodologies such as the CRAM, approved site-level standardized monitoring protocols, or HGM to evaluate the baseline conditions of the impact and potential mitigation sites.

As a reminder, when using the integrity indices-based ratios, required mitigation shall always be greater or equal to 1:1 in terms of acreage, even if the actual calculated ratios to achieve functional replacement are less than 1:1, which would most likely to occur when the impacted resources have low functions as compared to the functions of the mitigation site. However, if the calculated ratio is less than 1:1, mitigation at 1:1 replacement of acreage will generate a functional gain that exceeds the calculated ratio and will reduce additional mitigation requirements for any temporal loss.

- **Offsets for Temporal Loss:** Temporary and permanent impacts to riparian habitat authorized by LOPs and standard individual permits shall be compensated through consideration of the time needed to fully recover temporarily impacted functions. Temporal loss will apply when compensatory mitigation does not occur prior to or concurrent with impacts, and only to the habitat index, since the other two indices (i.e., water quality and hydrology) should not have a temporal lag. In general, mitigation ratios for temporal loss will be determined on a functional integrity basis as described above. Additional mitigation above a 1:1 ratio to offset temporal losses of habitat function will adhere to the following guidelines:

  - impacts to unvegetated aquatic resources will not require additional compensatory mitigation~~,~~;
  - impacts to herbaceous vegetation will require no more than an additional 0.5:1 ratio of compensatory mitigation;
  - impacts to shrubby vegetation will require no more than an additional 1:1 ratio of compensatory mitigation~~,~~;
  - tree vegetation will require no more than an additional 2:1 ratio of compensatory mitigation; and
  - tree vegetation with dense understory vegetation will require no more than an additional 3:1 ratio of compensatory mitigation.

  Compensatory mitigation required above replacement (1:1) may be satisfied through additional restoration and/or enhancement efforts within the aquatic resource integrity areas of the Watershed, or by contribution of

fees equivalent to per acreage costs to a Corps and Department-approved third-party mitigation program or mitigation bank operating within the Watershed.

- **Delays in Implementation of Compensatory Mitigation:** Implementation of compensatory mitigation shall begin, to the maximum extent practicable, before or concurrent with the activity causing the authorized impacts to jurisdictional areas, and according to a Corps-approved plan and construction schedule. The Corps and the Department expect the permittee to schedule the installation of mitigation projects to avoid and minimize temporal losses in function, such that offsite mitigation shall be initiated upfront, and onsite mitigation shall be scheduled to account for project site readiness. To offset temporal losses of aquatic functions resulting from the permitted activity, the Corps and the Department may require, on a case-by-case basis, additional compensatory mitigation for delayed implementation of compensatory mitigation beyond the Corps-approved final construction schedule that extends installation into the next year's growing season. Amount of Compensatory Mitigation, Compensatory Mitigation for Temporary Impacts, and Compensatory Mitigation for Permanent Impacts describe the additional mitigation ratios to offset temporal loss of habitat for mitigation sites with approved construction schedules that plan for delayed installation of mitigation after jurisdictional impacts occur.

  Compounding of the additional compensatory mitigation requirements will not exceed a ratio of 25% above initial compensatory mitigation acreage for every three-month period beyond the expected construction season. If the permittee anticipates delays, the permittee should notify the Corps and the Department in advance to provide explanations for the delay and the new expected start date. The Corps and the Department will advise the permittee of each 3-month delay and the amount of additional mitigation or additional monitoring time, if any, that will be required to offset temporal losses of function and services.

  For example, a project was permitted with the expectation that the mitigation site work would begin during the construction impacts to jurisdictional areas and a 1:1 ratio (1 functional unit or 1 acre) for compensatory mitigation was required. The following year the Agencies learn that the permitted impacts occurred but the installation of the mitigation site had not. Thus, the Agencies required additional mitigation to offset further temporal loss by assessing up to 25% additional mitigation for each 3-month delay beyond the second year growing season until installation of the mitigation is complete. In this example, up to 25% of 1:1, which equals 0.25:1 and

equivalent to 0.25 acre that would accrue for every 3-month delay, unless otherwise approved by the Agencies.

A variation on the example above is the project was permitted and the resources to be impacted consisted primarily of riparian tree vegetation with dense understory. Instead of 1:1 ratio as a base mitigation requirement, the base would be 1:1 ratio (1 functional unit or 1 acre), plus 3:1 ratio (3 acres) for initial temporal loss due to the lengthy development time for dense understory. Thus, delayed implementation as described in example above would result in up to 25% additional mitigation for each 3-month delay beyond the second year growing season. In this case, 25% of 4:1 is 1:1 and equivalent to a maximum of 1 acre that would accrue for every 3-month delay, unless otherwise approved by the Agencies.

The Corps and the Department will give due consideration to special circumstances and may waive the requirement for additional compensatory mitigation in cases where no substantive temporal loss to functions or services occurred, or where delayed compensatory mitigation was a result of natural causes beyond the permittee's control, including without limitation, fire, flood, storm, and earth movement, or as a result of any prudent action taken by the permittee under emergency conditions to prevent, abate, or mitigate significant injury to persons and/or the property resulting from such causes. [Note: Any action undertaken during emergency conditions must receive prior authorization from the Corps and the Department if the action involves a discharge of dredged or fill material into aquatic resources within the Corps jurisdiction or will impact Department jurisdictional streams.]

Compensatory Mitigation for Temporary Impacts

- **Restoration On-Site:** Following a temporary impact (e.g. construction impact), an area shall be restored to pre-construction elevations within one month. Re-vegetation shall commence within three months after restoration of pre-construction elevations and be completed within one growing season. If re-vegetation cannot start due to seasonal conflicts (e.g., impacts occurring in late fall/early winter shall not be re-vegetated until seasonal conditions are conducive to re-vegetation), exposed earth surfaces should be stabilized immediately with jute-netting, straw matting, or other applicable best management practice to minimize any erosion from wind or water.

- **Offsets for Temporal Loss:** Temporary impacts to riparian habitat authorized by WSAA's shall be compensated through consideration of the time needed to recover fully the temporarily impacted functions. Temporal

loss will apply when compensatory mitigation does not occur prior to or concurrent with impacts, and only to the habitat index, since the other two indices (i.e., water quality and hydrology) should not have a temporal lag. In general, the ratios of compensatory mitigation described above in Mitigation Ratios-Offsets for Temporal Loss will apply to offset temporal losses of habitat function.

- **Preparation of a Compensatory Mitigation Plan:** All on-site revegetation efforts require preparation of a habitat mitigation and monitoring plan, as described above in Preparation of a Mitigation Plan. The plan must be approved by the Corps and the Department prior to implementation.

Compensatory Mitigation for Permanent Impacts

- **Mitigation Ratios:** The ratios for compensatory mitigation described above in Mitigation Ratios-Amount of Compensatory Mitigation will apply to compensatory mitigation for permanent impacts.

- **No Loss in Any Functional Type:** Using the metric developed by the Corps to calculate compensatory mitigation in the Watershed will ensure that losses to any function of the aquatic resources will be offset. Specifically, compensatory mitigation shall ensure against loss of any function as characterized by all three area-weighted indices (i.e., for hydrology, water quality, and habitat). Even if there is a gain in one or two of the indices, the overall mitigation must ensure that there is not a loss in any of the three indices. Losses can be further offset by increasing the mitigation ratio.

- **Offsets for Temporal Loss:** Temporal loss for permanent impacts will apply when compensatory mitigation does not occur prior to or concurrent with impacts and only to the habitat index, since the other two indices (i.e., water quality and hydrology) should not have a temporal lag. In general, the ratios of compensatory mitigation described above in Mitigation Ratios-Offsets for Temporal Loss will apply to offset temporal losses of habitat function.

- **Long-term Conservation:** Any compensatory mitigation associated with permanent, unavoidable jurisdictional impacts within the Watershed will require legal assurances to ensure the long-term protection of the site's aquatic resources against degradation of integrity at the Watershed scale over time, unless otherwise approved by the Corps and the Department. Legal assurances include, but are not limited to conservation easements, land dedications, and implementing agreements. The Final Mitigation Rule (33 CFR Section 332.7) and Section 3.6(h)(4) of the SAMP document (Corps, 2009) contain more details on legal assurances as well as requirements for long-term conservation management (including in-

perpetuity maintenance, monitoring, identification of conservation manager, estimate of annual costs and long-term funding mechanism).

- **Third-Party Mitigation Program or Mitigation Bank:** An alternative method to satisfy compensatory mitigation requirements is the purchase of credits or payment of fees to a Corps- and Department-approved third-party mitigation program within the Watershed, including a mitigation bank, conservation bank, or for the enhancement, establishment, or restoration of identified offsite aquatic resources. The Department requires that a WSAA (or other SAA) identify the specific location(s) of the compensatory mitigation, so the third-party mitigation program sponsor would be required to link the mitigation actions with the WSAA. Use of an approved third-party mitigation program conducting preservation and enhancement efforts of identified sites would be available to offset temporal loss or instead of contracting with a separate conservation manager or establishing a separate endowment for individual mitigation sites. Additionally, compensatory mitigation requirements for permanent impacts may be offset by contribution to a Corps- and Department-approved third-party mitigation bank that is conducting establishment (creation) and/or restoration efforts in the Watershed. All third-party mitigation programs must comply with the requirements of the Corps/EPA Final Mitigation Rule (33 CFR Section 332.8).

Streambed Alteration Agreement Templates Master Conditions List, Conditions 2 through 10, pages 3 through 10, have been revised to incorporate the following changes:

2. The Operator(s) shall submit a Final Habitat Mitigation and Monitoring Plan for Department review and written approval for all mitigation sites at least 60 days prior to commencing project activities. Plans for creation, restoration, and/or enhancement shall be prepared by persons with expertise in southern California ecosystems and native plant re-vegetation techniques. The plan should include at minimum: (a) the location of the mitigation site; (b) the plant species to be used; (c) a schematic depicting the mitigation area; (d) time of year that the planting will occur; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met.

- An annual report shall be submitted to the Department by January 1st of each year for 5 years after planting. This report shall include the survival, percent (%) cover, and height of both tree and shrub species. The number by species of plants replaced, an overview of the revegetation effort, and the method used to assess these parameters shall be included. Photos from designated photo stations shall be included.

3. All planting shall have a minimum of 80% survival the first year and 100% survival thereafter and/or shall attain 75% cover of native woody species after 3 years and 90% cover of native woody species after 5 years for the life of the project. Nonnative species shall comprise less than 5% of the cover after 5

years. Invasive species shall comprise 0% of the cover at the end of the 5-year monitoring period. If the survival and cover requirements have not been met, the Operator(s) is responsible for replacement planting to achieve these requirements. Replacement plants shall be monitored with the same survival and growth requirements for 5 years after planting. Irrigation shall be stopped two years prior to achieving the success criteria.

- An annual report shall be submitted to the Department by January 1 of each year for 5 years after planting. This report shall include the survival, % cover, and height of both tree and shrub species. The number by species of plants replaced, an overview of the revegetation effort, and the method used to assess these parameters shall be included. Photos from designated photo stations shall be included.

- All planting shall be done between October 1st and April 30th to take advantage of the winter rainy season.

- In order to determine if the revegetation techniques used have been successful any plant species required that are listed below shall achieve the minimum growth at the end of three and five years. If the minimum growth is not achieved then the Operator(s) shall be responsible for taking the appropriate corrective measures as determined by Department representatives. The Operator(s) shall be responsible for any cost occurred during the revegetation or in subsequent corrective measures.

SPECIES	SIZE AT PLANTING	PLANTING CENTERS	HEIGHT 3 years	HEIGHT 5 years
Arroyo Willow	PB	8 ft	10 ft	15 ft
	1 gallon	8 ft	10 ft	15 ft
Black Willow	PB	8 ft	12 ft	18 ft
	1 gallon	8 ft	12 ft	18 ft
Sandbar Willow	PB	5 ft	4 ft	6 ft
	1 gallon	5 ft	4 ft	6 ft
Red Willow	PB	8 ft	9 ft	15 ft
	1 gallon	8 ft	9 ft	15 ft
Sycamore	1 gallon	20 ft	5 ft	9 ft
	5 gallon	22.5 ft	7 ft	13 ft
Cottonwood	1 gallon	**	7 ft	12 ft
	5 gallon	**	9 ft	15 ft
White Alder	1 gallon	**	6 ft	11 ft
	5 gallon	**	8 ft	13 ft

* = Depending if used as supplemental species (40 ft O.C.) or if ~~dominate~~ dominant species (15 ft O.C.)

4. The Operator(s) shall submit a Final Habitat Mitigation and Monitoring Plan for Department review and written approval for all mitigation sites at least 60 days prior to commencing project activities. Plans for restoration,

enhancement/re-vegetation and creation should be prepared by persons with expertise in southern California ecosystems and native plant re-vegetation techniques. The plan should include at minimum: (a) the location of the mitigation site; (b) the plant species to be used; (c) a schematic depicting the mitigation area; (d) identification of suitable locations, soils, aspect, etc.; (e) time of year that the planting will occur; (f) a description of the irrigation methodology; (g) measures to control exotic vegetation on site; (h) use of local propagules; and (i) protection from herbivory; (j) success criteria; (k) a detailed monitoring program; and (l) contingency measures should the success criteria not be met.

- An annual report shall be submitted to the Department by ~~Jan.~~ January 1st of each year for 5 years (including years 7 and 10 for oak tree mitigation) after planting. This report shall include the survival, percentage of cover, and height of both tree and shrub species. The number by species of plants replaced, an overview of the revegetation effort, and the method used to assess these parameters shall also be included. Photos from designated photo stations shall be included.

5. All planting shall have a minimum of 80% survival the first year and 100% survival thereafter and/or shall attain 75% cover of native woody species after 3 years and 90% cover of native woody species after 5 years (minimum of 10 years for oak tree mitigation) for the life of the project. In planted oak, walnut and sycamore woodland habitats, the mitigation sites shall achieve a native cover of 40% by year 3 after planting, 55% by year 4 after planting, 65% by year 5 after planting, and 90% by year 10 after planting. The planted oaks shall achieve at least 80% survival by the end of year 5, and 100% survival by year 10. Replacement plants shall be monitored with the same survival and growth requirements for 5 years after planting (minimum of 10 years for oak tree mitigation).

- All oak, walnut, and sycamore trees shall be monitored for survival annually in years 1 through 5, and in years 7 and 10. Any tree that does not survive shall be replaced in-kind. Replacement trees/plants shall be monitored with the same survival and growth requirements for 10 years after planting. Oak, walnut, and sycamore tree plantings shall be achieved through small-sized container stock (1-gallon or liner) and/or caged acorns (3 acorns/site).

- Plant material (seeds, container plants, and cuttings) to be used for the revegetation effort will be derived from on-site material at each site. On-site material is anticipated to be adapted to the site conditions and exhibit local genotypes.

6. The following Conditions shall be used whenever it is deemed appropriate to relocate any oak, walnut, and/or sycamore trees:

- A complete inventory of plants by species and DBH ~~which~~ that will be removed shall be submitted to the Department within 30 days of signing this Agreement.

- Any oaks 30 inches DBH or greater or oaks that are damaged/destroyed shall be replaced on-site and/or off-site, and in-kind. The replacement ratios for trees ~~which~~ that are damaged and/or destroyed shall be as follows: trees less than 5 inches DBH shall be replaced at 3:1; trees from 5 to 12 inches

shall be replaced at 5:1; and trees from 12 up to 36 inches shall be replaced at 10:1; and all trees 36 inches or greater shall be replanted at a ratio of 20:1. The Department recommends that the Operator(s) use rooted plants in liners, acorns, or one-gallon containers for restoration to increase the likelihood of survival of plantings.

- All oaks, walnuts, and sycamores shall be replaced in kind at a 10:1 ratio.

7. The Operator(s) shall be responsible for preparation of pre-grading plans, hydrological testing, installation, maintenance, and monitoring of the habitat creation/restoration areas.

- Grading of the mitigation areas is to be completed no later than December 31 of the initial project grading. Planting and then seeding shall occur between November 15th and February 15th to take advantage of winter rains. If supplemental irrigation will be provided for the container stock, planting (but not seeding) may occur into early spring. Container stock will be installed no later than April 30th; cuttings will be installed no later than February 1st, and seed will be planted no later than December 31st.

- Grading associated with providing adequate hydrology for habitat creation and/or revegetation of the mitigation areas shall not impact nesting birds. Therefore, grading shall not take place in vegetated areas from March 1st to September 15th to avoid impacts to nesting birds. Alternately, an independent qualified biologist may perform a nesting bird survey no more than three days prior to grading. The results of the nesting bird survey, including site conditions and a list of all vertebrate species observed, shall be provided to the Department for concurrence prior to grading. If active nests are observed, the operator shall provide a buffer zone of at least 300 feet (500 feet for raptors) until the young have fledged, are no longer being fed by the parents, have left the nest, and will no longer be impacted by the project.

- Grading associated with providing adequate hydrology for riparian habitat creation and/or revegetation on the project site or off-site mitigation areas shall not directly or indirectly impact any California Threatened, Endangered Species, or Species of Special Concern.

8. The Operator(s) shall not remove vegetation within the stream from March 15th to July 31st to avoid impacts to nesting birds. *(For lower quality riparian habitat where listed species are not present)*

9. The Operator(s) shall not remove or otherwise disturb vegetation or conduct any other project activities on the project site from March 15th to September 15th (February 15th to August 15th in areas with coastal sage scrub) to avoid impacts to breeding/nesting birds. *(for higher quality riparian habitat where listed species are present or could potentially be present)*

10. The Operator(s) shall not remove or otherwise disturb vegetation or conduct any other project activities on the project site from March 15th to September 15th (February 15th to August 30th in areas with coastal sage scrub) to avoid impacts to breeding/nesting birds. OR, Prior to construction or site preparation activities, the Operator(s) shall have a qualified biologist survey all breeding/nesting habitat within the project site and adjacent to the project site for breeding/nesting birds. Surveys shall begin no later than June 1st and end within three days prior to the

commencement of work activities. Surveys shall be conducted every 7 days for 8 consecutive weeks and shall include the entire month of June. Documentation of findings, including a negative finding must be submitted to the Department for review and concurrence. If no breeding/nesting birds are observed and concurrence has been received from the Department, site preparation and construction activities may begin. If breeding activities and/or an active bird nest is located and concurrence has been received from the Department, the breeding habitat/nest site shall be fenced a minimum of 50 feet (250 feet for raptors) in all directions, and this area shall not be disturbed until the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, and the young will no longer be impacted by the project.

Streambed Alteration Agreement Templates Master Conditions List, Condition 14, page 9, has been revised to incorporate the following changes:

14. ~~Prior to the construction of each phase of the project, the Operator(s) shall conduct additional field surveys between the period of February to July to verify the absence of any rare, threatened, endangered, or other special-status plant or animal species in specific areas proposed for development. In the event that special-status plants or animals are identified in the surveys, the Operator(s) shall consult with the U.S. Fish and Wildlife Service and the California Department of Fish and Game for the development of appropriate plans for those special-status species impacted by the proposed project.~~ The Operator shall not remove or otherwise disturb vegetation or conduct any other project activities on the project site from March 15 to September 15 to avoid impacts to native breeding/nesting birds. If work during the breeding/nesting season can not be avoided, the Operator shall have a qualified biologist survey all breeding/nesting habitat within the project site and adjacent to the project site for breeding/nesting birds prior to construction or site preparation activities. Surveys shall begin no later than June 1. Surveys shall be conducted a minimum of three (3) times spaced 3 to 5 days apart and ending no more than 3 days prior to the onset of construction. Documentation of findings, including negative findings, must be submitted to the Department for review and concurrence. If no breeding/nesting birds are observed and concurrence has been received from the Department, site preparation and construction activities may begin. If breeding activities and/or an active bird nest is located and concurrence has been received from the Department, the breeding habitat/nest site shall be fenced a minimum of 300 feet (500 feet for raptors) in all directions, and this area shall not be disturbed until the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, and the young will no longer be impacted by the project.

Streambed Alteration Agreement Templates Master Conditions List, Conditions 19 through 21, pages 9 through 10, have been revised to incorporate the following changes:

19. The Operator shall avoid work March ~~15~~th 15 through September ~~1~~st 15 on bridges when it would disturb nesting swallows. If such a condition cannot be met, then prior to March 1 of each year, the Operator shall remove all existing nests ~~which~~ that would be destroyed by the project. The Operator shall continue to discourage new nest building in places where they would be disturbed using methods approved by Caltrans and the Department. Nest removal and hazing must be repeated at least weekly until construction begins or until a swallow exclusion device is installed. The exclusion device must provide a space of four to six inches for the passage of snakes at the bottom edge. Nests must be

discouraged throughout the term of the project. At no time shall occupied nests be destroyed as a result of project construction.

Streambed Alteration Agreement Templates Master Conditions List, Conditions 19 through 21, pages 9 through 10, have been revised to incorporate the following changes:

20. If work is performed within the stream channel during the winter storm period the Operator shall monitor the five (5) day weather forecast. If it is forecasted for any precipitation, work activities shall involve the securing of the site, so as no materials may enter or be washed into the stream. The site shall be completely secured one (1) day prior to precipitation, unless prior written approval has been provided by the Department. During period of precipitation, no construction activities may occur; activities involving the preventing of materials from entering the stream or being washed downstream may be conducted. No work shall occur on site in areas containing flowing water until the flows have receded and the moisture content of the soils ~~have~~ has stabilized.

Streambed Alteration Agreement Templates Master Conditions List, Condition 21, page 10, has been revised to incorporate the following changes:

21. Endangered and/or Threatened Species: *(Applicable if any Federal and/or State listed Endangered/Threatened species are known to occur and/or presumably may occur in the project area)*

- If _____ is found in the proposed work area, or is in a location ~~which~~ that could be impacted by the work proposed, the Operator(s) shall submit a plan to the Department for review and approval to ensure this species is protected. If the work requires that the species be removed, disturbed, or otherwise impacted, the Operator(s) shall obtain the appropriate state and federal endangered species permits/authorizations. *(Please fill in blank with the identified species)*

Streambed Alteration Agreement Templates Master Conditions List, Condition 22, pages 10 through 11, has been revised to incorporate the following changes:

22. Species of Special Concern: *(Applicable if Species of Special Concern are known to occur and/or presumably may occur in the project area)*

The information contained within this section is intended to provide suggestions to minimizing impacts to habitats that may be utilized by special concern species.

Southwestern Pond Turtles: drainages that contain standing water and that are proposed for impact should be surveyed for western pond turtles (*Emys marmorata*) a State/federal Species of Special Concern. If the proposed impact area is surrounded by upland habitat, efforts should be made to reduce or eliminate the impact to the south-facing slope of the upland habitat. A qualified turtle biologist should also walk the proposed impact area prior to construction to identify potential breeding areas or existing nests. If western pond turtles are shown to be on or near the proposed site, impacts to drainages and the surrounding area should take place outside the breeding period (April – August).
- Breeding season occurs from April to August
- inhabit slack or slow water aquatic habitat
- Females prefer upland habitat with south-facing slopes for egg laying

- Adults may leave the water to aestivate in the upland.
- Upland movement may be as far as 400 meters.
    - The young may remain within the upland habitat up to 6-8 months after hatching
- Excellent relocation species

- No direct or indirect impacts shall occur to southwestern pond turtle. A pond turtle specialist shall perform focused surveys for southwestern pond turtle prior to project initiation and submit the results to the Department, as well as results from previous surveys in the area. If turtles are present, the specialist shall submit a Pond Turtle Mitigation Plan to the Department, and it shall include complete avoidance measures for Department review and approval, prior to project initiation. These measures may include: date/location; restrictions on grading; identification of suitable existing sites for relocation of pond turtles; identification of suitable potential sites to create pond turtle habitat. For relocation or creation/restoration/enhancement site to be considered suitable by the Department, sites shall include sufficient upland habitat adjacent to the wetland habitat for the pond turtles to sustain a viable population offsite, must have adequate maturity to maximize survival and reproduction of the pond turtles at the new site, including growth of macro invertebrates and necessary cover as indicated by the best available data from the pond turtle consultant, and not be subjected to predation by exotic pest species.

- If southwestern pond turtle are found, the project shall be monitored by a pond turtle specialist to ensure no impacts occur to southwestern pond turtle. If pond turtles are identified within 200 feet of any construction zone, they shall be relocated to the closest suitable habitat as Determined by the Department. If no suitable habitat exists in the area, the operator shall create habitat that can sustain a viable population of pond turtles.

- <u>In areas known to be occupied by southwestern pond turtles, all potential turtle habitats within the project area(s) will be evaluated for southwestern pond turtles at least twice per year by a qualified Department approved turtle biologist. If turtles are known to occur in the area historically, are observed, and/or turtle habitat is present, a combination of visual surveys, seining, and trapping may be used to determine population structure and status. Trapping is the best technique for determining population parameters. To fully assess the turtle population, a minimum of two trapping periods each entailing 4 days (3 nights of trapping), to occur within two months of each other between the months of April and August (or when water is present in annual systems). Baiting with fish is recommended.</u>

- Turtles will be captured either by hand, seine nets, or nylon funnel traps. Visual surveys will be conducted in non-accessible and/or non-trappable areas. All captured turtles will be sexed and individually marked with a pond turtle number system for identification. Total carapace length (mm) from the first marginal scute to the twelfth (last) marginal scute, depth of shell (mm) and weight (g) will be recorded. In addition, plastron annuli will be counted on all turtles to determine age, when they are observable. All female pond turtles will be palpated to check for eggs and, if gravid, may be X-rayed to determine clutch size. In order to determine reproductive parameters, trapping will need to occur early in the trapping season (April - June). All turtles will be released at their capture site.

- Other aspects associated with pond turtles such as macroinvertebrates, health, refugia, basking sites, nesting area(s) and especially exotic species, should also be noted.

Streambed Alteration Agreement Templates Master Conditions List, Conditions 23 through 24, page 13, have been revised to incorporate the following changes:

23. Cowbird Trapping-

c. The Operator(s) shall provide for a qualified operator to maintain and operate the cowbird management program from March 15th to September 15th each year and will pay directly for the management program.

d. Upon initiation of the cowbird trapping program, records of all captures, activities, and comments will be submitted to the Department by October 1st of each year the trapping is conducted.

24. Disturbance, removal, or trimming of vegetation for equipment access and construction shall not exceed the limits approved by the Department.

Streambed Alteration Agreement Templates Master Conditions List, Conditions 35 and 36, page 14, have been revised to incorporate the following changes:

35. The Operator(s) may remove vegetation less than two (2) inches in diameter at breast height (DBH), accumulated debris, dead and downed vegetation, sediment and rocks ~~which~~ that directly interfere with the flow of water in the stream channel. Removal of such material shall be from the bottom of the channel only. Native riparian vegetation along the banks shall not be damaged, except otherwise provided for in the Agreement. All debris removed from the stream channel shall be placed outside of the normal high-water mark.

36. A permanent low flow channel shall be established upon completion of the debris removal or channel maintenance prior to October 15th of each year. The bottom of the low flow channel shall be no greater than ____-feet wide and shall have the sides sloped back to the toe of the bank at no less than 2 percent. The low flow channel shall follow the natural gradient, contour, and meander of the existing streambed from upper to lower perimeter of the project. No holes or depressions shall be allowed to remain in the channel maintenance area that may result in entrapment of aquatic species.

Streambed Alteration Agreement Templates Master Conditions List, Conditions 43 and 44, pages 15 through 17, have been revised to incorporate the following changes:

43. The Operator(s) shall not do removal or follow-up treatment of target exotic vegetation within the stream from March ~~1st~~ 1 to ~~August 15th~~ September 15 to avoid impacts to nesting birds. However, the Operator(s) may conduct such removal/treatment of target vegetation during this time if a qualified biologist conducts a survey for nesting birds within three days prior to the vegetation treatment/removal, and ensures no nesting birds shall be impacted or disturbed by the activity. These surveys shall include the areas within ~~200~~ 300 feet of the edge of the proposed impact/work area(s). If active nests are found, a minimum 50-foot (~~200~~ 500 feet for raptors) zone around the nest site shall be identified on the ground by the placement of "caution tape" or similar identify material. No vegetation removal/treatment or any other work shall occur within the identified nest zone until the young have fledged, are no longer being fed by the parents, have left the nest, and will no longer be impacted by the project, even if the nest continues active beyond ~~August 15th~~ September 15. After each treatment application the monitoring biologist shall remove the identification tape, so that the nest site does not attract attention from unauthorized persons. The Operator(s) shall submit the mapped survey results to the Department for review and approval prior to treatment to ensure full avoidance measures are in place.

- The Operator(s) shall remove non-native vegetation from the restoration/ enhancement area and shall dispose of it in a legal manner; in all cases it shall be placed in a manner ~~which~~ that prevents its reestablishment in the stream and in such a manner so that it does not negatively affect other sensitive native habitat communities. If the Operator(s) determines that the treated non-native vegetation should be left in place, the Operator(s) shall provide the Department a written (letter, fax, E-mail) description of where and why the treated vegetation should not be removed. If the Operator does not receive a written (letter, fax, E-mail) positive response from the Department, the treated exotic vegetation shall be removed.

- No alteration of the streambed, bank, or channel shall occur, except as otherwise permitted in this Agreement. The removal of soil, native vegetation, and vegetative debris from the streambed or stream banks is prohibited, except as otherwise specified within this Agreement; however, the Operator(s) may remove all human generated debris, such as lawn and farm cuttings, garbage, and trash.

- A *small* amount of selective trimming of native species (e.g., willow, oak, and sycamore) may occur to prevent overspray of herbicide from reaching these branches, but only as provided within the conditions of this Agreement. Native vegetation may only be trimmed; individual plants shall not be removed. Material in excess of three (3) inches DBH shall require specific notice to and consultation with the Department.

44. In order to ensure the success of mitigation, the Operator(s) shall provide the Department financial security (e.g. an irrevocable letter of credit, pledge savings account or CD) in the amount of $ _____ , that specifically references this agreement, and shall be submitted to the Department for approval prior to initiation of construction activities. The Department may not accept a bond unless the form of the bond has been approved as to conformity with applicable law by the Attorney General as required in Section 11110 of the Government Code. The financial

security shall be for assuring compliance with the mitigation, monitoring, and report requirements, and shall be based on a cost estimate ~~which~~ that shall be submitted to the Department for approval within 30 days of signing this Agreement. The security instrument shall stipulate that in the event of a default, the Department shall be entitled to relief in the form of cash only. Should any legal action be necessary to enforce or interpret the terms of the security instrument, the Department, as a prevailing party, shall be entitled to collect reasonable attorney's fees from the losing party. The security instrument may be subject to partial reduction upon completion and acceptance of certain work by the Department.

Streambed Alteration Agreement Templates Master Conditions List, Condition 50, page 18, has been revised to incorporate the following changes:

50. The inlet of all permanent culverts shall be protected by the placement of head walls that shall be constructed of rock riprap, gabions, concrete, or other suitable nonerodible material. To prevent undercutting, the head walls shall be keyed in place.

Streambed Alteration Agreement Templates Master Conditions List, Condition 63, page 18, has been revised to incorporate the following changes:

63. At the end of each work day, an escape ramp shall be placed at each end of the open trench to allow any animals that may have become entrapped in the trench to climb out overnight. The ramp may be constructed of earthen fill, wood planking, or other suitable material that is placed at an angle no greater than 30 degrees.

Streambed Alteration Agreement Templates Master Conditions List, Conditions 64 through 166, pages 19 through 34, have been revised to incorporate the following changes:

~~64.~~ 65. Any temporary dam or artificial obstruction shall only be built from material such as clean gravel or sandbags which will cause little or no siltation and must be approved by the Department prior to construction. All such materials used for the diversion of water shall be removed prior to winter storm flows.

~~65.~~ 66. At all times during and after pond construction, or when any dam or other artificial obstruction is being constructed, maintained, or placed in operation, sufficient water shall at all times must be allowed to pass downstream to maintain aquatic life below the dam pursuant to Fish and Game Code section 5937.

~~66.~~ 67. The Operator(s) shall have extra sandbags readily available to provide additional freeboard to the diversion in the event it becomes evident flows will increase due to rainy conditions. The sandbag diversion may be removed completely only if the streambank is stable and no undue erosion will occur.

~~67.~~ 68. Flow diversions shall be done in a manner that shall prevent pollution and/or siltation and which provide adequate flows to downstream reaches. Flow to downstream reaches shall be provided during all times that natural flow would have supported aquatic wildlife. Said flows shall be sufficient quality and quantity, and of appropriate temperature to support fish and other aquatic life both above and below the diversion. Normal flows shall be restored to the affected stream immediately upon completion of work at that location.

~~68.~~ 69. The Operator shall notify the Department at least 10 days in advance of the installation of any dam or structure, or the manipulation of any dam or structure~~,~~ ~~which~~ that could possibly result in the reduction of flows and stranding of fish/aquatic species.

~~69.~~ 70. The Operator(s) may grade and fill existing levee roads as necessary to assure utility. No material of any nature from this activity shall be sidecast onto the stream side of the levy except as provided for in other provisions of this Agreement.

~~70.~~ 71. The Operator(s) may repair damage to existing levy slopes. Fills needed to repair levy slopes (on the stream side) shall not extend beyond the dimensions that existed prior to needing repair. Fills shall consist of sand and rock. Repair work shall be accomplished without damaging vegetation or altering the stream bed or stream banks more than _____ feet in the direction beyond the extent of the levee slope that existed prior to needing repair, except that where vehicles are required to do this work, disturbance shall not occur more than _____feet beyond the extent of the levy slope. *Routine maintenance buffers will be established at the pre-application consultation.*

~~71.~~ 72. The Operator(s) may repair damage to any existing bank protection features, such as rip-rap or concrete lining. Such repair shall employ the same type materials used in the original construction and shall occur only in the locations of existing bank protection. New sites requiring bank protection, expansions in the size of protected sites, or changes in the materials to be used, are not covered by this Agreement. As such, a separate notification and Agreement would be needed for such work. Repair work shall be accomplished without damaging vegetation or altering the stream bed or stream.

~~72.~~ 73. The Operator(s) may remove vegetation and debris including sediment and rocks ~~which~~ that directly interfere~~s~~ with the proper function and operation of existing devices, to include gates, culverts, bridges, weirs, pumps and streamflow control and measuring stations, or that which must be removed to repair said devices or to replace them in their existing locations. The stream bed and stream banks are not considered "devices," for purposes of this provision.

~~73.~~ 74. The Operator(s) may remove herbaceous vegetation, fallen trees, and branches from existing levy roads and the levy slope furthest from the stream. Minor pruning of trees and brush growing on the stream side slope of the levy, stream bed, and stream banks, is also acceptable, except that such pruning shall be limited to the removal of vegetation that interferes with vehicle access along existing roads. Material in excess of _____ inches in diameter at breast height (DBH) shall require specific notice to and consultation with the Department. *Prior to selection of this Condition, the appropriate DBH will be discussed at the pre-application consultation.*

~~74.~~ 75. Except as otherwise permitted in this Agreement, the removal of soil, vegetation, and vegetative debris from the stream bed or stream banks is prohibited. The Operator(s) may remove all human generated debris, such as lawn and farm cuttings, garbage, and trash. The Operator shall remove washed out culverts, and other construction materials~~,~~ that the Operator places within, or where they may enter the stream.

~~75.~~ 76. Spoils shall not be placed on the stream side slope, or where it could enter the stream; or placed over vegetation except as specifically noticed to and accepted by the Department.

~~76.~~ 77. If the Operator(s) proposes to use BENTONITE as a drilling lubricant the following Conditions shall apply. The Department has found that this process may result unpredictably in the discharge of the BENTONITE into the stream by uncontrollable discharges through fissures and fractures (frac-out) in the stream channel substrate. When such discharges occur where water velocities are insufficient to transport and disperse the material, it may produce a coating on aquatic invertebrates, aquatic plants, and other features of the stream channel; potentially smothering organisms (causing direct mortality), embedding the interstitial spaces in gravels, and filling rearing pools, which may decrease available habitat upon which these fish or other aquatic resources may depend. In the event of a BENTONITE spill, clean-up efforts may result in increased disturbance to the stream channel banks, channel bed, riparian areas, and instream habitat as equipment, machinery, and personnel enter and conduct the clean-up work.

- A Construction Inspector certified through either California Department of Transportation or as identified in the Notification package shall be retained by the Operator(s), and shall be on-site during all borings under wet channels/streams. The Construction Inspector shall have the authority to make recommendations to the drill operators and, if necessary, shut down operations if the drill operators are not following procedures ~~which~~ that minimize frac-outs The Construction Inspector shall consult with the Department before allowing the Operator(s) to resume boring operations.

- Areas of soil disturbed by the project ~~which~~ that slope toward a stream or lake shall be stabilized to reduce erosion potential. Plantings of vegetation native to the area, seeding, and mulching with straw is conditionally acceptable. Mulches shall be applied so that not less than 85% of the disturbed area is covered. Straw mulch shall be applied in a layer not less than three inches deep. Straw mulch shall be machine punched into slopes to avoid wind loss. Hydromulches shall be applied according to the mulch manufacturer's specifications for the site conditions. Rock ~~rip-rap~~ riprap or geo-synthetic erosion protection shall be placed in areas where vegetation cannot reasonably be expected to become re-established.

- Raw (uncured) cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, bentonite, or any other substances ~~which~~ that could be hazardous to aquatic life, wildlife, or riparian habitat resulting from the project related activities, shall be prevented from contaminating the soil and/or entering the waters of the State. Any of these materials, placed within or where they may enter a stream, lake, or wetland by Operator(s) or any party working under contract, or with the permission of Operator(s), shall be removed immediately.

~~77.~~ 78. Fill length, width, and height dimensions shall not exceed those of the original installation or the original naturally occurring topography, contour, and elevation. Fill shall be limited to the minimal amount necessary to accomplish the agreed activities. Except as otherwise specified in this Agreement, fill construction materials other than on-site alluvium shall consist of clean silt-free gravel or river rock.

~~78.~~ 79. Fill activities associated with new construction shall not impact any downstream areas.

~~79.~~ 80. Spoil sites shall not be located within a stream/lake, where spoil shall be washed back into a stream/lake, or where it will cover aquatic or riparian vegetation.

~~80.~~ 81. Temporary fills shall be constructed of nonerodible materials and shall be removed immediately upon work completion.

~~81.~~ 82. Fill material shall be heavily compacted and constructed of nonerodible materials approved by the Department prior to construction. If fills are temporary they shall be removed immediately upon completion.

~~82.~~ 83. Fills shall not be steeper than 2 to 1 slope unless it is substantially armored and construction has been specifically approved by the Department. Armoring will consist of rock or native vegetation.

~~83.~~ 84. Rock, rip-rap, or other erosion protection shall be placed in areas where vegetation cannot reasonably be expected to become reestablished. This condition shall be approved by the Department prior to project commencement.

~~84.~~ 85. Spoil shall not be placed on the stream side of slopes or where it could enter the stream. Spoil shall not be placed over vegetation except as specifically noticed to and accepted by the Department.

~~85.~~ 86. Areas of disturbed soils with slopes toward a stream or lake shall be stabilized to reduce erosion potential. Planting, seeding and mulching is conditionally acceptable. Where suitable vegetation cannot reasonably expected to become established, nonerodible materials shall be used for such stabilization. Any installation of nonerodible materials not described in the original project description shall be coordinated with the Department. Coordination may include the negotiation of additional Agreement provisions for this activity.

~~86.~~ 87. Fill materials may come from on-site sources or be imported. All fill material shall be free from contaminates such as trash, debris, or any other material deleterious to aquatic life or water quality. All fill shall be heavily compacted. Any fill within the normal high water mark shall be protected against erosion by armoring or re-establishment of native riparian vegetation. If armoring is used, the armor shall be keyed in place.

~~87.~~ 88. Silty/turbid water shall not be discharged into the stream. Such water shall be settled, filtered, or otherwise treated prior to discharge. The Operator's ability to minimize turbidity/siltation shall be the subject of pre-construction planning and feature implementation.

~~88.~~ 89. Precautions to minimize turbidity/siltation shall be taken into account during project planning and shall be installed prior to construction. This may require that the work site be isolated and that water be diverted around the work area by means of a barrier, temporary culvert, new channel, or other means approved by the Department. Precautions may also include placement of silt fencing, straw bales, sand bags, and/or the construction of silt catchment basins, so that silt or other deleterious materials are not allowed to pass to downstream reaches. The method used to prevent siltation shall be monitored and at a minimum cleaned/repaired weekly. The placement of any structure or materials in the stream for this purpose, not included in the original project description, or Department approved water pollution/water diversion plan shall be coordinated with the Department. Coordination shall include the negotiation of additional Agreement provisions.

~~89.~~ 90. Preparation shall be made so that runoff from steep, erodible surfaces will be diverted into stable areas with little erosion potential. Frequent water

checks shall be placed on dirt roads, cat tracks, or other work trails to control erosion.

~~90.~~ 91. Water containing mud, silt, or other pollutants from equipment washing or other activities, shall not be allowed to enter a lake or flowing stream or placed in locations that may be subjected to high storm flows.

~~91.~~ 92. If an off-stream siltation pond(s) is/are used to control sediment, pond(s) shall be constructed in a location, or shall be designed, such that potential spills into the stream/lake during periods of high water levels/flow are precluded.

~~92.~~ 93. If silt catchment basin(s) is/are used, the basin(s) shall be constructed across the stream immediately downstream of the project site. Catchment basins shall be constructed of materials ~~which~~ that are free from mud and silt. Upon completion of the project, all basin materials along with the trapped sediments shall be removed from the stream in such a manner that said removal shall not introduced sediment to the stream.

~~93.~~ 94. Silt settling basins shall be located away from the stream or lake to prevent discolored, silt bearing water from reaching the stream or lake during any flow regime.

~~94.~~ 95. Upon Department determination that turbidity/siltation levels resulting from project related activities constitute a threat to aquatic life, activities associated with the turbidity/siltation, shall be halted until effective Department approved control devices are installed, or abatement procedures are initiated.

~~95.~~ 96. No equipment shall be operated in ponded or flowing areas. When work in a flowing stream is unavoidable, the entire stream flow shall be diverted around the work area by a barrier, temporary culvert, new channel, or other means approved by the Department. Location of the upstream and downstream diversion points shall be approved by the Department. Construction of the barrier and/or the new channel shall normally begin in the downstream area and continue in an upstream direction, and the flow shall be diverted only when construction of the diversion is completed. Channel bank or barrier construction shall be adequate to prevent seepage into or from the work area. Diversion berms shall be constructed of onsite alluvium of low silt content, inflatable dams, sand bags, or other approved materials. Channel banks or barriers shall not be made of earth or other substances subject to erosion unless first enclosed by sheet piling, rock rip-rap, or other protective material. The enclosure and the supportive material shall be removed when the work is completed and removal shall normally proceed from downstream in an upstream direction. The Operator shall obtain all written approvals from the Department prior to initiation of construction activities.

~~96.~~ 97. Rock, gravel, and/or other materials shall not be imported to, taken from or moved within the bed or banks of the stream except as otherwise addressed in this Agreement.

~~97.~~ 98. Preparation shall be made so that runoff from steep, erodible surfaces will be diverted into stable areas with little erosion potential. Frequent water checks shall be placed on dirt roads, cat tracks, or other work trails to control erosion.

~~98.~~ 99. Temporary fills shall be constructed of nonerodible materials and shall be removed immediately upon work completion, and shall be approved by the Department prior to implementation.

~~99.~~ 100. Equipment shall not be operated in the lake or its margin except as approved by the Department during excavation and as may be necessary to construct barriers or fills. If work in the lake is unavoidable, a curtain enclosure to prevent siltation of the lake beyond the immediate working area shall be installed. The enclosure and any supportive material shall be removed when the work is completed.

~~100.~~ 101. If operations require moving of equipment across a flowing stream, such operations shall be conducted without increasing stream turbidity. For repeated crossings, the operator shall install a bridge, culvert, or rock-fill crossing as specified in Conditions contained within this Agreement, and approved by the Department prior to placement.

~~101.~~ 102. If a stream channel has been altered during the operations, its low flow channel shall be returned as nearly as possible to pre-project conditions without creating a possible future bank erosion problem, or a flat wide channel or sluice-like area. If a lake margin has been altered, it shall be returned as nearly as possible to pre-project conditions without creating a future bank erosion problem. The gradient of the streambed or lake margin shall be returned to pre-project grade unless such operation is part of a restoration project, in which case, the change in grade must be approved by the Department prior to project commencement.

~~102.~~ 103. Structures and associated materials not designed to withstand high seasonal flows shall be removed to areas above the high water mark before such flows occur.

~~103.~~ 104. Spoil sites shall not be located within a stream/lake, where spoil shall be washed back into a stream/lake, or where it will cover aquatic or riparian vegetation.

~~104.~~ 105. Staging/storage areas for equipment and materials shall be located outside of the stream.

~~105.~~ 106. Access to the work site shall be via existing roads and access ramps.

~~106~~ 107. No equipment maintenance shall be done within or near any stream channel where petroleum products or other pollutants from the equipment may enter these areas under any flow.

~~107.~~ 108. Vehicles shall not be driven or equipment operated in water covered portions of a stream or lake, or where wetland vegetation, riparian vegetation, or aquatic organisms may be destroyed.

~~108.~~ 109. The work area shall be secured from trespass when (as determined by the Department) fish or wildlife resources are vulnerable to damage from unsupervised public access.

~~109.~~ 110. Raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances ~~which~~ <u>that</u> could be hazardous to aquatic life, resulting from project related activities, shall be prevented from contaminating the soil and/or entering the waters of the state. These materials, placed within or where they may enter a stream/lake, by Operator(s) or

any party working under contract, or with the permission of the Operator(s), shall be removed immediately.

~~110.~~ 111. Any use of a concrete type product, the area poured shall be bermed to prevent all and any concrete or concrete wash water from entering the water. The berm shall be constructed from plastic lined sand bags and shall be water tight. Wet concrete may have a pH of 13 and is highly toxic to aquatic species. The berm/water diversion shall not be removed and water shall not be allowed to contact the fresh concrete for a minimum of 15 days. The concrete mix shall be as thick as possible and shall contain a quick set product to ensure the shortest drying time.

~~111.~~ 112. The Operator's activities within the stream course shall be limited to the dry period of the year from May 1 to December 1 and when the stream is not actively flowing and no measurable rain is forecasted within 72 hours. If measurable rain is predicted within 72 hours during construction, all activities shall cease and protective measures to prevent siltation/erosion shall be implemented/maintained. No concrete product may be used if measurable rain is forecasted within 15 days.

~~112.~~ 113. No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or washings thereof, oil or petroleum products or other organic or earthen material from any construction, or associated activity of whatever nature shall be allowed to enter into or placed where it may be washed by rainfall or runoff into, waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any stream or lake.

~~113.~~ 114. The Operator(s) shall comply with all litter and pollution laws. All contractors, subcontractors, and employees shall also obey these laws and it shall be the responsibility of the Operator(s) to ensure compliance.

~~114.~~ 115. Any equipment or vehicles driven and/or operated within or adjacent to the stream/lake shall be checked and maintained daily, to prevent leaks of materials that if introduced to water could be deleterious to aquatic life.

~~115.~~ 116. Stationary equipment such as motors, pumps, generators, and welders, located within or adjacent to the stream/lake shall be positioned over drip pans.

~~116.~~ 117. The clean-up of all spills shall begin immediately. The Department shall be notified immediately by the Operator(s) of any spills and shall be consulted regarding clean-up procedures.

~~117.~~ 118. Structures and associated materials not designed to withstand high water flows shall be moved to areas above high water before such flows occur.

~~118.~~ 119. Any materials placed in seasonally dry portions of a stream or lake that could be washed downstream or could be deleterious to aquatic life shall be removed from the project site prior to inundation by high flows.

~~119.~~ 120. If a stream's low flow channel, bed or banks/lake bed or banks have been altered, these shall be returned as nearly as possible to their original configuration and width, without creating future erosion problems.

~~120.~~ 121. Construction activities shall comply with Regional Water Quality Control Board standards.

~~121.~~ 122. All provisions of this Agreement remain in force throughout the term of the Agreement. Any provisions of the Agreement may be amended or the Agreement may be terminated at any time provided such amendment and/or termination is agreed to in writing by both parties. Mutually approved amendments become part of the original Agreement and are subject to all previously negotiated provisions.

~~122.~~ 123. The Operator may request one extension of this Agreement, if the Operator requests the extension prior to the expiration of its original term. The Department shall grant the extension unless it determines that the Agreement requires modification because the measures contained in the agreement no longer protect the fish and wildlife resources that the activity may substantially adversely affect. In the event the Department makes that determination, the Department shall propose measures intended to protect those resources. If the Operator disagrees with the Department's determination that the Agreement requires modification to protect fish and wildlife resources or with the measures proposed by the Department, the disagreement shall be resolved pursuant to the procedures described in subdivision (b) of Section 1603. The Department may not extend an agreement for more than five years. The original Agreement shall remain in effect until the Department grants the extension request, or new measures are imposed to protect fish and wildlife resources by agreement or through the arbitration process, however, the original Agreement may not remain in effect for more than one year after its expiration date. If the Operator fails to submit a request to extend an agreement prior to its expiration, the Operator shall submit a new notification before commencing or continuing the activity covered by the Agreement. Any activities conducted under an expired agreement constitute a violation of Fish and Game Code Section 1600 *et seq*.

~~123.~~ 124. The Operator(s) shall provide a copy of this Agreement to all contractors, subcontractors, project resident engineers, project engineers, project inspectors and the Operator's project supervisors, and shall abide by the terms and conditions of this agreement. Copies of the Agreement shall be readily available at work sites at all times during periods of active work and must be presented to any Department personnel, or personnel from another agency upon demand.

~~124.~~ 125. If the Operator(s) or any of the individuals mentioned above violate any of the terms or conditions of this agreement, all work shall terminate immediately and shall not proceed until the Department has taken all of its legal actions.

~~125.~~ 126. The Department reserves the right to enter the project site at any time to ensure compliance with terms/conditions of this Agreement.

~~126.~~ 127. All provisions of this Agreement remain in force throughout the term of the Agreement. Any provisions of the Agreement may be amended or the Agreement may be terminated at any time provided such amendment and/or termination is agreed to in writing by both parties. Mutually approved amendments become part of the original Agreement and are subject to all previously negotiated provisions.

~~127.~~ 128. If the Operator(s) or any of the individuals mentioned above~~,~~ violate any of the terms or conditions of this agreement, all work shall terminate immediately and shall not proceed until the Department has taken all of its legal actions.

~~128.~~ 129. The Operator(s) shall notify the Department, in writing, at least five (5) days prior to initiation of construction (project) activities and at least five (5) days prior to completion of construction (project) activities. Notification shall be sent to the Department at 4949 Viewridge Avenue, San Diego, California 92123, SAA No. 5-2001-0338-000.

~~129.~~ 130. It is understood the Department has entered into this Streambed Alteration Agreement for purposes of avoiding potential and mitigating substantial adverse effects to fish and wildlife resources in the event that an activity or project is implemented. The decision to proceed with an activity or project is the sole responsibility of the Operator(s), and is not required by this Agreement. It is further agreed that all liability and/or incurred cost related to or arising out of the Operator's activity or project and the Mitigation Measures for the protection of fish and wildlife set forth by this Agreement remain the sole responsibility of the Operator(s). The Operator(s) agree(s) to hold harmless and indemnify the State of California and the Department of Fish and Game against any claim relative to this Agreement made by any party or parties for personal injury or property damage resulting from the Operator's intentional misconduct or negligence. Nothing in this section is intended to prohibit the Operator(s), or any other person or entity, from requesting and/or receiving assistance or funding from the Federal Emergency Management Agency.

~~130.~~ 131. Mitigation for areas of temporary disturbance—The Operator shall mitigate with the restoration of _____. Mitigation ratios shall be based on the guidelines set forth by the SAMP for calculation of mitigation ratios.

~~131.~~ 132. Mitigation for areas of permanent disturbance—The Operator shall mitigate with the enhancement/restoration of _____ . The location and type of restoration shall be approved by the Department within 30 days of execution of this agreement. Mitigation shall be completed by _____. Mitigation ratios shall be based on the guidelines set forth by the SAMP for the calculation of mitigation ratios.

~~132.~~ 133. Prior to initiation of construction activities, a plant palette and planting plan, prepared by a biologist familiar with restoration of native plants, shall be submitted to the Department for approval by _____. This plan shall include plantings of both overstory and understory vegetation and shall be consistent with any recommendation by _____.

~~133.~~ 134. To provide protection from erosion, the Operator shall plant willow or mulefat cuttings (obtained from nearby plants or salvaged willow or mulefat from the site prior to construction activities) on 6-8 ft centers, on the restored slope. These shall be planted during the willows dormant season, and shall be augered/dug into the groundwater or wetted soil.

~~134.~~ 135. Planting, maintenance, monitoring and reporting activities shall be overseen by a specialist familiar with restoration of native plants.

~~135.~~ 136. Cover requirements for use in areas outside of Aquatic Resource Integrity Areas and/or major streams outside of Aquatic Resource Integrity Areas ~~—~~(applicable for level 1 SAA only) - All planting shall attain 55% cover after 3 years and 75% cover after 5 years for the life of the project. Prior to the mitigation site(s) being determined successful, they shall be entirely without supplemental irrigation for a minimum of 2 years. No single species shall constitute more than 50% of the vegetative cover, no woody invasive species shall be present, and herbaceous invasive species shall not exceed 5% cover. If the survival and cover requirements have not been met, the Operator is responsible for replacement planting to achieve these requirements. Replacement plants shall be monitored with the same survival and growth requirements for 5 years after planting.

~~136.~~ 137. The Operator shall have a qualified wildlife biologist survey the restoration site to monitor the recovery of wildlife and aquatic resources in the area following construction. Survey techniques and scheduling shall be approved by the Department. Recovery shall be based on the presence/absence of "indicator" species which shall be proposed by the biologist and approved by the Department. Monitoring of wildlife and aquatic resources shall be done in summer and winter of each year, through the term of restoration, and the results and analysis shall be submitted with the report specified above.

~~137.~~ 138. The Operator shall provide irrigation when natural moisture conditions are inadequate to ensure survival of plants. Irrigation shall be provided for a period of at least two years from planting. Irrigation shall be phased out during the fall/winter of second year unless unusually severe conditions threaten survival of plantings. All plants must survive and grow for at least three years without supplemental water for the restoration phase of the project to be eligible for acceptance by the Department.

~~138.~~ 139. Plant material for revegetation shall be derived from cuttings, materials salvaged from disturbed areas, and/or seeds obtained from randomly selected native trees and shrubs occurring locally within the same drainage.

~~139.~~ 140. Any replacement tree/shrub stock~~, which~~ that cannot be grown from cuttings or seeds, shall be obtained from a native plant nursery, be ant free and shall not be inoculated to prevent heart rot. The Operator shall provide a list of all materials ~~which must~~ to be obtained from other than onsite sources.

~~140.~~ 141. Operator shall remove all non-native aquatic animals from the work area as part of the restoration of the site. Target animals include bullfrog, African clawed frog, non-native turtles, and crayfish. Compliance with this condition may be subject to a sportsfishing license from the Department.

Additional Resource Protection:

~~141.~~ 142. The Operator shall annually inspect and photo-documentation of the stability of the slope and fill covering the Uniaxial geogrid to monitor for exposure of the geogrid to the streambed. This long-term inspection is necessary to

ensure that aquatic species (fish and frogs) are not or do not have the potential to be trapped within the geogrid fabric.

~~142.~~ 143. The Operator certifies by signing this agreement that the project site has been surveyed and shall not impact any rare, threatened, or endangered species; or the Operator certifies that such a survey is not required for the proposed project. If rare, threatened, or endangered species occur within the proposed work area, or could be impacted by the work proposed, the Operator shall consult with the Department and obtain any required State and/or Federal permits.

~~143.~~ 144. Be advised, migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918(50 C.F.R. Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA).

~~144.~~ 145. Prior to any construction during the raptor-nesting season, January ~~31~~st 31 to September ~~1st,~~ 15, a qualified biologist shall conduct a site survey for active nests two weeks prior to any scheduled development. If an active nest is located, then no construction work shall be conducted within a 500 foot radius from the nest until the young have fledged and are independent of the adults.

~~145.~~ 146. The Operator's activities shall be limited to the period of daylight hours.

~~146.~~ 147. The Operator's activities within the stream course shall be limited to the dry period of the year from May 1 to October 1 and/or when the stream is not actively flowing and no measurable rain is forecasted within 72 hours. If measurable rain is predicted within 72 hours during construction, all activities shall cease and protective measures to prevent siltation/erosion shall be implemented/maintained.

~~147.~~ 148. A qualified biological monitor with all required collection permits shall be on site during operations and shall survey for species prior to construction. If any life stages of any native vertebrate species are found in the path of construction, the monitor shall relocate the species to a safe location. Exclusionary devices shall be erected to prevent the migration into or the return of species into the work site.

~~148.~~ 149. The Operator shall install and use fully covered trash receptacles with secure lids (wildlife proof) to contain all food, food scrapes, food wrappers, beverage, and other miscellaneous trash.

~~149.~~ 150. The Operator shall ensure that no guns/or other weapons are on-site during construction, with the exception of the security personnel and only for security type functions. No hunting shall be authorized/permitted during construction.

~~150.~~ 151. The Operator shall not permit pets on or adjacent to the construction site.

~~151.~~ 152. Tarps shall be hung from the structure to prevent debris, etc. from entering the streambed.

~~152.~~ 153. The work area shall be secured from trespass when (as determined by the Department) fish or wildlife resources are vulnerable to damage from unsupervised public access.

~~153.~~ 154. The application of a primer or final paint coat shall not be completed during predicted rain. The Operator shall monitor the 7-day forecast; painting or the application of primer and final coat shall only be conducted if a 3-day clear window is predicted (less than a 40% chance of rainfall).

~~154.~~ 155. All work sites shall be surveyed for rare plants prior to any ground disturbing activities. Rare plant surveys shall be conducted following the *Guidelines for Assessing Effects of Proposed Projects on Rare, Threatened and Endangered Plants and Natural Communities* (Department 2000). The guidelines may be obtained from ~~DFG~~ the Department (see condition 33 for contact information) or at: http://www.dfg.ca.gov/hcpb/species/stds_gdl/survmonitr.shtml

~~155.~~ 156. Any structure/culvert placed within a stream where fish do/may occur, shall be designed, constructed, and maintained such that it does not constitute a barrier to upstream or downstream movement of aquatic life, or cause an avoidance reaction by fish that impedes their upstream or downstream movement. This includes but is not limited to the supply of water at an appropriate depth, temperature, and velocity to facilitate upstream and downstream fish migration. If any aspect of the proposed project results in a long term reduction in fish movement, the operator shall be responsible for all future activities and expenditures necessary (as determined by the Department) to secure passage of fish across the structure.

~~156.~~ 157. No work shall be conducted within the flowing or ponded water within the river~~, which~~ that has potential to support steelhead. Adult steelhead are expected to be in the area during periods of high flow (January through March) and smolt are likely to be in the area during periods of receding flows (March to July). The Operator shall not work during these times. National Marine Fisheries Biologist shall be contacted to coordinate additional fish salvage and avoidance measures.

~~157.~~ 158. Permanent structures shall be designed, constructed, and maintained such that they do not constitute a barrier to upstream or downstream movement of aquatic life, or cause an avoidance reaction by fish that impedes their upstream or downstream movement. This includes, but is not limited to, the supply of water at an appropriate depth, temperature, and velocity to facilitate upstream and downstream fish migration. If any aspect of the proposed project results in a long term reduction in fish movement, the Operator shall be

responsible for all future activities and expenditures necessary (as determined by the Department) to secure passage of fish across the structure.

~~158.~~ 159. The owner of any dam shall allow sufficient water at all time to pass through a fishway, or in the absence of a fishway, allow sufficient water to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam. During the minimum flow of water in any river or stream, permission may be granted by the Department to the owner of any dam to allow sufficient water to pass through a culvert, waste gate, or over or around the dam, to keep in good condition any fish that may be planted or exist below the dam, when, in the judgment of the Department, it is impracticable or detrimental to the owner to pass the water through the fishway (FG Code 5937).

~~159.~~ 160. If flowing or ponded water is within the proposed work limits, the Operator shall telephone the fishery biologist, _____, prior to commencing activities within the bed, bank, and channel. The Operator shall leave his/her name, date and time called, telephone number, the stream name, work location, nature of planned activities and proposed schedule.

~~160.~~ 161. If flowing or ponded water is within the proposed work limits, the Operator shall have a qualified fisheries biologist survey the proposed work area to verify presence/absence of the any sensitive fish species and any other species of special concern ~~which~~ that may occur within the area. Survey methods shall conform to the current U. S. National Marines Fisheries Service and the California Department of Fish and Game. If any T/E species are found, the Operator shall cease all work within a mile radius of the sighting and in all water (flowing or impounded) and shall contact the Department within 24 hours of the sighting and shall request an onsite inspection by the Department representative (to be done at the discretion of the Department) to determine if work shall proceed. The results of the surveys shall be provided to the Department, along with copies of all field notes, prior to the completion of work or as otherwise specified. The survey techniques shall be approved by the Department, in writing, and the researcher shall have the required State and federal permits.

~~161.~~ 162. The Department believes that permits/certification may be required from the Corps of Engineers/Regional Water Quality Control Board for this project, should such permits/certification be required, a copy shall be submitted to the Department. The Operator shall report all fish mortality immediately to the Departments Fisheries Biologist, _____. The Operator shall report all rainbow trout/southern steelhead trout to _____.

~~162.~~ 163. The Department believes that permits/certification may be required from the Corps of Engineers/Regional Water Quality Control Board for this project, should such permits/certification be required, a copy shall be submitted to the Department.

~~163.~~ 164. All resident engineers, project engineers, project inspectors, contractors, and subcontractors, participating in this project, must read and

understand all terms and conditions of this agreement and shall abide by the terms and conditions stated herein.

~~164.~~ 165. If the Operator or any employees, agents, contractors and/or subcontractors violate any of the terms or conditions of this agreement, all work shall terminate immediately and shall not proceed until the Department has taken all of its legal actions.

~~165.~~ 166. The Operator shall provide a copy of this Agreement, and all required permits and supporting documents provided with the notification or required by this Agreement, to all contractors, subcontractors, and the Operator's project supervisors. Copies of this Agreement and all required permits and supporting documents, shall be readily available at work site at all times during periods of active work and must be presented to any Department personnel, or personnel from another agency upon demand. All contractors shall read and become familiar with the contents of this agreement.

~~166.~~ 167. A pre-construction meeting/briefing shall be held involving all the contractors and subcontractors, concerning the conditions in this Agreement.

5 LIST OF PREPARERS (FOR VOLUME III – EVALUATION OF AND RESPONSE TO COMMENTS/ ERRATA ONLY)

U.S. Army Corps of Engineers, Los Angeles District, Regulatory Division
Corice Farrar, SAMP Project Manager
Jae Chung, D.Env., SAMP Program Manager

California Department of Fish and Game, Habitat Conservation Branch, South Coast Region
Erinn Wilson, Staff Environmental Scientist
Terri Dickerson, Senior Environmental Scientist (Reviewer)
Stephen Puccini, Legal Counsel (Reviewer)

With support provided by:
URS Corporation, Santa Ana
Jennifer Ziv, Senior Environmental Planner
Sabrina Ventresca, Graphic Designer

6 LIST OF AGENCIES, ORGANIZATIONS, AND PERSONS TO WHOM COPIES OF THE NOTICE OF AVAILABILITY FOR THE DRAFT EIS/EIR WERE SENT

The following is the Distribution List for Draft Program EIS/EIR for the San Diego Creek Watershed SAMP (Updated 10/31/07). The Corps also distributed an electronic and paper notification of Draft Program EIS/EIR availability to Corps standard mailing lists for projects. The State Clearinghouse also received notification of the Draft Program EIS/EIR availability.

NOA[1]	HCs[2]	CDs[3]	Addressee	Explanation of addressees at organization to receive copies
1	1	1	Santa Ana Regional Water Quality Control Board Attn: Mark Adelson 3737 Main Street, Suite 500 Riverside, CA 92501-3348	
1	0	1	Santa Ana Regional Water Quality Control Board Attn: Adam Fischer 3737 Main Street, Suite 500 Riverside, CA 92501-3348	
1	0	1	Santa Ana Regional Water Quality Control Board Attn: Wanda Cross 3737 Main Street, Suite 500 Riverside, CA 92501-3348	
1	0	0	Doug Shibberu Santa Ana RWQCB 3737 Main St. Riverside, CA 92658	
1	0	1	US Fish and Wildlife Service, Carlsbad Office Attn: Ken Corey 6010 Hidden Valley Road Carlsbad, CA 92011	
1	0	1	US Fish and Wildlife Service, Carlsbad Office Attn: Jonathan Snyder 6010 Hidden Valley Road Carlsbad, CA 92011	

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1	0	1	US Fish and Wildlife Service, Carlsbad Office Attn: Chris Medak 6010 Hidden Valley Road Carlsbad, CA 92011	
1	3	1	David B. Olson, Directorate of Civil Works U.S. Army Corps of Engineers 441 G Street, NW Washington, DC 20314-1000	
1	0	1	Wade Eakle, Ecologist and Regulatory Program Manager US Army Corps of Engineers South Pacific Division, Mail Code 1014-J 333 Market Street San Francisco, CA 94105	
1	1	0	Russ Kaiser U.S. Army Corps of Engineers Regulatory Community of Practice (3E76) 441 G Street, NW Washington, DC 20314-1000	
1	5	0	US Environmental Protection Agency Office of Federal Activities EIS Filing Section Ariel Rios Building (South Oval Lobby), Room 7220 1200 Pennsylvania Avenue, NW Washington, DC 20004	
1	1	2	David Smith, Manager Wetlands Regulatory Office US Environmental Protection Agency Region 9, Mail Code WTR-8 75 Hawthorne San Francisco, CA 94105	
1	2	0	Manager, Environmental Review Office US Environmental Protection Agency Region 9, Mail Code CED-2 75 Hawthorne San Francisco, CA 94105	
1	1	17	Director, Office of Environmental Policy and Compliance Department of the Interior Main Interior Building, MS 2342 1849 C Street, NW Washington, DC 20240	

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1	0	3	Planning Division, PPMD (Jodi Clifford, Jim Hutchison, POC in PPMD)	
1	0	2	California Coastal Commission Attn: Karl Schwing 200 Oceangate, 10th Floor Long Beach, CA 90802-4416	
1	0	2	NOAA Fisheries Attn: Bryant Chesney 501 W. Ocean Blvd., Suite 4200 Long Beach, CA 90802-4213	
1	0	2	California Coastal Commission Attn: Mark Delaplaine, Federal Consistency Office 45 Fremont Street, Suite 2000 San Francisco, CA 94105-2219	
1	1	10	County of Orange RDMD Attn: Nardy Khan, Regulatory Unit 300 North Flower Street, 6th Floor Santa Ana, CA 92703	
1	0	4	County of Orange RDMD Attn: Cathy Nowak, HBP 300 North Flower Street, 4th Floor Santa Ana, CA 92703	
1	0	2	County of Orange RDMD Attn: Grant Anderson, Roads 300 North Flower Street Santa Ana, CA 92703	
1	0	2	County of Orange RDMD Attn: Nadeem Majaj, P.E., Manager Flood Control Division 300 North Flower Street, Room 720 Santa Ana, CA 92703	
1	0	2	County of Orange RDMD Attn: Carolyn Schaffer, Watershed & Coastal Resources 300 North Flower Street, 7th Floor Santa Ana, CA 92703	
1	0	4	County of Orange IWMD Attn: Suzanne McClanahan/Jim Pfaff 320 North Flower Street, Suite 400 Santa Ana, CA 92703	

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1	0	2	County of Orange Roger Freeman, Deputy County Counsel P.O. Box 1379 Santa Ana, CA 92702	
1	1	8	The Irvine Co. Attn: Dean Kirk 550 Newport Center Drive Newport Beach, CA 92660	
1	1	4	City of Irvine Attn: Mike Loving One Civic Center Plaza P.O. Box 19575 Irvine, CA 92623-9575	
1	0	2	City of Irvine Attn: Pamela Chana, Community Services Manager City of Irvine P.O. Box 19575 Irvine, CA 92623-9575	
2	2	2	Terri Dickerson California Dept of Fish and Game P.O. Box 6657 Laguna Niguel, CA 92607 Naeem Siddiqui California Dept of Fish and Game South Coast Region 4665 Lampson Avenue, Suite C Los Alamitos, CA 90720	
1	0	1	Mike Mulligan California Dept of Fish and Game South Coast Region 4949 Viewridge Avenue San Diego, CA 92123	
1	1	4	IRWD Attn: Dick Diamond P.O. Box 5700 Irvine, CA 92619-7000	

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1	1	4	Sheppard Mullin Bob Uram and Maria Pracher Seventeenth Floor Four Embarcadero Center San Francisco, CA 94111-4196	
1	1	2	The Great Park Corp. Attn: Glen Worthington 7000 Trabuco Road, Bldg. 873 Irvine, CA 92618	
1	0	2	Heritage Fields El Toro LLC 7000 Trabuco Road, Bldg. 873 Irvine, CA 92618	
1	0	1	UC ANR South Coast Research & Ext. Center Attn: John Kabashima 7601 Irvine Blvd. Irvine, CA 92718	
1	0	1	UC Irvine Campus and Environmental Planning Attention: Jim Lawson 4199 Campus Drive, Suite 750 Irvine, CA 92697-2325	
1	0	2	UC Irvine Reserve System Dr. William Bretz and Dr. Peter Bowler Office of Natural Reserves c/o University of California Arboretum Irvine, CA 92697-1459	
1	1	1	University of California – Reference Desk The UCI Libraries - Zot 8100 PO BOX 19557 Irvine, CA 92623-9557	
1	1	1	Newport Beach Central Library – Reference Desk 1000 Avocado Ave. Newport Beach, CA 92660	
1	1	1	Heritage Park Regional Library – Reference Desk 14361 Yale Avenue Irvine, CA. 92604	

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1	0	1	City of Lake Forest Director of Public Works/City Engineer 23161 Lake Center Dr. Lake Forest, CA 92650	
1	0	1	City of Lake Forest Development Services Manager 23161 Lake Center Dr. Lake Forest, CA 92650	
1	0	0	Bob Caustin Defend the Bay 4101 Birch Street, Suite 150 Newport Beach, CA 92660	[updated address]
1	0	0	Britton Jacob-Schram 4207, 4230 Park Newport Newport Beach, CA 92660	
1	0	0	Chris Crompton 17505 S Douglass Anaheim, CA 92806	
1	0	1	Dave Kiff City of Newport Beach 3300 Newport Blvd. Newport Beach, CA 92658	
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1	0	0	Rob Johnson 3187 Redhill Ave., Suite 25 Costa Mesa, CA 92626	
1	0	0	Ron Jackson 46 Emerald Bay Laguna Beach, CA 92651	
1	0	0	Susan Sheakley Conservation Co-Chair Sea & Sage Audubon Society PO Box5447 Irvine, CA 92616	
1	0	1	Trish Smith The Nature Conservancy 2883 Irvine Blvd. Irvine, Ca 92618	
1	0	0	William Devine Allen Matkins 1900 Main Street, 5th Floor Irvine, CA 92614-7321	
1	0	0	John Hills 3512 Michelson Dr. Irvine, CA 92612	
1	0	1	City of Costa Mesa Planning Division Development Services Dept. P.O. Box 1200 Costa Mesa, CA 92628-1200	
1	0	0	Orange County Coastkeeper 3151 Airway Ave. Suite F-110 Costa Mesa, Ca 92626	
1	0	0	David Beckman NRDC 1314 Second Street Santa Monica, CA 90401	[Updated address]
1	0	1	SCAG Jeffrey Smith, Senior Planner 818 West Seventh Street Los Angeles, CA 90017-3435	

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1	0	0	Rosemary Flynn	Notification only/no mailing address: rtf7@pacbell.net
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1	0	0	Joey Racano	Notification only/no mailing address: joeylittleshell@yahoo.com

[1]NOA = Notice of Availability
[2]HC = Paper copies of SAMP and Draft Program EIS/EIR (Volume I), plus electronic copy (on compact disc) of technical appendices (Volume II)
[3]CD = Electronic copies (on compact disc) of SAMP, Draft Program EIS/EIR (Volume I), and technical appendices (Volume II)

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APPENDIX F – PROCEEDINGS FROM PUBLIC MEETING HELD ON APRIL 1, 2008