

## **EXECUTIVE SUMMARY**

### **ES.1 PROJECT PURPOSE**

The primary purpose of the Special Area Management Plan (SAMP) and Watershed Streambed Alteration Agreement Process (WSAA Process) is to improve the U.S. Army Corps of Engineers, Los Angeles District Regulatory Division (Corps) and the California Department of Fish and Game, Habitat Conservation, South Coast Region (Department) capacity for making permitting decisions in the San Diego Creek Watershed (Watershed) using an approach that balances aquatic resource protection with reasonable economic development and infrastructure needs. The underlying goal of the SAMP is to support riparian ecosystem conservation and management by comprehensively assessing the Watershed's aquatic resources and developing a strategic and coordinated regulatory approach (permitting and mitigation). This approach prioritizes avoidance of impacts to higher integrity aquatic resources and envisions targeted enhancement and restoration activities related to regulatory actions that will maintain and improve the Watershed's aquatic resource functions and values over the long term. It is believed that these goals can be achieved through the cooperative efforts on the part of the Corps, the Department, local government, state and federal resource agencies, local landowners, and other stakeholders, including the interested public.

### **ES.2 SAMP TENETS**

The SAMP tenets, listed below, are overarching, guiding principles for the Watershed based on the knowledge of the Watershed's resources obtained through baseline assessments. The Corps and Department identified these important scientific elements that, if adhered to, would ensure the goals and objectives of the SAMP are met. The tenets provide a method of evaluating potential impacts and inform the Corps and the Department in their efforts to achieve the respective goals of the Clean Water Act (CWA) (i.e., of protecting the biological, chemical, and physical integrity of waters of the U.S.) and the California Department of Fish and Game Code (FGC) (i.e., to avoid impacts to fish and wildlife that use the State's lakes, rivers and streams).

- No Net Loss of Acreage and Functions of Waters of the U.S.;
- Maintain/Restore Hydrologic, Water Quality, and Habitat Integrity;
- Protect Headwaters Areas;
- Maintain/Protect/Restore Diverse and Continuous Riparian Corridors;
- Maintain or Restore Floodplain Connection;
- Maintain and/or Restore Sediment and Transport Equilibrium;
- Maintain Adequate Buffers for the Protected Riparian Corridors; and
- Protect Riparian Areas and Associated Habitats Supporting Federally- and State-Listed, Sensitive Species and their Habitat.

### ES.3 PROJECT DESCRIPTION FOR SAMP/WSAA PROCESS

The San Diego Creek Watershed SAMP formulation process was initiated in 1998 with state and federal agencies, in coordination with local land owners/managers with known and future regulated activities in the Watershed. The result of the SAMP formulation process is a plan, which includes the following four elements:

- SAMP Analytical Framework;
- Watershed-specific permitting process for the Corps CWA Section 404 program and the addition of a Department WSAA Process in accordance with FGC Section 1600 *et seq.*, and a corresponding mitigation framework for the Watershed;
- Strategic Mitigation Plan; and
- Mitigation Coordination Program.

The first component of this SAMP, the Analytical Framework, is based on a landscape level functional assessment (LLFA) of the Watershed's riparian ecosystem. The LLFA ranked the functional integrity of aquatic resources in the Watershed in terms of habitat, hydrology and water quality. High ranking aquatic resources were identified as aquatic resource integrity areas, subject to greater regulatory scrutiny and efforts for impact avoidance. From this ranking process and coordination with SAMP Participating Applicants (discussed below), an impact avoidance and minimization plan was developed. The Corps, with the Department developed the Analytical Framework as a decision-making tool for evaluating regulated activities that would affect aquatic resources in the Watershed.

The second element of the SAMP, the Watershed-specific permit process, entails modifications to permitting procedures to provide the Corps and the Department with Watershed-based and resource-based permitting protocols. This regulatory component of the SAMP also includes a mitigation framework for temporary and permanent impacts that includes no net loss in acreage and functional integrity of aquatic resources.

Related is the third element of the SAMP, a Strategic Mitigation Plan. This plan is based on a riparian ecosystem restoration plan for the Watershed that identifies prioritized restoration sites for the Watershed to be utilized in conjunction with the mitigation framework, to enhance the overall ecosystem function of the Watershed.

The fourth element, the Mitigation Coordination Program focuses on developing and implementing a coordinated approach among local landowners/managers and stakeholders to long-term aquatic resource management within the Watershed.

The SAMP, comprised of these four elements, is detailed in the Corps report entitled *Special Area Management Plan for the San Diego Creek Watershed* (Corps, 2008). These SAMP elements are the proposed action/proposed project for this Program EIS/EIR.

### **Involved Agencies and Participating Applicants**

The following state and federal resource agencies have been involved in development of the SAMP/WSAA Process:

- Corps, Regulatory Division of the Los Angeles District (Federal Lead Agency);
- Department Habitat Conservation Unit, South Coast Region (State Lead Agency);
- California Regional Water Quality Control Board, Santa Ana Region 8 (State Responsible Agency);
- U.S Fish and Wildlife Service (USFWS) (Federal Cooperating Agency); and
- U.S. Environmental Protection Agency (U.S. EPA), Region IX (Federal Cooperating Agency).

On several occasions in 2001 and 2002, the Corps contacted public and private entities (potential applicants) with known development projects and infrastructure/maintenance activities within the Watershed to seek their participation in the SAMP/WSAA Process. The Irvine Company, Irvine Ranch Water District, Orange County Flood Control District, and the City of Irvine chose to participate in the SAMP/WSAA Process for future projects and activities subject to permitting under Section 404 of the federal CWA and Section 1600 *et seq.* of the FGC. These entities are referred to as the Participating Applicants. The County of Orange Resources Development and Management Department (formerly Public Facilities and Resources Department) and County of Orange Integrated Waste Management Department were coordinating agencies.

Since the Participating Applicants were able to provide project information at a sufficiently detailed level to bring forward for pre-application planning purposes, the Corps and the Department were able to work with the Participating Applicants to examine projects and activities and help identify ways to achieve conformance with the SAMP Analytical Framework and impact avoidance and minimization plan.

This EIS/EIR does not evaluate the specific projects of Participating Applicants that may be permitted under the SAMP/WSAA Process because some of these projects have been permitted under the existing permit program and others are or will be undergoing separate environmental review and permit processing by the local lead agencies. Nonetheless, this EIS/EIR programmatically evaluates seven categories of regulated activities that could be permitted under the SAMP/WSAA Process, including regulated activities for which the Participating Applicants may seek Corps/Department permit approval.

### **Summary of Permitting Process Modifications and Mitigation Framework**

The second major component of the SAMP is the Watershed-specific permitting process. The Corps and Department propose to establish an alternate permitting/agreement process pursuant to their respective authorities under the CWA Section 404 and FGC Section 1600 *et seq.* that reflects the Watershed- and resource-based Analytical Framework. Thus, the Corps and the Department's watershed-specific permitting procedures and mitigation policies will now differentiate among aquatic resources based on their water quality, habitat, and hydrologic integrity and functional role in the Watershed. The focus of the Corps and the Department's new Watershed-specific permitting program is to provide the appropriate level of review of proposed regulated activities in consideration of aquatic resource integrity within the Watershed. The SAMP Analytical Framework, which has allowed the Corps and Department to identify

aquatic resource integrity areas and major stream systems that merit closer consideration, will improve the agencies' capacity to make informed management decisions within the agencies' authorities (i.e., permitting decisions, including mitigation). This approach has been translated into the proposed regulatory permitting modifications described herein.

### **Corps Watershed-Specific Permitting Process**

The proposed modifications to the Corps permitting process for the Watershed include:

- Change the availability of selected nationwide permits (NWP) for use in the Watershed;
- Establish new Letter of Permission (LOP) procedures for the Watershed; and
- Establish a new maintenance regional general permit (RGP) for the Watershed.

Effectively, the LOP procedures and RGP would replace some NWP and provide a permitting mechanism with shortened permit processing times, as compared with a Standard Individual Permit (SIP), for eligible regulated activities that are consistent with the SAMP Analytical Framework.

Authorizations under LOP procedures would be based on conformity with the following criteria. Within aquatic resource integrity areas only, LOP procedures would be available for temporary impacts, or minor, permanent impacts up to 0.1 acre of waters of the U.S. associated with selected activities, excluding capital improvement flood control projects, as mentioned below. For impacts to waters of the U.S. outside of aquatic resource integrity areas the LOP would be available for applicants who can demonstrate impact avoidance and minimization was achieved to the extent practicable and resulting changes in low integrity areas would only have a minor effect on Watershed integrity. Activities resulting in stream channelization/storm drain conversion for five major stream systems in aquatic resource integrity areas including Borrego Canyon, Hicks Canyon Wash, Peters Canyon Wash, San Diego Creek and Serrano Creek, or those activities which would substantially alter a compensatory mitigation site are ineligible for LOP procedures. The LOPs would also require compliance with a set of general conditions to further reduce potential project effects.

Qualifying routine maintenance activities would be authorized under a new maintenance RGP, that would authorize discharges of dredged and fill materials only outside aquatic resource integrity areas, resulting in temporary impacts up to 0.5 acres of which only 0.1 acre may be vegetated with native riparian and/or wetland vegetation. This RGP would also require compliance with a set of general conditions to further reduce potential project effects.

Alternatively, activities regulated by the Corps under Section 404 and ineligible for a NWP, an LOP, or RGP, would be required to undergo evaluation through the existing SIP process.

This revised process also includes a mitigation framework specific for the Watershed that includes compensatory mitigation ratios for temporary and permanent impacts to ensure no net loss in acres and functional integrity of aquatic resources.

### **Department's Watershed-Specific Permitting Process**

The Department's proposed alternate streambed alteration agreement (SAA) strategy for the Watershed is the WSAA Process. The process consists of three functional habitat quality-based SAA templates (Levels 1, 2 and 3) and a SAA Templates Master Conditions List. The Level 1 template SAAs apply to proposed activities that would alter aquatic resources outside aquatic resource integrity areas that are not mainstem streams. The Level 2 template SAAs apply to activities that would alter mainstem stream reaches outside aquatic resource integrity areas. The Level 3 template SAAs cover certain types of activities within aquatic resource integrity areas. Each template contains a specific list of conditions that the project applicant would agree to implement to help avoid, minimize, and mitigate any substantial or potentially significant effects that the activity could have on rivers, streams and lakes, and associated fish and wildlife resources. The inclusion of a SAA Templates Master Conditions List allows the Department to modify the three SAA template conditions for future use according to specific project needs while still maintaining a high degree of efficiency and resource protection. Similar to the Corps LOP procedures, qualification for a template SAA (or MSAA tiered off this Program EIS/EIR) would be based on compliance with specified criteria, including consistency with the SAMP. All other regulated activities ineligible for the WSAA Process template SAAs would require a standard SAA or master SAA.

For consistency with the Corps proposed LOP procedures, the Department has established the same mitigation requirements including compensatory mitigation ratios for temporary and permanent impacts, but has additional compensatory mitigation for oak, walnut, and sycamore woodland impacts.

### **Benefits of the Modified Permitting Processes**

The proposed permitting changes reflect more front-end analysis of the Watershed's aquatic resources and consideration of how regulated activities may affect those resources. As a result, the proposed changes would allow the Corps and the Department to target staff review and evaluation time towards regulated activities and projects with greater potential to adversely impact the overall integrity of aquatic resources in the Watershed. Conversely, projects and regulated activities with minor impacts that affect low integrity aquatic resources would undergo more efficient permitting procedures. These areas that failed to meet the criteria of aquatic resource integrity areas represent aquatic resources with low hydrologic, water quality, and habitat integrity; little habitat value for threatened and/or endangered species; and low wildlife connectivity value. Regardless of their decreased integrity, the permanent loss of lower value resources would need to be compensated for under the SAMP mitigation framework.

The Corps and the Department have agreed to increase coordination with the other resource agencies over their corresponding related regulatory programs when reviewing future permit applications. Mechanisms for increased interagency coordination are included in the proposed permitting procedures.

In issuing any future permits to applicants, the Corps would, to the extent permissible, rely on and would utilize this Program EIS/EIR prepared in conjunction with the SAMP as the National Environmental Policy Act (NEPA) program environmental document for such permits and approvals. Likewise, the Department would, to the extent permissible, rely on the EIS/EIR prepared in conjunction with SAMP as appropriate California Environmental Quality Act (CEQA) program documentation for any approvals regarding potential impacts to Department jurisdiction along with any project specific CEQA

documentation. Use of this Program EIS/EIR would help reduce staff time and workload needed to process permits for some projects.

### **Anticipated Regulated Activities under the Proposed SAMP/WSAA Process**

Future anticipated activities in the Watershed that are regulated by the Corps and the Department under CWA and FGC (i.e., require the discharge of dredged or fill material into waters of the U.S. or that affect the bed, bank, or channel of a stream or lake) would be subject to the SAMP Permitting Program/WSAA Process. The following categories of regulated activities are fully described and analyzed programmatically in this EIS/EIR:

- Utility Lines;
- Flood Control Facilities;
- Road Crossings including Bridges and Culverts;
- Land Development for Residential, Commercial, Industrial, Institutional and Recreational Facilities;
- Storm Water Treatment and Management Facilities;
- Habitat Restoration and Enhancement Projects; and
- Fire Abatement and Vegetation Fuel Management Activities.

### **Strategic Mitigation Plan**

The Strategic Mitigation Plan, the third SAMP element, is a tool the Corps and the Department would use in concert with the Watershed-specific permitting procedures to improve the long-term sustainability of the Watershed's aquatic resources. The plan would guide mitigation efforts (i.e., avoidance, minimization, and compensation of unavoidable impacts) to realize the maximum functional benefit to the aquatic resources within the Watershed. Restoration, creation, and enhancement efforts would be directed to occur in areas with moderate or low integrity resources to help increase their functional integrity. The methodology for identifying Watershed-appropriate riparian ecosystem restoration opportunities is provided by in U.S. Army Engineering Research and Development Center (ERDC) supplemental study to the SAMP, the Riparian Ecosystem Restoration Plan. This restoration plan was based upon an evaluation of factors such as the "restoration potential" of specific riparian reaches, a site's geomorphic setting, and the "level of effort" necessary to restore specific stream reaches.

Specific criteria were applied to produce a nested hierarchy of restoration opportunities in the Watershed. The criteria, which are consistent with the SAMP Tenets, allowed the agencies to strategically prioritize restoration sites for potential implementation as compensatory mitigation sites to attain the greatest functional improvement for a standardized estimation of effort required. The Strategic Mitigation Plan includes the results of the prioritization process presented in a series of figures and corresponding tables.

The Corps and the Department prepared an extensive suite of guidelines and measures for aquatic resource management to help with long-term maintenance of restoration sites and help ensure the long-term sustainability and protection of aquatic resource integrity areas of the Watershed.

The primary means of implementing the Strategic Mitigation Plan would be through adherence to the SAMP mitigation framework, as required through issuance of RGPs, LOPs and WSAA Process for individual projects. Management of the aquatic resource integrity areas to promote the maintenance and restoration of aquatic resource integrity would be supported by the regulatory process and is one of the principal benefits of the SAMP. Compensatory mitigation in the form(s) of preservation, creation, restoration, and/or enhancement activities would be required to offset permanent and temporal impacts to aquatic resources.

Furthermore, to facilitate broader scale conservation efforts through compensatory mitigation, the Corps and the Department anticipate the establishment of a third-party mitigation opportunity such as a mitigation bank and/or an ILF (Corps only) mitigation program. Such efforts would assist in addressing the long-term management needs of mitigation lands.

The Strategic Mitigation Plan, along with the identification of the aquatic resource integrity areas, has been designed in cooperation with, and to the satisfaction of, the Corps and the Department to avoid any conflicts with the other ecosystem reserve and restoration efforts, including the Orange County Central/Coastal Natural Community Conservation Plan (NCCP), and to accommodate the proposed riparian corridor(s) of the proposed Orange County Great Park.

### **Mitigation Coordination Program**

The Mitigation Coordination Program is intended to guide implementation of the Strategic Mitigation Plan and to support long-term restoration and conservation goals and management strategies for the Watershed's aquatic resource integrity areas. The program is organized into two tiers:

#### **Tier One: Priority Activities:**

- Coordinate aquatic resource restoration efforts with other landowners/land managers;
- Coordinate long-term adaptive management, monitoring and maintenance efforts;
- Implement the Strategic Mitigation Plan; and
- Solicit Sponsor(s) of a Third-party Mitigation Program and/or Mitigation Bank.

#### **Tier Two: Secondary Activities**

- Work with existing Watershed stakeholder groups to integrate with existing watershed management and aquatic resource conservation efforts in the Watershed;
- Facilitate the sharing and use amongst the various watershed managers of scientific and other technical data available on the aquatic environment; and
- Facilitate aquatic ecosystem restoration and enhancement activities unrelated to regulatory programs or compensatory mitigation.

This strategy recognizes that a cooperative effort on the part of the Watershed stakeholders would be required to ensure long-term conservation of high value resources since watershed-wide aquatic resource conservation extends well beyond the scope or jurisdiction of one agency or land owner/manager. The Corps conceptual model for a management structure entails the following:

- Coordination Committee; and

- Mitigation Coordination Program Administrator, Third-Party Mitigation Program or Mitigation Bank Program Sponsor.

#### **ES.4 ALTERNATIVES TO THE PROPOSED SAMP/WSAA PROCESS**

Each of the alternatives addressed in this EIS/EIR are variations of permitting processes and include alternatives that are specifically required under state and federal law such as the No Action, Avoidance of Impacts, and Existing General Plan Alternatives. The permitting alternatives may or may not contribute to achieving the goals and purposes of the SAMP/WSAA Process program.

##### **No Project (Existing Case-by-Case Permitting) – Alternative 1**

Under the No Project Alternative, no watershed-based planning and permitting would be utilized by the Corps or the Department, which means the Corps and the Department would not use the SAMP Analytical Framework (e.g. functional integrity evaluation of the Watershed) and would not modify permitting procedures to reflect the integrity of aquatic resources. No Strategic Mitigation Plan or Mitigation Coordination Program would be implemented to allow for targeted mitigation/restoration to help improve functional integrity of the Watershed and no long-term management/monitoring of mitigation/restoration sites. Proposed actions that involve impacts to jurisdictional areas within the Watershed would continue to be considered on a case-by-case basis, as done under the current permit system which involves use of NWPs and SIPs and individual SAAs. Mitigation would continue to be implemented on a case-by-case basis without regard to overall functional integrity, and thus, produce no measurable, cumulative benefit to the Watershed.

##### **Complete Avoidance (No Permits Issued) – Alternative 2**

Under Alternative 2, Complete Avoidance, activities that would encroach on Corps or Department's jurisdictional areas would not be permitted. No watershed planning effort would be utilized by the Corps and the Department (e.g. no use of the SAMP Analytical Framework, no modified permitting procedures to reflect the integrity of aquatic resources, no Strategic Mitigation Plan or Mitigation Coordination Program). Under this alternative, development in upland areas could not occur if access required bridging of jurisdictional features since no permits would be issued for impacts to jurisdictional areas. Since no direct temporary or permanent impacts to jurisdictional areas would occur, no mitigation would be required.

At a program level, implementation of this alternative would constitute pre-decisional, upfront permit denials of all applications for regulated discharges. It is recognized that it is beyond the Corps and the Department's authority to preclude applications for permits/agreements in the Watershed.

##### **Avoidance Except for Bridges and Utility Lines (Limited Permitting) – Alternative 3**

Under Alternative 3, Avoidance Except for Bridges and Utility Lines, the Corps and the Department would issue permits (under the existing permitting system) for encroachment in jurisdictional areas for construction and maintenance of bridges and utility lines. No other dredge and fill activities would be authorized under this alternative including new land development and associated public facilities, flood control structures, and storm water treatment facilities. No watershed planning effort would be utilized by the Corps and the Department (e.g. no use of the SAMP Analytical Framework, no modified

permitting procedures to reflect the integrity of aquatic resources, no Strategic Mitigation Plan or Mitigation Coordination Program).

At a program level, implementation of this alternative would constitute pre-decisional, upfront permit denials of all applications for regulated discharges except those associated with bridges and utility lines. It is recognized that it is beyond the Corps and the Department's authority to preclude applications for permits/agreements in the Watershed.

#### **General Plan Build-out without Avoidance (Full Permitting) – Alternative 4**

Under Alternative 4, General Plan Build-out, land development would occur in accordance with the local jurisdictional general plans and zoning requirements, utilizing the existing Corps and Department permitting system (SIPs, NWP, and standard SAAs). However, no watershed planning effort would be utilized by the Corps and the Department (e.g. no use of the SAMP Analytical Framework, no modified permitting procedures to reflect the integrity of aquatic resources, no Strategic Mitigation Plan or Mitigation Coordination Program).

From a permitting perspective, this alternative is similar to Alternative 1, Existing Case-by-Case Permitting, but it reflects the greatest level of impacts on the gradient of impacts analyzed by the Corps. It is assumed for this alternative that there would be no specified local requirements to preserve areas of riparian and aquatic resources, no conservation easements, no specified buffer zones, and no setbacks from drainages. Hence, under this alternative most drainages would be modified (e.g., channelization, bank protection) to accommodate adjacent land development associated with full build-out of the General Plan.

### **ES.5 OVERVIEW OF PROGRAMMATIC IMPACT ANALYSIS**

The proposed SAMP Permitting/WSAA Process (RGP, LOP, WSAA Process as well as the permit general conditions and mitigation framework) is expected to result in less than significant impacts, both on an individual site level and on a cumulative watershed level since the program requires no net loss in acres and functional integrity of the Watershed's aquatic ecosystem. In fact, the proposed process would be expected to enhance aquatic ecosystem function and ultimately provide a cumulative benefit to the aquatic ecosystem of the Watershed, in the long-term, as a result of the Strategic Mitigation Plan and Mitigation Coordination Program implementation. Therefore, in comparison to the Corps and Department's existing permit programs, this modified process is expected to result in a more protective program with respect to aquatic resources in the Watershed.

#### **Programmatic Impact Analysis of Proposed Regulated Activities**

The programmatic impact analysis of the seven categories of regulated activities under the proposed SAMP/WSAA Process focuses on potential impacts to: 1) aquatic, wetland, and riparian areas; 2) biological resources including threatened and endangered species; 3) hydrology, erosion and sedimentation; and 4) water quality. Programmatic impact analyses for 13 other environmental topic areas (Corps public interest review factors) are provided as well.

The regulated activities that would be permitted under the SAMP/WSAA Process are similar to those that would otherwise be permitted on case-by-case basis under existing Corps/Department Section 404 and

Section 1600 *et seq.* programs. As such, potential impacts from these regulated activities would be expected to be similar in nature to those authorized under the existing regulatory programs. However, the SAMP Permitting Program/WSAA Process was established based on a holistic, watershed-wide evaluation of aquatic resources from which permit conditions, compensatory mitigation, and targeted restoration requirements were developed to help maintain and improve the riparian ecosystem function over the entire Watershed. Comparatively, the current permitting process is conducted on a case-by-case project basis with no special consideration for aquatic resource integrity areas and no holistic plan for compensatory mitigation. Therefore, potential impacts of regulated activities under the SAMP/WSAA Process could be similar in nature, but likely to be less detrimental to the Watershed overall, in comparison to existing permitting programs because impacts in aquatic resource integrity areas would be minimized and compensatory mitigation would be targeted to areas providing the greatest functional benefit to the Watersheds ecosystem. The compensatory mitigation and targeted restoration requirements would be expected to maintain and ultimately improve and enlarge key habitat areas.

All future activities in the Watershed requiring authorization from the Corps and Department would be evaluated by these agencies for their consistency (or lack thereof) with the SAMP/WSAA Process. If a proposed activity is consistent with the SAMP/WSAA Process, then it is not expected to have a significant adverse impact. With implementation of the proposed permitting program's key elements mentioned below, impacts from these activities are expected to be either (a) below a level of significance, or (b) below a level of significance after incorporation of additional site-specific mitigation measures. Otherwise, a *non-consistent* activity would proceed using the existing permitting program, which would be a Corps SIP and Department individual SAA.

The SAMP Permitting Program/WSAA Process includes the following key elements to ensure future activities authorized through the RGP, LOP, WSAA Process result in less than significant impacts to aquatic, wetland, and riparian habitats, biological resources including threatened and endangered species, hydrology and water quality:

- Identification of aquatic resource integrity areas as priority impact avoidance areas;
- LOP and RGP acreage thresholds and RGP/LOP General Conditions to minimize impacts;
- Restrictions on use of certain permitting procedures for activities inside/outside high and medium quality integrity areas;
- Priority restoration areas for maximum "functional lift" (watershed and site-specific scale); and
- Facilitation of landowner participation and other watershed stakeholder coordination to provide long-term management and monitoring of aquatic resource integrity areas and ensure their long-term sustainability.

#### **Additional site- and project-specific mitigation measures**

Site and project-specific measures may be added to any RGP, LOP, or WSAA Process if required to ensure impacts would remain below a level of significance. The Corps and Department would retain their respective discretionary authorities to augment the SAMP/WSAA Process mitigation framework requirements for any proposed project that is inconsistent with the SAMP/WSAA Process or fails to meet any of the terms and conditions of the RGP, LOP, retained NWP, or Level 1 – 3 SAA templates. If the

project remains inconsistent with the SAMP/WSAA Process, then a SIP review process and individual SAA would be required, which would entail supplemental NEPA/CEQA review and separate CWA Section 404(b)(1) analysis.

### **Direct vs. Indirect Impacts**

Impact discussions distinguish, where appropriate, direct versus indirect impacts of the proposed SAMP/WSAA Process. This means those direct and indirect impacts in jurisdictional areas authorized by Corps/Department through the SAMP/WSAA Process versus those indirect impacts in the greater Watershed area, occurring later in time, indirectly resulting from Corps/Department approvals and analyzed in future CEQA documents required for local agency approvals.

The findings of the programmatic impact analysis are summarized in Table ES-1.

### **ES.6 PROGRAMMATIC CUMULATIVE IMPACT ANALYSIS**

The modified permitting program and mitigation framework of the proposed SAMP/WSAA Process are based on a watershed-wide evaluation of aquatic resources to allow for greater avoidance in aquatic resource integrity areas and targeted mitigation/restoration to enhance the Watershed ecosystem. By design, implementation of all future regulated activities in the Watershed under the proposed SAMP Permitting Program/WSAA Process would not be expected to produce significant cumulative impacts to the Watershed's aquatic, wetland and riparian habitats, biological resources including threatened and endangered species, hydrologic conditions, or water quality. The SAMP/WSAA Process is a watershed-specific permit program that allows for more informed permit decisions to avoid or minimize impacts in high quality riparian areas and a mitigation framework that allows for no net loss in acres and functional integrity (e.g. no net loss of riparian habitat acreage and aquatic ecosystem function). This approach is expected to reduce the potential for cumulative impacts overall as compared to existing case-by-case permitting. Furthermore, the restoration plan, as specified in the Strategic Mitigation Plan, is designed to improve functional integrity in low and medium quality riparian areas, so that in the long-term, the Watershed's riparian ecosystem is maintained and enhanced. Therefore, the SAMP/WSAA Process would ultimately produce a cumulative benefit to the Watershed's aquatic ecosystem.

Other environmental topic areas generally cover non-jurisdictional resources in the greater Watershed area, and therefore no direct cumulative impacts would be expected. Impacts in these areas, if any, would only occur indirectly as a result of the permitted actions, primarily through land development. These impacts are considered indirect because they would occur later in time and further removed in distance (e.g. upland areas, not within the jurisdiction of the Corps or the Department).

Implementation of all regulated activities under the SAMP/WSAA Process applied to the projected activities shown in the general plans for the Watershed would not be expected to produce significant indirect cumulative impacts to most of the public interest review factors, including cultural resources, geology/soils, land use, noise, recreation, socioeconomics, visual resources, and water supply/conservation. However, potentially significant indirect cumulative impacts could occur on a more regional basis to air quality (global greenhouse gas emissions) and transportation/circulation systems.

**Table ES-1. Summary of Impacts and Mitigation Measures for Proposed SAMP/WSAA Process**

<b>(Section No.) Topic Area or Type of Activity</b>	<b>Summary of Impacts and Significance Determination</b>	<b>Mitigation Measures</b>
<b>(4.2) Aquatic, Wetland, and Riparian Habitats</b>		
Construction and Maintenance of Utility Lines	<p><u>Potential Impacts:</u> Grading, stockpiling, trenching, temporary stream diversion, dewatering and temporary access roads and work areas could result in temporary impacts such as species displacement, elimination of habitat, temporary disconnection of wildlife corridors, disruption of breeding from noise. Permanent impacts could include loss of habitat; reduction in refuge areas, foraging habitat and nesting/roosting areas; fragmentation impacts.</p> <p><u>Significance Determination:</u> Less than significant (LTS). Impacts to aquatic, wetland, and riparian habitats from utility lines would be mitigated to less than significant through application of the SAMP/WSAA Process mitigation framework and general conditions of the RGP, LOP, and WSAA Process. The permitting and mitigation requirements established by the SAMP/WSAA Process promote increased protection of aquatic resource integrity areas, as well as a more efficient riparian ecosystem restoration program for the entire Watershed. Where aquatic resource impacts would be primarily focused in areas of low ecosystem integrity, the compensatory mitigation and targeted restoration requirements would be expected to maintain and ultimately improve habitat quality, including functions, in the Watershed to a greater extent than existing Corps and Department permitting programs. Additionally, requirements of other federal, state, and local regulations would help minimize impacts.</p>	No NEPA/CEQA mitigation measures are needed because impacts are expected to be less than significant.
Construction and Maintenance of Flood Control Facilities	<p><u>Potential Impacts:</u> Grading, stockpiling, trenching, temporary stream diversion, dewatering and access roads, sediment removal, channel desilting, vegetation management, could result in temporary impacts such as habitat removal/disturbance; indirect impacts from erosion and sedimentation; potential increase in invasive, exotic species; reduction in species diversity from herbicide use; temporary loss in habitat functions. Long-term maintenance impacts would be similar.</p> <p><u>Significance Determination:</u> LTS. See discussion under Utility Lines.</p>	No NEPA/CEQA mitigation measures are needed.
Construction and Maintenance of Road Crossings, including	<p><u>Potential Impacts:</u> Grading, excavation, compacting and/or filling, vegetation clearing; temporary stream diversion, dewatering, access roads, channel desilting, paving, vegetation management and removal, could result in habitat disturbance/removal; erosion and</p>	No NEPA/CEQA mitigation measures are needed.

<b>(Section No.) Topic Area or Type of Activity</b>	<b>Summary of Impacts and Significance Determination</b>	<b>Mitigation Measures</b>
Bridges and Culverts	<p>sedimentation; increased potential for invasive species; channel/bank instability; temporary loss in habitat function. Permanent impacts could include alteration of structure and function of habitat; shading impacts; changes in downstream hydrology, flood extent and timing affecting persistence of riparian plants; reduction in hydrologic and habitat connectivity of riparian reaches.</p> <p><u>Significance Determination:</u> LTS. See discussion under Utility Lines. Also, no Corps LOP could be issued for flood control-related conversions of soft-bottom channels to concrete-lined, or result in the channelization of any of the five major stream systems in the Watershed.</p>	
Land Development for Residential, Commercial, Industrial, Institutional and Recreational Uses	<p><u>Potential Impacts:</u> Excavation of soil, placement of fill and access roads could result in temporary impacts such as habitat removal/disturbance; erosion and sedimentation downstream; increase in edge effects; temporal loss in habitat functions. Permanent impacts include hydromodification, sedimentation and nutrient inputs; reduction in hydrologic and habitat connectivity.</p> <p><u>Significance Determination:</u> LTS. See discussion under Utility Lines.</p>	<p>No NEPA/CEQA mitigation measures are needed. To ensure this determination, additional permit/agreement conditions may be included during permit processing of future projects to address unique, site-specific issues on a case-by-case basis. The Corps and Department retain discretionary authority to augment the mitigation framework.</p>
Storm Water Treatment and Management Facilities	<p><u>Potential Impacts:</u> Grading, trenching, temporary stream diversion, vegetation clearing; dewatering, access roads, channel desilting, vegetation and sediment management/removal could result in temporary and/or periodic impacts such as possible type changes in wetland flora; increase in monotypic wetlands; and accumulation of pollutants in wetland plants. Permanent impacts may include hydrologic alterations, as well as the loss of habitat from fill and/or dredging relating to the construction of permanent structures and new facilities. Most impacts would be minimal since most facilities would be located in upland areas.</p> <p><u>Significance Determination:</u> LTS. See discussion under Utility Lines.</p>	<p>No NEPA/CEQA mitigation measures are needed.</p>
Habitat Restoration and Enhancement Activities	<p><u>Potential Impacts:</u> Vegetation clearing, grading for stream meanders, installation of check dams, stream dewatering, and access roads may result in temporary loss of habitat, channel</p>	<p>No NEPA/CEQA mitigation measures are needed.</p>

<b>(Section No.) Topic Area or Type of Activity</b>	<b>Summary of Impacts and Significance Determination</b>	<b>Mitigation Measures</b>
	<p>reconfiguration, sedimentation impacts, and temporal loss of habitat function. Long-term, some permanent impacts may result from in-channel or bank structural elements to stabilize certain restoration features, however, more habitat would be made available elsewhere. No reduction in aquatic habitat acreage or function would result. The net effect, especially at priority sites with the highest functional lift per unit of effort would be a beneficial impact on aquatic, wetland and riparian resources Watershed-wide.</p> <p><u>Significance Determination:</u> LTS. See discussion under Utility Lines.</p>	
<p>Fire Abatement and Vegetation Fuel Management Activities</p>	<p><u>Potential Impacts:</u> Thinning of vegetation, clearing of brush and installation of access roads and work areas can temporarily impact wetland and riparian vegetation, but impacts would be infrequent and minor. No permanent impacts would be expected.</p> <p><u>Significance Determination:</u> LTS. The discussion under Utility Lines is applicable for fire abatement and vegetation fuel management activities.</p>	<p>No NEPA/CEQA mitigation measures are needed.</p>
<p><b>(4.3) Biological Resources</b></p>		
<p>Construction and Maintenance of Utility Lines</p>	<p><u>Potential Impacts:</u> Construction activities could result in temporary habitat loss and temporarily displace or in some cases eliminate sensitive species. Habitat corridors could be temporarily disrupted. Noise could cause sensitive species to avoid an area and/or affect breeding and nesting. Conversion of land for utilities would reduce habitat available to sensitive species for refuge areas, foraging and nesting/roosting. Potential downstream hydromodification and the influx of exotic plant species could affect the sustainability of riparian areas used by sensitive species.</p> <p><u>Significance Determination:</u> LTS. Given the aquatic resource impact restrictions and general conditions in the RGP, LOP, and WSAA Process, as well as the requirements of the NCCP, FESA and CESA, construction and maintenance of utility lines would not be expected to create significant impacts, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the Department or USFWS; nor interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. The</p>	<p>No NEPA/CEQA mitigation measures are needed.</p>

<b>(Section No.) Topic Area or Type of Activity</b>	<b>Summary of Impacts and Significance Determination</b>	<b>Mitigation Measures</b>
	compensatory mitigation and targeted restoration requirements would be expected to maintain and ultimately improve and enlarge key habitat areas identified within the Watershed that would be most beneficial to sensitive species.	
Construction and Maintenance of Flood Control Facilities	<p><u>Potential Impacts:</u> The discussion under Utility Lines is applicable for flood control activities.</p> <p><u>Significance Determination:</u> LTS. The discussion under Utility Lines is applicable for flood control activities. Also, no Corps LOP could be issued for flood control-related conversions of soft-bottom channels to concrete-lined, or result in the channelization of any of the five major stream systems in the Watershed.</p>	No NEPA/CEQA mitigation measures are needed.
Construction and Maintenance of Road Crossings including Bridges and Culverts	<p><u>Potential Impacts:</u> The discussion under Utility Lines is applicable for road crossings.</p> <p><u>Significance Determination:</u> LTS. The discussion under Utility Lines is applicable for road crossings.</p>	No NEPA/CEQA mitigation measures are needed.
Land Development for Residential, Commercial, Industrial, Institutional and Recreational Uses	<p><u>Potential Impacts:</u> The discussion under Utility Lines is applicable for land development activities. Also, permanent indirect effects may include threats to wildlife from domestic pets associated with new developments; disturbance of sensitive species from human activity, increased noise, light and glare. Also downstream hydromodification from increases in runoff may result in the influx of exotic plant species that could affect the sustainability of riparian areas used by listed species.</p> <p><u>Significance Determination:</u> LTS. The discussion under Utility Lines is applicable for land development activities.</p>	No NEPA/CEQA mitigation measures are needed.
Storm Water Treatment and Management Facilities	<p><u>Potential Impacts:</u> The discussion under Utility Lines is applicable for storm water treatment and management facilities.</p> <p><u>Significance Determination:</u> LTS. The discussion under Utility Lines is applicable for storm water treatment and management facilities.</p>	No NEPA/CEQA mitigation measures are needed.

<b>(Section No.) Topic Area or Type of Activity</b>	<b>Summary of Impacts and Significance Determination</b>	<b>Mitigation Measures</b>
Habitat Restoration and Enhancement Activities	<p><u>Potential Impacts:</u> Construction activities can temporarily impact riparian and upland habitats occupied by sensitive species. No permanent impacts would be expected. These projects would produce beneficial effects by restoring habitats that could be occupied by sensitive species.</p> <p><u>Significance Determination:</u> LTS. The discussion under Utility Lines is applicable for habitat restoration and enhancement activities.</p>	No NEPA/CEQA mitigation measures are needed.
Fire Abatement and Vegetation Fuel Management Activities	<p><u>Potential Impacts:</u> Thinning of riparian and upland vegetation can result in temporary loss of habitat for sensitive species, and noise can temporarily disturb wildlife. No permanent impacts would be expected.</p> <p><u>Significance Determination:</u> LTS. The discussion under Utility Lines is applicable for fire abatement and vegetation fuel management activities.</p>	No NEPA/CEQA mitigation measures are needed.
<b>(4.4) Hydrology, Erosion, and Sedimentation</b>		
Construction and Maintenance of Utility Lines	<p><u>Potential Impacts:</u> Construction activities can create temporary and minor changes in channel hydrology, redirection or intensification of flows toward adjacent properties, and short-term discharges of sediment during grading and excavation. Potential long-term impacts associated with new utility lines would be associated with new development and are accounted for in the land development category.</p> <p><u>Significance Determination:</u> LTS. Given the aquatic resource impact restrictions and general conditions in the RGP, LOP, and WSAA Process, as well as other federal, state and local requirements, construction and maintenance of utility lines would not be expected to create significant impacts to the existing hydrologic conditions of the Watershed. Additionally, under the SAMP/WSAA Process, compensatory mitigation and targeted restoration requirements would be expected to maintain and ultimately improve hydrologic function overall in the Watershed in comparison to existing Corps and Department permitting programs.</p>	No NEPA/CEQA mitigation measures are needed since no significant hydrologic, erosion and sedimentation impacts are expected from utility line projects.

<b>(Section No.) Topic Area or Type of Activity</b>	<b>Summary of Impacts and Significance Determination</b>	<b>Mitigation Measures</b>
Construction and Maintenance of Flood Control Facilities	<p><u>Potential Impacts:</u> Maintenance activities involving periodic dredging of accumulated sediments in channels, basins, outfall and intake structures, culverts etc. as well as periodic removal of vegetation may include short-term changes in hydrology and geomorphic characteristics of a channel during certain flow conditions. This can affect the rate of erosion and sedimentation, and ultimately the sediment load in the Watershed (indirect impact). Permanent impacts can include alteration to channel hydrology and/or hydraulic characteristics due to channel reconfiguration. This can affect flow rates and flow paths, potentially increasing erosion and sedimentation (indirect impact). Engineered basins can disrupt the hydrologic and /or sediment balance within a drainage system.</p> <p><u>Significance Determination:</u> LTS. See discussion under Utility Lines. No Corps LOP could be issued for flood control-related conversions of soft-bottom channels to concrete-lined, or result in the channelization of any of the five major stream systems in the Watershed. Also, new or improved flood control facilities would be designed in accordance with locally approved drainage plans and with the Orange County Flood Control Design Manual or other municipal flood control design manuals to control downstream flooding and sedimentation impacts.</p>	No NEPA/CEQA mitigation measures are needed since no significant hydrologic, erosion and sedimentation impacts are expected.
Construction and Maintenance of Road Crossings including Bridges and Culverts	<p><u>Potential Impacts:</u> Construction activities in a channel requiring stream diversion or retention of flows could temporarily increase sedimentation in retention areas and increase erosion along temporary diversion paths. Permanent impacts from a new bridge could narrow and deepen a channel resulting in localized scour, and flow and sediment back-ups in the channel. Culverts typically reduce the channel cross section which can slow upstream flows, increasing sedimentation upstream and increasing erosion potential downstream.</p> <p><u>Significance Determination:</u> LTS. See discussion under Utility Lines. Also adherence to the flood control requirements of the Orange County Flood Control Design Manual or other municipal flood control design manuals would help minimize channel scour, upstream flooding, and sediment discharges in downstream channels.</p>	No NEPA/CEQA mitigation measures are needed.
Land Development for Residential, Commercial, Industrial,	<p><u>Potential Impacts:</u> Construction activities can temporarily increase erosion and sedimentation downstream. Permanent impacts could include alterations to drainages patterns and potential increases in surface runoff resulting in hydromodification to downstream channels. Hydrologic</p>	No NEPA/CEQA mitigation measures are needed.

<b>(Section No.) Topic Area or Type of Activity</b>	<b>Summary of Impacts and Significance Determination</b>	<b>Mitigation Measures</b>
Institutional and Recreational Uses.	<p>integrity could be reduced. No floodplain encroachment or flood hazards would be expected from new land development.</p> <p><u>Significance Determination:</u> LTS. See discussion under Utility Lines. Although land development may alter the existing drainage pattern of a site or area and increase the rate or amount of surface runoff, any potential significant impact to surface and groundwater hydrology would be mitigated to a level considered less than significant through the implementation of local drainage and flood control design requirements, TMDL requirements to control sediment discharges, site design BMPs required by the MS4 NPDES Permit as well as the aquatic resource impact restrictions and general conditions required in the LOP, RGP and/or WSAA Process.</p>	
Storm Water Treatment and Management Facilities	<p><u>Potential Impacts:</u> See discussion under Utility Lines. Certain facilities are sometimes lined with concrete or other armoring product or bank stabilization measures, potentially affecting channel hydrology and/or hydraulic characteristics.</p> <p><u>Significance Determination:</u> LTS. The discussion under Utility Lines is applicable for storm water treatment and management facilities.</p>	No NEPA/CEQA mitigation measures are needed.
Habitat Restoration and Enhancement Activities	<p><u>Potential Impacts:</u> See discussion under Utility Lines. No permanent hydrological or sedimentation impacts would be expected.</p> <p><u>Significance Determination:</u> LTS. The discussion under Utility Lines is applicable for habitat restoration and enhancement projects.</p>	No NEPA/CEQA mitigation measures are needed.
Fire Abatement and Vegetation Fuel Management Activities	<p><u>Potential Impacts:</u> Thinning of vegetation could temporarily disrupt erosion and sedimentation characteristics of disturbed areas. Natural flow paths could be temporarily diverted, and minor increases in surface runoff could create temporary erosion and sedimentation into nearby riparian areas and downstream channels. No permanent impacts on hydrology and sedimentation would be expected.</p> <p><u>Significance Determination:</u> LTS. The discussion under Utility Lines is applicable for fire abatement and vegetation fuel management activities.</p>	No NEPA/CEQA mitigation measures are needed.

(Section No.) Topic Area or Type of Activity	Summary of Impacts and Significance Determination	Mitigation Measures
<b>(4.5) Water Quality</b>		
Construction and Maintenance of Utility Lines	<p><u>Potential Impacts:</u> Temporary impacts from construction and maintenance activities would primarily be from uncontrolled erosion and sedimentation into local receiving waters. Other temporary impacts could include discharges of construction-related pollutants, spilled, leaked or transported via storm runoff into surface waters; and discharge of dewatered groundwater containing high levels of nitrates, phosphorus or selenium or pesticides from past agricultural activities.</p> <p><u>Significance Determination:</u> LTS. Construction and maintenance of utility lines would not be expected to violate any water quality standards, waste discharge requirements, established TMDLs, or otherwise substantially degrade water quality, nor create or contribute runoff that would provide substantial additional sources of polluted runoff given the aquatic resource impact restrictions and general conditions in the RGP, LOP, and WSAA Process as well as other federal, state, and local agency regulatory programs that help control water quality. Under the SAMP/WSAA Process, the compensatory mitigation and targeted restoration requirements would be expected to maintain and ultimately improve water quality, including beneficial uses, overall in the Watershed in comparison to existing Corps and Department permit programs.</p>	No NEPA/CEQA mitigation measures are needed since no significant impacts to water quality are expected.
Construction and Maintenance of Flood Control Facilities	<p><u>Potential Impacts:</u> The discussion of temporary water quality impacts under Utility Lines is applicable for flood control facilities. Also, conversion of some or all sections of a natural drainage channel into a concrete flood control structure could adversely affect a designated beneficial use. Other effects may occur from vegetation removal affecting stream temperature, bank stability, and/or pollutant removal capacity.</p> <p><u>Significance Determination:</u> LTS. The discussion under Utility Lines is applicable for flood control facilities. Also, no Corps LOP could be issued for flood control-related conversions of soft-bottom channels to concrete-lined, or result in the channelization of any of the five major stream systems in the Watershed.</p>	No NEPA/CEQA mitigation measures are needed.
Construction and Maintenance of Road	<p><u>Potential Impacts:</u> The discussion of temporary water quality impacts under Utility Lines is applicable for road crossings. Also, construction of a culvert or bridge within or over a</p>	No NEPA/CEQA mitigation measures are needed.

<b>(Section No.) Topic Area or Type of Activity</b>	<b>Summary of Impacts and Significance Determination</b>	<b>Mitigation Measures</b>
Crossings including Bridges and Culverts	<p>drainage course could require removal of riparian habitat and could adversely affect a designated beneficial use. Other effects on water quality could occur from vegetation removal, affecting stream temperature, bank stability, and/or pollutant removal capacity.</p> <p><u>Significance Determination:</u> LTS. The discussion under Utility Lines is applicable for road crossings including bridges and culverts.</p>	
Land Development for Residential, Commercial, Industrial, Institutional Recreational Uses	<p><u>Potential Impacts:</u> The discussion of temporary water quality impacts under Utility Lines is applicable for land development projects. Also, land development projects would result in increases in paved surfaces that create increased volumes of runoff and additional sources of pollutants in dry weather and storm runoff, if not properly controlled. Discharges of dredged or fill material into drainage courses, could impact a designated beneficial use.</p> <p><u>Significance Determination:</u> LTS. Potential significant impacts to water quality would be reduced to less than significant given the aquatic resource impact restrictions and general conditions in the RGP, LOP and WSAA Process as well as BMP requirements of other state and local agency programs that help control pre- and post-construction water quality (e.g. BMPs required by the MS4 NPDES Permit and general construction storm water permit and TMDL programs in the Watershed). Also, many of the areas under current development and proposed new development in the Watershed has or will participate in the NTS regional treatment program designed to help reduce pollutant loading in the Watershed and help meet the TMDLs for San Diego Creek and Newport Bay. Further, under the SAMP/WSAA Process, compensatory mitigation and targeted restoration requirements would be expected to maintain and ultimately improve water quality, including beneficial uses, overall in the Watershed in comparison to existing Corps and Department permit programs.</p>	No NEPA/CEQA mitigation measures are needed since potential significant impacts to water quality are expected to be reduced to less than significant with requirements of the SAMP/WSAA Process and other agency programs to control water quality.
Storm Water Treatment and Management Facilities	<p><u>Potential Impacts:</u> The discussion of temporary water quality impacts under Utility Lines is applicable for storm water management and treatment facilities. Also, maintenance involving dredging of potentially contaminated sediments could potentially release pollutants in storm water discharges if not properly controlled. Potential impacts to groundwater would be minimized by treatment control BMP siting criteria and use of clay soils or liners. These facilities are planned and designed to treat polluted runoff, thus benefiting water quality in the long-term.</p>	No NEPA/CEQA mitigation measures are needed since no significant impacts to water quality are expected.

<b>(Section No.) Topic Area or Type of Activity</b>	<b>Summary of Impacts and Significance Determination</b>	<b>Mitigation Measures</b>
	<p><u>Significance Determination:</u> LTS. The discussion under Utility Lines is applicable for storm water management and treatment facilities. These facilities are designed to help control water quality to downstream receiving waters. Construction and maintenance of these facilities will have less than significant impacts on water quality.</p>	
<p>Habitat Restoration and Enhancement Activities</p>	<p><u>Potential Impacts:</u> The discussion of temporary water quality impacts under Utility Lines is applicable for habitat restoration and enhancement activities. These projects would not be expected to have long-term adverse impacts on water quality as they are designed to restore and improve wetland/riparian habitat and function. They can help improve beneficial uses of the receiving water and also help filter pollutants in runoff (though not designed for this purpose).</p> <p><u>Significance Determination:</u> LTS. The discussion under Utility Lines is applicable for habitat restoration and enhancement projects.</p>	<p>No NEPA/CEQA mitigation measures are needed.</p>
<p>Fire Abatement and Vegetation Fuel Management Activities</p>	<p><u>Potential Impacts:</u> Thinning and clearing of vegetation could temporarily disrupt the erosion and sedimentation characteristics of disturbed areas. Some erosion and sedimentation into nearby riparian drainages may occur during work activities.</p> <p><u>Significance Determination:</u> LTS. The discussion under Utility Lines is applicable for fire abatement and vegetative fuel management activities.</p>	<p>No NEPA/CEQA mitigation measures are needed.</p>
<p><b>(4.6) Other Topics</b></p>		
<p>4.6.1 Agricultural Resources</p>	<p><u>Potential Impacts:</u> Land development permitted under the SAMP/WSAA Process could indirectly affect agricultural resources particularly if unique farmlands or farmland of statewide importance are converted. Development would be subject to the General Plan policies of the local lead agencies</p> <p><u>Significance Determination:</u> LTS. No direct impacts. Indirect impacts would be fully evaluated in project-specific CEQA documents by the local land use and subject to the local General Plan policies and zoning ordinances.</p>	<p>No NEPA/CEQA mitigation measures are needed.</p>

<b>(Section No.) Topic Area or Type of Activity</b>	<b>Summary of Impacts and Significance Determination</b>	<b>Mitigation Measures</b>
4.6.2 Air Quality	<p><u>Potential Impacts:</u> Projects permitted under the SAMP/WSAA Process could generate construction emissions (direct impact) and/or long-term mobile source emissions of criteria pollutants (indirect impact).</p> <p><u>Significance Determination:</u> LTS and PSC. No significant direct impacts from individual projects are known at this time. The Corps LOP contains a condition requiring applicants to submit an air quality emission and impact analysis if a project would result in a long term or permanent source or indirect mobile source emission or if the proposed activity would result in an exceedance of the annual <i>de minimus</i> emission thresholds for any criteria air pollutant or its precursors. Additionally, future projects would be evaluated on an individual basis through a separate CEQA review process. During this time, indirect impacts from construction and mobile source emissions would be determined, and if these emissions exceed any pertinent significance criteria, feasible mitigation measures would be required to reduce impacts to a level considered less than significant.</p> <p>The potential for future projects to indirectly contribute to the effects of global GHG emissions may be considered cumulatively significant and unavoidable, although the potential for indirect cumulative impacts cannot be conclusively determined at this time.</p>	<p>No CEQA/NEPA mitigation measures are needed since no significant air quality impacts are identified.</p> <p>During the approval process for specific projects, local land use authorities or other regulatory agencies can require a variety of air quality mitigation measures depending on the type and extent of project-specific impacts.</p>
4.6.3. Cultural Resources	<p><u>Potential Impacts:</u> Land disturbance from regulated activities permitted under the SAMP/WSAA Process could impact unknown cultural resources.</p> <p><u>Significance Determination:</u> LTS. The Corps RGP and LOP conditions would ensure all requirements of National Historic Preservation Act (compliance with Section 106) are satisfied prior to any permit approval, thus reducing any potential cultural resource impacts to below a level of significance. Future (indirect) impacts or demands on cultural resources cannot be specifically determined in this programmatic document. Individual projects would undergo separate CEQA and/or NEPA review, at which time potential impacts to existing and unknown cultural resources would be determined, along with appropriate mitigation measures to reduce impacts to less than significant.</p>	<p>No NEPA/CEQA mitigation measures are needed.</p> <p>Various mitigation measures could be required by local lead agencies during project-specific CEQA review process to reduce potential cultural resources impacts to less than significant.</p>
4.6.4 Floodplain Values	See Hydrology, Erosion, and Sedimentation (Section 4.4).	See Hydrology, Erosion, and Sedimentation (Section 4.4).

<b>(Section No.) Topic Area or Type of Activity</b>	<b>Summary of Impacts and Significance Determination</b>	<b>Mitigation Measures</b>
4.6.5. Geology/Soils	<p><u>Potential Impacts:</u> Erosion of soil could occur during grading and excavation required for various regulated activities. New development projects would be subject to potential seismic ground shaking, as with all development in southern California. Also, development on expansive soils could result in structural loss, if not properly designed.</p> <p><u>Significance Determination:</u> LTS. Individual projects would be subject to requirements of the California Building Code to help minimize seismic and soil instability risks, and required to follow approved grading and erosion control plans, construction storm water pollution prevention plans, water quality management plans, and, if applicable, proposed conditions of the RGP, LOP, and WSAA Process that address erosion and sedimentation. Combined implementation of these various measures would reduce potential indirect impacts to less than significant levels.</p>	<p>No NEPA/CEQA mitigation measures are needed.</p> <p>Various mitigation measures could be required by local lead agencies during a separate CEQA review process to reduce any project-specific geology/soils impacts to less than significant.</p>
4.6.6 Land Use	<p><u>Potential Impacts:</u> The SAMP/WSAA Process would not conflict with existing land use plans/policies, nor preclude implementation of local General Plans, or the NCCP/HCP for Central/Coastal Orange County.</p> <p><u>Significance Determination:</u> LTS. No direct significant impacts to land use are anticipated. Future projects that would be permitted under the SAMP/WSAA Process would be subject to independent CEQA review by the local land use agency to determine potential conflicts to land use plans and policies. Mitigation measures, if needed, would be identified by the land use agency to minimize potential impacts to below a level of significance.</p>	<p>No NEPA/CEQA mitigation measures are needed. Future project-specific mitigation measures, if needed, would be identified by the land use agency during a separate CEQA review process to minimize potential impacts.</p>
4.6.7 Noise	<p><u>Potential Impacts:</u> Certain regulated activities, particularly land development, permitted under the SAMP/WSAA Process, would indirectly contribute to increases in the ambient noise environment from short-term construction activities and long-term increases in traffic.</p> <p><u>Significance Determination:</u> LTS. Future projects permitted under the SAMP/WSAA Process would be evaluated in a separate CEQA review process as part of local agency project approval to determine potential for significant short-term or long-term noise impacts in the Watershed. It is expected that compliance with existing noise ordinances and project-specific mitigation measures, identified by the local lead agency, would reduce potential impacts to less than significant.</p>	<p>No NEPA/CEQA mitigation measures are needed. Future project-specific mitigation measures, if needed, would be identified by the land use agency during a separate CEQA review process to minimize potential impacts.</p>

<b>(Section No.) Topic Area or Type of Activity</b>	<b>Summary of Impacts and Significance Determination</b>	<b>Mitigation Measures</b>
4.6.8 Public Health and Safety	<p><u>Potential Impacts:</u> Some regulated activities that could be permitted under the SAMP/WSAA Process, such as land development, would generate increases in residential population, and increases in commercial/industrial activities. These increases could place additional demand on existing fire and police services and generate a minor increase in household hazardous waste and commercial/industrial hazardous waste in the area. Other regulated activities, such as storm water treatment and management facilities could increase vector and water safety risks, if not properly managed.</p> <p><u>Significance Determination:</u> LTS. Individual projects would be evaluated through a separate CEQA and/or NEPA review process to determine impacts to public health and safety. If an impact is identified as potentially significant, mitigation measures would be identified to help reduce the impact to below of a level of significance.</p>	No NEPA/CEQA mitigation measures are needed. Various mitigation measures could be required by local lead agencies during a separate CEQA review process to reduce any project-specific impacts to less than significant.
4.6.9 Recreation	<p><u>Potential Impacts:</u> No direct impacts on proposed recreational facility development or existing recreational maintenance activities are expected since the SAMP/WSAA Process does not preclude new recreational resource development or maintenance activities in aquatic resource integrity areas. No indirect impacts to recreational facilities are anticipated, since new development that would be permitted under the SAMP/WSAA Process, would be subject to local agency park planning policies to meet any new demands for parks, trails, and other recreational facilities.</p> <p><u>Significance Determination:</u> LTS. Through adherence to park and recreation strategies developed by the local land use agencies, along with adherence to the Corps RGP and LOP and the Department's SAA conditions, where required, potential direct and indirect impacts to recreation resources would be considered less than significant. Individual projects covered under the SAMP/WSAA Process would undergo separate CEQA review, at which time potential impacts would be determined, along with appropriate mitigation, as necessary to reduce impacts to less than significant.</p>	No NEPA/CEQA mitigation measures are needed. Any need mitigation measures required for future projects would be identified by the local lead agency during a separate CEQA review process
4.6.10 Socioeconomics	<p><u>Potential Impacts:</u> No direct impacts are anticipated. The Corps and Department assume local approvals (or exemptions) will be obtained prior to commencing activity. Regulated activities permitted under the SAMP/WSAA Process would be subjected to local consistency determination(s) with regards to local land use plans, county master plan of arterial highways</p>	No CEQA/NEPA mitigation measures are needed. Any needed mitigation required for future projects would be identified by the local lead agency

<b>(Section No.) Topic Area or Type of Activity</b>	<b>Summary of Impacts and Significance Determination</b>	<b>Mitigation Measures</b>
	<p>(MPAH) and local agency capital improvement plans. No communities would be divided or displaced. Indirectly, projects approved under the SAMP/WSAA Process would be compatible with planned growth, providing housing opportunities, and generating income that would benefit communities in the Watershed.</p> <p><u>Significance Determination:</u> LTS. Individual projects covered under the SAMP/WSAA Process would undergo separate CEQA review, at which time potential socioeconomic impacts, if any, would be determined, along with appropriate mitigation, as necessary to reduce impacts to less than significant.</p>	<p>during a separate CEQA review process.</p>
<p>4.6.11 Transportation / Circulation</p>	<p><u>Potential Impacts:</u> Short-term construction and/or maintenance activities associated with each regulated activity permitted under the SAMP/WSAA process would generate short-term traffic impacts in localized areas. Long-term, land development projects would generate increases in local traffic and could require expansion of roads to meet local and regional circulation needs. Project-specific impacts cannot be determined in this programmatic document, but compliance with local agency requirements and project-specific mitigation measures would help minimize potential impacts.</p> <p><u>Significance Determination:</u> LTS. Short-term construction and long-term traffic impacts would be evaluated in project traffic studies and separate project-specific CEQA review processes. Mitigation measures would be identified to reduce impacts to less than significant. Build-out in the Watershed could result in significant cumulative increases in traffic volumes to local streets and arterials. Traffic mitigation measures implemented through a separate CEQA process for individual projects could reduce impacts to less than significant.</p>	<p>No NEPA/CEQA mitigation measures are needed. Various mitigation measures could be required by local lead agencies during a separate CEQA review process for individual projects to reduce any project-specific construction and long-term operational traffic impacts.</p>
<p>4.6.12 Visual Resources</p>	<p><u>Potential Impacts:</u> Short-term construction activities would create visual impacts in the local construction zone. Long-term visual changes would occur from conversion of remaining tracts of agriculture land and former MCAS El Toro into suburban residential, commercial and open space/park uses. This could also impact some views of surrounding hills in some locations, but overall, new development and its increase in lighting and glare would be similar to existing surrounding development and in compliance with design requirements of local agencies.</p> <p><u>Significance Determination:</u> LTS. Indirect impacts from construction activities would be short-term and mostly localized, and therefore, considered less than significant. Remaining</p>	<p>No NEPA/CEQA mitigation measures are needed. Various mitigation measures could be required by local lead agencies during a separate CEQA review process for individual projects to reduce any project-specific visual impacts.</p>

<b>(Section No.) Topic Area or Type of Activity</b>	<b>Summary of Impacts and Significance Determination</b>	<b>Mitigation Measures</b>
	<p>land development would be designed in accordance with the existing suburban character of the area, and would not be expected to produce a significant visual change in the Watershed overall, though some local areas could experience significant visual impacts (both in terms of obstruction of views and change in visual character). Requirements of the SAMP/WSAA Process would protect and enhance the aquatic and riparian ecosystem in the Watershed, and would ensure that no long-term, substantial degradation of the visual character or quality of any site and its surrounding would result.</p> <p>Projects would be required to undergo separate CEQA review, at which time any project-specific visual and light/glare impacts would be evaluated and appropriate mitigation measures would be determined by the local lead agency to reduce impacts to less than significant.</p>	
<p>4.6.13 Water Supply and Conservation</p>	<p><u>Potential Impacts:</u> Regulated activities permitted under the SAMP/WSAA Process, such as land development would generate an increased demand on existing water supplies; however, specific increases could not be determined in this programmatic document.</p> <p><u>Significance Determination:</u> LTS. Local and state requirements would help ensure the adequacy of the public water supply for a project has been addressed before the project is approved. Therefore, any potential water supply impact associated with a future project permitted under the SAMP/WSAA Process would be mitigated in accordance with local and state requirements to a level considered less than significant.</p>	<p>No NEPA/CEQA mitigation measures are needed.</p>
<p><u>Legend:</u>                      LTS = less than significant impact.                      PSC = potentially significant cumulative impact.</p>		

### **ES.7 GROWTH-INDUCING IMPACTS**

Because the SAMP/WSAA Process would only result in an indirect inducement of growth, and due to the mostly built-out nature of the Watershed, any potential environmental impacts due to build-out (growth inducing impacts) is not considered significant. If any future project were predicted to result in significant growth inducing impacts, such a project would usually not meet the terms and conditions of the SAMP/WSAA Process and would proceed via a SIP process and individual SAA, with the preparation of a separate EIS and/or EIR.

### **ES.8 IMPACTS OF ALTERNATIVES**

This section presents a programmatic impact assessment of each alternative organized by environmental topic area. The CEQA significance thresholds used for the proposed SAMP/WSAA Process impact analysis are applicable for the alternatives impact analysis. Future individual projects that would be permitted under the SAMP/WSAA Process would be subject to local environmental review and approval requirements.

A summary of the programmatic impact analysis findings of the SAMP alternatives is provided in Table ES-2.

**Table ES-2. Comparison of Alternatives to the Proposed SAMP/WSAA Process**

<b>Topic Area</b>	<b>Alternative No. 1 No Project/No Federal Action (Existing Case-by-Case Permitting)</b>	<b>Alternative No. 2 Complete Avoidance (No Permits Issued)</b>	<b>Alternative No. 3 Avoidance Except for Bridges &amp; Utility Lines (Limited Permitting)</b>	<b>Alternative No. 4 General Plan Build-out Without Avoidance (Full Permitting)</b>
Main Topic Areas				
(4.2) Aquatic, Wetland & Riparian Habitats	Greater/PSC	Similar/LTS (fewer impacts, but no coordinated restoration)	Similar/LTS (fewer impacts, but no coordinated restoration)	Greater/PSC
(4.3) Biological Resources, including Threatened & Endangered Species	Greater/LTS	Similar/LTS (fewer impacts, but no coordinated restoration)	Similar/LTS (fewer impacts, but no coordinated restoration)	Greater/PSC
(4.4) Hydrology, Erosion and Sedimentation	Greater/LTS	Greater/PS (flood hazards)	Greater/PS (flood hazards)	Greater/LTS
(4.5) Water Quality	Greater/LTS	Similar/LTS (fewer impacts, but no coordinated mitigation program)	Similar/LTS (fewer impacts, but no coordinated mitigation program)	Greater/PSC
(4.6) Other Topics				
Agricultural Resources	Similar/LTS	Similar/LTS	Similar/LTS	Greater/LTS
Air Quality	Similar/LTS	Similar/LTS	Similar/LTS	Greater/PS (indirect)
Cultural Resources	Similar/LTS	Similar/LTS	Similar/LTS	Greater/LTS
Floodplain Values	<i>See Hydrology, Erosion and Sedimentation</i>	<i>See Hydrology, Erosion and Sedimentation</i>	<i>See Hydrology, Erosion and Sedimentation</i>	<i>See Hydrology, Erosion and Sedimentation</i>
Geology/Soils	Similar/LTS	Less/LTS	Less/LTS	Greater/LTS
Land Use	Similar/LTS	Greater/PS	Greater/PS	Similar/LTS

<b>Topic Area</b>	<b>Alternative No. 1 No Project/No Federal Action (Existing Case-by-Case Permitting)</b>	<b>Alternative No. 2 Complete Avoidance (No Permits Issued)</b>	<b>Alternative No. 3 Avoidance Except for Bridges &amp; Utility Lines (Limited Permitting)</b>	<b>Alternative No. 4 General Plan Build-out Without Avoidance (Full Permitting)</b>
Noise	Similar/LTS	Less/LTS	Less/LTS	Greater/LTS
Public Health	Similar/LTS	Less/LTS	Less/LTS	Greater/LTS
Recreation	Similar/LTS	Less/LTS	Less/LTS	Greater/LTS
Socioeconomics	Similar/LTS	Greater/LTS	Greater/LTS	Similar/LTS
Transportation	Similar/LTS	Greater/PS (full MPAH could not be built)	Similar/LTS	Similar/LTS
Visual Resources	Greater/LTS	Similar/LTS	Similar/LTS	Greater/PS (indirect; in localized areas)
Water Supply and Conservation	Similar/LTS	Less/LTS	Less/LTS	Greater/LTS

**Legend:**

Less = Impact of alternative is projected to be less than impact of proposed SAMP/WSAA Process.  
 Similar = Impact of alternative is projected to be equivalent to impact of the proposed SAMP/WSAA Process.  
 Greater = Impact of alternative is projected to be greater than impact of the proposed SAMP/WSAA Process.  
 LTS = Less than significant impact.  
 PS = Potentially significant impact unless mitigation incorporated.  
 PSC = Potentially significant cumulative impact.

### **ES.9 ENVIRONMENTALLY PREFERABLE AND ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

NEPA Section 1505.2(b) requires that an EIS specify the alternative or alternatives that are considered to be environmentally preferable from the range of alternatives considered. Generally, this means the alternative that causes the least damage to the biological and physical environment (CEQ, 1981). CEQA requires the identification of an environmentally superior alternative. Given the competing environmental factors of the various alternatives, the SAMP/WSAA Process is determined to be the environmentally preferable alternative/environmentally superior alternative over the long-term in comparison to all alternatives.

### **ES.10 COMPLIANCE WITH THE CWA SECTION 404(B)(1) GUIDELINES**

The final determination of the SAMP program in complying with the Section 404(b)(1) Guidelines will be made at the time of the Corps Record of Decision (ROD) on this Program EIS/EIR. An analysis was prepared for this Program EIS/EIR. Anticipated activities either comply with the 404(b)(1) Guidelines by compliance with the terms and conditions of the RGP or LOP procedures, or would be required to demonstrate site-specific compliance with the 404(b)(1) Guidelines as with some LOPs and all SIPs. Below is a summary of the compliance necessary for the three types of permit authorization processes in the Watershed:

- RGP- Fully complies with Guidelines, initially and subsequently.
- LOP- Programmatic compliance initially/subsequent project-specific compliance.
- SIP- No programmatic compliance/subsequent project-specific compliance (with full analysis and tiered off of this Program EIS/EIR where appropriate).

### **ES.11 INTENDED USES OF THIS EIS/EIR**

This EIS/EIR is intended to serve as the analysis of alternatives to the issuance of the Corps LOP procedures and RGP required under the 404(b)(1) Guidelines and the environmental review required under NEPA. This evaluation for the proposed RGP and LOP procedures, as well as revocation of selected NWP within the Watershed, 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 SAAs under the WSAA Process as required under Section 1600 *et seq.* of the FGC. Finally, the SAMP/WSAA Process EIS/EIR provides a platform for the tiering of future NEPA and CEQA compliance on specific actions affecting aquatic resources within the Watershed.

The SAMP is the plan that the Corps and the Department will adopt for implementation in the Watershed to inform their future decision-making processes related to their regulatory authorities pursuant to CWA Section 404 and FGC Section 1600 *et seq.*, respectively. The EIS/EIR prepared in conjunction with the SAMP, and to be adopted by the Corps and the Department, will operate as a "program" EIS and EIR pursuant to applicable provisions of the NEPA regulations (40 CFR Section 1500 *et seq.*), and the CEQA Guidelines (14 CCR Section 15000 *et seq.*). Subsequent activities will be examined by the Corps and the Department in light of the SAMP and the Program EIS/EIR to determine if additional environmental documentation is required. Project proponents and local lead CEQA agencies are encouraged to consult the SAMP and to use the Final Program EIS/EIR in determining whether a specific project properly avoids impacts to or adequately mitigates for aquatic resources.