EXECUTIVE SUMMARY

I. PROJECT SCOPE

A Special Area Management Plan (SAMP) is a voluntary watershed-level planning and permitting process involving local landowners and public agencies that seek permit coverage under the federal Clean Water Act Section 404 for future actions affecting jurisdictional Waters of the United States (U.S.). The purpose of a SAMP is to provide for reasonable economic development and the protection and long-term management of sensitive aquatic resources (biological and hydrological). To the extent feasible, federal Waters of the U.S., including wetlands, are avoided and unavoidable impacts are minimized and fully mitigated under the SAMP. The proposed San Juan Creek and Western San Mateo Creek Watersheds SAMP would provide a framework for permit coverage for the San Juan Creek Watershed and the western portion of the San Mateo Creek Watershed.

The United States Army Corps of Engineers (USACE), Los Angeles District, has developed a comprehensive SAMP planning process to achieve a balance between reasonable economic development and aquatic resource conservation. SAMPs are intended for geographic areas of special sensitivity that are also under intense development pressure.

The three main goals of the SAMP process are to:

- Allow reasonable economic development through one or more proposed permitting procedures that provide regulatory predictability and incentives for comprehensive resource protection, management, and restoration over the long term.

- On a voluntary basis, establish an aquatic resources conservation program that includes preservation, restoration, and management of aquatic resources referred to hereafter as the “Aquatic Resources Conservation Program” (ARCP).

- Minimize individual and cumulative impacts of future projects within the SAMP watersheds by relating permitting for future activities to the SAMP Aquatic Resources Conservation Program, including studies prepared for the SAMP and the Southern Subregion Coordinated Planning Process.

Four elements of the SAMP process have been formulated to further and, to the maximum extent practicable, attain the above goals. The four primary elements of the SAMP process are reviewed in the Environmental Impact Statement (EIS) and are summarized as follows:

- ***Proposed Permitting Procedures*:** Three permitting procedures have been proposed as an integral part of the SAMP process. All three of the SAMP goals are addressed by the proposed permitting procedures, including (1) establishing permitting procedures that would provide regulatory predictability and incentives for comprehensive protection, restoration, and management of aquatic resources over the long term; (2) provisions for preservation, restoration, and management of aquatic resources on lands presently owned or otherwise potentially managed by permittees; and (3) minimization of individual and cumulative impacts of permitting for future activities. Regarding the latter, the EIS reviews the environmental considerations involved in: (a) establishing permitting procedures to be authorized pursuant to a proposed Regional General Permit and a proposed long-term Individual Permit for Rancho Mission Viejo and Santa Margarita Water District (SMWD), and (b) elements of future permitting procedures that will also

require future National Environmental Policy Act (NEPA) environmental review and compliance with the Section 404(b)(1) Guidelines.

- ***Aquatic Resources Preservation*****:** In conjunction with the Natural Community Conservation Plan/Master Streambed Alteration Agreement/Habitat Conservation Plan (NCCP/MSAA/HCP) and General Plan Amendment/Zone Change (GPA/ZC), the other two components of the "coordinated planning process," a wide range of development/ open space alternatives have been identified for environmental review. The SAMP process is intended to examine these alternatives in order to determine the extent to which these alternatives, in conjunction with already protected open space, would preserve ecologically important aquatic resources (identified in connection with USACE and NCCP/MSAA/HCP studies) within the SAMP Study Area. Avoidance/minimization of impacts to aquatic resources is also examined in conjunction with the EIS Section 404(b)(1) Guidelines review of the proposed alternative permitting procedures. At the end of the SAMP process, aquatic resources recommended for permanent preservation would be identified. In this EIS, these areas are termed "Aquatic Resources Conservation Areas" (ARCAs).

- ***Aquatic Resources Restoration*****:** The USACE Engineer Research Development Center (ERDC) has prepared a *Riparian Ecosystem Restoration Plan for San Juan and Western San Mateo Creek Watersheds* to provide a broad-scale restoration template. Area-specific restoration opportunities and measures are identified under the EIS Section 404(b)(1) Guidelines review of proposed permitting procedures. Environmental review of this element in this EIS focuses on the consistency of alternative habitat reserve designs with the restoration recommendations and the extent to which specific habitat restoration measures can provide mitigation for impacts to aquatic resources that could potentially occur in connection with the proposed permitting procedures.

- ***Aquatic Resources Management*****:** Where applicable, management of aquatic resources would be carried out in accordance with the SAMP Aquatic Resources Adaptive Management Program (ARAMP). Adaptive management and monitoring activities would be conducted primarily in areas proposed to be protected in conjunction with proposed permitting procedures as mitigation for impacts to aquatic resources subject to USACE jurisdiction (these management and monitoring activities are described in the Aquatic Resources Adaptive Management Program reviewed in this EIS). The NEPA alternatives analysis will review the extent to which the different development/open space alternatives are consistent with habitat management recommendations set forth in the NCCP Southern Planning Guidelines and the Draft Watershed and Sub-basin Planning Principles (Watershed Planning Principles) at both a watershed- and sub-basin scale.

The last three elements above comprise the Aquatic Resources Conservation Program.

II. SAMP STUDY AREA

The SAMP Study Area covers the San Juan Creek Watershed and western portion of the San Mateo Creek Watershed in the southern portion of Orange County. The SAMP Study Area includes portions of unincorporated Orange County and portions of the cities of Dana Point, Laguna Hills, Laguna Niguel, Mission Viejo, Rancho Santa Margarita, San Clemente, and San Juan Capistrano.

The San Juan Creek Watershed is approximately 177 square miles (113,000 acres) extending from the Cleveland National Forest in the Santa Ana Mountains to the Pacific Ocean at Doheny

State Beach near Dana Point Harbor. Caspers Wilderness Park and San Mateo Wilderness Area lands are located adjacent to the Cleveland National Forest along the eastern boundary. The western area is highly urbanized encompassing portions of the cities of Mission Viejo and San Juan Capistrano and the planned community of Ladera Ranch. Urbanized areas in the northern portion of the San Juan Creek Watershed include the City of Rancho Santa Margarita. The southern portion of the San Juan Creek Watershed is bound by the cities of Dana Point and San Clemente. The major named streams in the San Juan Watershed include San Juan Creek, Bell Canyon Creek, Cañada Chiquita, Cañada Gobernadora, Verdugo Canyon Creek, Oso Creek Trabuco Creek, and Lucas Canyon Creek.

The entire San Mateo Creek Watershed is located in the southern portion of Orange County, the northern portion of San Diego County, and the western portion of Riverside County. The total San Mateo Creek Watershed is approximately 139 square miles (88,960 acres) and lies mostly within the Cleveland National Forest, the northern portion of the U.S. Marine Corps Base at Camp Pendleton (MCB Camp Pendleton), and ranch lands in south Orange County (Lang et al., 1998). The SAMP Study Area includes the western 23.6-square-mile portion of the San Mateo Creek Watershed within Orange County (approximately 17 percent of the watershed). Major named streams within the SAMP Study Area in the western portion of the San Mateo Watershed are Cristianitos Creek, Gabino Creek, La Paz Creek, and Talega Creek. Rancho Mission Viejo owns the majority of the remaining undeveloped private land in the south-central portion of the San Juan Watershed, as well as almost all of the undeveloped private land within the western portion of the San Mateo Creek Watershed just north of the City of San Clemente. The unincorporated, undeveloped Rancho Mission Viejo land in the two watersheds totals approximately 22,815 acres and is referred to as the "RMV Planning Area."

III. PROPOSED PERMITTING PROCEDURES

Information in this EIS will be used to evaluate the establishment of three proposed permitting procedures that would be established concurrently with the approval of the SAMP. These three proposed future permitting procedures are summarized as follows:

1. Proposed Long-Term Individual Permits/Letters of Permission (LOP) Procedures for long-term activities proposed by Rancho Mission Viejo and the Santa Margarita Water District on the RMV Planning Area in reliance on the SAMP and in conjunction with the review, approval, and implementation of an Aquatic Resources Conservation Program coordinated with the Southern Subregion NCCP/MSAA/HCP. Revocation of selected Nationwide Permits will be associated with these LOP Procedures.

2. The proposed use of LOP Procedures for other future qualifying permit applicants outside the RMV Planning Area whose potential impacts on the Waters of the U.S. would be assessed through reliance on the SAMP at future points in time. Revocation of selected Nationwide Permits will be associated with these other LOPs.

3. Potential establishment of a Regional General Permit (RGP) for certain limited activities and the suspension of selected Nationwide Permits for small-scale activities and ongoing maintenance activities within the SAMP Study Area but outside of the RMV Planning Area.

IV. NEPA REQUIREMENTS

Under the NEPA all federal agencies must conduct NEPA review for "*major federal actions significantly affecting the quality of the human environment*" (42 USC Section 4332). Each federal agency has its own NEPA implementation rules that conform to 40 CFR. The NEPA

scope of this EIS impact analysis follows the directives in 33 CFR 325 that requires the scope of an EIS to be limited to the impacts of the specific activities requiring a Section 404 Permit and only those portions of the project outside of Waters of the U.S. over which the USACE has sufficient control and responsibility to warrant federal review. The USACE is also the lead agency for USACE's Section 404 permitting procedures resulting from the SAMP process and reviewed in this EIS pursuant to the Section 404(b)(1) Guidelines and other applicable criteria. NEPA requires an analysis of the potential environmental impacts of the proposed action (i.e., the proposed permitting procedures), including alternatives to the proposed action and mitigation. As part of the NEPA review and alternatives analysis, the USACE is analyzing impacts on the environment associated with projects that receive authorization under Section 404 of the Clean Water Act.

Information in this EIS is intended to (1) review alternatives to assess avoidance/minimization of impacts on aquatic and other environmental resources, (2) assess potential elements of the SAMP process, (3) evaluate alternative mitigation approaches/measures, and (4) evaluate proposed permitting procedures capable of minimizing and mitigating impacts related to any Least Environmentally Damaging Practicable Alternative (LEDPA) selected in conjunction with the environmental review of one or more of the proposed permitting systems.

This EIS is intended to provide decision-makers, responsible agencies, and the public with sufficient information to assess potential environmental impacts and minimization and mitigation measures pursuant to USACE regulations applicable to the three proposed permitting procedures. NEPA requires that the lead agency review potential significant environmental impacts of all alternatives selected for review and to identify "*any preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference*" (40 CFR 1502.14). In addition to avoidance and minimization measures, mitigation measures are required to be addressed pursuant to 40 CFR 1502(f) and 1502.16(h).

V. AREAS OF CONTROVERSY/ISSUES RAISED DURING SCOPING

The USACE has prepared this EIS in coordination with other resource agencies, including the United States Fish and Wildlife Service (USFWS), U.S. Environmental Protection Agency (EPA), the San Diego Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Game (CDFG). Throughout the scoping process, the USACE encouraged active participation by the County of Orange, other local governmental agencies, interested landowners and the general public. The major issues, concerns/areas of controversy raised during the scoping process include the following:

- The project should evaluate SAMP-related impacts on surface and groundwater quality, water quality at the ocean, particularly at the mouth of San Mateo Creek, Trestles Beach, and San Onofre State Beach Park. The EIS should identify BMPs, mitigation measures, and water quality standards. These issues are addressed in the EIS in Chapter 4.1.1: Physical Processes and Conditions, Chapter 4.2: Sub-basins Within the San Juan and Western San Mateo Creek Watersheds, Chapter 6.0: Alternatives Analysis, and Chapter 8.0: Compliance With Section 404(b)(1) Guidelines.

- SOCTIIP should be excluded from the SAMP. SOCTIIP is not a part of the SAMP and is not addressed as such in this EIS.

- The project should address impacts to biological resources including: critical habitat for endangered species, displacement, and relocation of wildlife, impacts to state-listed and unlisted species covered by NCCP, wetlands, and wildlife movement corridors. Potential

impacts to biological resources are addressed in Chapter 4.1.1: Physical Processes and Conditions, 4.1.2, Riparian and Wetland Habitats, 4.1.3, Biological Resources, Chapter 4.2: Sub-basins Within the San Juan and Western San Mateo Creek Watersheds, Chapter 6.0: Alternatives Analysis, 7.1: Non-Aquatic Biological Resources, and Chapter 8.0: Compliance With Section 404(b)(1) Guidelines.

- The project should identify impacts of the SAMP on land development, air quality, recreational uses, traffic, noise, floodplains, aesthetics, social values, cultural and historic values, urban quality, and human health. These issues are addressed in this EIS in Chapters 4.0 and 7.0.

- The project should identify impacts of creek modification on flow rate, channel bed erosion, sediment transport, and beach sand supply. These issues are addressed in the EIS in Chapter 4.1.1: Physical Processes and Conditions, Chapter 4.2: Sub-basins Within the San Juan and Western San Mateo Creek Watersheds, Chapter 6.0: Alternatives Analysis, and Chapter 8.0: Compliance With Section 404(b)(1) Guidelines.

- The EIS must consider potential impacts of USACE regulatory decisions on resources other than those regulated under the Clean Water Act. The EIS should evaluate the consistency of the SAMP with the requirements of Section 404 of the Clean Water Act, and include an analysis of consistency with the Section 404(b)(1) Guidelines. The EIS should address how a long-term Section 404 Permit would be affected by future changes in laws related to water quality, wetlands, and endangered species. The consistency analysis is provided as Chapter 8.0: Compliance With Section 404(b)(1) Guidelines.

- The EIS should consider the entire San Mateo Creek Watershed. The SAMP addresses the western portion of the San Mateo Creek Watershed in the southern portion of Orange County.

VI. SAMP PARTICIPANTS

Participants in the SAMP are identified as either “current” participants or “future” participants. Current participants have identified proposed projects within the SAMP Study Area and have undergone extensive pre-application review by the USACE, CDFG, and USFWS and complied with the Section 404(b)(1) Guidelines as part of this EIS evaluation. Current participants have also coordinated with EPA and San Diego RWQCB. Future participants have not identified potential projects, have yet to undergo pre-application review with the aforementioned agencies, and have yet to comply with NEPA and the Section 404(b)(1)Guidelines.

VI.1 CURRENT SAMP PARTICIPANTS

The following private landowner and public agency have identified proposed projects and are current participants in the SAMP:

- Rancho Mission Viejo (RMV), for permitting of residential, commercial/retail, recreational development, and associated infrastructure (roads, storm drainage, sewer and water systems, and other utilities) as well as preservation, restoration, and management of aquatic resources. Rancho Mission Viejo’s proposed project is referred herein as the RMV Proposed Project.

- SMWD, for operation and maintenance of existing water and sewer facilities and development of certain future facilities including the Gobernadora Multipurpose Basin

and three storage reservoirs (two for domestic water and one for non-domestic). SMWD's proposed project is referred herein as the SMWD Proposed Project.

These current participants in the SAMP process would be eligible for permitting via an Individual Permit/LOP. The Individual Permit would set forth requirements for avoidance, minimization, and compensatory mitigation for identified impacts to be implemented over the long-term. The LOP is intended as a verification process for determining consistency with the Individual Permit that would lead to issuance of LOPs as Section 404 permit approval for activities determined to be consistent with the avoidance, minimization, and compensatory mitigation provisions of the Individual Permit.

RMV Planning Area Proposed Project

The RMV Planning Area includes approximately 22,815 acres located in the southern portion of unincorporated Orange County. It constitutes the remaining undeveloped portions of Rancho Mission Viejo within the unincorporated area of the County. The RMV Planning Area is comprised of a series of sub-watersheds (or sub-basins) of the San Juan Creek Watershed and western portion of the San Mateo Creek Watershed.

The Orange County Board of Supervisors approved a GPA and ZC for the RMV Planning Area on November 8, 2004 in the form of the B-10 Modified Alternative. Subsequent to this action by the Board of Supervisors, the B-12 Alternative was developed to further address sub-basin-level Southern Planning Guidelines and the Watershed Planning Principles in addition to the overall goals and objectives of the SAMP and NCCP/MSAA/HCP Programs. This alternative is based on input from the USACE, CDFG, USFWS, the environmental community, and the general public. The B-12 Alternative (RMV Proposed Project) provides for 5,873 acres of development and 16,942 acres of open space within the RMV Planning Area. Alternative B-12 would include 14,000 dwelling units, including up to 6,000 senior housing units. The proposed development would also include urban activity center, business park, neighborhood center, and golf resort uses, as well as a supporting circulation system and infrastructure.

Santa Margarita Water District Proposed Project

The SMWD Proposed Project includes both the operation and maintenance of existing facilities and construction and subsequent operation and maintenance of future facilities. SMWD provides water and sewer service to approximately 52,000 households through a network of existing facilities of water and sewer mains, connections to other water districts, domestic reservoirs, non-domestic reservoirs, water pump stations, pressure reducing stations, non-domestic water pump stations, wells with chlorine injection, sewer lift stations, and sewage treatment plants. These existing facilities require ongoing operation and maintenance, including: (1) periodic grading and clearing of vegetation, periodic improvements and/or upgrades, patrols, and inspections; and (2) facility maintenance, including domestic water, reclaimed/recycled water and sewer lines, valves, vaults, pump stations, and appurtenances. Additionally there are facilities for wastewater treatment, reclamation and recycled water plants, appurtenances and supporting utilities and access roads; maintenance and repair of plant and pipelines, replacement, rehabilitation, retrofitting, and upgrading of plant and pipelines; provision of lay down areas, flushing of blow-off values and pipelines, pumping of storm water from valve vaults, and other activities required by various laws and regulations.

In addition to existing facilities, SMWD has identified the need for several future facilities which may impact Waters of the U.S. in their initial construction and that, subsequent to construction, would require ongoing maintenance and operation as described above. One of the future facilities is the Gobernadora Multipurpose Basin. SMWD in partnership with Rancho Mission

Viejo is proposing to construct the Gobernadora Multipurpose Basin to respond to erosion and sedimentation along Gobernadora Creek, high storm flows damaging the downstream restoration habitat area, excessive surface and groundwater originating upstream, and high bacteria counts resulting in degraded water quality. The Gobernadora Multipurpose Basin is proposed to include a storm detention basin to be established as a wetland and riparian habitat, a system to capture and divert flows to the wetlands, a pump station, and pipeline.

SMWD's long-term planning for the water district has identified the potential need for three storage facilities, two for domestic water and one for seasonal storage of recycled non-domestic water. The purpose of these facilities is to store domestic water for emergency use and to store recycled water supply during the winter months when more supply is available and demands are low, then use the water during summer months when the demands are in excess of supply. The potential sites are: Upper Chiquita Site and San Juan Creek East 3 Site for domestic water storage and San Juan Creek East 3 Site and Trampas Canyon Pit Site for non-domestic water storage. All of the potential sites, except Upper Chiquita, are within an area that would be disturbed to implement the RMV Proposed Project. This EIS addresses these sites as part of the RMV Proposed Project rather than the SMWD Proposed Project.

VI.2 FUTURE SAMP PARTICIPANTS

Areas where development may occur in the future are expected to include portions of the Foothill/Trabuco Specific Plan area (encompasses approximately 3,666 acres) and approximately 494 additional acres of land scattered throughout both unincorporated County jurisdiction and incorporated cities. The 494 acres do not represent all potentially available land within the SAMP Study Area, only those areas where development may affect natural resources. These potential projects may be eligible for either LOP Procedures or, following compliance with NEPA and the Section 404(b)(1) Guidelines, an Individual Permit, with the SAMP providing context for permit review for both types of permitting. A LOP authorization is an abbreviated process for an Individual Permit, whereby a decision to issue permit authorization is made after coordination with federal and state fish and wildlife agencies, a public interest evaluation, and completion of an abbreviated environmental assessment.

In addition to the LOP Procedures/Individual Permit, future participants in the SAMP may be eligible for Section 404 permits through a RGP for certain limited activities and ongoing maintenance activities within the SAMP Study Area. The USACE proposes to establish the RGP program to authorize temporary impacts up to 0.5 acre in lower quality resource areas. In conjunction with establishing the proposed permitting procedures, the USACE would revoke the use of selected NWPs within the San Juan and Western San Mateo Watersheds.

VII. EIS SCOPE

The SAMP involves an evaluation of the extent and condition of existing aquatic resources and provides for an analysis of the direct, indirect, and cumulative impacts to aquatic resources from a reasonable range of development and management alternatives within the SAMP Study Area. The initial phase of the SAMP process involved an extensive series of technical analyses prepared by the USACE and other planning participants. The USACE prepared a comprehensive assessment of existing conditions within the SAMP Study Area including assessments of hydrologic, habitat, and water quality functions. Other planning participants sponsored comprehensive studies including (1) a Baseline Conditions Report reviewing important hydrologic and geomorphic planning considerations on both a watershed and sub-basin basis, (2) an analysis of the Hydrologic and Geomorphic Needs of Aquatic Listed Species, (3) a Slope Wetlands report, (4) a vernal pools report, and (5) a comprehensive assessment of

stormwater hydrology in the SAMP Study Area. Vegetation mapping of aquatic resources was also conducted.

Preparatory planning activities also involved the preparation of a set of SAMP Tenets by the USACE for the purpose of guiding SAMP planning and the review of alternatives, as well as any proposed permitting procedures. The USACE and other planning participants also prepared the Watershed Planning Principles for the purpose of providing additional planning considerations at a watershed and sub-basin scale.

Open space/development alternatives were formulated through the coordinated planning process, involving coordination of the SAMP with the proposed NCCP/MSAA/HCP and the RMV GPA/ZC, which would avoid impacts to important natural habitats, including aquatic resources. The SAMP EIS alternatives analysis evaluates whether one or more of these alternatives with associated management measures would avoid sufficient amounts of aquatic resources without conflicting with the Clean Water Act anti-degradation policy.

This SAMP EIS addresses the environmental implications of the proposed permitting procedures summarized above. The environmental review in this EIS includes the assessment of a series of watershed-scale development/open space alternatives that were formulated in conjunction with a coordinated process established for "The Ranch Plan" project (Ranch Plan Environmental Impact Report 589, certified by the County of Orange Board of Supervisors in November 2004) and NCCP/MSAA/HCP, as well as restoration, management, and proposed permitting procedures elements of the SAMP reviewed in this EIS. Specifically, this EIS includes (1) a review of alternative development/open space designs to assess aquatic resource avoidance/minimization alternatives at a watershed scale and a review of alternatives for the selection of the LEDPA consistent with the requirements of the 404(b)(1) Guidelines; (2) an assessment of potential elements of an Aquatic Resources Conservation Program; (3) in conjunction with the review of proposed USACE Section 404 Individual Permit procedures for Rancho Mission Viejo and SMWD, an evaluation of avoidance, minimization, and mitigation measures including area specific aquatic restoration and management actions capable of minimizing and mitigating impacts related to any LEDPA selected in conjunction with the environmental review of one or more of the proposed permitting procedures.

The alternatives considered in the EIS are:

NEPA Required No Action Alternatives

- Alternative A-1: No Action
- Alternative A-2: No Project/Pre-2004 Zoning
- Alternative A-3: No Project/Housing and Employment
- Alternative A-4: No Project/Incremental Project Review
- Alternative A-5: No Impact to Waters Alternative

Development/Open Space Alternatives

- Alternative B-1: Maximize Open Space
- Alternative B-2: Avoid Development in Chiquita Sub-basin and San Mateo Watershed

- Alternative B-3: Limit New Development in the San Mateo Creek Watershed

- Alternative B-4: Rancho Mission Viejo Filed GPA/ZC Ranch Plan Application

- Alternative B-5: Avoid the San Mateo Creek Watershed and Locate All New Development in the San Juan Creek Watershed

- Alternative B-6: Avoid new development in the Chiquita Sub-basin East of Chiquita Ridge and the Verdugo Sub-basin; Limit new development in the San Mateo Creek Watershed and concentrate development in already disturbed portions of the San Juan Creek Watershed

- Alternative B-7: Provide for limited development in the Chiquita Sub-basin and within the San Mateo Creek Watershed; Limit new development to the disturbed areas of the Talega Sub-basin and lower portions of the Cristianitos/Lower Gabino Sub-basins while avoiding the Upper Gabino, Verdugo, and La Paz Sub-basins

- Alternative B-8: Allow new development in the western portion of the RMV Planning Area adjacent to Ortega Highway, in and around the existing silica mining area in Trampas Canyon, in and adjacent to the existing nursery, ranching, and sand/gravel mining operations in the Gobernadora area, and avoid new development within Chiquita Canyon and the San Mateo Creek Watershed.

- Alternative B-9: Protect resources associated with the Chiquita Sub-basin, by protecting Chiquita Canyon above the treatment plant and west of Chiquita Creek; and the San Mateo Creek Watershed, by concentrating development in and near areas with existing development. This alternative also concentrates development in San Juan Creek Watershed in areas with lower resource values while continuing to protect high resource value areas such as Verdugo Canyon.

- Alternative B-10 Modified: The B-10 Modified Alternative is designed specifically to address housing needs and other related project objectives while being responsive to the sub-basin recommendations contained in the Southern Planning Guidelines and Watershed Planning Principles.

- Alternative B-11: Provide for regional housing needs as identified in OCP-2000 within the RMV Planning Area while being responsive to the sub-basin recommendations contained in the Southern Planning Guidelines and Watershed Planning Principles

- Alternative B-12: Addresses the sub-basin-level Guidelines and Principles and overall goals and objectives of the NCCP/MSAA/HCP and SAMP Programs. This alternative is based on input from the USACE, CDFG, USFWS, environmental community, and the general public. Alternative B-12 focuses on protecting resources associated with (1) the Chiquita Sub-basin, by protecting Chiquita Canyon above the SMWD treatment plant and below Tesoro High School; and by protecting Chiquita Canyon west of Chiquita Creek; (2) Verdugo Canyon; (3) Sulphur Canyon and Gobernadora Creek; (4) wildlife movement along San Juan Creek; (5) habitat linkage connectivity between the San Juan Watershed and the San Mateo Watershed and; (6) the vast majority of the San Mateo Creek Watershed. This alternative also concentrates development in the San Juan Creek Watershed in areas with lower resource values while continuing to protect high resource value areas.

Although the SAMP applies to the greater watershed areas of San Juan Creek and San Mateo Creek within Orange County, the alternatives focus on the activities within the RMV Planning Area. The remaining portion of the watersheds is either predominately developed (e.g., City of Mission Viejo) or set aside as permanent open space (e.g., U.S. Forest Service). Landowners of the few undeveloped parcels and the Foothill/Trabuco Specific Plan Area have not participated in the development of the SAMP. In addition, the alternatives do not explicitly consider, except where noted, the SOCTIIP road alignment, because that process is addressed through a separate EIS. Regardless of the alternative, the areas outside of the RMV Planning Area may be eligible for future LOPs, if they qualify. As a result, the alternatives analysis focuses on the differences in activities that would occur within the RMV Planning Area (along with maintenance of SMWD facilities located outside the RMV Planning Area) in conjunction with the issuance of an individual long-term permit for Rancho Mission Viejo and SMWD.

Regarding the SMWD Proposed Project, no alternatives to the maintenance of existing facilities are proposed because none is considered feasible. With respect to the existing facilities, ongoing maintenance must occur in their current location. The future storage facilities/reservoirs are alternatives. As noted above, there is a need for two domestic reservoirs and one non-domestic storage reservoir; four sites are proposed. Because three of the four sites are located within the impact assessment area for the RMV Planning Area (B-10 Modified and B-12 Alternatives), and therefore would not cause additional impacts beyond those analyzed for these alternatives, only the site in Upper Chiquita is assessed in this EIS as a part of the SMWD Proposed Project. The Upper Chiquita reservoir site is reviewed in Chapter 8.0.

From the total range of alternatives considered, certain alternatives were selected to be carried forward for further review based on: (a) legal mandates for the NEPA required No Action Alternatives ("A" Alternatives) and (b), for the Development/Open Space Alternatives ("B" Alternatives), on the extent to which each of these alternatives addresses the goals and Purposes of the SAMP and the SAMP Tenets and the Watershed Planning Principles. The analysis also reflects a review of the cumulative databases and studies (including biologic, hydrologic, and geomorphic data and studies), relevant state and local laws, regulations and guidelines, public testimony, and the characteristics of the respective alternatives. The alternatives selected for review in Chapter 6.0 of this EIS are two programmatic alternatives (A-4 and A-5) and three open space/development alternatives (B-8, B-10 Modified, and B-12). The USACE, in cooperation with the NCCP/SAMP Working Group, determined that these alternatives represent a reasonable range of SAMP alternatives in accordance with federal laws.

The analysis in Chapter 6.0 focuses on alternative open space/development configurations within the RMV Planning Area to assess whether one or more of the alternatives carried forward for review of consistency with the Section 404(b)(1) Guidelines in Chapter 8.0,, or a modified version of one or more alternatives carried forward, can feasibly attain the SAMP goals and the SAMP "Purpose." The emphasis is on biological resources and physical processes (hydrology/geomorphology) relating to the SAMP Purpose and Need statement, the overall SAMP goals, and the watershed planning perspective that is central to the SAMP. The Chapter 6.0 Alternatives Analysis analyzes the "A" and "B" Alternatives in terms of their ability to provide for the three main elements of an Aquatic Resources Conservation Program: Aquatic Resources Preservation, Restoration, and Management, consistent with the SAMP goals and Purpose and Need Statement.

Because both Alternative B-10 Modified and Alternative B-12 have been determined to be capable of feasibly attaining the SAMP goals and purposes, these alternatives have been assessed in Chapter 7.0 with respect to certain public interest issues. Alternatives A-4 and A-5 are also assessed for purposes of comparison. The public interest issues assessed for these

four alternatives are: non-aquatic biological resources; land use; transportation and circulation; agricultural and aggregate resources; air quality; noise; visual resources; cultural resources; population, housing and employment; and recreation. The analysis is being coordinated with the required analysis of alternatives under the Section 404(b)(1) Guidelines in Chapter 8.0, and with those USACE regulations requiring an evaluation of the probable impacts of proposed activities on the public interest (in conjunction of issuance of permits) (33 CFR 320.4[a]). The public interest issues discussed are considered as the "other environmental consequences" mentioned in the Section 404(b)(1) Guidelines (40 CFR 230.10[a]). Significant adverse environmental consequences with regard to these non-aquatic issues are a consideration in deciding which alternatives to consider as a potential LEDPA in Chapter 8.0. However, with regard to the Section 404(b)(1) Guidelines "other environmental consequences test," the conclusions discussed above for each of the various environmental topics/public interest issues have been determined to not affect the choice of alternatives carried forward into Chapter 8.0.

Chapter 8.0 evaluates the currently proposed projects in the context of the alternatives carried forward from Chapter 6.0 (i.e., Alternative B-10 Modified and Alternative B-12) that are potentially capable of meeting the Purpose and Need of the SAMP as defined in Chapter 3.0 in light of 40 CFR Part 230. The Section 404(b)(1) Guidelines analysis set forth in Chapter 8.0 provides a potential avoidance, minimization, and mitigation framework for consistency assessment under the Section 404(b)(1) Guidelines. The regulations set forth in 40 CFR Part 230 are guidelines issued by the Environmental Protection Agency which generally require the USACE, in order to determine whether to issue a Section 404 permit, to determine whether there are any practicable alternatives to the proposed discharge (i.e., Applicants' Proposed Projects) that would have less adverse impacts on the aquatic ecosystem. Section 230.10(a) of the Section 404(b)(1) Guidelines identifies requirements for identifying "the least environmentally damaging practicable alternative." Specifically:

> *"Except as provided under section 404(b)(2), no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.*

VII.1 LEAST ENVIRONMENTALLY DAMAGING PRACTICABLE ALTERNATIVE

Based on the analysis in this EIS, and more particularly the analysis in Chapter 8.0, the USACE has selected the RMV Proposed Project (Alternative B-12) as the "least environmentally damaging alternative." The USACE also is proposing Alternative B-12 as the agency preferred alternative. The USACE's reasoning, including factual findings, regarding its selection of the RMV Proposed Project (Alternative B-12) is set forth in this EIS.

Based on the analysis in this EIS, and more particularly the analysis in Chapter 8.0, the USACE has selected the RMV Proposed Project (Alternative B-12) as the "least environmentally practicable damaging alternative." The USACE also is proposing Alternative B-12 as the agency preferred alternative. The USACE's reasoning, including factual findings, regarding its selection of the RMV Proposed Project (Alternative B-12) is set forth in this EIS and include such findings as, Alternative B-12 would protect 7,851.5 acres of 8,729.5 acres of riparian habitats within the SAMP Study Area and conserve 1,693.7 acres of 2,174.3 acres of riparian habitat within the RMV Planning Area including the preservation of such mainstem creeks as San Juan Creek, Chiquita Creek, Gobernadora Creek, Cristianitos Creek, La Paz Creek, Gabino Creek and Talega Creek within the RMV Planning Area. Impacts to jurisdictional wetlands and non-wetland waters resulting from development and associated infrastructure will be compensated by permanent protection of certain ARCA and the adaptive management of these areas through implementation of the ARAMP and the Invasive Species Control Plan, as described in

Chapter 8.0, in addition to functions and values provided by 18 acres of existing created/restored wetland habitat within the Gobernadora Ecological Restoration Area; and additional wetlands and vegetated waters acreage, if required, through the successful creation/ restoration of wetlands at a 1:1 ratio pursuant to the Aquatic Resources Restoration Plan before impacts occur. The compensation program is designed to maintain and enhance aquatic ecosystem values over the long term.