



RANCHO MISSION VIEJO

TRANSMITTAL

TO: John H. Robertus

COMPANY: California Regional Water Quality Control Board

FROM: Laura Coley Eisenberg

DATE: January 24, 2008

ITEM(S) SENT: Tentative Order No. R9-2008-0001; NPDES No. CAS0108740

SENT VIA: Fax, Email and Federal Express

MESSAGE: **FOR YOUR COMMENTS, REVIEW AND/OR ACTION**

From the desk of ...
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RANCHO MISSION VIEJO

January 23, 2008

John H. Robertus
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California Regional Water Quality Control Board
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Suite 100
San Diego, CA 92123-4353

Reference: Revised Tentative Order No. R9-2008-0001; NPDES No. CAS0108740

Subject: Rancho Mission Viejo Comments

Thank you for providing Rancho Mission Viejo (RMV) the opportunity to provide comments on the referenced revised Tentative Order and responses provided by SDRWQCB staff on comments previously submitted. RMV provided comments regarding the prior tentative order (see correspondence dated April 2, 2007 and August 21, 2007) which the revised Tentative Order does address in several instances. We appreciate the Board's clarification on these issues. We remain concerned, however, about several issues that the Board responded to, and either (1) did not revise the Tentative Order to address or (2) did revise the Tentative Order, but did not address the concern. This letter focuses on these issues which can be summarized as:

1. *Page 14, Finding E.7. Treatment BMP's Must Not be Constructed in Waters of the U.S. or State; and Page 29, Treatment Control BMP Requirements.*

In response to RMV's prior comments regarding Treatment Control BMP's and waters of the U.S, the Regional Board prepared Response to Comment 11 which refers to Finding E.7. As indicated in Response 11, "The Regional Board agrees that there is not a federal prohibition on placing pollution control practices within waters of the U.S. Response 11 goes on to state that Finding E.7 has been revised to state: "Treatment BMPs must not be constructed in a waters of the U.S. or State unless the urban runoff flows are sufficiently pretreated to protect the values and functions of the water body." However, under "Treatment Control BMP Requirements," the Tentative Order has been revised to include the following language: "All treatment control BMPs must be located so as to [infiltrate, filter, or treat – prior language] remove pollutants from runoff prior to its discharge to any waters of the U.S." See Section D.1.d (6) (c). We believe that the new language under Treatment Control

BMP requirements is not consistent with Finding E.7. for the reasons discussed below.

In southern Orange County, many non-wetlands waters of the U.S. are basically dry drainages that do not contain aquatic plants or species. These “waters of the U.S.” meet the technical definition of such “waters” because they have features defining an “ordinary high water mark” caused by stormwater flows but do not retain flows sufficiently long to sustain aquatic plants or species _ these waters of the U.S. are generally referred to as “unvegetated waters”. Other waters of the U.S. may encompass aquatic species such as mule fat but often do not support aquatic species. Thus, non-wetlands waters of the U.S. can range from essentially dry drainage channels or even ditches with no aquatic values present, to waters of the U.S. that may have limited vegetation and limited aquatic species value, to other drainages such as intermittent streams lacking in wetlands but supporting aquatic species.

Finding E.7 refers to pretreating runoff flows so as “to protect the values and functions of the water body.” This standard allows for an assessment of the specific characteristics of drainages that could be considered for use as part of a constructed bio-swale or water quality wetland because the drainage itself has no meaningful values and functions. For instance, of a total of 331 acres of non-wetland waters of the U.S. on the Rancho Mission Viejo HCP/SAMP property, 161 acres are characterized as unvegetated waters and 170 acres as vegetated waters. There will be some pre-treatment of urban runoff within development areas – however, not all pollutants will be removed (as appears to be required under the new “Treatment Control BMP Requirements) prior to discharge to water quality wetlands within unvegetated non-wetlands waters or within vegetated non-wetlands waters with minimal aquatic plants or species values and functions. Under this scenario, dry weather flows could be pretreated sufficiently to protect the values and functions of unvegetated non-wetlands waters or non-wetlands waters lacking in significant aquatic plants or species but would not meet the “remove pollutants from” standard in the revised “Treatment Control BMP Requirements” language cited above.

Recommendation: Replace the revised language of the cited Treatment Control BMP Requirements with the language of Finding E.7. This would allow for consideration of the differing values and functions of individual drainages that technically qualify as non-wetlands waters of the U.S. This “values and functions”-based test would allow flexibility in the siting of bio-swales and water quality wetlands in ways that would not impair any significant aquatic values and functions. In turn, such flexibility would allow for gravity flow of dry season and wet season flows (constructing water quality wetlands in uplands may entail energy costs for pumping resulting in unnecessary greenhouse gas emissions) and minimize grading.

Further, locating water quality bio-swales and water quality wetlands in drainages with no significant aquatic values could actually create aquatic values where none previously existed as treated water flows exit the bio-swale or water quality wetland and continue to flow through the remainder of the drainage. The southern Orange County SAMP includes a comprehensive water quality program which included consideration of differing values of non-wetlands waters of the U.S. (see SAMP EIS section 8.6).

2. *Page 23, Section D.1.d Standard Urban Storm Water Mitigation Plans (SUSMPs) – Approval Process Criteria and Requirements for Priority Development Projects.*

In the Response to Comments dated July 6, 2007, the Regional Board emphasizes that it believes that the water quality benefits of the Special Area Management Plan (SAMP) accrue only to areas designed at Aquatic Resource Conservation Areas (ARCA). This is not the case. The water quality benefits will apply to all Waters of the U.S. protected by the SAMP and its companion program the Southern Subregion Habitat Conservation Plan (HCP). Through the SAMP and the HCP both major creeks systems/wetlands such as San Juan, La Paz, Gabino, Gobernadora and Chiquita Creeks are protected, as are non-wetland waters of the U.S. located in the 20,868 acres of RMV lands designated for inclusion in the Southern Subregion Habitat Reserve. Figure 8-10 (attached) illustrates the protected ARCA's and non-wetlands waters of the U.S. and Section 8.6 of the SAMP EIS (attached) describes how beneficial uses will be protected by implementation of the SAMP.

We again request that the Tentative Order should recognize the resource protection and water quality measures contained in the approved SAMP and HCP in order to maximize the benefits to water quality in Orange County that will accrue through implementation of these significant watershed planning efforts.

Recommendation: Add the following language in Tentative Order Section D.1.d:

“Where a JURMP has been prepared and adopted on a watershed or sub-watershed basis employing any adopted WURMP requirements and/or adopted SAMP or HCP requirements and provides for site design and treatment control standards employing fluvial geomorphologic planning principles (hydrology/geomorphology), such standards shall govern SUSMP review of Priority Projects with respect to the site design BMP and Treatment Control BMP requirements of this Order.”

3. Develop and Implement Specific Hydromodification Criteria. Page 37. D.1.h (4). *Criteria must be based upon findings from hydromodification publications produced by the Stormwater Monitoring Coalition (SMC) and Southern California Coastal*

Water Research Project (SCCWRP), including any descriptive or numeric criteria applicable to the San Juan Hydrologic Unit.

In our letter of August 21, 2007 to the SDRWQCB, RMV commented on the Tentative Order requirement that “each Copermitee must revise its SUSMP/WQMP (see Section D.1.d) to implement updated hydromodification criteria for all Priority Projects” and that these “criteria must be based upon findings from hydromodification publications produced by the Stormwater Monitoring Coalition (SMC) and Southern California Coastal Water Research Project (SCCWRP).” Our comments included a brief summary of legal issues posed by the Board’s delegation of the setting of regulatory standards to other entities than the Board and other considerations under the California Administrative Procedures Act involving the requirement for full public hearings and rulemaking where substantive regulatory standards are involved. The most recent modification of the Tentative Order involving these concerns actually exacerbates the problems inherent in this section of the Tentative Order by adding that Copermitee Findings are to be based on SMC and SCCWRP findings “including any descriptive or numeric criteria applicable to the San Juan Hydrologic Unit.”

In reviewing Response to Comment 20 in the December 12, 2007 Response to Comments II, as it relates to the Rancho Mission Viejo comment, we believe that the response fails to come to grips with the central issues in several regards:

- (a) **The argument in the Response is contradicted by the wording of the Tentative Order** – According to the Response to the Rancho Mission Viejo comment, the SMC/SCCWRP study will *not likely* result in *recommended criteria, but rather a set of tools* that can be used to assess hydromodification effects” (emphasis added). However, the wording of the Tentative Order is that “each Copermitee *must* revise its SUSMP/WQMP . . . to implement updated hydromodification *criteria* . . .” and that these “criteria *must* be *based upon* findings from hydromodification publications produced by” SMC and SCCWRP “including *any descriptive or numeric criteria* applicable to the San Juan Hydrologic Unit” (emphasis added). Thus, the Tentative Order does not refer to “a set of tools” that “can be used” (voluntary language) but instead uses language stating that Copermitees “*must*” use criteria that “*must*” be based upon findings produced by SMC and SCCWRP including “descriptive or numeric criteria” applicable to the San Juan Hydrologic Unit.

The Tentative Order clearly states that the SMC/SCCWRP study substantive findings and descriptive or numeric criteria (the latter for San Juan) must be incorporated by Copermittees into “updated hydromodification criteria” which means that the SMC/SCCWRP report findings will become substantive SDRWQCB standards for SUSMP/WQMPs.

- (b) **The Response fails to address the issue that substantive standards for Co-permittee compliance with the Tentative Order must be subject to full public hearing in conjunction with the adoption of standards by the Board under the California Administrative Procedures Act** – The Response to the Rancho Mission Viejo comment argues that the SMC/SCCWRP study “is subject to peer review.” Peer review is certainly a useful element in preparing a technical study. However, peer review cannot in any way, shape or form be substituted for a full public hearing pursuant to regulatory adoption of substantive standards. Even recommendations included in prestigious National Academy of Sciences reports cannot have regulatory effect under federal law unless formally subjected to public review through Federal Register or equivalent processes. The very essence of public hearing requirements in the adoption of regulatory standards by public agencies is that all parties, both the general public and affected public and private entities, must have the opportunity to review and comment on substantive regulatory standards prior to adoption by regulatory agencies.

The July 6, 2007 Response to Comments I states: “the public participation opportunities offered in the Regional Board’s proceeding for the reissuance of the NPDES requirements for Orange County MS4 are substantially similar to those offered for the promulgation of administrative regulations despite differences in detail.” The argument in Response II that “there will be public review at the municipal level prior to incorporation into local requirements” is meaningless because the Tentative Order makes clear that hydromodification criteria “must” be based on the findings of the SMC/SCCWRP study. As the Response II document acknowledges, Copermittees have the flexibility to deviate from the SMC/SCCWRP report “*as long as* the strategy accounts for certain *minimum elements* from the SMC/SCCWRP report, *including findings and numeric limits*” (emphasis added). Through the present wording of the Tentative Order, the SDRWQCB will have improperly delegated to other entities the authority to establish substantive

“elements, findings and numeric limits” for the Orange County MS4, without any provision for public hearings before the Board.

Quite frankly, we are surprised that the Board itself would not want to review “minimum elements, findings and numeric limits” proposed by a non-Board entity prior to such substantive standards taking effect and having the same force of law as standards set forth in the Tentative Order (the wording of the current Tentative Order reads like a regulatory blank check). Further, we would assume that the Board would want to afford the public the guarantees of public participation required by the California Administrative Procedures Act in a manner fully consistent with the public hearing process for the Tentative Order itself.

Recommendation: Delete the second sentence of Section D. 1. H.(4). When the SMC/SCCWRP report is completed, the Board can determine whether it wishes to conduct public hearings to determine whether the Tentative Order should be amended to include any of the substantive recommendations of the study.

4. Active Sediment Treatment, page 43, D.2.d(1)(c): *Each Copermittee must require implementation of advanced treatment for sediment at construction sites (or portions thereof) that are determined by the Copermittee to be an exception threat to water quality.*

RMV has previously commented that although the Tentative Order leaves it vague as to when it would be mandated, the use of Active Sediment Treatment (ATS) is nonetheless being mandated in this permit. RMV has expressed its concerns to the State Board in the context of the NPDES General Construction Permit regarding the use of ATS and reiterated its concerns to the Regional Board in our August 21, 2008. The Regional Board responded that our concern regarding the potential effect of ATS on Beneficial Uses is “misplaced” given that the Copermittee controls when ATS requirements are applied to a site (or portions thereof). See Response to Comment 24. According to the Tentative Order, the Copermittee must evaluate several factors relating to the potential harm that a construction site could cause to 303(d) impairments and/or ESAs when determining whether ATS should be applied or not. Given the potential that ATS could result in a violation of the California Toxics Rule, or other unknown long-term effects related to the application of chemicals in a sensitive environment, RMV suggests that Copermittee should also be required to evaluate the potential harm ATS could cause. Only when the potential harm resulting from the construction site that cannot be adequately addressed by conventional BMP’s outweighs the risks associated with ATS, should ATS be mandated.

Recommendation: Add the following factors to the list set forth in Section D.2.d(1)(c).

- Compliance with California Toxics Rule
- Proximity and sensitivity of listed species
- Known effects of ATS chemicals

We appreciate the opportunity to provide these comments and urge the Regional Board to adopt our recommendations. Should you have any questions regarding these comments, please feel free to contact Laura Coley Eisenberg of my staff at (949) 240-3363.

Sincerely,

A handwritten signature in black ink, appearing to read 'Richard Broming', with a long horizontal flourish extending to the right.

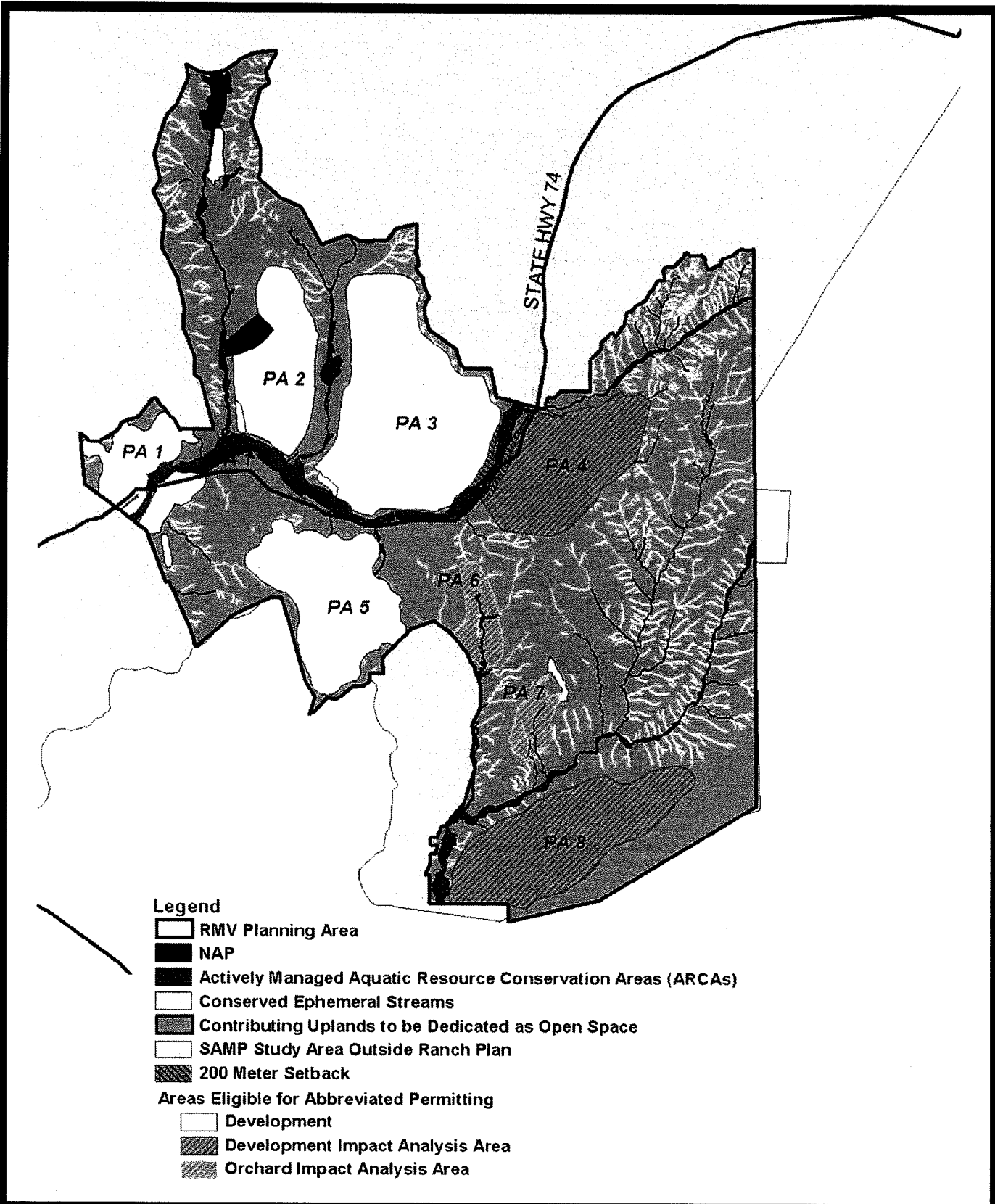
Richard Broming
Senior Vice President
Planning & Entitlement

Attachments:

1. SAMP FEIS Figure 8-10
2. SAMP FEIS Section 8.6

Cc: Jeremy Haas, SDRWQCB

ATTACHMENT 1



Aquatic Resources Conservation Areas

Not to Scale



ATTACHMENT 2

8.5.6.2 Actions to Minimize Impacts

Outside of the RMV Planning Area, program-level safeguards for the RGP and the LOP process as well as general conditions for both the RGP and the LOP process would assist in minimizing secondary impacts on the aquatic environment. These include geographic eligibility requirements, requirements for notification and coordination, and implementation of particular thresholds. The use of these permit processes in pre-identified areas with lower ecological integrity allows for minimization of any potential secondary impacts. After including general conditions for the RGP and the LOP process, actions would have further minimized secondary impacts. The general conditions that would minimize secondary impacts to the aquatic environment have been summarized in previous chapters of this EIS as they relate to changes in water circulation (RGP GC8 and LOP GC6), increase in suspended particulates (RGP GC5 and LOP GC3), and effects on breeding birds (RGP GC13 and LOP GC11).

Within the RMV Planning Area, secondary impacts to the aquatic ecosystem and organisms have been minimized by requirements to implement the WQMP and special conditions summarized in previous and later sections of this EIS. These include those that address changes in water circulation, suspended particulates, and the aquatic environment. Such special conditions include those related to managing downstream hydrology (SC I.B.1 and SC I.B.2), managing downstream water quality (SC I.C.2 and SC II.9), and controlling invasive exotic species (SC I.D.5, SC I.D.7, and SC III.2.b).

8.6 COMPLIANCE WITH DISCHARGE PROHIBITIONS—40 CFR 230.10(B)

Section 230.10(b) of the Section 404(b)(1) Guidelines sets forth several prohibitions regarding discharge of dredged or fill material. These requirements are set forth in this subchapter.

8.6.1 POTENTIAL VIOLATION OF ANY APPLICABLE STATE WATER QUALITY STANDARDS

The functional assessments conducted by the USACE Engineer Research and Development Center for the SAMP address a wide range of water quality and hydrology considerations that relate to avoidance, minimization, and mitigation of potential impacts that could result from the implementation of the proposed permitting procedures for the RMV Planning Area. Considerable effort has been made to address these considerations by comprehensively applying the SAMP Tenets and the Watershed Planning Principles in Chapter 6.0 consistency reviews. The foregoing consistency reviews reflect the measures and analyses presented in (1) the draft WQMP and (2) the Balance Hydrologics Sediment Report (referred to as the Balance Sediment Report, cited below).

This section presents a focused analysis of the Section 404(b)(1) water quality guidelines and the related USACE Engineer Research and Development Center Water Quality Integrity and Hydrologic Integrity avoidance, minimization, and mitigation considerations. Specific aspects of the WQMP and related sediment management planning (as reviewed in the Balance Sediment Report) are discussed in assessing avoidance minimization and mitigation for potential impacts on water quality and hydrologic conditions.

8.6.1.1 SAMP Analyses of Water Quality Integrity and Hydrologic Integrity Considerations

The USACE (Smith 2000) conducted an assessment of the riparian ecosystems of the San Juan/San Mateo Creek watersheds. The assessments addressed three ecosystem integrity

attributes with regard to: (1) Hydrologic Integrity, (2) Water Quality Integrity, and (3) Habitat Integrity. As noted above, this chapter addresses Hydrologic Integrity and Water Quality Integrity, while Habitat Integrity is addressed in Chapter 6.0 analyses of the "B" Alternatives and the Aquatic Resources Restoration Plan.

The USACE study (Smith 2000) addressed four indicators of Water Quality Integrity (nutrient increase, pesticide increase, hydrocarbon increase, and sediment increase). An additional five indicators were selected to reflect the condition of the stream that transports pollutants and three indicators were employed to reflect the condition of a riparian ecosystem's ability to physically capture and biogeochemically process pollutants. With regard to Hydrologic Integrity, several factors were identified as influencing the frequency, magnitude, and temporal distribution of stream discharge; a second set of factors was identified as influencing the hydrologic linkage between the stream channel and the active floodplain and adjacent terraces. Chapter 6.0 contains a summary of the USACE Engineer Research and Development Center analyses of the "B" Alternatives with regard to Water Quality Integrity, Hydrologic Integrity, and Habitat Integrity.

8.6.1.2 Policy Guidance Employed in Addressing SAMP Water Quality and Hydrologic Integrity Considerations

As previously addressed, in conjunction with the review and approval of the GPA/ZC, a WQMP was prepared. An updated WQMP was prepared to reflect the adoption of the B-10 Modified Alternative by the County of Orange. Because the RMV Proposed Project (B-12 Alternative) contains less development than the B-10 Modified Alternative and does not include any development areas not analyzed in the WQMP for the B-10 Modified (and for the B-9 Alternative addressed by the GPA/ZC WQMP), the updated WQMP provides a full set of analyses applicable to the RMV Proposed Project (including an overstated scenario impact analyses for Planning Areas 4 and 8 under the B-12 Alternative). A technical memorandum prepared by GeoSyntec Consultants confirms the applicability of the previous analysis of the B-4 and B-9 Alternatives in the GPA/ZC WQMP to the RMV Proposed Project (GeoSyntec, August 2005).

The WQMP was prepared to address water quality/stormwater flow requirements established by the San Diego RWQCB and the County of Orange Municipal Stormwater Permit (MS 4 Permit). In meeting Clean Water Act/State of California water quality requirements in furtherance of the coordinated planning process, the WQMP addresses the substantive considerations identified in the Section 404(b)(1) Guidelines and the water quality integrity and hydrologic integrity considerations presented in the cited USACE Engineer Research and Development Center report prepared for the SAMP, as well as the Watershed Planning Principles, as further analyzed in this chapter.

The draft WQMP is intended to address Water Quality Integrity and Hydrologic Integrity by managing post-development conditions in terms of the following three types of potential impacts:

- "Pollutants" generated by urban development with the potential to impact species and habitats;
- "Altered hydrology" due to urban development (including, in some cases, pre-existing conditions such as runoff from Coto de Caza); and
- "Altered geomorphic processes" with the potential to impact species and habitats

The SAMP Tenets set forth in Chapter 6.0 and in the Watershed Planning Principles provide the policy direction for addressing each of the above categories of potential development impacts. The SAMP Tenets policies include:

- Protect headwaters
- Maintain and/or restore floodplain connection
- Maintain and/or restore sediment sources and transport equilibrium

Similarly, the Watershed Planning Principles address the above three categories of potential impacts; Altered Hydrology is sub-divided into Changes in Surface Water Hydrology and Changes in Groundwater Hydrology.

8.6.1.3 The Role of the Water Quality Management Plan in Maintaining Water Quality Integrity and Hydrologic Integrity

The WQMP is set forth in Appendix D. Given the many elements of the WQMP, this chapter presents a summary of major aspects of the WQMP, with a more detailed consistency analysis provided in the appendix.

Clean Water Act Regulatory Requirements of the San Diego RWQCB and the County of Orange: "Pollutants of Concern" and "Hydrologic Conditions of Concern"

As noted above, the draft WQMP addresses the Water Quality Integrity and Hydrologic Integrity planning considerations identified in the USACE study (Smith 2000) and the SAMP Tenets and the Watershed Planning Principles guidance within the water quality management framework established by the County of Orange and the San Diego Regional Water Quality Control Board (San Diego RWQCB). The County and San Diego RWQCB require that potential development impacts are to be analyzed under two broad headings: (1) "Pollutants of Concern" and (2) "Hydrologic Conditions of Concern." These two broad categories for impact analysis and minimization/mitigation comprise the following:

- ***Pollutants of Concern*** addressed in the WQMP include:
 - Bacteria and viruses
 - Metals
 - Nutrients
 - Organic Compounds
 - Sediments (addressed functionally under Hydrologic Conditions of Concern)
 - Trash and Debris
 - Oxygen-Demanding Substances
 - Oil and Grease

In conformance with the Orange County Drainage Area Management Plan (DAMP) and associated Orange County/San Diego RWQCB MS4 permit, the WQMP identifies

“pollutants of concern” that are anticipated or potentially could be generated in conjunction with the proposed permitting procedures (based on the proposed land uses and past land uses) and that have been identified by regulatory agencies as potentially impairing beneficial uses in the receiving water bodies or that could adversely affect receiving water quality or endangered species. These “pollutants of concern” are listed above. The WQMP reviews a combined control system that incorporates water quality elements required for each sub-basin where development is proposed. The WQMP discusses pre-and post-project pollutants loadings relative to the standards set forth in the San Diego Basin Plan and the California Toxics Rule, as applicable, or to provide effective performance standards (e.g., while not applicable to non-point stormwater flows, the California Toxics Rule standards are employed as a conservative performance standard for protecting aquatic species and habitats).

- **Hydrologic Conditions of Concern** include both hydrologic and geomorphic processes

The WQMP analyses of Hydrologic Conditions of Concern specifically review hydrologic conditions with regard to: (1) potential increases in dry season streamflow and wet season baseflow between storms; (2) changes in the magnitude, frequency, and duration of annually expected flow events (1- and 2-year events); (3) changes in hydrologic response to major episodic storm events; (4) potential changes in sediment supply, with short-term increases related to construction and longer term reductions related to impervious/landscaped ground cover; and (5) potential changes in the infiltration of surface/soil water to groundwater.

Potential changes in “Geomorphic Processes” affecting sediment generation and transport are addressed in the Balance Sediment Report (titled *Geomorphologic Factors Affecting Sediment Generation and Transport under Pre-and Post-Urbanization Conditions at Rancho Mission Viejo and in the San Juan and San Mateo Watersheds, Orange County, California* (Balance, June 2005)) reviewed in this chapter and in the Chapter 6.0 Watershed Planning Principles consistency review of the “B” Alternatives relating to Hydrologic Conditions of Concern (which includes sediment generation and sediment transport).

Impact Assessment and Management Measures for Addressing Water Quality Integrity and Hydrologic Integrity

WQMP Urban Runoff/Stormwater Management Strategies and Mitigation/Minimization Measures

With regard to stormwater discharges and the San Diego RWQCB’s Stormwater Program, the Orange County MS/4 Permit/DAMP has incorporated the major provisions of the San Diego RWQCB’s model SUSMP, including provisions for addressing “Pollutants of Concern” and “Hydrologic Conditions of Concern.” In turn, the draft WQMP has framed its analysis around these requirements, along with addressing the Watershed Planning Principles. The draft WQMP presents and analyzes the elements of the draft WQMP that address these requirements with respect to RMV Proposed Project (through the Alternative B-10 Modified analyses above) and presents impact analyses of the RMV Proposed Project (through the Alternative B-10 Modified analyses discussed above) with respect to these requirements. Pollutants of Concern and Hydrologic Conditions of Concern considerations relating to aquatic habitats supporting sensitive species are specifically addressed in the draft WQMP, including findings of significance following the application of minimization and mitigation measures for direct and cumulative impacts, respectively.

The potential effects of development on modifying the hydrologic regime within the riparian corridors and the subsequent effect on sediment transport and habitat are "hydrologic conditions of concern." These potential effects were analyzed by comparing "pre" versus "post" development monthly "water balance" and "flow duration" management concepts as summarized below.

The ultimate goal of the WQMP is to manage the overall balance, termed "water balance," of all the hydrologic components of the water cycle. The water balance concept is a useful accounting tool for evaluating and controlling the effects of land use changes on hydrology. A water balance, like a checkbook balance, is intended to show the balance between the 'deposits,' which include precipitation and irrigation, and 'withdrawals' which include: (1) infiltration into the soils, (2) evapotranspiration, and (3) water which runs off the surface of the land. This latter withdrawal is called surface runoff and occurs during storm events or wet weather conditions. The water balance is a monthly accounting of how precipitation and irrigation water become distributed as: (a) surface runoff, (b) groundwater infiltration that contributes to baseflows in streams or deep groundwater recharge, and (c) evapotranspiration.

The impacts of urbanization on hydrology include increased runoff volumes, peak flow rates, and the duration of flows; especially modest flows less than the 10-year event. It is these more frequent, modest flows that can have the most effect on long-term channel morphology (Leopold 1997). The effect of changes in flow on stream geomorphology is a cumulative one. Therefore, the magnitude of flows (volume and flow rate), how often the flows occur (the frequency), and for how long (the duration) are all-important. Managing the frequency and duration of flows is referred to in the WQMP as "flow duration matching" and refers to matching the post-development flow duration conditions with pre-development conditions. This matching is achieved through appropriate sizing of a flow duration basin and design of the outlet structure. In order to achieve flow duration matching, 'excess flows,' defined as the difference in runoff volume between the post-development "without controls" condition and the pre-development condition, must be captured and either infiltrated, stored, and recycled, or diverted to a less sensitive stream or stream reach. Within the RMV Planning Area, the flow duration analyses were conducted for the 53-year continuous rainfall record and the dry and wet cycles within that record.

As proposed in the WQMP, all developments would be designed to achieve flow duration matching, address the water balance, and provide for water quality treatment through a combined flow and water quality control system (termed "Combined Control System"). The proposed combined control system would include one or more of the following components as required for the particular drainage catchments served by the individual facilities, each of which provides an important function to the system:

- Flow Duration Control and Water Quality Treatment (FD/WQ) Basin
- Infiltration Basin
- Bioinfiltration Swale
- Storage Facility for Non-Potable Water Supply
- Diversion Conduit to Export Excess Flows out of the Sub-basin

All of the above facilities are proposed to be constructed within proposed development areas of the RMV Planning Area, not within Aquatic Resource Conservation Areas.

The flow duration control and water quality treatment basin provides the initial flow and water quality treatment control functions to the system. The remaining components address the "excess flows" (i.e., flows in excess of natural conditions), alone or in combination with each other, generated during wet weather. Additional water quality treatment control is also provided in the infiltration basin and bioinfiltration swale. The functions and management strategies for each of the components of the Combined Control System are detailed in the WQMP (Appendix D).

WQMP Measures for Addressing Geomorphic Processes

Potential changes in "Geomorphic Processes" are addressed in part through the Watershed Planning Principles consistency review of the RMV Proposed Project (B-12 Alternative; see Chapter 6.0) relating to Hydrologic Conditions of Concern (including sediment generation and sediment transport) and in part through specific restoration measures summarized in this subchapter and reviewed in the Aquatic Resources Adaptive Management Program (Appendix F3). To address inter-related considerations of terrains and hydrologic conditions of concern, the draft WQMP relies on and addresses information set forth in the Baseline Conditions Report (PCR et al. 2002) and the Watershed Planning Principles. The Geomorphology/Terrains; Hydrology; Sediment Sources, Storage and Transport; Groundwater Hydrology; and Water Quality principles from the Watershed Planning Principles have been used. Additionally, the sub-basin "Planning Considerations" and Planning Recommendations" have been addressed and employed in formulating flow control and water quality control strategies in response to the geographic-specific conditions found in each sub-basin. The sub-basin-specific elements include site assessment, planning considerations, and combined control system conceptual design, and are presented in the draft WQMP.

Within each sub-basin, the draft WQMP presents flow control strategies prepared both with respect to specific portions of the sub-basin using the "catchment" level of analysis and with respect to overall characteristics of the sub-basin (e.g., see the discussion of the proposed flow management planning for specific development areas). Sediment generation and sediment transport considerations are reviewed in *Geomorphology Factors Affecting Sediment Generation and Transport under Pre-and Post-Urbanization Conditions at Rancho Mission Viejo and in the San Juan And San Mateo Watersheds, Orange County California* (Balance Hydrologics 2004) (Appendix H); monitoring recommendations set forth in the Balance Sediment Report have been incorporated into the draft WQMP Adaptive Management Program.

The particular characteristics of each sub-basin's surface and sub-surface drainage systems have been taken into account in each strategy analysis and relate governing physical processes in the sub-basin, including terrains and groundwater, to channel form. For instance, the ground infiltration and surface flow management prescriptions for the Gobernadora Sub-basin differ considerably from those for the Chiquita Sub-basin even though the two sub-basins adjoin one another and both flow into San Juan Creek. Similarly, the management of "excess flows," takes into account the nature of San Juan Creek and overall goals of supplementing groundwater recharge in the San Juan Creek aquifers.

With regard to the contribution of enhancement and restoration to the management of geomorphic processes, habitat restoration and erosion control measures in clay soils would reduce the generation of fine sediments and improve stormwater infiltration/runoff, benefiting species and streamcourse processes. For the Gobernadora Creek Sub-basin, the sub-basin exhibiting existing conditions stressors due to prior upstream development in Coto de Caza, specific performance criteria for implementation of the Gobernadora Multipurpose Basin have been prepared to complement Gobernadora Sub-basin water management measures in the

draft WQMP and thereby increase habitat values and functions over existing conditions. The draft WQMP also provides opportunities to increase stormwater flows into San Juan Creek to further riparian enhancement and arroyo toad habitat enhancement resulting from control of *Arundo donax* reed to the extent considered desirable under the Aquatic Resources Adaptive Management Program. To the extent that restoration and management measures in the San Mateo Watershed reduce the generation of fine sediments, habitat conditions will be improved for the arroyo toad in the subregion and other aquatic species downstream in San Mateo Creek.

In these ways, the draft WQMP provides specific measures addressing three stressors—potential pollutants, changes in hydrologic processes, and changes in geomorphic processes—and, in so doing, helps assure that these three stressors do not significantly impact values and functions (basic development siting conditions also address potential changes in geomorphic processes; see Chapter 6.0, Watershed Planning Principles consistency review of the “B” Alternatives). Additionally, the draft WQMP, in conjunction with specific restoration/enhancement measures reviewed in the Aquatic Resources Adaptive Management Program (e.g., Gobernadora multipurpose basin and San Juan Creek invasive species control measures) helps increase habitat values and functions in Gobernadora Creek and San Juan Creek.

San Diego Basin Plan Consistency Analysis

Pursuant to 40 CFR 230.10(b), no discharge of dredged or fill material shall be permitted if it “Causes or contributes, after consideration of disposal site dilution and dispersion, to violations of any applicable State water quality standard.” The following section addresses potential impacts to “Beneficial Uses” as defined for all surface and ground waters in the San Diego Region. Beneficial uses form the cornerstone of water quality protection under the San Diego Basin Plan. Once beneficial uses are designated, appropriate water quality objectives can be established and programs that maintain or enhance water quality can be implemented to ensure the protection of beneficial uses. Page 2-1 of the San Diego Basin Plan states the following with respect to Beneficial Uses:

“Beneficial uses are defined as the uses of water necessary for the survival or well being of man, plants and wildlife. These uses of water serve to promote the tangible and intangible economic, social and environmental goals of mankind. Examples include drinking, swimming, industrial and agricultural water supply, and the support of fresh and saline aquatic habitats.”

The San Diego Basin Plan goes on to state:

“The Porter-Cologne Act establishes a comprehensive program for the protection of beneficial uses of the waters of the state. California Water Code Section 13050(f) describes the beneficial uses of surface and ground waters that may be designated by the State or Regional Board for protection as follows:

“Beneficial uses of the waters of the state that may be protected against quality degradation include, but are not necessarily limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.”

Significant considerations involved in the designation of beneficial uses are:

- (1) Fish, plants, and other wildlife, as well as humans, use water beneficially. Designation of beneficial uses often includes subcategories of the above beneficial uses cited in California Water Code Section 13050(f).
- (2) Water transport or waste assimilation in the state's surface and ground waters may not be designated as beneficial uses under the Porter-Cologne Act. The direction of the Porter-Cologne Act is to protect surface and ground waters against the adverse effects of waste constituents. (California Water Code §13000, §13241, and §13263). Surface or ground waters may be used for waste disposal or waste assimilation if designated beneficial uses are protected. In authorizing the discharge of waste, the Regional Board need not authorize utilization of the full waste assimilation capacities of the receiving waters [California Water Code §13263(d)]. All discharges of waste into waters of the state are privileges not rights [California Water Code §13263(g)].
- (3) Designated beneficial uses may include potential beneficial uses if existing water quality would support the use or if the necessary level of water quality can reasonably be achieved. (Water Code §13241 [a] and [c]). Potential and existing uses are defined later in this chapter.
- (4) An existing beneficial use ordinarily must be designated for protection unless another beneficial use requiring more stringent objectives is designated. The existing beneficial use designation is necessary to comply with the statutory policy in California Water Code Section 13000, which provides in part that "...the quality of all waters in the state shall be protected for use and enjoyment by all the people of the state."
- (5) California Water Code Section 13000 provides in part that: "*The Legislature ...finds and declares that activities and factors which may affect the quality of the waters of the state shall be regulated to attain the highest possible water quality that is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible.*" This policy establishes a general principal of no degradation, with flexibility to allow some change in water quality, which is in the best interests of the state. Changes in water quality are allowed only where beneficial uses are not unreasonably affected.
- (6) The designation of beneficial uses must take into account the constitutional prohibition of waste and unreasonable waste of water. Designation of beneficial use for protection should not require a waste of water pursuant to the California Constitution, Article X, Section 2.
- (7) The protection and enhancement of beneficial uses require that certain quality and quantity objectives be met for surface and ground waters.

Table 8-11 provides a summary of the Beneficial Uses associated with the San Juan Creek and San Mateo Creek Watersheds.

Impacts to Beneficial Uses

As previously addressed, the combination of watershed-scale water quality planning principles and the sub-basin/catchment area approach to project design ensures that degradation of Beneficial Uses as defined in the San Diego Basin Plan would not occur. Table 8-11 summarizes the Designated Beneficial Uses within the SAMP Study Area that are addressed in this subchapter.

**TABLE 8-11
SAN DIEGO BASIN PLAN DESIGNATED BENEFICIAL USES**

Description of Use	San Juan Creek Watershed	San Mateo Creek Watershed
Municipal and Domestic Supply (MUN) – Includes uses of water for community, military, or individual water supply systems including, but not limited to drinking water supply.	Exempted	Exempted
Agricultural Supply (AGR) —Includes uses of water for farming, horticulture, or ranching including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing.	Yes	
Industrial Service Supply (IND) —Includes uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well re-pressurization.	Yes	
Contact Water Recreation (REC-1) —Includes uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water skiing, skin and SCUBA diving, surfing, white water activities, fishing, or use of natural hot springs.	Yes	
Non-Contact Water Recreation (REC-2) —Includes the uses of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tide pool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.	Yes	Yes
Warm Freshwater Habitat (WARM) —Includes uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish or wildlife, including invertebrates.	Yes	Yes
Cold Freshwater Habitat (COLD) —Includes uses of water that support cold water ecosystems including, but not limited to, preservation and enhancement of aquatic habitats, vegetation, fish or wildlife, including invertebrates.	Yes	
Wildlife Habitat (WILD) —Includes uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.	Yes	Yes
Rare, Threatened, or Endangered Species (RARE) —Includes uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened, or endangered.	a.	Yes
a. Although the San Juan Creek Watershed supports endangered species, such as the arroyo toad, the San Diego Water Board has not designated RARE as a beneficial use for this Watershed.		
Source: San Diego Water Quality Control Board		

Below is a summary of the potential adverse impacts to beneficial uses and measures identified in the WQMP, Aquatic Resources Adaptive Management Program, and Aquatic Resources Restoration Plan to ensure that degradation of Beneficial Uses associated with the Aquatic Resources Conservation Area is avoided or minimized in a manner consistent with state water quality standards.

Municipal and Domestic Supply (MUN). This Beneficial Use has been exempted for San Juan Creek and associated tributaries within the RMV Planning Area by the San Diego RWQCB from the municipal use designation under the terms and conditions of State Board Resolution No. 88-63 *Sources of Drinking Water Policy*.

Agricultural Supply (AGR). Rancho Mission Viejo uses water for citrus production and ranching operations. Essentially all of the water that is used for agricultural purposes is derived from groundwater wells. According to the WQMP, the proposed discharge would not adversely affect groundwater recharge rates or quality of groundwater. Therefore, there would be no potential degradation of agricultural supply associated with the proposed discharge of dredged or fill material.

Industrial Process Supply (IND). The Water Quality Management Plan did not identify any impacts to water quality that would adversely affect this Beneficial Use.

Contact Water Recreational (REC-1). According to the WQMP, pathogens represent a potential impact on REC-1 (body contact uses). The WQMP proposes to incorporate detention basins with associated wetland swales that would discharge into infiltration basins as major water quality treatment train features. In combination, these would be very effective in treating pathogens associated with dry weather flows, small storm flows, and the initial portion of large storm events. During large storm events, when large amounts of bacteria, viruses, and protozoans (some of which are pathogenic) are mobilized, flows would bypass the infiltration basin. During such periods, pathogen levels are not likely to meet the REC-1 standards for fecal coliform on a consistent basis.

The literature on the effectiveness of infiltration and filtration systems for treating pathogen indicators such as total and fecal coliform indicates that filtration as a treatment mechanism achieves removals in the range of 60 to 90 percent. This removal rate tends to be large relative to other stormwater treatment BMPs (e.g., extended detention basins) and therefore treatment trains which include a filtration component as provided for as a part of the RMV Proposed Project would provide effective removal of pathogen indicators. Since infiltration is an effective BMP up to the point of soil saturation, pathogens associated with dry weather flows, small storm flows and the initial portion of large storm events would be effectively treated in the combine control system. However, because there is no feasible method for infiltrating storm water flows from large storms due to saturated soils conditions and it is not economically feasible to construct storage and treatment facilities for the large volumes of stormwater generated by major storms, pathogen indicators cannot be removed to below a level of significance as defined by the REC-1 standard for such major storms. Through the use of source and treatment controls, the RMV Proposed Project would use BMPs that meet the "Maximum Extent Practicable (MEP) standard established by the State Water Resources Control Board and accordingly reduces impacts to the maximum extent practicable.

Non-Contact Water Recreational (REC-2). There would be no degradation of this Beneficial Use associated with the RMV Proposed Project. It should also be noted that the RMV Planning Area is in private ownership. The property is currently closed to the public, precluding the use of the area for such activities.

Warm Freshwater Habitat (WARM). As previously addressed, the WQMP evaluated Hydrologic Conditions of Concern (Increased Storm Runoff, Decreased Infiltration/Groundwater Recharge, and Changed Base Flows) and Pollutants of Concern (Sediments, Nutrients, and Trace Metals) by sub-basin on the RMV Planning Area. Each of these Hydrologic Conditions of Concern and Pollutants of Concern exhibits the potential for effects on warm freshwater habitat.

For example, changes in base flow could result in adverse impacts by creating habitat for invasive bullfrogs and crayfish that prey on native fish and amphibians while a decrease in base flow could decrease breeding opportunities for native amphibians such as the arroyo toad. Similarly, changed sediment regimes could affect breeding areas used by native amphibians such as the arroyo toad or western toad or native fish such as the arroyo chub. As addressed in Appendix F3, Aquatic Resources Conservation Areas would be adaptively managed over the long-term to maintain habitat functions, including implementation of an invasive species eradication program that targets bullfrogs and crayfish. Although the WQMP addresses areas located outside Aquatic Resources Conservation Areas, the WQMP would also be managed adaptively and will be coordinated with the management of Aquatic Resources Conservation Areas in order to assure that potential impacts involving Pollutants of Concern and Hydrologic Conditions of Concern are fully addressed through ongoing avoidance, minimization, and mitigation measures.

According to the WQMP, with implementation of the WQMP Project Design Features including detention basins, infiltration basins, bioswales, etc., there would be no significant impacts for any of the individual sub-basins associated with the Hydrologic Conditions of Concern or **Pollutants of Concern**. As reviewed previously, the WQMP proposes a comprehensive system for assuring that stormwater discharges do not substantially impact water circulation systems. Specifically, the Draft WQMP addresses the following elements:

- a. **Site-design BMPs.** Site design BMPs have been selected to address the creation of a hydrologically functional project design that seeks to mimic the natural hydrologic regime.
- b. **Source Control BMPs.** Source controls BMPs (routine non-structural BMPs, routine structural BMPs, and BMPs for individual categories/project features) have been selected, including a combined flow and water quality control system to address hydrologic water balance and water quality treatment.
- c. **Urban Runoff and Stormwater Control Elements.** Water balance and flow duration analyses and conceptual combined flow and water quality control systems have been prepared for each sub-basin.
- d. **Stormwater BMP Operation and Maintenance Program.** An operation and maintenance program has been developed to address the following elements: Maintenance Responsibility, General Operation and Maintenance Activities, Routine Operation and Maintenance Activities and Major Operation and Maintenance Activities.
- e. **Stormwater Monitoring Program.** A stormwater monitoring program has been developed for the Water Quality BMPs.

For the Hydrologic Conditions of Concern, the WQMP notes that, in some instances (e.g., Cañada Chiquita Sub-basin), there is a slightly higher groundwater recharge and that an associated base flow in the Chiquita Sub-basin is expected to provide potential for enhancement of riparian habitat in Chiquita Canyon as well as enhanced habitat for the arroyo toad in San Juan Creek. Finally, as reviewed previously, it should also be noted that potential impacts associated with trace metals were evaluated using the California Toxics Rule and/or the National Ambient Water Quality Criteria and it was determined that there were no significant impacts associated with increased levels of trace metals. Implementation of the Ranch Plan would not result in degradation of this Beneficial Use.

Cold Freshwater Habitat (COLD). The WQMP evaluation of Hydrologic Conditions of Concern (Increased Storm Runoff, Decreased Infiltration/Groundwater Recharge, and Changed Base Flows) and Pollutants of Concern (Sediments, Nutrients, and Trace Metals) by sub-basin on the RMV Planning Area applies to potential for effects on cold freshwater habitat, as well as the potential Warm Freshwater Habitat impacts analyzed above. For example, as noted for warm freshwater habitat, changes in base flow could result in adverse impacts by creating habitat for invasive bullfrogs and crayfish that prey on native fish and amphibians while a decrease in base flow could decrease breeding opportunities for native amphibians such as the arroyo toad. Similarly, changed sediment regimes could affect breeding areas used by native amphibians such as the arroyo toad or western toad or native fish such as the arroyo chub. As noted for warm freshwater habitat above and reviewed in Appendix F3 with respect to the Aquatic Resources Adaptive Management Program, Aquatic Resources Conservation Areas would be adaptively managed over the long-term to maintain habitat functions, including implementation of an invasive species eradication program that targets bullfrogs and crayfish. As noted above for potential impacts on warm freshwater habitats, although the WQMP addresses areas located outside Aquatic Resources Conservation Areas, the WQMP would also be managed adaptively and coordinated with the management of Aquatic Resources Conservation Areas in order to assure that potential impacts involving Pollutants of Concern and Hydrologic Conditions of Concern are fully addressed through ongoing avoidance, minimization, and mitigation measures.

As reviewed under warm freshwater impacts, according to the WQMP, with implementation of the WQMP Project Design Features including detention basins, infiltration basins, bioswales, etc., there would be no significant impacts for any of the individual sub-basins associated with the Hydrologic Conditions of Concern or Pollutants of Concern. With regard to long-term management actions, the WQMP proposes a comprehensive system for assuring that stormwater discharges do not substantially impact water circulation systems. Finally, it should also be noted that potential impacts associated with trace metals were evaluated using the California Toxics Rule and/or the National Ambient Water Quality Criteria and it was determined that there were no significant impacts associated with increased levels of trace metals. Implementation of the Ranch Plan would not result in degradation of this Beneficial Use.

Wildlife Habitat (Wild). For the reasons discussed above for WARM and COLD Beneficial Uses, there would be no degradation of this Beneficial Use associated development of the RMV Proposed Project. Implementation of the Aquatic Resources Adaptive Management Program and the Aquatic Resources Restoration Plan would result in enhanced habitat values for a full suite of wildlife species as summarized below.

Rare, Threatened, or Endangered Species (RARE). RARE has not been designated for the San Juan Creek or San Mateo Creek watershed areas on the RMV Planning Area even though state and federally listed species are documented as using the associated aquatic resources (e.g., arroyo toad and least Bell's vireo) (Table 6-12). In the San Diego Basin Plan, it is asserted that in the absence of such site-specific designations, the San Diego RWQCB would rely on objectives for WARM and COLD to implement the RARE designation. The San Diego RWQCB states:

The existing WARM and COLD beneficial use designations are believed to be stringent enough to protect threatened or endangered species. If these issues arise in the future, they will be decided on a case-by-case basis, considering the most recent scientific data, site-specific factors, and other beneficial uses.

Because there would be no degradation of the WARM and COLD Beneficial Uses under the proposed Aquatic Resources Adaptive Management Program and with the WQMP serving as a "coordinated management plan" to protect and manage the aquatic resources on the RMV Planning Area on a long-term basis, there would be no degradation of the RARE Beneficial Use associated with the RMV Proposed Project. Implementation of the Aquatic Resources Adaptive Management Program and the Aquatic Resources Restoration Plan would result in protected and enhanced habitat values for a full suite of wildlife species.

Long-Term Adaptive Management of the WQMP

As reviewed in the Aquatic Resources Adaptive Management Program (Appendix F3), Aquatic Resources Conservation Areas would be adaptively managed over the long-term to maintain net habitat value and functions. Although the WQMP addresses areas located outside Aquatic Resources Conservation Areas, the WQMP would also be managed adaptively and coordinated with the management of Aquatic Resources Conservation Areas in order to assure that potential impacts involving Pollutants of Concern and Hydrologic Conditions of Concern are fully addressed through ongoing avoidance, minimization, and mitigation measures.

This subchapter presents a brief summary of the WQMP adaptive management approach that is proposed to evaluate whether the WQMP elements are functioning as intended and to implement corrective procedures when needed. The issues addressed by this adaptive management approach are management considerations relating to "pollutants of concern" and "hydrologic conditions of concern."

The WQMP adaptive management plan proposes the following elements:

- *BMP Inspection and Performance Monitoring*
- *Hydrologic Monitoring*
- *WQMP Review and Evaluation.* Annual review of the inspection and monitoring data would be conducted to determine if there is a need for corrective action, to evaluate impacts due to changes in watershed conditions on the hydrologic regime or BMP performance, and in general to evaluate if the WQMP is effective in meeting the planning objectives.
- *Corrective Measures.* Corrective measures would be undertaken for specific problems or conditions of concern identified in the review and evaluation. Depending on the nature of the problem, corrective measures could involve modification of the BMP design, operation, or maintenance, and/or implementation of additional BMPs. The effectiveness of the corrective measures would also be evaluated through continued inspection and monitoring. Therefore, the management approach is adaptive to specific problems or conditions as they arise and are identified through ongoing inspection, monitoring, documentation, and evaluation.
- *Documentation and Reporting*

8.6.2 POTENTIAL VIOLATION OF ANY APPLICABLE TOXIC EFFLUENT STANDARD OR PROHIBITION UNDER SECTION 307 OF THE ACT

For activities outside the RMV Planning Area proposed to be authorized by RGPs or LOPs, the general conditions will prevent the violation of any applicable toxic effluent standards. These general conditions include:

RGP GC7 No discharge of dredged or fill materials may consist of unsuitable materials (e.g., trash, debris, car bodies, asphalt, etc.) and material discharged must be free from pollutants in toxic amounts (see Section 307 of the Clean Water Act).

RGP GC16 An individual Section 401 water quality certification must be obtained unless a general Section 401 certification is issued or waived for this RGP (see 33 CFR 330.4(c)).

LOP GC5 Same as RGP GC7

LOP GC16 Same as RGP GC16

Within the RMV Planning Area, all fill materials discharged into Waters of the U.S. would be the result of balanced cut and fill. For most RMV Proposed Project development planning areas, the primary existing land uses at the cut and fill sites are ranching, agriculture, nurseries, and/or gravel mining. None of these land uses are expected to have resulted in contaminations that would result in violation of toxic effluent standards. Planning Area 8 consists of the Northrop Grumman Space Technology TRW Capistrano Test Site which may have been contaminated by past activities. In consideration of these factors, special conditions include:

SC I.C.1 The permittee shall abide by all the terms and conditions of the applicable Section 401 certification.

SC II.5 The permittee shall only discharge dredged or fill materials into waters of the U.S. that is free from pollutants in toxic amounts (see Section 307 of the Clean Water Act). The permittee not place within Waters of the U.S. unsuitable materials (e.g., trash, debris, car bodies, asphalt, etc.). This condition is satisfied through the use of using on-site materials from balanced cut-and-fill grading operations for every Planning Area except for Planning Area 8. For Planning Area 8, the permittee shall prepare an updated Phase I Environmental Site Assessment (GPA EIR Mitigation Measure 4.14-13), prepare a comprehensive closure plan (GPA EIS Mitigation Measure 4.14-15), prepare a Health and Safety Contingency Plan (GPA EIR Mitigation Measure 4.14.1), remove all underground storage tanks (GPA EIR Mitigation Measure 4.14-6), and in the event that toxic materials are discovered during construction, an in the field assessment (GPA EIR Mitigation Measure 4.14-2). Such assessments shall be provided to the Corps. The permittee shall not discharge fill materials associated with Planning Area 8 containing toxic amounts of pollutants.

SM SC I.3 Same as SC I.C.1 for Section 401 certification.

SM SC II.5 The permittee shall only discharge dredged or fill materials into waters of the U.S. that is free from pollutants in toxic amounts (see Section 307 of the Clean Water Act). The permittee shall not place within waters of the U.S. unsuitable materials (e.g., trash, debris, car bodies, asphalt, etc.).

8.6.3 POTENTIAL IMPACTS THAT WOULD JEOPARDIZE THE CONTINUED EXISTENCE OF SPECIES LISTED AS THREATENED OR ENDANGERED OR RESULT IN THE LIKELIHOOD OF DESTRUCTION OR ADVERSE MODIFICATION OF CRITICAL HABITAT UNDER FESA

For all activities under the proposed RGP, the proposed LOP outside of the RMV Planning Area, and the LOP inside of the RMV Planning Area, the general conditions prohibit impacts to federally-listed threatened and/or endangered species or adverse modification to their critical habitat without a consultation with the USFWS or NOAA Fisheries, where appropriate, pursuant to Section 7 of the ESA. For the proposed LOP inside of the RMV Planning Area, actions proposed to ensure that all appropriate efforts are made to avoid, minimize, and mitigate potential significant impacts to threatened and/or endangered species are reviewed in subchapter 8.5.3.

8.6.3.1 Overview

Under the Section 404(b)(1) Guidelines, the discharge of dredged or fill material is not permitted if it:

“Jeopardizes the continued existence of species listed as endangered or threatened under the Endangered Species Act of 1973, as amended or results in likelihood of the destruction or adverse modification of a habitat which is determined by the Secretary of Commerce, as appropriate, to be a critical habitat under the Endangered Species Act of 1973, as amended.” (40 CFR 231.10 (b)(3))

SAMP Tenet 8 provides:

“Protect riparian areas and associated habitats of listed and sensitive species.”

This subchapter addresses 40 CFR 230.10(b)(3), as well as Subpart D of the Section 404(b)(1) Guidelines (Potential Impacts on Biological Characteristics of the Aquatic Ecosystem) relating to threatened and endangered species, fish, crustaceans, and other aquatic organisms in the food web and other wildlife associated with aquatic ecosystems. Mitigation for potential impacts on special aquatic sites (subpart E of the Section 404[b][1] Guidelines) is addressed in the Aquatic Resources Restoration Program summarized in Chapter 5.0 and subchapter 8.8 of this EIS and provided in Appendix F2. Because of the extent of non-wetlands waters identified in uplands habitats, all listed species are addressed in this chapter.

Through the Coordinated Planning Process, all federally listed species have been addressed as “planning species” in analyzing avoidance, minimization, and mitigation under the different “B” Alternatives previously reviewed in Chapter 6.0 of this EIS. In particular, the NCCP Southern Planning Guidelines set forth criteria for maintaining “net habitat value” of habitat supporting planning species by identifying resource protection areas capable of sustaining Planning Species, both with respect to protecting *major populations in key locations* of occupied habitat and with respect to providing for “connectivity” through both occupied and unoccupied habitat, on a long-term basis (see Chapter 6.0 analyses of consistency with the watershed-scale and sub-basin-scale Southern Planning Guidelines and the Watershed Planning Principles). Although through the Coordinated Planning Process informal consultation with the USFWS through Section 7 of the ESA has led to some preliminary avoidance, minimization and mitigation determinations regarding consistency with the Southern Planning Guidelines addressing listed species and FESA Section 3/7 reviewed in this subchapter, formal satisfaction of all jeopardy and critical habitat standards would be obtained through the formal consultation