

## ATTACHMENT D – FACT SHEET

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Attachment      Environmental Impact Report impacts and mitigation program for water resources

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As described in Section A of this Order, this Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of Order No. R9-2006-0104.

## **I. SUMMARY**

The California Regional Water Quality Control Board, San Diego Region, (Regional Board) is considering adoption of Tentative Order No. R9-2006-0104, establishing waste discharge requirements (WDRs) for the discharge of fill material to waters of the State by Rancho Mission Viejo (Discharger) as part of Rancho Mission Viejo Ranch Plan, Planning Area 1 project (Project) in unincorporated Orange County. Tentative Order No. R9-2006-0104 also establishes the necessary conditions on the project for the Regional Board to certify, pursuant to Section 401 of the Clean Water Act, that there is reasonable assurance Project will not reduce water quality below applicable State water quality standards. Water quality standards include beneficial uses, water quality objectives, and the State's non-degradation policy (State Water Resources Control Board Resolution No. 68-16) that calls for the protection and maintenance of existing high-quality waters.

The discharge of fill to waters of the State will cause and threaten to cause conditions of pollution and nuisance and loss of beneficial uses. Preventative and compensatory mitigation measures have been proposed, including plans for post-construction storm water management, habitat mitigation, and compliance with the statewide requirements for construction stormwater discharges. Tentative Order No. R9-2006-0104 includes requirements to implement these measures and to report on construction, post-construction, and habitat mitigation progress.

## **II. REGULATORY BACKGROUND**

Section 13260(a) of the California Water Code (Water Code) requires that any person discharging waste or proposing to discharge waste within any region, other than to a community sewer system, which could affect the quality of the waters of the State, file a report of waste discharge (ROWD). The discharge of dredged or fill material may constitute a discharge of waste that could affect the quality of waters of the State. Water Code section 13263(a) requires that WDRs be prescribed as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge. Such WDRs must implement any relevant water quality control plans, taking into consideration beneficial uses to be protected, the water quality objectives reasonably required for those purposes, other waste discharges, the need to prevent nuisance, and the provisions of Water Code section 13241.

The State of California largely relies on Section 401 of the federal Clean Water Act (CWA) (33 U.S.C. § 1341) to regulate discharges of dredged or fill material to waters of the State. That section requires an applicant to obtain "water quality certification" from

California that the project will comply with State water quality standards before certain federal licenses or permits may be issued. The permits subject to section 401 include permits for the discharge of dredged or fill materials (CWA section 404 permits) issued by the U.S. Army Corps of Engineers (Corps). WDRs under the Porter-Cologne Water Quality Control Act are typically waived for projects that are certified under Clean Water Act section 401<sup>1</sup>. In recent years the Corps has increasingly determined that discharges of fill to some surface waters are not subject to CWA section 404 permits. As a result, WDR waivers associated with discharges of fill subject to section 401 Certifications do not apply to discharges of fill to surface waters deemed outside of Corps jurisdiction.

To streamline the issuance of WDRs for projects that propose to place small amounts of fill into non-federal waters, the State Water Resources Control Board (State Board) issued Order No. 2004-0004-DWQ, "*Statewide General Waste Discharge Requirements for Dredge and Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction.*" These General WDRs are restricted to dredged or fill discharges of not more than two-tenths (0.2) of an acre and 400 linear feet for fill and excavation discharges. In addition and pursuant to CWC section 13263(a), the Regional Boards must prescribe WDRs for proposed discharges of fill to non-federal waters that exceed the thresholds in Order No. 2004-0004-DWQ.

On May 11, 2006 the Discharger submitted an incomplete application for Section 401 Certification for discharges of fill associated with the Project. Additional information to complete the Section 401 application was received on June 2, 2006. An ROWD for the proposed fill to non-federal waters was also received on June 2, 2006. An ROWD was submitted to the Regional Board pursuant to Water Code section 13260 because the proposed amount of fill into non-federal waters of the State exceeds the numerical thresholds limit of State Board Order No. 2004-0004-DWQ. As a result, Tentative Order No. R9-2006-0104 serves as both section 401 Water Quality Certification and as waste discharge requirements for discharges of fill to waters of the State.

On June 13, 2006 the Regional Board requested that additional information be submitted to supplement the complete 401 Certification application and the ROWD. Additional information was requested following a site visit that was conducted on July 7, 2006 to inspect the non-federal waters on site and the proposed stormwater discharge points to San Juan Creek. The Discharger submitted the supplemental information on August 1, 2006.

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<sup>1</sup> The discharge associated with a Section 401 water quality certification is regulated under California Regional Water Quality Control Board, San Diego Region, Waiver of Waste Discharge Requirements (Waiver Policy) No. 17.

### **III. PROJECT DESCRIPTION**

The proposed project is to develop Planning Area 1 of the Ranch Plan. Planning Area 1 is the first planning area within the larger Ranch Plan proposed to be developed. The Ranch Plan area is one of the last large tracts of undeveloped land in Orange County. Development of the Ranch Plan is proposed to occur over a period of approximately 20 to 25 years. Additional waste discharge requirements and/or section 401 certification will be required for the development of subsequent Planning Areas.

#### The Ranch Plan

The approximately 22,815-acre Rancho Mission Viejo (the "Ranch Plan") site is located in southeastern Orange County and constitutes the remaining undeveloped portions of Rancho Mission Viejo located within unincorporated Orange County (Figures 1 and 2). The planned community of Ladera Ranch and the cities of Mission Viejo, San Juan Capistrano, and San Clemente border the project site on the west. The City of Rancho Santa Margarita borders the northern edge of the project site; the United States Marine Corps Base (MCB) Camp Pendleton in San Diego County borders the southern edge; and Caspers Wilderness Park and the Cleveland National Forest, as well as several private properties in Riverside and San Diego counties, border the site on its eastern edge. Within the Ranch Plan site are several major public facilities and utilities, including the Santa Margarita Water District (SMWD) Chiquita Water Reclamation Plant, located in Chiquita Canyon. Several creeks are located within the boundaries of the Ranch Plan. Just north of Ortega Highway, San Juan Creek flows in an east-west direction through the site. San Juan Creek is a major drainage basin that discharges into the Pacific Ocean in the vicinity of the City of Dana Point. Major tributaries to San Juan Creek are Arroyo Trabuco, Oso Creek, Cañada Chiquita, Cañada Gobernadora, Bell Canyon Creek, and Verdugo Canyon Creek. Cristianitos Creek is located south of Ortega Highway and traverses the project site in a north-south direction. Major tributaries to Cristianitos Creek within the project site are Gabino Canyon Creek, La Paz Creek, and Talega

The Ranch Plan proposes up to 14,000 dwelling units, as well as retail, office, and recreational uses, within a development area of approximately 7,694 acres. The remaining 15,121 acres would be retained in open space. Infrastructure would be constructed to support all of these uses, including road improvements, utility improvements, and schools. Ranching and agricultural activities would be retained within a portion of the proposed open space area.

#### Planning Area 1 (proposed project)

Planning Area 1 is one of ten delineated planning areas that comprise the Ranch Plan project. Planning Area 1 includes 810 acres located east of the City of San Juan Capistrano in the vicinity of Antonio Parkway and Ortega Highway and immediately south of the Ladera Ranch Planned Community. Ortega Highway traverses the

southern portion of the planning area in a southwest to northeast direction. Antonio Parkway traverses the planning area in a generally north-south direction. San Juan Creek bisects the planning area.

Existing land uses within planning area 1 (Project area) include ranching, agriculture, equestrian corrals, and nursery operations. The land use plan for the 810-acre project area includes 488 acres of gross residential, 84 acres for an urban activity center, and 238 acres of open space that is anticipated to be dedicated as habitat reserve area (Figure 3). The urban activity center includes internal roadways, local streets, some residential development, retail commercial, a wellness center, local and community parks, trails, community facilities and open space uses. Subarea plans further define land uses in five separately defined areas.

In addition to the development within the Planning Area, the Discharger is seeking authorization to discharge fill to accommodate roadways that extend beyond the development boundary. These projects include widening Ortega Highway, Antonio Parkway, and La Pata Avenue and constructing Cow Camp Road.

#### Description of Waters and Fill Activities

The proposed Project would preserve San Juan Creek through the project area, while effectively eliminating all waters of the State and U.S. within the Project's footprint areas. This is consistent with the Special Area Management Plan (SAMP) for aquatic resources being lead by the U.S. Army Corps of Engineers (Corps) for the area<sup>2</sup>. The purpose of the SAMP process is to identify the most valuable surface water resources in the area and then guide future development permitting in a way to provide for the sustainable existence of the aquatic resources. In practice, the Corps would use the SAMP to streamline Clean Water Act Section 404 permitting in the area. In other words all aquatic resources within the development footprints would be filled in exchange for large-scale preservation of key areas (Figure 5).

The Project site contains 13 distinct water features subject to U.S. and/or State jurisdiction within the footprint that would be eliminated. In addition, small portions of San Juan Creek would receive temporary or permanent fills in order to provide infrastructure such as stormdrain outfalls and roadways (Figure 4). The Discharger proposes to place fill material into 6.53 acres (13,663 linear feet) of waters of the State. Of that, 3.57 acres (470 linear feet) are temporary, meaning that the discharge area will be restored to conditions supportive of beneficial uses. The remaining 2.96 acres are considered discharges of fill that will permanently eliminate the affected waterbodies. The discharge of fill to 6.23 of the 6.53 acres (12,449 linear feet) requires permitting subject to sections 401 and 404 of the federal Clean Water Act [33 USC 1342 & 1344] because the fill locations were determined by the Corps to be federal waters of the U.S.

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<sup>2</sup> *San Juan Creek and Western San Mateo Watershed Special Area Management Plan*, November 2005. U.S. Army Corps of Engineers, Los Angeles District.

The discharge of fill to the remaining 0.30 acres of waters of the State (1,214 linear feet) was determined by the Corps to be outside of federal jurisdiction and is, therefore, subject to permitting from the State, but not the Corps. All discharges to the non-federal waters are considered permanent. Table 1 outlines the proposed permanent and temporary fill associated with the development and permanent infrastructure.

**Table 1. Acres of Proposed Fill**

Jurisdictional Waters	Planning Area Development Permanent Discharges	Permanent Infrastructure Outside of Development Planning Area (e.g., roads)	Total Area of Permanent Discharges	Area of Temporary Discharges	Total Temporary and Permanent Discharge
Federal Wetland	0.04	0.1	0.14	0.79	0.93
Federal Non-Wetland (Vegetated and unvegetated)	2.37	0.15	2.52	2.78	5.30
<b>Total Federal</b>	<b>2.41</b>	<b>0.25</b>	<b>2.66</b>	<b>3.57</b>	<b>6.23 acres (12,449 linear feet)</b>
State-Only Wetland	0.09	0.00	0.09	0.00	0.09
State-Only Non-Wetland (Vegetated and unvegetated)	0.21	0.00	0.21	0.00	0.21
<b>Total State-Only</b>	<b>0.30</b>	<b>0.00</b>	<b>0.30</b>	<b>0.00</b>	<b>0.30 acres (1,214 linear feet)</b>

#### IV. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Before the Regional Board can issue an affirmative water quality certification, it must be provided a final, valid environmental document meeting the criteria of the California Environmental Quality Act (CEQA). The CEQA document must fully disclose the potential significant adverse impacts of the project and identify measures to avoid, minimize, rectify, reduce or compensate for the impacts identified and to include a monitoring and reporting program to ensure compliance with the proposed mitigation measures.

According to the CEQA Guidelines “mitigation” includes any of the following:

1. Avoiding the impact altogether by not taking an action or part of an action;
2. Minimizing the impact by limiting the degree or magnitude of the action;
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
4. Reducing or eliminating the impact over time by preservation or maintenance actions; or
5. Compensating for the impact by providing replacement or substitute resources or environments.

### Program EIR

In November 2004, the County of Orange certified a Program Environmental Impact Report (EIR No. 589, State Clearinghouse No. 2003021141) that was prepared to address the potential environmental impacts associated with developing the proposed Ranch Plan project. This Program EIR is further intended to serve as the primary environmental document for all future entitlements associated with the proposed Ranch Plan project including all discretionary approvals requested or required for project construction and operation. A lead agency can approve subsequent actions without additional environmental documentation unless otherwise required by Public Resources Code Section 21166, and CEQA Guidelines §§15162 and 15168.

The EIR describes potential significant environmental effects of the proposed project, measures to mitigate project impacts to the extent feasible, and the expected status of effects following the implementation of the mitigation program. The mitigation program is comprised of project design features (PDF), standard conditions and regulations, and mitigation measures, which all serve to reduce potential environmental impacts.

CEQA requires that areas of controversy or unresolved issues be identified up front as part of the EIR. As described in the EIR, the Ranch Plan EIR is a Program EIR that addresses a comprehensive land and conservation program at a General Plan and zoning level, and discusses a number of components for which final design has not occurred. These types of unresolved issues would be resolved during the plan implementation and subsequent approval process. Examples include the final size and design of water quality/retention basins, specific residential product types, development amenities, and internal trail network and design layouts. The components have been designed at a conceptual level for purposes of analysis in the Program EIR. Final details would be provided and evaluated when Area Plans and tentative tract maps are processed.

At the time of CEQA approval from the County for the Ranch Plan, therefore, final stormwater management and biological resource mitigation plans had not been developed. The EIR requires deferred development of the specific plans to mitigate various potential significant adverse impacts associated with each Planning Area. For instance, the Program EIR relies on a Conceptual Water Quality Management Plan (WQMP) for the entire Ranch Plan area, but it requires that three additional levels of WQMPs be prepared in conjunction with the County's project review process. The more specific levels of WQMP development include a Master Area Plan WQMP for each Planning Area, a Sub-Area Plan WQMP, and the final project-specific WQMP. Each of the later WQMPs must conform to the Conceptual WQMP that was prepared for the EIR, but with additional details applicable to the design phase.

The Program EIR identified mitigation measures to reduce project impacts to water quality and beneficial uses. Some mitigation measures require the development of plans at the Planning Area level, others at the Sub-Area or project-specific level. Some mitigation measures apply to specific Planning Areas. The identified Project impacts and required mitigation measures for water resources are summarized in Attachment 1. The Program EIR states that after implementation of the mitigation measures, all water resource impacts are reduced to a level of less than significant, except for pathogens.

The Discharger has proposed mitigation for the impacts to waters of the State and beneficial uses that are consistent with the required EIR mitigation measures. Although the EIR deferred development of the mitigation plans, the Regional Board has reviewed the mitigation plans developed specifically for Planning Area 1 (the Project area) and the Tentative Order will require further refinement as appropriate to ensure water quality standards are protected.

#### Coordinated Planning Process and Planning Principles

The Ranch Plan has been developed as part of an ongoing coordinated public planning process that anticipates the preparation of two other major planning and regulatory programs. The first is the Southern Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP), which is being prepared by the County of Orange in cooperation with the California Department of Fish and Game (CDFG) and the U.S. Fish and Wildlife Service (USFWS). The second major planning effort is a Special Area Management Plan/Master Streambed Alteration Agreement (SAMP/MSAA), which addresses impacts to aquatic resources subject to the requirements of the federal Clean Water Act (CWA) (Section 404) and the state Fish and Game Code (Sections 1600-1603). The entire Ranch Plan area is within the planning areas for the other two programs.

All three planning processes (General Plan EIR, SAMP, and NCCP) were developed in consideration of a set of Watershed and Sub-Basin Planning Principles<sup>3</sup> that were created by a NCCP/SAMP working group. These principles provide a framework for planning based on biologic, hydrologic, and geomorphic conditions. This is a significant departure from typical urbanization planning in southern California and represents a significant step toward predicting the effects to aquatic resources from development scenarios. As a result, planners involved in the coordinated planning process were able to guide future development zones toward areas that would result in a manner that would minimize the cumulative effects on aquatic resources.

The County of Orange certified the Ranch Plan Program EIR before the other two planning documents were finalized. In doing so, it recognized that there could be conflict with coordination of the other ones. In December 2004 two separate actions were filed in the Orange County Superior Court challenging the approval of the EIR. One was filed by the City of Mission Viejo and one was filed by a coalition of non-governmental organizations (Superior Court Case nos. 04CC01637 and 04CC11999, respectively). The parties reached full settlements and the lawsuits have been dismissed. The Ranch Plan was modified by the Discharger so that the outline of the Planning Areas would closely resemble the expectations of the SAMP and NCCP documents.

Draft Environmental Impact Statements (EIS) have been released for the SAMP and NCCP. The draft EIS for the SAMP was released by the U.S. Army Corps of Engineers (Corps) in January 2006, and the Corps has closed the public comment period. The draft EIS for the NCCP has been published and the comment period will close on September 18, 2006. The Corps expects to complete a final EIS for the SAMP once the NCCP is completed.

## **V. WATER QUALITY STANDARDS AND MITIGATION MEASURES**

Section 303 of the federal Clean Water Act (33 U.S.C. §1313) defines the term water quality standards as the uses of the surface waters, the water quality criteria which are applied to protect those uses, and an antidegradation policy<sup>4</sup>. A water quality standard defines the water quality goals for a water body by designating the use or uses to be made of the water body, by setting criteria to protect the uses, and by protecting water quality through non-degradation provisions. Under the Porter-Cologne Water Quality Control Act (California Water Code, Division 7, Chapter 2 §13050), these concepts are defined separately as beneficial uses and water quality objectives. Beneficial uses and

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<sup>3</sup> The Draft Watershed and Sub-Basin Planning Principles are included in the Ranch Plan Program EIR as Appendix G-3.

<sup>4</sup> Pursuant to the federal Clean Water Act, water quality standards are composed of three parts: (1) designated uses, e.g., protection of fish and wildlife, recreation and drinking water supply (40 C.F.R. 131.10); (2) numeric or narrative water quality criteria to protect those uses (40 C.F.R. 131.11); and (3) an antidegradation policy (40 C.F.R. 131.12).

water quality objectives are required to be established for all waters of the State, both surface and ground waters.

The larger Ranch Plan area is within both the Mission Viejo Hydrologic Area (HA 901.30) and the San Mateo Canyon Hydrologic Area (HA 901.40) of the San Juan Hydrologic Unit. The Project area for Planning Area 1 (Project area) includes San Juan Creek and surface waters within the Ortega Hydrologic Subarea (HSA 901.28).

Designated beneficial uses of inland surface waters within HSA 901.28 include the following: Agricultural Supply (AGR), Industrial Service Supply (IND), Contact Water Recreation (REC 1), Non-contact Water Recreation (REC 2), Warm Freshwater Habitat (WARM), Wildlife Habitat (WILD), and Cold freshwater habitat (COLD). In addition, San Juan Creek within the project area is used by threatened and/or endangered species that qualify for the RARE beneficial use. Designated beneficial uses of ground waters in the project area include Domestic Supply (MUN), Agricultural Supply (AGR), and Industrial Service Supply (IND).

Thirteen waterbody features (sum of federal and non-federal waters) would be completely filled to support the proposed project. This represents all the first and second-order waterbodies within the planning bubble. The fill will eliminate beneficial uses of those waterbodies. Indirect effects to water quality and beneficial uses within San Juan Creek may also be expected downstream of fill discharges because of lost upstream pollutant assimilative capacity and infiltration and the hydromodification effects of converting the stream network into a stormwater management system. A quantitative functional analysis for the Project area concluded that the waterbodies to be filled in currently provide variable levels of water resource functions<sup>5</sup>.

The Project also proposes some modifications to San Juan Creek. The discharge of material within San Juan Creek to create stormdrain outfalls and energy dissipation may degrade WARM and WILD beneficial uses because riprap is typically a lower quality substrate than natural channel beds for vegetation and wildlife. Stormwater and dry-weather discharges to San Juan Creek also have the potential to affect water quality, sediment transport, and the flow regime, all of which could negatively impact beneficial uses if not mitigated.

The Project proposes to use infiltration-based practices (e.g., detention and retention basins) to treat potential pollutants in stormwater and dry-weather runoff in certain areas. Any drainage feature that infiltrates runoff poses some risk of potential groundwater contamination. Although dependent on several factors, the risks typically associated with properly managed infiltration of runoff (especially from residential land use areas) are not significant. The risks associated with infiltration can be managed by many techniques, including (1) designing landscape drainage features that promote infiltration of runoff, but do not “inject” runoff (injection bypasses the natural processes

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<sup>5</sup> *Draft Hybrid Wetland Functional Assessment*. Glenn Lukos Associates, July 2006.

of filtering and transformation that occur in the soil); (2) taking reasonable steps to prevent the illegal disposal of wastes; and (3) ensuring that each drainage feature is adequately maintained in perpetuity. The Discharger expects that the proposed BMPs will be sufficient to protect the quality of groundwater, but does note that infiltration of runoff may lead to increased groundwater discharges to San Juan Creek (e.g., increased baseflows). Minimum conditions needed to protect groundwater and assess potential effects to San Juan Creek are specified in Tentative Order No. R9-2006-0104.

Tentative Order No. R9-2006-0104 establishes requirements to implement mitigation plans in order to avoid, minimize, rectify, reduce, or compensate for the impacts to water resources associated with the planned discharges of fill to waters of the State/U.S. Those requirements include restoration and enhancement of water resources and the use of best management practices to protect receiving waters from pollutants in stormwater discharges.

### Impaired Water Bodies

No waterbodies within the Project area are on the current Clean Water Act Section 303(d) list of impaired waterbody segments, but San Juan Creek further downstream of the project area is listed for bacteria indicators. Bacteria indicators threaten attainment of the REC-1 and REC-2 beneficial uses. The project area currently supports agriculture, nursery, and grazing operations that may contribute nonpoint pollution sources of indicator bacteria to San Juan Creek. The proposed Project will likely eliminate some of those sources and add sources related to urban land uses.

The Program EIR concludes, however, that proposed draft mitigation measures may not reduce the impacts to water resources from pathogens to below a level of significance. Consistent with the EIR, measures have been proposed by the Discharger at the Planning Area and Sub-Area levels to mitigate excessive indicator bacteria and pathogen loadings to San Juan Creek from the proposed Project development. These measures include site design, source control, and treatment management practices (BMPs) as proposed in the *Master Area / Sub-Area Water Quality Management Plan (WQMP) for the Ranch Plan Planning Area 1*, Geosyntech Consultants, Inc. April 2006).

The proposed Project WQMP has been designed with consideration for a draft Total Maximum Daily Load (TMDL) for all inland surface waters impaired by indicator bacteria recently developed by the Regional Board. The TMDL will establish waste load allocations for the urban areas contributing sources of bacteria to the impaired waterbodies. The TMDL proposes to set separate numerical targets for dry weather and wet weather conditions. The WQMP identifies bacteria as a pollutant of concern and proposes site design, source control, and treatment best management practices (BMPs) to address potential bacteria and pathogen discharges. To complement site design and source control BMPs, the WQMP is designed to prevent excessive discharges of dry-weather runoff to San Juan Creek by the use of basins that allow for either infiltration of dry-weather flows or will store runoff for irrigation use. The WQMP

recognizes that the proposed BMPs will likely not prevent the discharges of bacteria to San Juan Creek during storm events. In addition, the BMPs were selected to prevent discharges of loads that would likely result in exceeding the proposed wet-weather numerical criteria of the TMDL.

### Habitat Creation and Enhancement

Habitat mitigation for the proposed Project would be implemented through an *Aquatic Resources Habitat Restoration* Plan prepared for the EIR and SAMP. Permanent loss of wetland habitat and other vegetated waters (e.g., streambeds that have either non-wetland vegetation or non-wetland soils) would be mitigated through dedication of wetland acreage at the existing Gobernadora Ecological Restoration Area (GERA). Compensatory mitigation for permanent loss of non-wetland waters is proposed to consist of removal of exotic, invasive vegetation from San Juan Creek in accordance with the *Rancho Mission Viejo Invasive Species Control Plan* (July 13, 2006, Glenn Lukos Associates, Inc.). The Invasive Species plan was developed for the SAMP.

The GERA is a riparian and wetland habitat creation site within lower Canada Gobernadora that was established in 1994 by the Discharger during development of an earlier project (The Ladera Community, 401 Certification no. 98C-022). The created mitigation area was oversized to allow it to be used for future, planned mitigation needs (Figure 6). GERA as wetland mitigation is proposed because of the successful development of wetlands there, which have attracted endangered species. In 2004, the Corps determined that the compensatory mitigation for the Ladera project was successful and that any additional created wetlands at GERA could be used for future mitigation. The Corps' Draft SAMP estimates that implementation of the entire Ranch Plan will use up all the unallocated wetland mitigation areas at GERA. Invasive species removal is proposed to mitigate for non-wetland fills because the SAMP process identified the eradication of exotic, invasive species in San Juan Creek and tributaries as a high priority for meeting the SAMP objectives of long-term viability of the aquatic resources.

The Discharger has prepared a *Draft Hybrid Wetland Functional Assessment* (July 2006, Glenn Lukos Associates, Inc.) in support of the proposal to implement an invasive species control plan in San Juan Creek as mitigation for direct fill to low-order streambeds. This model was prepared at the request of the Regional Board to provide a quantitative demonstration that invasive species removal would compensate for the elimination of numerous ephemeral streambeds. The hybrid assessment is a model that uses variables from several quantitative assessment techniques. The assessment was first submitted with the 401 application package, and then resubmitted following comments to slightly revise the model parameters. Pre-project and post-project conditions are evaluated. The revised assessment shows that the proposed invasive species control program would result in a functional gain that exceeds the lost functions of the eliminated unvegetated streambeds. The streambeds proposed to be filled by

the project have been subject to disturbance from previous agricultural and grazing land uses.

The Discharger has proposed mitigation acreage ratios of 1:1 for all areas of fill. This is reasonable for the wetland component given the high quality of the GERA wetlands. The Discharger has also demonstrated through the functional assessment that such a ratio for invasive species removal will provide more than a 1:1 functional replacement for the loss of the on-site streambeds. In addition, implementation of the SAMP will ensure that the highest value aquatic resources in the Ranch Plan are maintained in a manner that will ensure long-term viability. Without the comprehensive planning efforts that provide the context for the mitigation program, invasive species removal would likely not be an acceptable mitigation proposal for the significant loss of streambeds.

The objectives of the Invasive Species Control Plan (Invasive Plan) is to identify, eradicate, and provide long-term adaptive management measures for abating the effects of invasive species in the Ranch Plan area. The Invasive Plan is one element of the overall Adaptive Management Program developed by the Discharger to comply with the terms of the SAMP and NCCP<sup>6</sup>. As a result, the Discharger's development plans include a funding mechanism for the long-term monitoring and maintenance of the proposed mitigation areas for Planning Area 1 and the rest of the Ranch Plan. Long-term success of invasive eradication will also require cooperation from entities that control the upper portions of watersheds within the Ranch Plan area. Those entities include the County of Orange (Caspers Regional Park and unincorporated developed area of Coto de Caza), the National Audubon Society (Starr Ranch), and the Cleveland National Forest.

The proposed mitigation is consistent with requirements of the conservation strategy identified in the Program EIR as mitigation measures for impacts to biological resources. The EIR requirements include a monitoring program to ensure that the conservation strategy is successful. The Monitoring and Reporting Plan for Tentative Order No. R9-2006-0104 is based on the proposed monitoring plan.

The County of Orange is expected to be the responsible for long-term management and oversight of the streambed mitigation areas of the Ranch Plan. The proposed streambed mitigation site and other preserved streambeds (and vernal pools) will be transferred to the County as open space. Provided the funding mechanism is adequate to implement the conservation strategy outlined in the EIR, there is a reasonable expectation for success.

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<sup>6</sup> The *Adaptive Management Program* is included as Appendix J to the Program EIR. It includes the following components: Plant Species Translocation, Propagation and Management Plan; Habitat Restoration Plan; Invasive Species Control Plan; Grazing Management Plan; and a Fire Management Plan. The Invasive Species Control Plan is also included in the November 2005 Draft EIS for the SAMP as Appendix F.

Compliance with National Pollutant Discharge Elimination System (NPDES)  
Requirements for the Discharge of Pollutants in Urban Runoff and Stormwater

The proposed project may threaten beneficial uses through the discharge of pollutants into tributaries of and directly to San Juan Creek in urban runoff and stormwater (e.g., oil and grease, sediments, heavy metals, pathogens, nutrients, trash, etc.) during project construction and the subsequent proposed land use. The Discharger proposes to mitigate the potential threats to beneficial uses by implementing appropriate construction and post-construction plans that rely on the use of best management practices (BMPs) consistent with NPDES requirements. A monitoring program has also been proposed to assess hydrologic conditions of concern from discharges of stormwater.

During construction, the Project will be subject to State Board Order No. 99-08-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, *Waste Discharge Requirements (WDRs) For Discharges Of Storm Water Runoff Associated With Construction Activity*. The Tentative Order calls for compliance with Order No. 99-08-DWQ. CEQA mitigation provisions require the Discharger to develop and implement an erosion control plan with appropriate measures to restrict sediments from leaving the site and to mitigate the effect of increased runoff at points of discharge.

*Stormwater Treatment.* The Discharger has proposed to implement a plan for the management of post-construction stormwater discharges associated with the proposed project (*Master Area / Sub-Area Water Quality Management Plan [WQMP] for the Ranch Plan Planning Area 1*, April 2006, Geosyntec Consultants, Inc). Treatment BMPs proposed in the WQMP for Planning Area 1 include dry extended basins, retention basins and/or lakes; vegetated swales; bioretention areas; and media filtration (Figure 7). The WQMP lays out two options one portion of the project, in which a lake would replace swales and a detention basin in a portion of Sub-Area 1.1. Per the Program EIR, project-specific WQMPs will be developed as project details are refined for approval by the County of Orange in accordance with the municipal NPDES requirements. In addition a suite of site design and source control BMPs are proposed in the WQMP. The following table lists the proposed BMPs.

**Table 2. Proposed Water Quality Best Management Practices (BMPs)**

BMP Class	Proposed Water Quality BMP
Site Design	<ul style="list-style-type: none"> <li>• Minimize impervious area / maximize permeability</li> <li>• Minimize directly connected impervious areas</li> <li>• Conserve natural areas</li> <li>• Create reduced or “zero discharge” areas (runoff volume reduction)</li> </ul>
Source Control	<ul style="list-style-type: none"> <li>• Storm drain stenciling</li> <li>• Design trash storage areas to reduce pollutant introduction</li> <li>• Use efficient irrigation systems and landscape design</li> <li>• Protect slopes and channels</li> </ul>
Treatment	<ul style="list-style-type: none"> <li>• Extended detention basins</li> <li>• Retention basins / lakes</li> <li>• Vegetated swales</li> <li>• Bioretention areas</li> <li>• Media filtration</li> </ul>

The post-construction BMPs for stormwater discharges proposed by the Discharger and required by Tentative Order R9-2006-0104 are generally consistent with the current municipal NPDES requirements for the County of Orange in Regional Board Order No. R9-2002-0001<sup>7</sup>. Specifically, a combination of site design, source control, and treatment BMPs have been proposed. The treatment BMPs have been designed to mitigate, prior to discharging to receiving waters, the volume and/or flow-based numerical criteria established within the municipal NPDES permit requirements.

Post-construction treatment plans submitted by the Discharger for several of the proposed road projects outside the Planning Area development boundary lacked the level of detail and analysis provided for the development boundary in the WQMP for Planning Area 1. The Tentative Order requires conceptual treatment BMP plans for these roads be submitted for review before discharges associated with their construction commence.

*Hydrologic Conditions of Concern.* Hydrologic conditions of concern following construction include: Increased stormwater runoff velocities, volumes, and duration; Decreased infiltration and groundwater recharge; and Changed base flow. The potential for hydrologic conditions of concern in San Juan Creek were evaluated for the Project and considered not significant because the creek’s geomorphic and hydrologic conditions in the Project area are driven by large-scale watershed processes. In order

<sup>7</sup> Order No. R9-2002-0001, NPDES No. CAS0108740, Waste Discharge Requirements for Discharges of Urban Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds of the County of Orange, The Incorporated Cities Of Orange County, and the Orange County Flood Control District within the San Diego Region.

to verify that conclusion, the Discharger has proposed to implement a stream stability / geomorphology monitoring program in the vicinity of the stormdrain outfalls. This program is identified in the Program EIR as a Stream Monitoring Program<sup>8</sup>. Corrective measures would be implemented if monitoring results indicate the discharges are destabilizing streambed or riparian habitat. Tentative Order No. 2006-0104 requires implementation of the proposed stream monitoring program.

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<sup>8</sup> The Stream Monitoring Program is described as Mitigation Measure 4.5-8 of the Water Resources section in the Program EIR.

### Attachment 1 to Fact Sheet

Summary of Significant Impacts to Water Resources as identified in Table 1.7-1 of the Program EIR.

<b>Impacts to Water Resources</b>
Development of the project will result in increases in the rate and amount of surface flow runoff within certain portions of the developed watershed(s). However, these increases are relatively small and will be fully mitigated through the use of flood control detention basins.
Development of the project may result in reduced coarse sediment yields within certain sub-basins, especially during construction periods. However, these decreases are relatively minor when comparing existing and post-construction conditions.
In the absence of mitigation, development of the project would alter certain in-channel sediment transport processes, potentially affecting streambed/stream bank stability.
In the absence of mitigation, development of the project would have significant adverse impacts on storm water quality vis-à-vis increases in certain pollutants of concern, impacts to groundwater quality and increases in stream temperature.
Implementation of the project will result in significant and unavoidable impacts in the amount of pathogens entering into stormwater runoff.
In the absence of mitigation, implementation of the project would adversely impact water balance (i.e., inflows –versus- outflows) within the affected watershed(s) and sub-basins.

<b>Mitigation Program Summary for Water Resources</b>
<p>1. <u>Project Design Features</u></p> <p>The Watershed Planning Principles, developed as part of the NCCP/HCP and SAMP/MsAA, were utilized as a framework to minimize project impacts.</p> <p>Sufficient storage area is provided for runoff volumes to mitigate increases in peak discharges and to offset impacts of existing development.</p> <p>A conceptual Water Quality Management Plan (the Draft WQMP) has been developed for the proposed project in compliance with the County of Orange DAMP.</p> <p>Water captured in the water quality control system and in detention facilities, will be used, where possible, as a supplemental source of irrigation water.</p>
<p>2. <u>Standard Conditions</u></p> <p>The following drainage studies shall be submitted to and approved by the Manager, Subdivision and Grading: a drainage study of the project, a study evidencing that drainage patterns will not overload existing storm drains, and studies indicating how grading and drainage systems will allow building pads to be safe from inundation from rainfall runoff which may be expected from all storms up to and including the theoretical 100-year flood.</p>

The project applicant shall design provisions for surface drainage; design all necessary storm drain facilities extending to a satisfactory point of disposal for the proper control and disposal of storm runoff; and dedicate the associated easements to the County of Orange, if determined necessary. These improvements shall be constructed in a manner meeting the approval of the Manager, Construction.

The applicant shall design provisions for surface drainage, design all necessary storm drain facilities, and dedicate the associated easements to the County of Orange. These improvements shall be constructed in a manner meeting the approval of the Manager, Construction.

The subdivider shall participate in the applicable Master Plan of Drainage including payment of fees and the construction of the necessary facilities.

The subdivider shall not grant any easements over any property subject to a requirement of dedication or irrevocable offer to the County of Orange or the Orange County Flood Control District, unless such easements are expressly made subordinate to the easements to be offered for dedication to the County. Prior to granting any of said easements, a copy of the proposed easement shall be submitted for review and approval.

The applicant shall improve Regional Facilities as deemed necessary and appropriate by the Orange County Flood Control District.

The applicant shall submit a Runoff Management Plan for review and approval.

A WQMP identifying BMPs to control pollutant runoff shall be submitted for review and approval. The WQMP shall identify structural and non-structural measures specified in the current DAMP.

Compliance with the WQMP requirements shall be demonstrated, including implementation, construction, and installation of all structural BMPs, compliance with all non-structural BMPs, submission of an (O&M) Plan for all structural BMPs for review and approval, availability of copies of the project's approved WQMP for incoming occupants; agreement to pay for a Special Investigation from the County of Orange 12 months after the issuance of a Certificate of Use and Occupancy for the project to verify compliance with the approved WQMP and O&M Plan; and agreement to and recordation of one of the following: CC&R's; a water quality implementation agreement; or the final approved WQMP and O&M Plan.

Prior to the issuance of any grading or building permits, the applicant shall demonstrate compliance under California's General Permit for Stormwater Discharges Associated with Construction Activity by providing a copy of the NOI and a copy of the subsequent notification of the issuance of a WDID Number or other proof of filing. Projects subject to this requirement shall prepare and implement a SWPPP.

Prior to the issuance of any grading or building permit, the applicant shall submit an ESCP to demonstrate compliance with local and state water quality regulations for grading and construction activities. The ESCP shall identify proper coverage, storage, and security of construction and grading materials and waste to prevent transport into local waters.

### 3. Mitigation Measures

A detailed Runoff Management Plan ("ROMP") shall be prepared that covers the entire Ranch within the regional watersheds and sub-watersheds and is consistent with applicable Orange County criteria and OCHM and FCDM criteria. The ROMP shall separately cover the San Juan Creek watershed to the downstream boundary of the Ranch or the San Mateo Creek watershed to the County border and be independent from the preliminary analyses submitted as part of the GPA/ZC submittals. The ROMP shall verify that development of the Ranch Plan will not produce adverse hydraulic impacts during flood events, provide analysis of sufficient detail to evaluate and establish the size and alignment of flood control and storm drain facilities, and site selection choices for the retarding basins, water quality detention basins and other mitigation measures.

A Master Plan of Drainage ("MPD") shall be prepared showing all flood control, storm drain, and water quality features within the affected watershed(s).

A Master Area Plan WQMP shall be prepared consistent with the terms and content of the Draft WQMP and that provides detail for application within the individual Master Area Plans, including BMPs, facility sizing and location, and BMP operation and maintenance.

A Sub-Area Plan WQMP shall be prepared consistent with the terms and content of the Draft WQMP and that provides detail for application within the individual Sub-Area Plans, including BMPs, facility sizing and location, and BMP operation and maintenance.

Flood control detention facilities shall be constructed to provide hydrologic mitigation for increases in peak discharges. The detention basins will be designed as "off-line" from most of the major stream channels. Maintenance standards will be established for maximum depth of accumulated sediment in the forebay basins prior to removal. The outlet structure will be configured to control a wide range of flows, providing flow management from the 2- to 100-year flow event. It will also include an overflow spillway and a subdrain to ensure complete drainage within several days following a flow event.

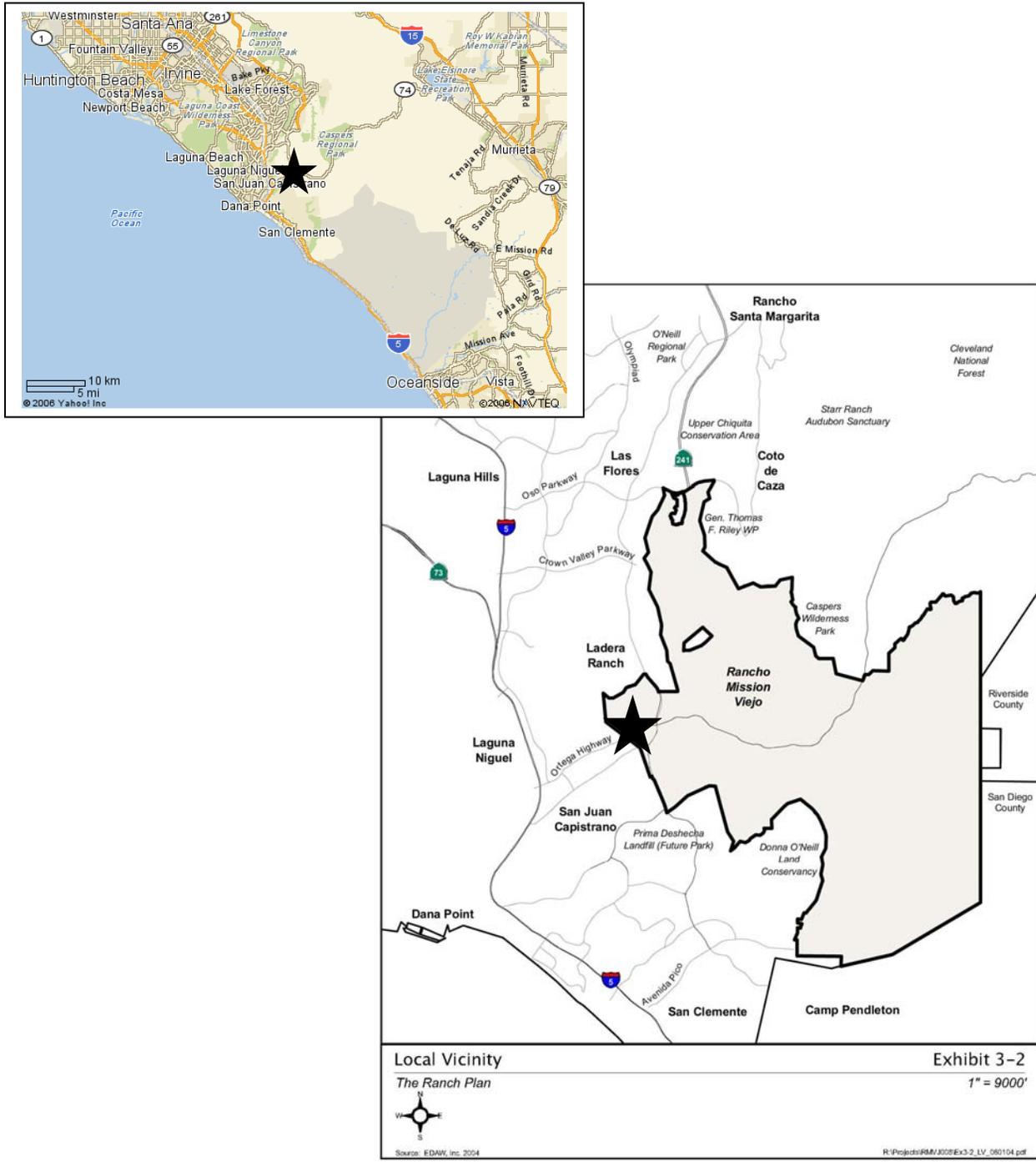
All developments will be designed in order to achieve flow duration matching, address the water balance, and provide for water quality treatment through a combined flow and water quality control system (termed combined control system).

A stream stabilization program shall be prepared that will be implemented by the HOA or other responsible entity to mitigate effects of local erosion associated with drainage system outlets from the development or downstream of detention basins.

A stream monitoring program shall be developed prior to the construction within the watershed which will include reporting requirements in order to observe changes in the natural alluvial stream system. The minimum program will include and address Stream Walks, Major Stream Cross Sections Monitoring, periodic aerial photography, evaluation of changes downstream of ponds and basins, and supplemental assessments.

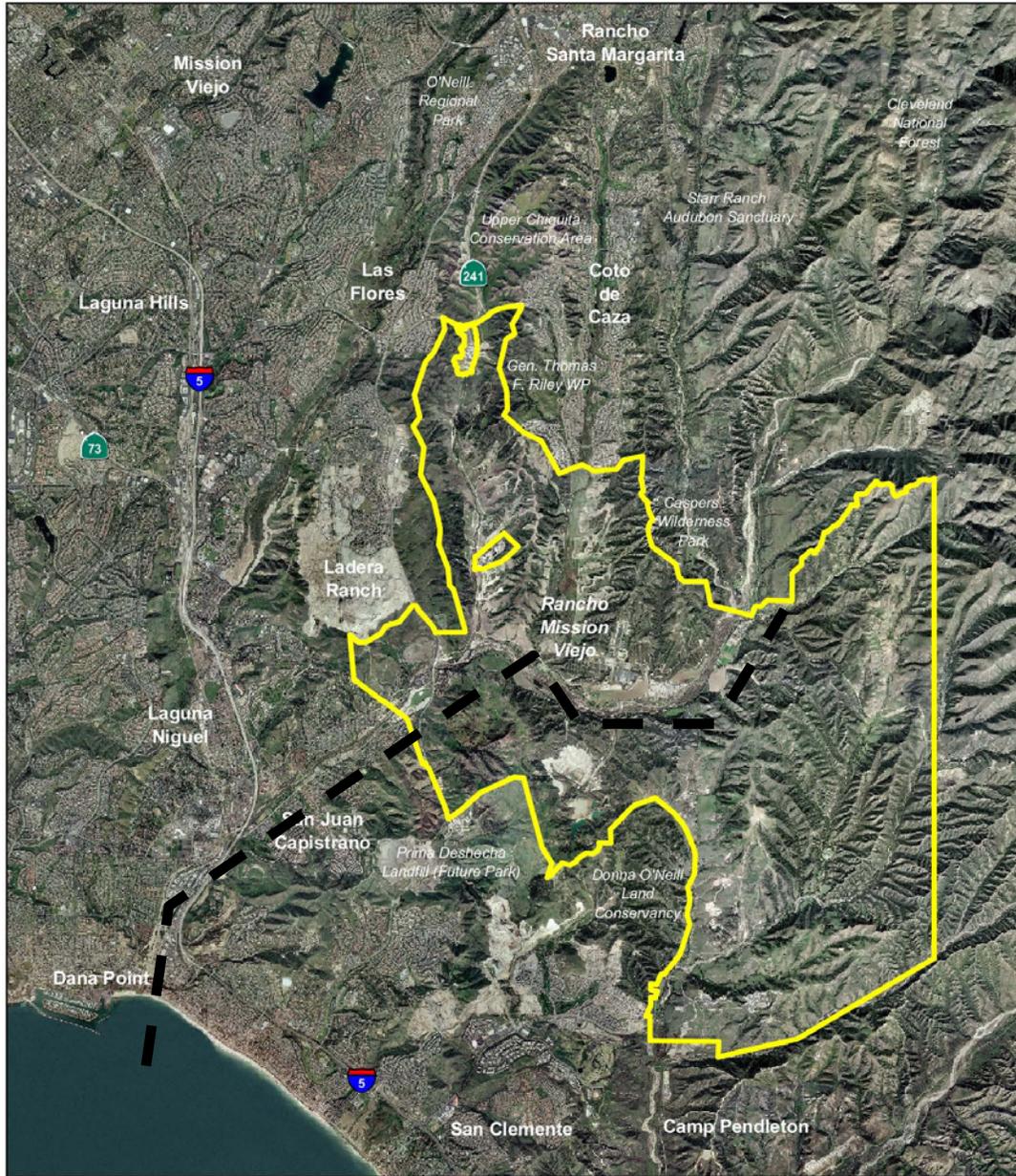
### Figure 1 Regional Location

The Ranch Plan project is located in unincorporated Orange County, east of San Juan Capistrano. The "stars" denotes approximate Planning Area 1 project.



### Figure 2 Project Aerial Photograph

The Ranch Plan project (solid line) is located north and south of San Juan Creek in the vicinity of Antonio Parkway and Ortega Highway. Dashed line represents San Juan Creek.



Aerial Photograph of the Project Site

Exhibit 3-3

The Ranch Plan

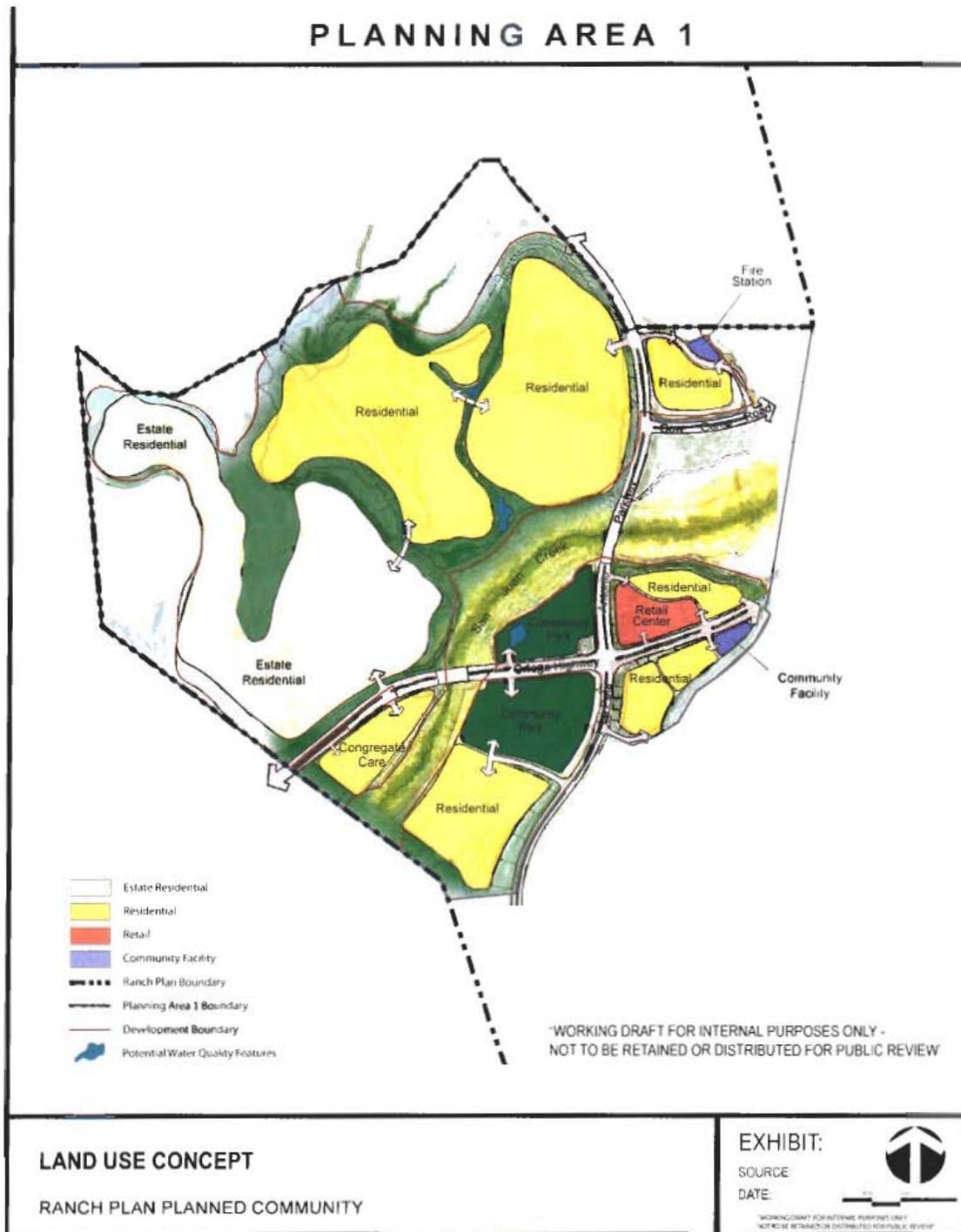
1" = 9,000'



Source: FDAW Inc 2004

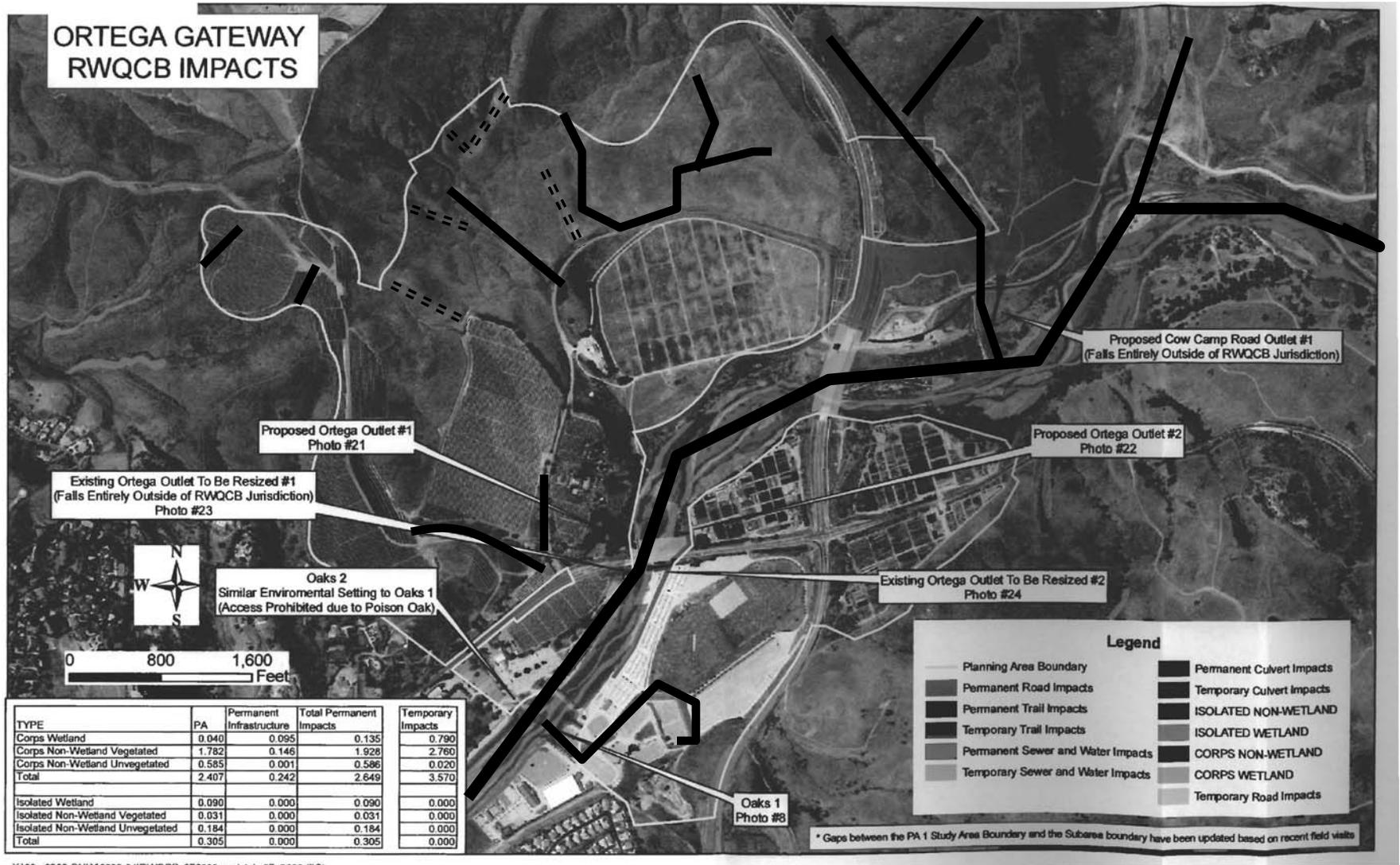
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**Figure 3**  
**Land Use Plan**



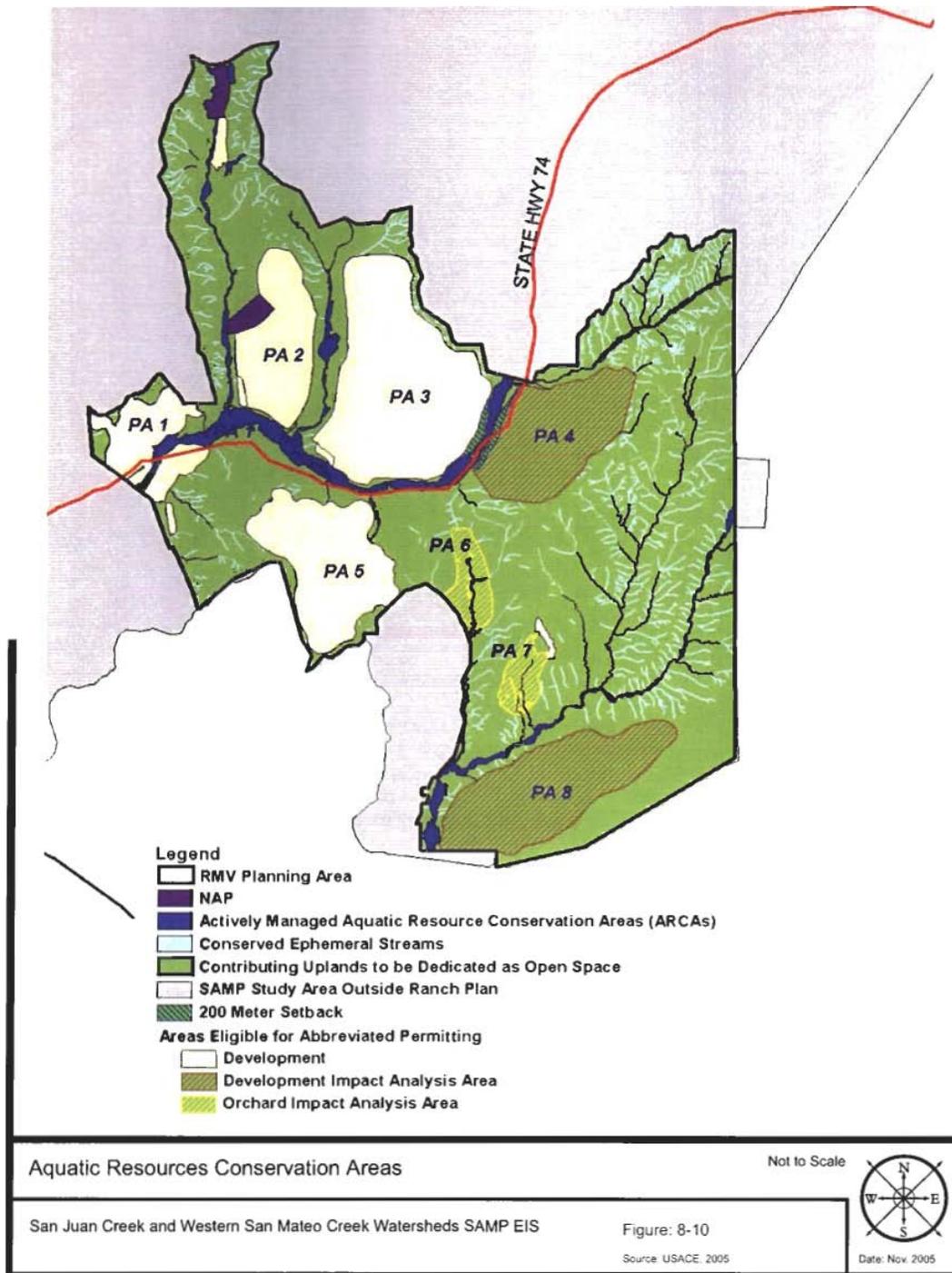
**Figure 4  
 Jurisdictional Areas Map**

Solid lines indicate areas of waters of the U.S./State, and dashed lines indicate non-federal waters of the State.



### Figure 5 Ranch Plan Aquatic Resource Conservation Areas

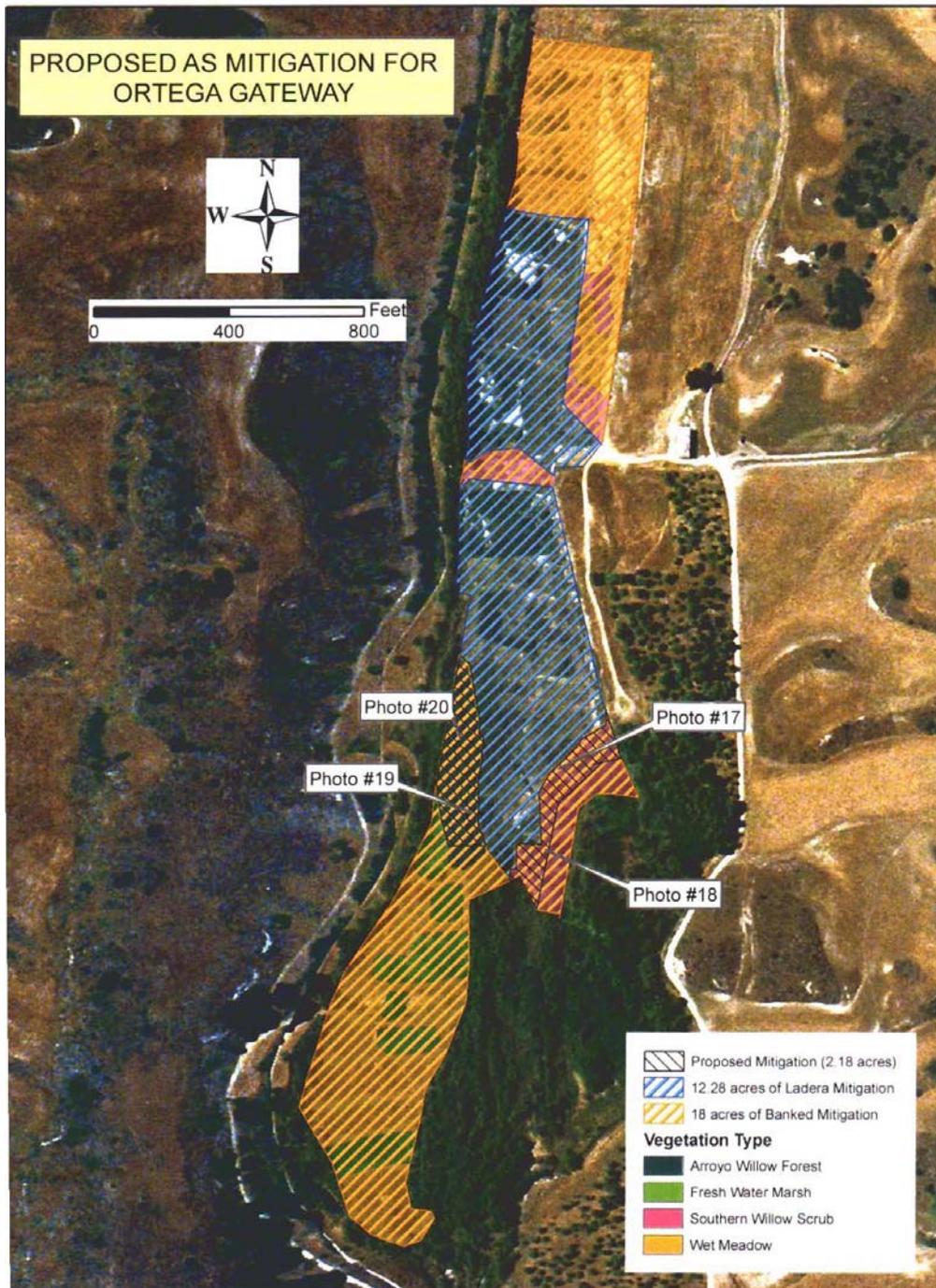
Planning Area 1 (PA 1) is part of the larger Ranch Plan for development and accompanying Aquatic Resource Conservation Plan created by the coordinated planning process.



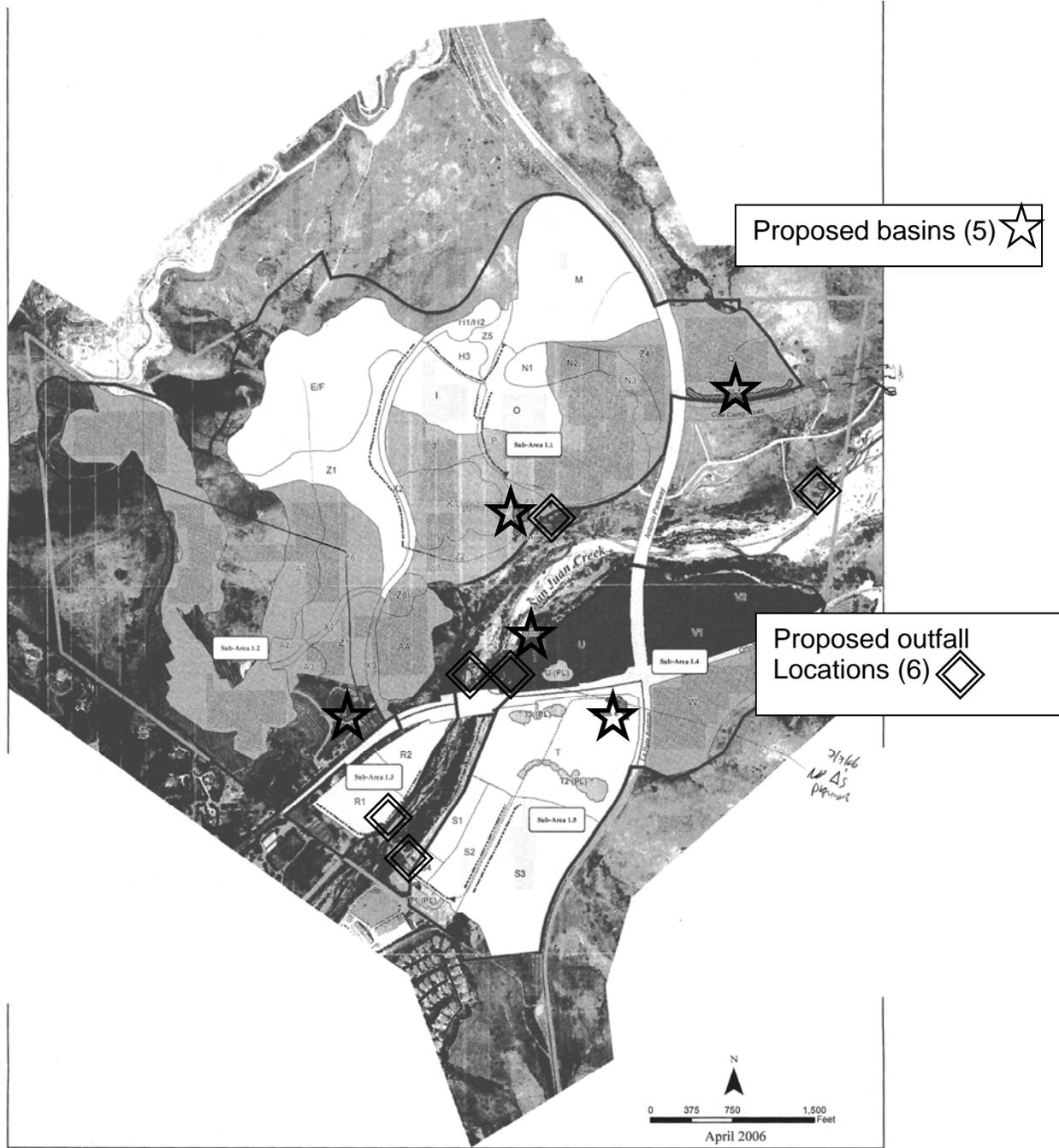
**Figure 6**

**Canada Gobernadora Mitigation Area Plan**

Mitigation for loss of vegetated waters is proposed within the Gobernadora Ecosystem Restoration Area in Canada Gobernadora.



**Figure 7**  
**Site Plan and Post-Construction Treatment BMPs**



Proposed basins (5) ☆

Proposed outfall Locations (6) ◇

**Figure 4:**  
**Water Quality Treatment Plan**  
**for the Base Option**