

## **2.7 Hydrology and Water Quality**

This section evaluates existing hydrology and water quality within the County, relative to the Project areas addressed in this SEIR, and the potential effects that implementation of the proposed Project may have on such resources. Water resources or characteristics considered in this section are the same as those addressed in the General Plan Update Program EIR and include groundwater, surface water, stormwater, water quality, and flooding conditions.

### **2.7.1 Existing Conditions**

This section provides new existing conditions information that has come to light since adoption of the General Plan Update in August 2011 with regard to hydrology and water quality within the unincorporated County as relates to the Project areas addressed in this SEIR. The remaining information in the General Plan Update Program EIR relative to this section applies equally to the Project areas addressed in this SEIR, and is therefore not repeated here.

#### **2.7.1.1 *Water Quality***

##### **Surface Water Quality**

Preparation of the General Plan Update Program EIR began after the U.S. Environmental Protection Agency (EPA) approved the 2008-2010 Clean Water Act (CWA) Section 303(d) List, and therefore did not include the most recent updates to the list of 303(d) water bodies for the San Diego Region. As a result, Table 2.8-1 from the General Plan Update Program EIR (*Water Bodies Identified as Impaired under the Clean Water Act*) is incorporated as Table 2.7-1 herein and the relevant information with respect to constituents of concern and water bodies has been updated for the watershed management areas (WMA) included in this table.

### **2.7.2 Regulatory Framework**

The regulatory framework discussion in the General Plan Update Program EIR as pertains to hydrology and water quality has not changed since adoption of the General Plan Update in August 2011, applies equally to the Project areas addressed in this SEIR, and is therefore not repeated here, with the exception of the following regulatory documents, as described below.

#### **2.7.2.1 *Regional/Local***

##### **San Diego Basin Plan**

Although preparation of the General Plan Update Program EIR began after adoption of the San Diego Basin Plan amendments by the Regional Water Quality Control Board (RWQCB), and therefore did not address the most recent updates to the Plan, the overall Basin Plan objectives as stated in the General Plan Update Program EIR did not change and apply equally to the proposed Project.

### **2.7.3 Analysis of Project Effects and Cumulative Impacts**

For the cumulative impact analyses, the geographic scope for each of the issues below would be the same as described and evaluated in the General Plan Update Program EIR, and as updated in Section 1.9 of this SEIR (Cumulative Project Assessment Overview). Particularly, the geographic scope of the cumulative impact analysis for hydrology and water quality includes all drainage basins, watersheds, water bodies, and groundwater basins relative to the Project areas addressed in this SEIR.

#### **2.7.3.1 Water Quality Standards and Requirements**

This section describes potential direct and cumulative impacts on water quality standards and requirements as pertains to the Project areas addressed in this SEIR.

##### Guidelines for the Determination of Significance

Based on Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact if it would violate any water quality standards or waste discharge requirements, or if it would degrade water quality. Groundwater impacts may be potentially significant in areas of the County where pollutants exceed their respective Primary State or Federal Maximum Contaminant Level (MCL).

##### Analysis

The General Plan Update Program EIR determined that buildout under the General Plan Update would result in the following potentially significant direct and cumulative impacts:

1. Increase in pollutants, such as sediments, hydrocarbons, and paints, and non-point source pollutants that would contribute to the degradation of surface water quality.
2. Future development of lands where impacts to groundwater quality are currently present, or in groundwater dependent areas where groundwater contamination has been identified.
3. Increase in non-point and point source pollutants in quantities that have the potential to violate water quality standards or waste discharge requirements.

These impacts would be reduced through the implementation of a combination of federal, State, and local regulations; existing County regulatory processes; the adopted General Plan Update goals and policies; and, specific mitigation measures and implementation programs identified in the General Plan Update Program EIR; however, impacts would not be reduced to below a level of significance because the full suite of these and other mitigation measures considered and addressed in the General Plan Update Program EIR were found to be infeasible by the County for the reasons given in Section 2.8.4.1 of that EIR (and repeated in Section 2.7.4.1 below).

Similar direct and cumulative effects would occur with future development of the Project areas addressed in this SEIR, which could result in substantial degradation of surface water or groundwater quality from grading/soil disturbance. Such activities would have the potential to

increase erosion, slope runoff, and/or the release of other pollutants (e.g. hydrocarbons, hazardous materials, nutrients from fertilizers, oil and grease, heavy metals) in quantities that may exceed water quality standards or waste discharge requirements, and otherwise degrade water quality. Such impacts would also be cumulative in nature as they would contribute to water quality degradation on a regional level, when combined with other development allowed under the General Plan Update.

The potential significant impacts on water quality standards, waste discharge requirements and water quality degradation resulting from implementation of the proposed Project would be reduced by the same regulations, implementation programs (General Plan Update goals/policies) and mitigation measures from the General Plan Update Program EIR and repeated in Section 2.7.4.1 (Mitigation for Water Quality Standards and Requirements) below; however, even with these programs in place, the impacts would not be reduced to below a level of significance due to the infeasibility of mitigation measures as discussed in Section 2.7.4.1. As such, implementation of the proposed Project would result in significant and unavoidable direct and cumulative impacts related to water quality standards, waste discharge requirements and water quality degradation.

### **2.7.3.2 *Groundwater Supplies and Recharge***

This section describes potential direct and cumulative impacts on groundwater supplies and recharge as pertains to the Project areas addressed in this SEIR.

#### **Guidelines for the Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact if it would substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

#### **Analysis**

The General Plan Update Program EIR determined that buildout under the General Plan Update would result in potentially significant direct and cumulative impacts related to groundwater supplies and recharge. These impacts would be reduced through implementation of a combination of federal, State, and local regulations; existing County regulatory processes; the adopted General Plan Update goals and policies; and, specific mitigation measures and implementation programs identified in the General Plan Update Program EIR; however, impacts would not be reduced to below a level of significance because the full suite of these and other mitigation measures considered and addressed in the General Plan Update Program EIR were found to be infeasible by the County for the reasons given in Section 2.8.6.2 of that EIR (and in Section 2.7.4.2 below).

Similar direct and cumulative effects would occur with future development of the Project areas addressed in this SEIR, which could result in substantial depletion of groundwater supplies/recharge from installation and use of wells. The proposed Project includes areas located over groundwater basins that are currently experiencing groundwater supply impacts, including: 1) areas that experience a 50 percent reduction of groundwater in storage; 2) areas that may be currently impacted by the combined drawdown of existing wells; 3) areas that experience a high frequency of low well yield; and, 4) Borrego Valley (not affected by the FCI); refer to also to Figure 2.7-1, Aquifer Types within the County, and Figure 2.7-2, Potential for Low Well Yield. The proposed Project would allow future development to occur in these areas (with exception of Borrego Valley), thereby increasing demand on groundwater supplies that are already depleted. Additionally, areas potentially affected by the Project and identified in the General Plan Update Program EIR as being impacted by large quantity groundwater users (thereby straining the local groundwater supply) include portions of the Ramona CPA, Central Mountain CPA, and Mountain Empire Subregion. Furthermore, areas with a high frequency of wells with low well yields that could potentially be affected by the Project include portions of Ramona CPA and Mountain Empire Subregion. Such impacts would also be cumulative in nature as they would contribute to the depletion of the underlying aquifers on a regional level, when combined with other development allowed under the General Plan Update.

The potential significant impacts on groundwater supplies and recharge resulting from implementation of the proposed Project would be reduced by the same regulations, implementation programs (General Plan Update goals/policies) and mitigation measures from the General Plan Update Program EIR and repeated in Section 2.7.4.2 (Mitigation for Groundwater Supplies and Recharge) below; however, even with these programs in place, the impacts would not be reduced to below a level of significance due to the infeasibility of mitigation measures as discussed in Section 2.7.4.2. As such, implementation of the proposed Project would result in significant and unavoidable direct and cumulative impacts related to groundwater supplies and recharge.

### **2.7.3.3 Erosion or Siltation**

This section describes potential direct and cumulative impacts on erosion or siltation as pertains to the Project areas addressed in this SEIR.

#### **Guidelines for the Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact if it would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or offsite.

## Analysis

The General Plan Update Program EIR determined that buildout under the General Plan Update would result in potentially significant direct and cumulative impacts related to excessive erosion or siltation, despite compliance with the National Pollutant Discharge Elimination System (NPDES) permit program which requires implementation of stormwater pollution protection plans (SWPPP) and best management practices (BMPs), as well as conformance with the County Water Protection Ordinance (WPO). These impacts would be reduced to below a level of significance through implementation of a combination of federal, State, and local regulations; existing County regulatory processes; the adopted General Plan Update goals and policies; and, specific mitigation measures and implementation programs identified in the General Plan Update Program EIR.

Similar direct and cumulative effects on erosion or siltation would occur with future development of the Project areas addressed in this SEIR, which could result in substantial temporary or permanent alteration of existing drainage patterns or stream flows from grading/soil disturbance. Such activities would have the potential to increase the rate or amount of surface runoff that may in turn result in soil erosion/siltation onsite or offsite. Such impacts would also be cumulative in nature as they would contribute to erosion or siltation effects on a regional level, when combined with other development allowed under the General Plan Update.

Therefore, the potentially significant direct and cumulative effects on erosion or siltation resulting from implementation of the proposed Project would be significant and would be reduced to below a level of significance by the same regulations, implementation programs (General Plan Update goals/policies) and mitigation measures from the General Plan Update Program EIR and repeated in Section 2.8.4.3 (Mitigation for Erosion or Siltation) below. No additional measures would be required.

### **2.7.3.4 Flooding**

This section describes potential direct and cumulative impacts on flooding as pertains to the Project areas addressed in this SEIR.

#### Guidelines for the Determination of Significance

Based on Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact if it would substantially alter the existing drainage pattern of the site or area, including alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite.

## Analysis

The General Plan Update Program EIR determined that buildout under the General Plan Update would result in potentially significant direct and cumulative (i.e., watersheds that border

U.S./Mexico) impacts related to flooding, despite compliance with the NPDES permit program and conformance with the County WPO. These impacts would be reduced to below a level of significance through the implementation of a combination of federal, State and local regulations; existing County regulatory processes; the adopted General Plan Update goals and policies; and, specific mitigation measures/ implementation programs identified in the General Plan Update Program EIR.

Similar direct and cumulative effects would occur with future development of the Project areas addressed in this SEIR, which could result in substantial temporary or permanent alteration of existing drainage patterns or stream flows (due to grading), and/or contribute to an increase in impervious surfaces. Such activities would ultimately have the potential to increase the rate or amount of surface runoff that may in turn result in flooding onsite or offsite. Such impacts would also be cumulative in nature as they would contribute to erosion or siltation effects on a regional level, when combined with other development allowed under the General Plan Update.

Therefore, the potentially significant direct and cumulative effects on flooding resulting from implementation of the proposed Project would be significant and would be reduced to below a level of significance by the same regulations, implementation programs (General Plan Update goals/policies) and mitigation measures from the General Plan Update Program EIR and repeated in Section 2.8.4.4 (Mitigation for Flooding) below. No additional measures would be required.

### **2.7.3.5 Exceed Capacity of Stormwater Systems**

This section describes potential direct and cumulative impacts on the capacity of stormwater systems as pertains to the Project areas addressed in this SEIR.

#### **Guidelines for the Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact if it would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems.

#### **Analysis**

The General Plan Update Program EIR determined that buildout under the General Plan Update would result in significant direct impacts with regard to the potential to exceed the capacity of the County's stormwater systems. These impacts would be reduced to below a level of significance through the implementation of a combination of federal, State and local regulations; existing County regulatory processes; the adopted General Plan Update goals and policies; and, specific mitigation measures/implementation programs identified in the General Plan Update Program EIR. With respect to cumulative impacts, the General Plan Update Program EIR concluded that buildout under the General Plan Update would not contribute to a cumulative impact relative to this issue because all projects within the County would be required to conform

with applicable regulations that require new development to construct or retrofit stormwater drainage systems so that they would not cause flooding.

Similar direct effects would occur with future development of the Project areas addressed in this SEIR, which could exceed the capacity of the County's existing or planned stormwater drainage facilities. Construction and/or post-construction activities would have the potential to substantially alter existing drainages and hydrology, or increase the amount of impermeable surfaces within the County, thereby increasing the volume or rate of runoff. Although new development would be required to incorporate such design elements as storm drains, ditches, swales, or other means of conveying runoff, if drainage facilities are not adequate to accommodate a potential increase in stormwater flows, overflow or failure of such systems may occur, causing an exceedance in the capacity of the County's stormwater systems. Additionally, similar to the analysis in the General Plan Update Program EIR, as projects within the County would be required to conform with applicable regulations pertaining to the construction/ retrofit of stormwater drainage systems to avoid flooding, when considered in combination with other cumulative projects, the proposed Project, would not contribute to a cumulative impact relative to an exceedance in the capacity of the County's stormwater systems.

Therefore, the potentially significant direct effects on the County's stormwater systems resulting from implementation of the proposed Project would be reduced to below a level of significance by the same regulations, implementation programs (General Plan Update goals/policies) and mitigation measures from the General Plan Update Program EIR and repeated in Section 2.7.4.5 (Mitigation for (the Potential to) Exceed Capacity of Stormwater Systems). No additional mitigation measures would be required.

### **2.7.3.6 *Housing within a 100-Year Flood Hazard Area***

This section describes potential direct and cumulative impacts of the Project on housing within 100-year flood hazard areas, as pertains to the Project areas addressed in this SEIR.

#### **Guidelines for the Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact if it would place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map, or other flood hazard delineation map.

#### **Analysis**

The General Plan Update Program EIR determined that buildout under the General Plan Update would result in potentially significant direct impacts related to the placement of housing within 100-year flood hazard areas. These impacts would be reduced to below a level of significance through the implementation of a combination of federal, State and local regulations; existing County regulatory processes; the adopted General Plan Update goals and policies; and, specific mitigation measures/implementation programs identified in the General Plan Update Program

EIR. With respect to cumulative impacts, the General Plan Update Program EIR concluded that buildout under the General Plan Update would not contribute to a cumulative impact relative to this issue because all projects within the County would be required to conform with applicable regulations pertaining to the prohibition of structures within floodways.

Similar direct effects would occur with future development of the Project areas addressed in this SEIR if it would involve the placement of housing within 100-year flood hazard areas. Flood events in such areas could result in structural damage or loss, adverse effects on public health and safety, loss of public services (e.g., electricity or water service) or damage to infrastructure, or loss of the potential use on a property. Table 2.8-7 of the General Plan Update Program EIR identified areas subject to the proposed residential land use designations (i.e., village residential, village core mixed-use, semi-rural residential, and rural residential) that are within a Federal Emergency Management Agency (FEMA) 100-year floodway or floodplain or alluvial fan; however, none of the former FCI lands are located within a FEMA 100-year flood hazard area. Refer to Figure 2.7-3, County Floodplains and Floodways. Therefore, the development of residential land uses within these areas as a result of the proposed Project would not occur. The proposed Project would therefore not increase the potential for significant direct impacts with regard to the placement of housing within a 100-year flood hazard area. Additionally, future projects within the County would be required to conform with applicable regulations pertaining to the prohibition of structures within floodways. When considered in combination with other cumulative projects, the proposed Project would not contribute to a cumulative impact relative to housing within a flood hazard area, as no former FCI lands are located within a 100-year flood hazard area.

As described above, implementation of the proposed Project would not result in the construction of any housing within a 100-year flood hazard area. Therefore, it is not anticipated that the proposed Project would result in a potentially significant direct or cumulative impact associated with the placement of such structures in areas subject to flood hazards. The implementation of any federal, State, and local regulations; existing County regulatory processes; adopted General Plan Update goals and policies; or, specific mitigation measures/implementation programs identified in the General Plan Update Program EIR would therefore not be required, nor would any additional measures not identified in the Program EIR be required. Project impacts with regard to the placement of housing within a 100-year flood hazard area would be below a level of significance.

### ***2.7.3.7 Impeding or Redirecting Flood Flows***

This section describes potential direct and cumulative impacts resulting from activities that would impede or redirect flood flows as pertains to the Project areas addressed in this SEIR.

### Guidelines for the Determination of Significance

Based on Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact if it would place within a 100-year flood hazard area structures which would impede or redirect flood flows.

#### Analysis

Similar to the evaluation of residential land uses in Section 2.7.3.6 above, the proposed Project would not increase the potential for additional development to occur within 100-year flood hazard areas or the placement of structures that could impede or redirect flood flows, as no former FCI lands are located within a 100-year flood hazard area; refer to Figure 2.7-3, County Floodplains and Floodways. Similar to the analysis in the General Plan Update Program EIR, future projects within the County would be required to conform with applicable regulations pertaining to the prohibition of structures within floodways. When considered in combination with other cumulative projects, the proposed Project would not contribute to a cumulative impact with regard to impeding or redirecting flood flows, as no former FCI lands are located within 100-year flood hazard areas.

As described above, implementation of the proposed Project would not result in the placement of any structures within a 100-year flood hazard area. Therefore, it is not anticipated that the proposed Project would result in a potentially significant direct or cumulative impact associated with the placement of structures that would impede or redirect flood flows in areas subject to flood hazards. The implementation of any federal, State, and local regulations; existing County regulatory processes; adopted General Plan Update goals and policies; or, specific mitigation measures/implementation programs identified in the General Plan Update Program EIR would therefore not be required, nor would any additional measures not identified in the Program EIR be required. Project impacts with regard to the placement of structures within a 100-year flood hazard area that would impede or redirect flood flows would be below a level of significance.

#### **2.7.3.8 Dam Inundation and Flood Hazards**

This section describes potential direct and cumulative impacts on dam inundation and flood hazards as pertains to the Project areas addressed in this SEIR.

### Guidelines for the Determination of Significance

Based on Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact if it would expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

#### Analysis

The General Plan Update Program EIR determined that buildout under the General Plan Update would result in potentially significant direct impacts related to risk of loss, injury, or death

involving flooding from the failure of a levee or dam. These impacts would be reduced to below a level of significance through the implementation of a combination of federal, State and local regulations; existing County regulatory processes; the adopted General Plan Update goals and policies; and, specific mitigation measures/implementation programs identified in the General Plan Update Program EIR. With respect to cumulative impacts, the General Plan Update Program EIR concluded that buildout under the General Plan Update would not contribute to a cumulative impact relative to this issue because all projects within the County would be required to conform with applicable regulations pertaining to the prohibition of structures within floodways.

Similar direct effects would occur with future development of the Project areas addressed in this SEIR, where it would involve the placement of structures within areas subject to dam inundation and flood hazards. Flood events in such areas from dam failure could result in structural damage or loss, adverse effects on public health and safety, loss of public services (e.g., electricity or water service) or damage to infrastructure, or loss of the potential use on a property. Table 2.8-4 of the General Plan Update Program EIR identified areas subject to the proposed land use designations where inundation from dam failure may occur. Any additional development within these areas as a result of the proposed Project would increase the potential for significant direct impacts with regard to the risk of loss, injury, or death involving flooding from the failure of a levee or dam. Additionally, similar to the analysis in the General Plan Update Program EIR, as projects within the County would be required to conform with applicable regulations pertaining to the prohibition of structures within floodways, when considered in combination with other cumulative projects, the proposed Project would not contribute to a cumulative impact with regard to the risk of loss, injury, or death involving flooding from the failure of a levee or dam.

Therefore, the potentially significant direct impacts of the proposed Project with regard to the risk of loss, injury, or death involving flooding from the failure of a levee or dam would be reduced to below a level of significance by the same regulations, implementation programs (General Plan Update goals/policies) and mitigation measures from the General Plan Update Program EIR and repeated in Section 2.7.4.8 (Mitigation for Dam Inundation and Flood Hazards) below. No additional measures would be required.

### **2.7.3.9 *Seiche, Tsunami, and Mudflow Hazards***

This section describes potential direct and cumulative impacts with regard to seiche, tsunami, and mudflow hazards as pertains to the Project areas addressed in this SEIR.

#### **Guidelines for the Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact if it would expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow.

## Analysis

The General Plan Update Program EIR determined that buildout under the General Plan Update would not result in potentially significant direct or cumulative impacts with regard to tsunamis or seiches (standing wave in a partially closed body of water generally due to atmospheric changes, high winds, or seismic activity) for the following reasons:

1. As the unincorporated County is located inland and only minor tsunami events have been experienced in San Diego's history, buildout under the General Plan Update would not expose people or structures to significant hazards associated with inundation by a tsunami.
2. Impacts from a seiche would be less than significant, as implementation of the General Plan Update would not result in land uses or development within areas subject to inundation from a seiche.

These same findings would apply to the proposed Project; therefore, future development of the Project areas addressed in this SEIR would not result in potentially significant direct or cumulative impacts with regard to tsunamis or seiches.

The General Plan Update Program EIR determined that buildout under the General Plan Update would result in potentially significant direct impacts with regard to mudflows because future development would occur in areas where steep slopes or unvegetated hillsides are present. These impacts would be reduced to below a level of significance through the implementation of a combination of federal, State and local regulations; existing County regulatory processes; the adopted General Plan Update goals and policies; and, specific mitigation measures/implementation programs identified in the General Plan Update Program EIR. With respect to cumulative impacts, the General Plan Update Program EIR concluded that buildout under the General Plan Update would not contribute to a cumulative impact relative to this issue because impacts from tsunamis are not anticipated and all projects within the County are required to conform with applicable regulations that protect new development from impacts related to seiches and mudslides.

Similar direct effects would occur with future development of the Project areas addressed in this SEIR, where it would involve the placement of structures within areas subject to mudflow events. Mudflow events in such areas could result in structural damage or loss, adverse effects on public health and safety, loss of public services (e.g., electricity or water service) or damage to infrastructure, or loss of the potential use on a property. Additionally, similar to the analysis in the General Plan Update Program EIR, as projects within the County would be required to conform with applicable regulations pertaining to protection from conditions associated with seiches and mudflows, when considered in combination with other cumulative projects, the proposed Project would not result in a significant impact with regard to the potential for significant risk of loss, injury, or death involving seiches and mudflows.

Therefore, the potentially significant direct impacts resulting from implementation of the proposed Project with regard to the risk of loss, injury, or death involving flooding from mudflows would be reduced to below a level of significance by the same regulations, implementation programs (General Plan Update goals/policies) and mitigation measures from the General Plan Update Program EIR and repeated in Section 2.7.4.9 (Mitigation for Seiche, Tsunami and Mudflow Hazards) below. No additional measures would be required.

## **2.7.4 Mitigation**

### **2.7.4.1 Water Quality Standards and Requirements**

Direct and cumulative impacts associated with water quality standards and requirements resulting from the proposed Project would be reduced to below a level of significance with implementation of the same applicable General Plan Update policies and mitigation measures as identified in the General Plan Update Program EIR, and repeated below; however, the County determined that implementation of the additional measures listed below would be infeasible for the following reasons:

- Provide a water treatment system that reduces constituents to below the MCL in all groundwater impaired areas. This measure would require treatment plants in many areas of the County, which would potentially result in numerous environmental impacts and conflict with the project objective to minimize public costs and infrastructure.
- In groundwater quality impaired areas, require water to be imported from other sources. This measure would not be feasible based on the existing lack of infrastructure needed to import water to impaired areas. To provide such infrastructure would conflict with the project objectives to minimize public costs of infrastructure and services and correlate their timing with new development.
- In groundwater quality impaired areas, place a moratorium on building permits and development applications. This measure would be inconsistent with the land use designations proposed for the project. It would also conflict with goals of the Housing Element to provide sufficient housing stock and would not achieve one of the primary objectives of the proposed project which is to accommodate a reasonable amount of growth.

Because the measures listed above have been found to be infeasible by the County and would not be implemented, impacts would remain significant and unavoidable.

### **Adopted General Plan Update Policies**

**Policy LU-6.5: Sustainable Stormwater Management.** Ensure that development minimizes the use of impervious surfaces and incorporates other Low Impact Development (LID) techniques as well as a combination of site design, source control, and stormwater best management practices, where applicable and consistent with the County's LID Handbook.

**Policy LU-6.9: Development Conformance with Topography.** Require development to conform to the natural topography to limit grading; incorporate and not significantly alter the dominant physical characteristics of a site; and to utilize natural drainage and topography in conveying stormwater to the maximum extent practicable.

**Policy LU-14.1: Wastewater Facility Plans.** Coordinate with wastewater agencies and districts during the preparation or update of wastewater facility master plans and/or capital improvement plans to provide adequate capacity and assure consistency with the County's land use plans.

**Policy LU-14.2: Wastewater Disposal.** Require that development provide for the adequate disposal of wastewater concurrent with the development and that the infrastructure is designed and sized appropriately to meet reasonably expected demands.

**Policy LU-14.3: Wastewater Treatment Facilities.** Require wastewater treatment facilities serving more than one private property owner to be operated and maintained by a public agency. Coordinate the planning and design of such facilities with the appropriate agency to be consistent with applicable sewer master plans.

**Policy LU-14.4: Sewer Facilities.** Prohibit sewer facilities that would induce unplanned growth. Require sewer systems to be planned, developed, and sized to serve the land use pattern and densities depicted on the Land Use Map. Sewer systems and services shall not be extended beyond either Village boundaries or extant Urban Limit Lines, whichever is more restrictive, except:

- When necessary for public health, safety, or welfare;
- When within existing sewer district boundaries;
- When necessary for a conservation subdivision adjacent to existing sewer facilities; or,
- Where specifically allowed in the Community Plan.

**Policy COS-4.2: Drought-Efficient Landscaping.** Require efficient irrigation systems and in new development encourage the use of native plant species and non-invasive drought tolerant/low water use plants in landscaping.

**Policy COS-4.3: Stormwater Filtration.** Maximize stormwater filtration and/or infiltration in areas that are not subject to high groundwater by maximizing the natural drainage patterns and the retention of natural vegetation and other pervious surfaces. This policy shall not apply in areas with high groundwater, where raising the water table could cause septic system failures, moisture damage to building slabs, and/or other problems.

**Policy COS-4.4: Groundwater Contamination.** Require land uses with a high potential to contaminate groundwater to take appropriate measures to protect water supply sources.

**Policy COS-5.2: Impervious Surfaces. Impervious Surfaces.** Require development to minimize the use of directly connected impervious surfaces and to retain stormwater run-off caused from the development footprint at or near the site of generation.

**Policy COS-5.3: Downslope Protection.** Require development to be appropriately sited and to incorporate measures to retain natural flow regimes, thereby protecting downslope areas from erosion, capturing runoff to adequately allow for filtration and/or infiltration, and protecting downstream biological resources.

**Policy COS-5.5: Impacts of Development to Water Quality.** Require development projects to avoid impacts to the water quality in local reservoirs, groundwater resources, and recharge areas, watersheds, and other local water sources.

### Mitigation Measures

**Hyd-1.1** Update and implement the County of San Diego's Jurisdictional Urban Runoff Management Program (JURMP).

**Hyd-1.2** Implement and revise as necessary the Watershed Protection Ordinance to reduce the adverse effects of polluted runoff discharges on waters and to encourage the removal of invasive species and restore natural drainage systems.

**Hyd-1.3** Establish and implement LID standards for new development to minimize runoff and maximize infiltration.

**Hyd-1.4** Revise and implement the Stormwater Standards Manual requiring appropriate measures for land use with a high potential to contaminate surface water or groundwater resources.

**Hyd-1.5** Utilize the County Guidelines for Determining Significance for Surface Water Quality, Hydrology, and Groundwater Resources to identify adverse environmental effects.

**Hyd-1.6** Implement, and revise as necessary, Board Policy I-84 requiring that discretionary project applications include commitments from available water and sanitation districts.

**Hyd-1.7** Ensure County planning staff participation in the review of wastewater facility long range and capital improvement plans.

**Hyd-1.8** Allow wastewater facilities contingent upon approval of Major Use Permit to ensure facilities are adequately sized.

**Hyd-1.9** Review septic system design, construction, and maintenance in cooperation with the Regional Water Quality Control Board through the Septic Tank Permit Process.

**Hyd-1.10** Coordinate with the State Water Resources Control Board to develop statewide performance and design standards for conventional and alternative On-site Wastewater Treatment Systems.

#### **2.7.4.2 *Groundwater Supplies and Recharge***

Direct and cumulative impacts associated with groundwater supplies and recharge resulting from the proposed Project would be reduced to below a level of significance with implementation of the same applicable General Plan Update policies and mitigation measures as identified in the General Plan Update Program EIR, and repeated below; however, the County determined that the implementation of the additional measures listed below would be infeasible for the reasons stated below:

- In areas with potentially impacted groundwater supplies, require all proposed discretionary projects to share well water through a well sharing agreement. This mitigation measure would prove infeasible or enforceable because such agreements would only apply to current landowners and would not be binding on future owners of the affected properties.
- In areas with inadequate groundwater supply, project proponents shall be required to secure water contracts with other groundwater providers to import water through the construction of new infrastructure from another groundwater basin that is not impacted, prior to the issuance of discretionary permits. This mitigation measure is considered to be infeasible because piping in groundwater from an off-site source would be a complex and costly process which would involve any number of issues, including: 1) water rights issues; 2) need to obtain proper permits to encroach on public roadways or other private properties to convey the water; 3) potential need to create a new water district/water company; and, 4) accelerated deterioration of the groundwater basin that is providing the imported water. Additionally, requiring complex piping to import groundwater from an alternative location has the potential to result in multiple secondary environmental impacts, including cultural resources, biological resources, and hydrology/water quality. Although some water districts within the unincorporated County have imported water from another groundwater basin in the past, requiring that all development obtain water contracts, as described above, would put an undue burden on both the developer and water district. Implementing this mitigation measure would also contradict the Project objective to promote environmental stewardship that protects the range of natural resources and habitats that uniquely define the County's character and ecological importance because it would result in multiple secondary environmental impacts to both unincorporated County groundwater and surface resources. In addition, this solution may

## **SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT**

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not be sustainable for all projects in the long-term. Implementation of this mitigation measure would also conflict with the project objective to minimize costs of infrastructure and services because this mitigation measure would require extensive infrastructure costs to implement. Therefore, for the reasons listed above, this measure is considered infeasible.

- In groundwater dependent areas with inadequate groundwater supply, project proponents shall be required to secure water contracts with other water providers to truck in water from local water districts or other sources such as an off-site well, prior to the issuance of discretionary permits. This mitigation measure is considered to be infeasible because trucked water is not a guaranteed, sustainable, long-term source of water since a water district can rescind or preclude the selling of trucked water in times of drought and limited water supplies. Additionally, implementation of this mitigation measure would conflict with the Project objective to maintain environmentally sustainable communities and reduce greenhouse gas emissions that contribute to climate change because it would require extensive vehicle travel and is not a sustainable solution. Therefore, this would not be a feasible mitigation measure.
- In groundwater dependent areas with inadequate groundwater supply, project proponents shall be required to secure water contracts with the SDCWA in order to import water from SDCWA facilities. This mitigation measure is considered to be infeasible due to the lack of infrastructure in place to convey the water, the limited availability of water within the desert southwest, the cost of providing these services, and the discretionary approval to extend the SDCWA boundary, which is outside of the County's jurisdiction. Implementation of this mitigation measure would also conflict with the Project objective to minimize costs of infrastructure and services because the implementation of this mitigation measure would result in extensive infrastructure costs.
- Implement a Countywide moratorium on building permits and development applications in any areas of the County that would have the potential to adversely impact groundwater supplies and recharge. This would effectively result in no new impacts to groundwater supplies and recharge within the unincorporated County; however, due to the size and complexity of the groundwater dependent portion of the County, it is not possible to specifically identify at a parcel by parcel scale where significant impacts to groundwater resources would occur. Site-specific groundwater investigations are necessary to provide details of impacts that cannot be provided at the scale in which the General Plan Update Groundwater Study was conducted. Therefore, there is not enough technical evidence in which to impose a moratorium. This mitigation measure would also conflict with the Project objective to support a reasonable share of projected regional population growth. Therefore, for the reasons listed above, this mitigation measure would not be implemented.

Because the measures listed above have been found to be infeasible by the County and would not be implemented, impacts would remain significant and unavoidable.

### Adopted General Plan Update Policies

In addition to the policies listed in Section 2.7.4.1 above, the following policies would further reduce impacts associated with groundwater supplies and recharge, although not to below a level of significance for the reasons stated above.

**Policy LU-8.1: Density Relationship to Groundwater Sustainability.** Require land use densities in groundwater dependent areas to be consistent with the long-term sustainability of groundwater supplies, except in the Borrego Valley.

**Policy LU-8.2: Groundwater Resources.** Require development to identify adequate groundwater resources in groundwater dependent areas, as follows:

- In areas dependent on currently identified groundwater overdrafted basins, prohibit new development from exacerbating overdraft conditions. Encourage programs to alleviate overdraft conditions in Borrego Valley.
- In areas without current overdraft groundwater conditions, evaluate new groundwater-dependent development to assure a sustainable long-term supply of groundwater is available that will not adversely impact existing groundwater users.

**Policy LU-13.1: Adequacy of Water Supply.** Coordinate water infrastructure planning with land use planning to maintain an acceptable availability of a high quality sustainable water supply. Ensure that new development includes both indoor and outdoor water conservation measures to reduce demand.

**Policy LU-13.2: Commitment of Water Supply.** Require new development to identify adequate water resources, in accordance with State law, to support the development prior to approval.

**Policy COS-4.1: Water Conservation.** Require development to reduce the waste of potable water through use of efficient technologies and conservation efforts that minimize the County's dependence on imported water and conserve groundwater resources.

### Mitigation Measures

In addition to Mitigation Measures Hyd-1.1, Hyd-1.2, Hyd-1.3, Hyd-1.4, and Hyd-1.5 listed above, implementation of the following mitigation measures would further reduce direct and cumulative Project impacts associated with groundwater supplies and recharge, although not to below a level of significance for the reasons stated above.

**Hyd-2.1** Implement, and revise as necessary, Board Policy I-84 requiring that discretionary project applications include commitments from available water districts. Also

implement and revise as necessary Board Policy G-15 to conserve water at County facilities.

**Hyd-2.2** Implement the Groundwater Ordinance to balance groundwater resources with new development. Also revise the Ordinance Relating to Water Conservation for Landscaping (currently Zoning Ordinance Sections 6712 through 6725) to further water conservation through the use of recycled water.

**Hyd-2.3** Establish a water credits program between the County and the Borrego Water District to provide a streamlined and consistent process for the permanent cessation of outdoor water intensive uses such as irrigated agricultural or golf course land.

**Hyd-2.4** Coordinate with the San Diego County Water Authority and other water agencies to coordinate land use planning with water supply planning and implementation and enhancement of water conservation programs.

**Hyd-2.5** Implement and revise as necessary the Resource Protection Ordinance and Policy I-68 Proposed Projects in Flood Plains / Floodways to restrict development in flood plains / floodways.

### **2.7.4.3 Erosion or Siltation**

Direct and cumulative impacts relative to erosion or siltation associated with the proposed Project would be reduced to below a level of significance with implementation of the same applicable General Plan Update policies and mitigation measures as identified in the General Plan Update Program EIR, and repeated below.

#### **Adopted General Plan Update Policies**

The policies listed in Section 2.7.4.1 above would reduce the proposed Project's direct and cumulative impacts relative to erosion or siltation to below a level of significance.

#### **Mitigation Measures**

**Hyd-3.1** Implement and revise, as necessary, ordinances to require new development to be located down and away from ridgelines, conform to the natural topography, not significantly alter dominant physical characteristics of the site, and maximize natural drainage and topography when conveying stormwater.

**Hyd-3.2** Implement and revise as necessary the RPO to limit development on steep slopes.

**Hyd-3.3** Implement the Grading, Clearing and Watercourses Ordinance to protect development sites against erosion and instability.

#### **2.7.4.4 Flooding**

Direct and cumulative impacts relative to flooding associated with the proposed Project would be reduced to below a level of significance with implementation of the same applicable General Plan Update policies and mitigation measures as identified in the General Plan Update Program EIR, and repeated below.

##### **Adopted General Plan Update Policies**

In addition to Policy LU-6.5 listed in Section 2.7.4.1 above, the following policies would further reduce impacts associated with flooding to below a level of significance:

**Policy LU-6.10: Protection from Hazards.** Require that development be located and designed to protect property and residents from the risks of natural and man-induced hazards.

**Policy S-9.2: Development in Floodplains.** Limit development in designated floodplains to decrease the potential for property damage and loss of life from flooding and to avoid the need for engineered channels, channel improvements, and other flood control facilities. Require development to conform to federal flood proofing standards and siting criteria to prevent flow obstruction.

**Policy S-10.2: Use of Natural Channels.** Require the use of natural channels for County flood control facilities except where necessary to protect existing structures from a current flooding problem and where natural channel use is deemed infeasible. The alternative must achieve the same level of biological and other environmental protection, such as water quality, hydrology, and public safety.

**Policy S-10.3: Flood Control Facilities.** Require flood control facilities to be adequately sized, constructed, and maintained to operate effectively.

**Policy S-10.4: Stormwater Management.** Require development to incorporate low impact design, hydromodification management, and other measures to minimize stormwater impacts on drainage and flood control facilities.

**Policy S-10.6: Stormwater Hydrology.** Ensure development avoids diverting drainages, increasing velocities, and altering flow rates to off-site areas to minimize adverse impacts to the area's existing hydrology.

##### **Mitigation Measures**

In addition to Mitigation Measures Hyd-1.1, Hyd-1.2, Hyd-1.3, Hyd-1.4, Hyd-1.5, and Hyd-2.5 listed above, implementation of the following mitigation measures would further reduce direct and cumulative Project impacts with regard to flooding to below a level of significance.

- Hyd-4.1** Implement the Flood Damage Prevention Ordinance to reduce flood losses in specified areas.
- Hyd-4.2** Implement the Grading, Clearing and Watercourses Ordinance to limit activities affecting watercourses.
- Hyd-4.3** Implement and revise as necessary Board Policies such as: Policy I-68, which establishes procedures for projects that impact floodways; Policy I-45, which defines watercourses that are subject to flood control; and Policy I-56, which permits, and establishes criteria for, staged construction of off-site flood control and drainage facilities by the private sector when there is a demonstrated and substantial public, private or environmental benefit.

#### **2.7.4.5 *Exceed Capacity of Stormwater Systems***

Direct and cumulative impacts pertaining to exceeding the capacity of stormwater systems associated with the proposed Project would be reduced to below a level of significance with implementation of the same applicable General Plan Update policies and mitigation measures as identified in the General Plan Update Program EIR, and repeated below.

##### Adopted General Plan Update Policies

In addition to the policies listed in Section 2.7.4.1 and Section 2.7.4.4 above, the following policies would further reduce Project impacts relative to exceedance of the capacity of stormwater systems to below a level of significance.

**Policy S-10.5: Development Site Improvements.** Require development to provide necessary on-site and off-site improvements to stormwater runoff and drainage facilities.

##### Mitigation Measures

Implementation of Mitigation Measures Hyd-1.1, Hyd-1.2, Hyd-1.3, Hyd-1.4, Hyd-1.5, Hyd-2.5, Hyd-3.1, Hydr-4.1, Hyd-4.2, and Hyd-4.3 listed above would reduce direct and cumulative Project impacts with regard to exceeding the capacity of stormwater systems to below a level of significance.

#### **2.7.4.6 *Housing within a 100-year Flood Hazard Area***

Impacts associated with the placement of housing within a 100-year flood hazard area would be below a level of significance. Therefore, no mitigation is required.

#### **2.8.4.7 *Impeding or Redirecting Flood Flows***

Impacts associated with construction that would impede or redirect flood flows would be below a level of significance. Therefore, no mitigation is required.

### **2.7.4.8 *Dam Inundation and Flood Hazards***

Direct and cumulative impacts pertaining to dam inundation and flood hazards associated with the proposed Project would be reduced to below a level of significance with implementation of the same applicable General Plan Update policies and mitigation measures as identified in the General Plan Update Program EIR, and repeated below.

#### **Adopted General Plan Update Policies**

In addition to the policies listed in Section 2.7.4.6 above, the following policy would reduce direct and cumulative Project impacts associated with dam inundation and flood hazards to below a level of significance.

**Policy S-9.6: Development in Dam Inundation Areas.** Prohibit development in dam inundation areas that may interfere with the County's emergency response and evacuation plans.

#### **Mitigation Measures**

In addition to Mitigation Measures Hyd-1.2, Hyd-1.5, Hyd-2.5, Hyd-4.1, Hyd-4.2, Hyd-4.3, and Hyd-6.1 listed above, implementation of the following mitigation measures would reduce direct and cumulative Project impacts associated with dam inundation and flood hazards to below a level of significance.

**Hyd-8.1** Perform regular inspections and maintenance of County reservoirs to prevent dam failure.

**Hyd-8.2** Review discretionary projects for dam inundation hazards through application of the County's Guidelines for Determining Significance for Hydrology and Guidelines for Determining Significance for Emergency Response Plans.

### **2.7.4.9 *Seiche, Tsunami and Mudflow Hazards***

Direct and cumulative impacts pertaining to seiche, tsunami, and mudflow hazards associated with the proposed Project would be reduced to below a level of significance with implementation of the same applicable General Plan Update policies and mitigation measures as identified in the General Plan Update Program EIR, and repeated below.

#### **General Plan Update Policies**

Implementation of Policies COS-5.1, S-8.1, S-8.2, S-9.3, and S-9.6 listed above would reduce direct and cumulative Project impacts associated with seiches, tsunamis, and mudflow hazards to below a level of significance.

Mitigation Measures

Implementation of Mitigation Measures Hyd-3.1, Hyd-3.2, and Hyd-3.3 listed above would reduce direct and cumulative Project impacts with regard to seiches, tsunamis, and mudflows to below a level of significance.

**SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT**

**TABLE 2.7-1. WATER BODIES IDENTIFIED AS IMPAIRED UNDER THE CLEAN WATER ACT<sup>1</sup>**

<b>Watershed Management Area (WMA)</b>	<b>Water Body Name</b>	<b>Pollutant/Stressor<sup>2</sup></b>
San Juan WMA	Pacific Ocean, Aliso	Elevated coliform bacteria levels
	Lower San Juan Creek, Mouth	Bacterial Indicators
	Aliso Creek	Bacterial Indicators, Phosphorus, Selenium, Total Nitrogen as N, Toxicity
	San Juan Creek	DDE, Bacterial Indicators, Phosphorus, Selenium, Total Nitrogen as N, Toxicity
Santa Margarita WMA	Santa Margarita Lagoon	Eutrophic
	De Luz Creek	Iron, Manganese, Nitrogen, Sulfates
	Rainbow Creek	Iron, Nitrogen, Phosphorus, Sulfates, Total Dissolved Solids (TDS)
	Upper Santa Margarita River	Phosphorus, Toxicity
	Sandia Creek	Iron, Sulfates, TDS
	Temecula Creek	Chlorpyrifos, Copper, Phosphorus, TDS, Toxicity
	Murrieta Creek	Chlorpyrifos, Iron, Manganese, Nitrogen, Phosphorus, Toxicity
	Long Canyon Creek	Chlorpyrifos, E. Coli, Fecal Coliform, Iron, Manganese
San Luis Rey WMA	Pacific Ocean Shoreline	Bacterial Indicators
	San Luis Rey River	Chloride, Enterococcus, Fecal Coliform, Phosphorus, TDS, Total Nitrogen as N, Toxicity,
	Guajome Lake	Eutrophic
Carlsbad WMA	Pacific Ocean Shoreline	Bacterial Indicators
	Loma Alta Slough	Bacterial Indicators, Eutrophic
	Buena Vista Lagoon (202 acres)	Bacterial Indicators, Nutrients, Sedimentation/Siltation
	Buena Vista Creek	Sediment toxicity, Selenium
	Pacific Ocean Shoreline	Bacterial Indicators
	Aqua Hedionda Lagoon (7 acres)	Bacterial Indicators
	Agua Hedionda Creek	Enterococcus, Fecal Coliform, TDS, Manganese, Phosphorus, Selenium, Sulfates, Total Nitrogen as N, Toxicity
	Lake San Marcos	Ammonia as Nitrogen, Nutrients, Phosphorus
	San Marcos Creek	DDE, Phosphorus, Sediment toxicity, Selenium,
	Buena Creek	DDT, Nitrate and Nitrite, Phosphate

**SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT**

**TABLE 2.7-1, CONTINUED**

<b>Watershed Management Area (WMA)</b>	<b>Water Body Name</b>	<b>Pollutant/Stressor<sup>2</sup></b>
San Dieguito WMA	Pacific Ocean Shoreline	Bacterial Indicators
	Green Valley Creek	Sulfates, Chloride, Manganese, PCP
	Lake Hodges	Color, Mercury, Nitrogen, Phosphorus, Turbidity, Manganese, pH
	Kit Carson Creek	TDS, PCP
	Felicita Creek	TDS, Aluminum
	Cloverdale Creek	Phosphorus, TDS
	Sutherland Reservoir	Color, Manganese, Total Nitrogen as N, pH
Los Penasquitos WMA	Los Penasquitos Lagoon	Sediment/Siltation
	Los Penasquitos Creek	Enterococcus, Fecal Coliform, Selenium, TDS, Total Nitrogen as N, Toxicity
San Diego River WMA	Famosa Slough and Channel	Eutrophic
	Pacific Ocean Shoreline	Bacterial Indicators
	Lower San Diego River	Enterococcus, Fecal Coliform, Low Dissolved Oxygen, Nitrogen, Phosphorus, TDS, Toxicity,
	Forrester Creek	Fecal Coliform, pH, TDS, Phosphorus, Selenium
	El Capitan Lake	Color, Manganese, Phosphorus, Total Nitrogen as N, pH
	Murray Reservoir	Nitrogen, pH
	San Vicente Reservoir	Chloride, Color, pH, Sulfates, Total Nitrogen as N, pH
San Diego Bay WMA	San Diego Bay Shoreline, at Harbor Island (West Basin)	Copper
	San Diego Bay Shoreline, G St. Pier	Bacterial Indicators, Enterococcus, Fecal Coliform, Total Coliform
	San Diego Bay Shoreline, Near Switzer Creek	Chlordane, PAHs
	San Diego Bay Shoreline, Vicinity of B St. and Broadway Piers	Benthic Community Effects, Sediment Toxicity
	San Diego Bay Shoreline, Downtown Anchorage	Benthic Community Effects, Sediment Toxicity
	San Diego Bay Shoreline, at Harbor Island (East Basin)	Copper
	San Diego Bay Shoreline, at Marriott Marina	Copper

**SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT**

**TABLE 2.7-1, CONTINUED**

<b>Watershed Management Area (WMA)</b>	<b>Water Body Name</b>	<b>Pollutant/Stressor<sup>2</sup></b>
	San Diego Bay Shoreline, at America's Cup Harbor	Copper
	Chollas Creek	Bacterial Indicators, Copper, Diazinon, Lead, Phosphorus, Total Nitrogen as N, Trash, Zinc
	San Diego Bay Shoreline, Near Chollas Creek	Benthic Community Effects, Sediment Toxicity
	San Diego Bay Shoreline, 32 <sup>nd</sup> St. Naval Station	Benthic Community Effects, Sediment Toxicity
	San Diego Bay Shoreline, Between Sampson and 28 <sup>th</sup> Streets	Copper, Mercury, PAHs, PCBs, Zinc
	San Diego Bay Shoreline, Near Coronado Bridge	Benthic Community Effects, Sediment Toxicity
	San Diego Shoreline, Seventh St. Channel	Benthic Community Effects, Sediment Toxicity
	San Diego Bay Shoreline, North of 24 <sup>th</sup> St. Marine Terminal	Benthic Community Effects, Sediment Toxicity
	San Diego Bay Shoreline, at Bayside Park (J Street)	Enterococcus
	San Diego Bay Shoreline, at Chula Vista Marina	Copper
	Sweetwater Reservoir	Dissolved Oxygen
	Loveland Reservoir	Aluminum, Manganese, Dissolved Oxygen, pH
	Pacific Ocean Shoreline, Imperial Beach Pier	Enterococcus, Fecal Coliform, PCBs, Total Coliform
	San Diego Bay	PCBs
	San Diego Bay Shoreline, and Coronado Cays	Copper
	San Diego Bay Shoreline, at Glorietta Bay	Copper
	Poggi Canyon Creek	DDT, Toxicity
	Otay Reservoir, Lower	Color, Iron, Manganese, Ammonia, Nitrogen, pH (high)

**SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT**

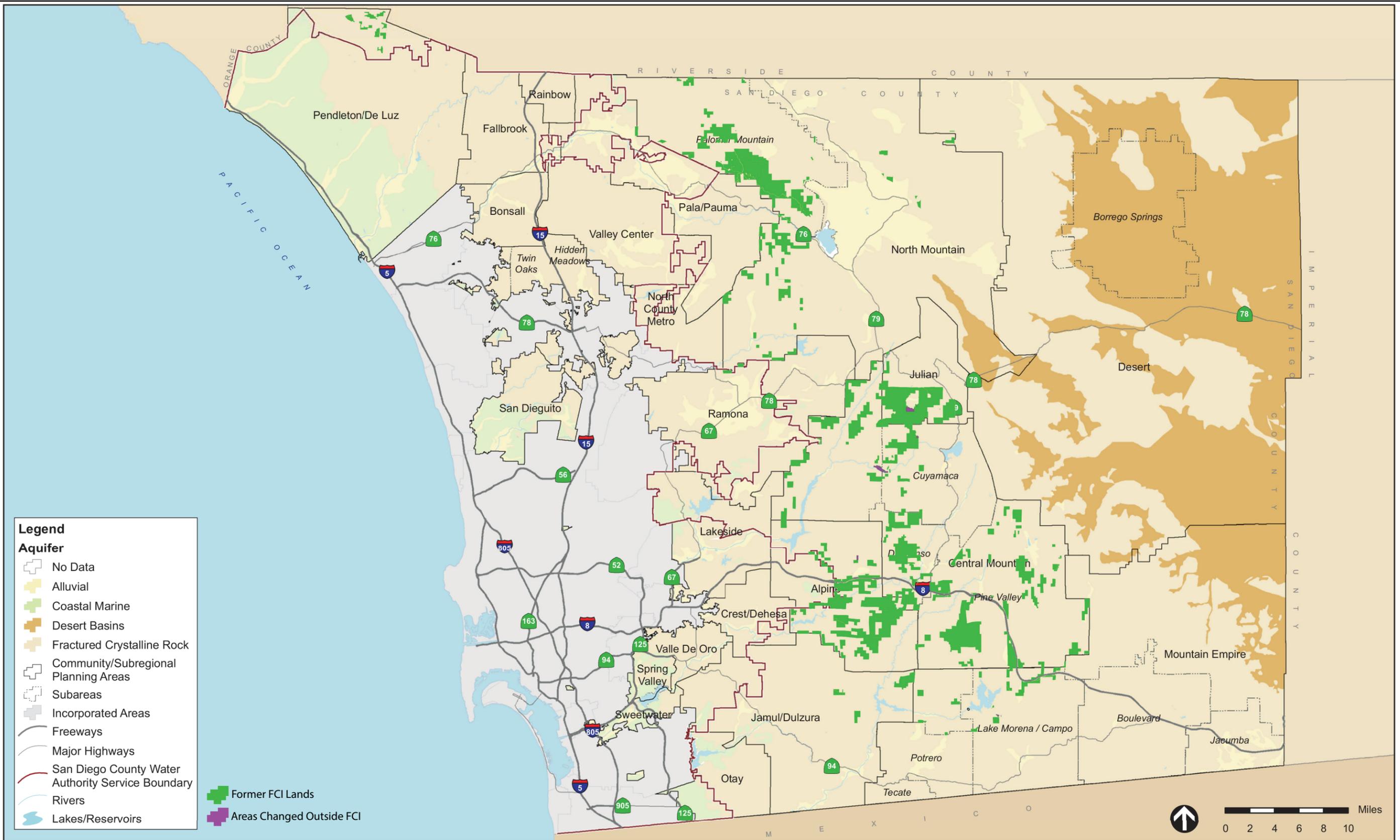
**TABLE 2.7-1, CONTINUED**

<b>Watershed Management Area (WMA)</b>	<b>Water Body Name</b>	<b>Pollutant/Stressor<sup>2</sup></b>
Tijuana River WMA	Tijuana River	Bacterial Indicators, Eutrophic conditions, Low Dissolved Oxygen, Pesticides, Phosphorus, Sedimentation/Siltation, Selenium, Solids, Surfactants (MBAS), Synthetic Organics, Total Nitrogen as N, Toxicity, Trace Elements, Trash
	Tijuana River Estuary	Bacterial Indicators, Eutrophic conditions, Lead, Low Dissolved Oxygen, Nickel, Pesticides, Thallium, Trash, Turbidity
	Pacific Ocean Shoreline, Tijuana Hydrologic Unit	Bacterial Indicators
	Barrett Lake	Color, Manganese, Perchlorate, pH, Total Nitrogen as N
	Pine Valley Creek (Upper)	Turbidity
	Morena Reservoir	Ammonia as Nitrogen, Color, Manganese, Phosphorus, pH

Source: California Environmental Protection Agency – San Diego Regional Water Quality Control Board. October 2012.

<sup>1</sup> The above table has been revised to update information found in Table 2.8-1 of the General Plan Update Program EIR. As noted in Section 2.7.1, Existing Conditions, on December 16, 2009, the San Diego RWQCB adopted the 2008 CWA Sections 305(b) and 303(d) Integrated Report on Evaluation of Surface Water Quality and Listing of Impaired Water Body Segments for the San Diego Region, with the U.S. Environmental Protection Agency (EPA) approving the 2008-2010 CWA Section 303(d) List (which includes the list of the 303(d) water bodies for the San Diego Region) in November 2010. As such, the information above has been updated for the watershed management areas (WMA) considered in the General Plan Update Program EIR in order to provide an accurate description of the existing water quality conditions for the proposed Project.

<sup>2</sup> DDE - Dichlorodiphenyldichloroethylene; DDT - Dichlorodiphenyltrichloroethane; PCP – Pentachlorophenol; PAH - Polycyclic aromatic hydrocarbons; PCB - Polychlorinated biphenyl



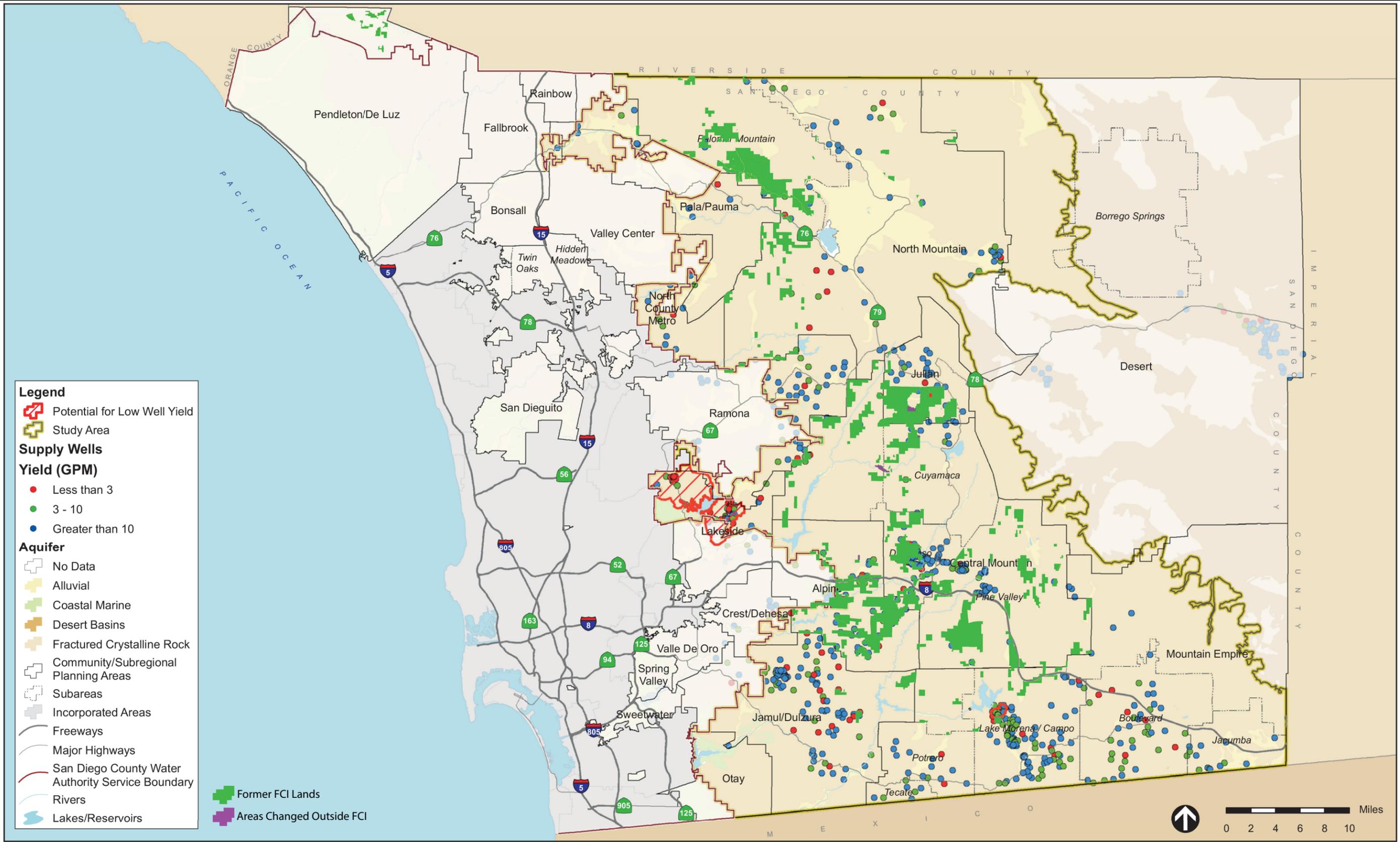
Source: County of San Diego DPLU, 2008

Source: SanGIS  
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**AQUIFER TYPES WITHIN THE COUNTY**

**FIGURE 2.7-1**

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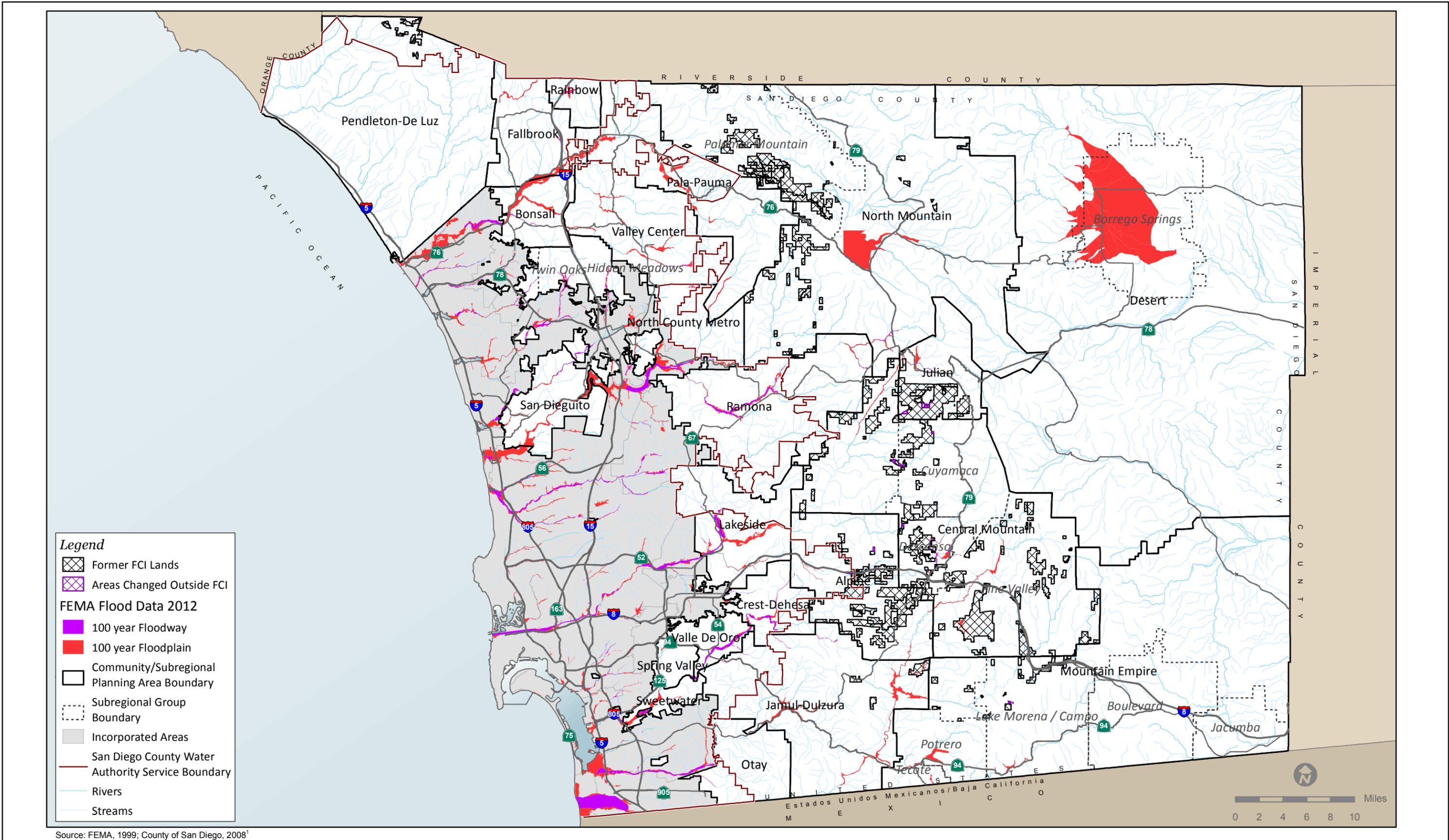
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Source: SanGIS  
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POTENTIAL FOR LOW WELL YIELD

FIGURE 2.7-2

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