

3.11 WATER RESOURCES, SUPPLY, AND SERVICE

Water resources within the project area include surface water and groundwater. The physical, chemical, and biological characteristics of these water sources are key to their suitability for a particular purpose or use, such as for drinking water, for recreation, or to support a healthy ecosystem. Water supply and service include the entitlements and forecasted future water supplies (e.g., groundwater, surface water, State Water Project (SWP), etc.) associated with a project area and region. Water supplies and services, particularly forecasted future supplies, must also account for climatic variables such as the ongoing drought, as well as longer term conditions such as those associated with climatic change induced changes in water supply.

3.11.1 Existing Conditions

3.11.1.1 Regional and Vicinity Hydrologic Setting

According to the Central Coast (Region 3) Regional Water Quality Control Board (RWQCB), the project site is located within the South Coast Hydrologic Unit, which generally includes the area south of the Santa Ynez Mountains between Carpinteria and Point Arguello.

Watershed

Romero Creek: Romero Creek is a major stream located approximately 600 feet west of the project site. Romero Creek originates in the foothills of the Santa Ynez Mountains and drains a 3,301-acre watershed capable of producing flows of 4,900 cubic feet per second (cfs) during a 100-year storm event. In its upper reaches, the creek channel is incised with steep banks along many sections. Riparian vegetation is a mix of native sycamore, willow, alder, bays, and non-native landscape specimens, nasturtium, ironweed, and watercress. The lower watershed typically carries water year round. Riffles and step pools are common along this length. Large cobbles and boulders along the creek are populated with islands of young willow sprouts (Santa Barbara County Flood Control and Water Conservation District 2010). However, current drought conditions have limited creek flow to areas of the upper watershed, with only occasional periods of runoff along the lower segments of the creek.

Picay Creek: Picay Creek, located to the south of the project site, is a small tributary to Romero Creek that runs along a bridle trail and under several small road crossings. Picay Creek originates in the Santa Ynez Mountains and drains a 626-acre watershed capable of

producing 1,400 cubic feet per second during a 100-year storm event. Overhanging willows are common along the narrow riparian corridor. The substrate is rocky with small pools throughout most of the project reach. It typically flows throughout the wet season and dries up during the summer months (Santa Barbara County Flood Control and Water Conservation District 2010). However, under ongoing drought conditions, creek flows have diminished, with only occasional periods of runoff, even during the wet season.

Precipitation

The average precipitation in the South Coast Hydrologic Unit is nearly 18 inches per year (Santa Barbara County Water Resources Division 2009). Annual rainfall in the Santa Barbara coastal area is highly variable and includes periods of intense rainfall and flooding punctuated by extended droughts. Rainfall has averaged 20.3 inches over a 85-year period at rain gauge Station #325 at the Montecito Water District. However, rainfall totals in 2015 have averaged 50 percent of normal countywide, with the Carpinteria Fire Station rain gauge registering 39 percent of normal rainfall (Santa Barbara County Water Resource Division 2015). Rainfall totals in 2012, 2013 and 2014 were also substantially below normal, with countywide rainfall totals in 2014 being 41percent of normal (Santa Barbara County Water Reservation Division and Flood Control District 2014).

3.11.1.2 Regional Groundwater Conditions

The Montecito Groundwater Basin encompasses about 6.7 square miles between the Santa Ynez Mountains and the Pacific Ocean. The Montecito Groundwater Basin is separated from the Carpinteria Groundwater Basin to the east by faults and bedrock and from the Santa Barbara Groundwater Basin to the west by an administrative boundary. The basin has been divided into three storage units on the basis of east-west trending faults that act as barriers to groundwater movement. The project site is located within the northern unit, which is bounded on the south by the Arroyo Parida Fault.

Water quality in the basin generally is suitable for agricultural and domestic use. Some wells near fault zones or coastal areas yield groundwater with elevated levels of total dissolved solids (TDS) and other constituents. Studies indicate that seawater intrusion is not a significant problem in the basin (Santa Barbara County Water Resources Division 2009).

Available storage within the Montecito Groundwater Basin is estimated to be 7,700 acre-feet (AF) (Santa Barbara County Water Resources Division 2009). Groundwater from this basin supplies private residences and a small amount of agriculture within Montecito.

In 1992, the County Environmental Thresholds and Guidelines Manual identified the Montecito Groundwater Basin as in a state of overdraft by approximately 473 acre-feet per year (AFY) (County of Santa Barbara 2015). However, the Montecito Water District (MWD) does not consider it overdrafted and it has a safe yield of 1,650 AFY (MWD 2005). Typical withdrawals from the basin total a maximum of 1,450 AFY (450 AFY from the MWD wells and 1,000 AFY from private wells) (MWD 2005).

Ongoing drought conditions also affect groundwater supplies. Increased water demand from wells in the basin, diminished recharge due to low rainfall, and lack of runoff and inflow from streams can lead to decreases in available storage. While the drought may not impact long term safe yield, increased demand on groundwater supplies combined with decreased recharge may lower groundwater levels for a number of years after the end of the current drought.

Climate change may also affect groundwater supplies. Numerous scientific sources note have documents or forecast a trend of increasing frequency of extreme precipitation events which are expected to continue into the future. Increases in extreme precipitation events are expected to be accompanied by increases in frequency and duration of dry periods. These changes in climatic patterns may result in reduced groundwater recharge in the Montecito Groundwater Basin, although no comprehensive studies of the net effect on recharge and yields of alternating extreme wet and dry cycles have been performed.

3.11.1.3 Regional Water Supply

According to the MWD (2005), the average annual long-term water supply available in the Montecito area is approximately 7,380 AFY, including groundwater and the available surface water sources. This figure includes 2,906 AFY from the Cachuma Project, 1,569 AFY from Jameson Lake, 375 AFY from Doulton Tunnel infiltration, 2,280 AFY of State Water and the typical pumping from the groundwater basin of 250 AFY. However, additional analysis conducted by the MWD (2007) indicated that the maximum long-term water supply without creating dry-year shortfalls is 6,280 AFY (accounting for diversions to City of Santa Barbara and 4 percent loss from pipe leakage).

Water demand in the Montecito area was estimated at approximately 6,544 AFY in 2007 (MWD 2007). However, extrapolating the historic rate of increase in demand resulted in estimates of demand in the year 2030 as high as 9,000 AFY (MWD 2007). Increasing demand, coupled with reduced deliveries from the SWP, resulted in a shortfall of approximately 600 AFY in 2007. As a result, the MWD passed an emergency ordinance

restricting the water allocated to new development or redevelopment (refer to Section 3.11.2.3, *Local Regulations*).

Climate change is likely to affect water supply delivery from the SWP and also through potential changes in local weather patterns and hydrology. The State Department of Water Resources projects a higher percentage of precipitation falling as rain rather than snow, a corresponding reduction in the Sierra snowpack, shifting of river flow from spring/summer to winter, and corresponding lower flows in environmentally sensitive portions of the Delta. Although management of dams feeding the SWP can be adjusted to account for such changes in runoff patterns, it is unclear if yield of the SWP would be affected. Similarly, changes in local rainfall patterns could affect the yields from Lake Cachuma and Jameson Lake, with short-term degradation of reservoir water quality as well as increased reservoir inflow during extreme rainfall events followed by reservoir drawdown during dry periods.

During the ongoing drought emergency, the MWD has succeeded in purchasing surplus water to augment existing supplies. In addition, the MWD is actively considering supplemental sources including continued water purchases and potential use of desalinization and reclaimed water.

3.11.1.4 Project Site Groundwater Conditions

One boring conducted for geotechnical investigation in November 2010 discovered groundwater at 53 feet below ground surface (bgs) (Campbell Geo 2011). Other borings on the site found groundwater at greater depths or none at all.

3.11.1.5 Project Site Surface Water Conditions

Drainage within the project site consists of sheet flow to the south and west into an unnamed intermittent drainage between 4 and 8 feet wide and 2 and 4 feet deep to the west of the site and a drainage channel that runs within the Caltrans right-of-way along the north side of East Valley Road. Drainage beneath East Valley Road is accommodated by a culvert of approximately 36 inches. The intermittent drainage and its banks are generally clear of understory vegetation; overstory vegetation consists of coast live oaks. This drainage flows only during or immediately after rainfall events and does not overtop its banks (Sam Frye, Manager; Rancho San Carlos 2010).

3.11.1.6 Project Site Flood Hazard

The County of Santa Barbara's 100-year Flood Hazard Overlay data indicate that the project site is outside any flood hazard areas. The Flood Insurance Rate Map (FIRM) published by the Federal Emergency Management Administration (FEMA) shows the site to be in "zone x," with less than a 0.2 percent annual chance of flooding (U.S. Department of Homeland Security 2015). The flood plains of Romero Canyon Creek to the west and Picay Creek to the south are far removed from the site.

3.11.1.7 Project Site Water Use

The project site supports over two acres of existing lemon orchards and has been under cultivation for 80 or more years. Although not metered separately, existing water use for irrigation of onsite orchards is estimated at approximately 3 AFY based on an average annual water demand for lemon orchards of 1.5 AFY (County of Santa Barbara 2008). The exact mix of water delivered to this site is unknown as Rancho San Carlos water is supplied by a mix of supplies from the MWD, onsite wells, and stream diversions. MWD water use specific to the project site is not available because each meter serves a mix of parcels and annual use of MWD water varies annually based on the amounts available from stream diversions, natural rainfall, and well sources (MWD 2012).

3.11.2 Regulatory Setting

3.11.2.1 Federal Regulations

Federal Clean Water Act (CWA), 33 USC Section 1251 et seq. This is the primary law regulating water pollution. In 1972, the Federal Water Pollution Control Act (later referred to as the CWA) was amended to require that the discharge of pollutants into waters of the U.S. from any point source be effectively prohibited unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. In 1987, the CWA was again amended to require that the Environmental Protection Agency (EPA) establish regulations for the permitting of stormwater discharges (as a point source) by municipal and industrial facilities and construction activities under the NPDES permit program. The regulations require that Municipal Separate Storm Sewer System (MS4) discharges to surface waters be regulated by an NPDES permit.

The CWA requires states to adopt water quality standards for water bodies and have those standards approved by EPA. Water quality standards consist of designated beneficial uses for a particular water body (e.g., wildlife habitat, agricultural supply, and

fishing), along with water quality criteria necessary to support those uses. Water quality criteria include quantitative set concentrations, levels, or loading rates of constituents—such as pesticides, nutrients, salts, suspended sediment, and fecal coliform bacteria—or narrative statements that represent the quality of water that support a particular use. Relevant sections include:

- Section 1329, requiring that states develop programs to identify and control non-point sources of pollution, including runoff. (California has developed and implemented these programs through the State Water Resources Board and related Regional Boards, discussed below).
- Section 1313, requiring states to establish and enforce water quality standards to protect and enhance beneficial uses of water for such purposes as recreation and fisheries.
- Section 1314, requiring the Secretary of the USEPA to develop and publish water quality criteria that reflect the latest scientific knowledge regarding the effects of pollutants in any body of water.
- Section 1313(a), requiring that federal agencies observe state and local water quality regulations.
- Section 1362, requiring the Secretary of the USEPA to promulgate regulations for National Pollutant Discharge Elimination System (NPDES) permit applications for storm water discharges. (These regulations have been promulgated at 40 CFR § 122 *et seq.*)

Flood Insurance Rate Maps (FIRMs): FEMA divides flood areas into three zones: Zone A for areas of 100-year flood, base flood elevations not determined; Zone B for areas of 500-year flood; and Zone C for areas of minimal flooding. The National Flood Insurance Program 100-year floodplain is considered to be the base flood condition. This is defined as a flood event of a magnitude that would be equaled or exceeded an average of once during a 100-year period. Floodways are defined as stream channels plus adjacent floodplains that must be kept free of encroachment as much as possible so that 100-year floods can be carried without substantial increases (no more than one foot) in flood elevations. Development in these floodplain areas are subject to the standard conditions of approval of the Santa Barbara County Flood Control and Water Conservation District, and the requirements and development standards set forth in the County Flood Plain Management Ordinance (Chapter 15-A of the County Code) and the Development Along Water Courses Ordinance (Chapter 15-B of the County Code).

3.11.2.2 State Regulations

Regional Water Quality Control Board (RWQCB) Basin Plan. The Central Coast (Region 3) RWQCB has jurisdiction over coastal drainage within Santa Barbara County, including groundwater resources of the South Coast Hydrologic Unit. In accordance with the California Water Code, the RWQCB developed a Water Quality Control Plan (1994) (Basin Plan) designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Water quality objectives for the Central Coastal Basin satisfy state and federal requirements established to protect waters for beneficial uses and are consistent with existing statewide plans and policies. The Basin Plan undergoes periodic updates, including a 2008 revision strengthening criteria for onsite wastewater treatment (Resolution No. R3-2008-0005).

There are no hydrologic features within the project site. Of those in the project vicinity, only Romero Creek is identified in the RWQCB's Basin Plan as having specific beneficial uses. It is assigned the following default designations:

- *Municipal and Domestic Water Supply*
- *Groundwater Recharge*
- *Water Contact Recreation*
- *Non-Water Contact Recreation*
- *Wildlife Habitat*
- *Warm Freshwater Habitat*
- *Estuarine Habitat*
- *Freshwater Replenishment*
- *Commercial and Sport Fishing*

In addition to standards set for the designations above, the Basin Plan states:

"Wherever the existing quality of water is better than the quality of water established herein as objectives, such existing quality shall be maintained unless otherwise provided by the provisions of the State Water Resources Control Board Resolution No. 68-16, 'Statement of Policy with Respect to Maintaining High Quality of Waters in California,' including any revisions thereto."

The State of California Water Resources Control Board (SWRCB). The SWRCB has adopted a statewide construction general permit that applies to storm water and non-storm water discharges from construction activities. This general permit, which is implemented and enforced in the Santa Barbara area by the Central Coast RWQCB, requires all owners of land where construction activity occurs to:

- eliminate or reduce non-storm water discharges to storm water systems and other waters of the U.S.,

- develop and implement a Storm Water Pollution Prevention Plan emphasizing storm water Best Management Practices (BMPs), and
- perform inspections of storm water pollution prevention measures to assess their effectiveness.

In addition, SWRCB regulations mandate a “non-degradation policy” for state waters, especially those of high quality.

Porter-Cologne Water Quality Control Act, California Water Code § 13000 et seq. This act mandates that waters of the state shall be protected and that activities that may affect waters of the state shall be regulated to attain the highest quality.

Water Quality Control Plan, Central Coast Basin Plan. The Central Coast RWQCB has adopted a Water Quality Control Plan (Basin Plan) for its region of responsibility, which includes the County of Santa Barbara. The RWQCB has delineated water resource area boundaries based on hydrological features. For purposes of achieving and maintaining water quality protection, specific beneficial uses have been identified for each of the hydrologic areas described in the Basin Plan. The Basin Plan also establishes implementation programs to achieve water quality objectives to protect beneficial uses and requires monitoring to evaluate the effectiveness of the programs. These objectives must comply with the state anti-degradation policy (SWRCB Resolution No. 68-16), which is designed to maintain high-quality waters while allowing some flexibility if beneficial uses are not unreasonably affected.

Beneficial uses of water are defined in the Basin Plan as those necessary for the survival or wellbeing of humans, plants, and wildlife. Examples of beneficial uses include drinking water supplies, swimming, industrial and agricultural water supply, and the support of freshwater and marine habitats and their organisms.

The Basin Plan has established narrative and numeric water quality objectives that, in the Regional Board’s judgment, are necessary for the reasonable protection of beneficial uses and for the prevention of nuisances. If water quality objectives are exceeded, the RWQCB can use its regulatory authority to require municipalities to reduce pollutant loads to the affected receiving waters. The RWQCB utilizes water quality criteria in the form of “scientific information developed by the EPA regarding the effect a constituent concentration has on human health, aquatic life, or other uses of water” to develop its water quality objectives.

State General Permit for Storm Water Discharges Associated with Construction Activity (Construction General Permit). On September 2, 2009, SWRCB adopted the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit; Order 2009-0009-DWQ; NPDES No. CAS000002). In accordance with NPDES regulations, the State of California requires that any construction activity disturbing one acre or more of soil comply with the Construction General Permit. To obtain authorization for proposed stormwater discharges pursuant to this permit, the landowner (discharger) is required to submit a Permit Registration Documents, including a Notice of Intent (NOI), risk assessment, site map, SWPPP, annual fee, and signed certification statement to SWRCB. Dischargers are required to implement BMPs meeting the technological standards of Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate stormwater pollution. BMPs include programs, technologies, processes, practices, and devices that control, prevent, remove, or reduce pollution. Permittees must also maintain BMPs and conduct inspection and sampling programs as required by the permit. Dischargers are also required to comply with monitoring and reporting requirements to ensure that discharges comply with the numeric action levels and numeric effluent limitations specified in the permit.

Certain discharges of non-stormwater, such as irrigation and pipe flushing/testing, are permitted as long as the discharger implements BMPs and complies with the monitoring, sampling, and reporting requirements and as long as the discharge does not cause or contribute to a violation of any water quality standard, violate any provision of the Construction General Permit, violate provisions of the Basin Plan, contain toxic constituents in toxic amounts, or violate numeric action levels and numeric effluent limitations.

3.11.2.3 Local Regulations

Santa Barbara County Comprehensive Plan. The County Comprehensive Plan's overarching policy regarding protection of water quality applies to both construction and post-construction and states that degradation of groundwater quality basins, nearby streams, or wetlands shall not result from site development.

County of Santa Barbara Storm Water Management Program: The County of Santa Barbara's Integrated Regional Water Management Program's (IRWM's) intent is to promote and practice integrated regional water management strategies to ensure sustainable water uses, reliable water supplies, better water quality, environmental

stewardship, efficient urban development, and protection of agricultural and watershed awareness.

Montecito Community Plan (MCP). The MCP contains goals and policies to address community flooding and drainage issues, including:

- *Policy FD-M-2.1:* Development shall be designed to minimize the threat of on-site and downstream flood potential and to allow recharge of the groundwater basin to the maximum extent feasible.
- *Policy FD-M-4.5:* The County shall strive to ensure through public and private projects that adequate drainage is provided to minimize existing community-wide flooding and drainage problems.

The MCP also contains goals and policies to address water supply issues, including:

- *Policy WAT-M-1.1:* When planning for future water supply, the County shall encourage reasonable, practical, reliable, efficient, and environmentally sound water policies.
- *Development Standard WAT-M-1.2.1:* Landscape plans, where required for development, shall include drip irrigation systems and/ or other water saving irrigation systems.
- *Policy WAT-M-1.5:* When supplemental alternative water sources become available, a buffer of 10 percent between supply and demand should be maintained in reserve for periods of drought condition.

Montecito Water District Emergency Limitation on Water Distribution to Land Within the District (Ordinance No. 89). For lands within the jurisdictional boundaries of the Montecito Water District, Ordinance No. 89 establishes that all subdivision projects or any project resulting in a change of land use that requires permitting from the County of Santa Barbara or City of Santa Barbara must obtain a Certificate of Water Service Availability from the District. The District General Manager issues a Certificate of Water Service Availability if he finds that service can be made available to the property, that the project requiring the Certificate includes the installation of state-of-the-art water-saving technologies, and that estimated water usage for the project is within a reasonable range of the Maximum Available Quantity as determined under the Ordinance. Every property subject to this Ordinance measuring one acre or more shall receive a maximum of one acre-foot of water per year, or a base allotment of average amount of water actually delivered to the property per year and per month during the three-year fiscal period 2003/04 - 2005/06, whichever is greater. If it is determined that the Base Allotment does not accurately reflect the typical existing water usage associated with a parcel, a proxy

Base Allotment greater than the Base Allotment can be granted. When a Certificate of Water Service Availability is required because land is proposed for subdivision, the Maximum Available Quantity shall be either the Base Allotment for the entire property divided proportionally among the new parcels or, for each new parcel, one acre foot per year or pro rata portion thereof, as applicable.

Montecito Water District Mandatory Water Use Restrictions (Ordinance No. 92). This ordinance suspends processing of all applications for new water service and increases in size of existing meters for all properties in all customer classifications unless the service has been certified under a valid Can and Will serve letter. It also limits landscape irrigation timing, prohibits draining and refilling of pools, imposes restrictions on car washing and washing of hard surfaces (e.g., driveways), limits serving of water at restaurants and hotel laundry services and requires immediate repair of leaks.

Montecito Water District Mandatory Water Allocations Limiting Water Supply to Each Property (Ordinance No. 93). This ordinance limits water supply deliveries to residential, commercial, agricultural and institutional uses. This ordinance limits deliveries to institutional uses based on a percentage of historic demand. Fines may be imposed for excessive water use and flow restrictors may be placed on accounts which continue to exceed allocations.

County Grading, Erosion, and Sediment Control Ordinance (Ordinance No. 4477). The County Grading Ordinance, Chapter 14 of County Code, provides minimum standards and procedures necessary to protect and preserve life, limb, health, property and public welfare. This chapter also addresses the County's compliance with NPDES Phase II storm water regulations for construction activities. The code requires that a non-discretionary Grading Permit be obtained for projects that disturb 50 cubic yards (cy) or more of material. An Erosion and Sediment Control Plan must be submitted and approved as part of the permit conditions.

County Storm Water Management Program. As required under the federal NPDES Phase II regulations, the SWRCB adopted a general permit for the discharge of storm water for new development from small municipal separate storm sewer systems (MS4s, WQ Order No. 2003-005-DWQ) to provide permit coverage for smaller municipalities, including the County of Santa Barbara. The General Permit requires the County to develop and implement a Storm Water Management Program (SWMP). The County's SWMP is composed of six elements, or minimum control measures, that are expected to reduce

pollutants discharged into receiving water bodies when implemented together. These elements are:

- Public Education and Outreach
- Public Participation/Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Runoff
- Post-construction Runoff Control
- Pollution Prevention/ Good Housekeeping

The County has developed BMPs for both construction site runoff and post-construction runoff control that are applicable to new development projects. However, additional BMPs may be necessary to meet the RWQCB requirements on any specific project.

3.11.3 Environmental Impacts

3.11.3.1 Thresholds for Determining Significance

Thresholds of significance for impacts to water resources, supply, and service are taken from the *Santa Barbara County Environmental Thresholds and Guidelines Manual*:

For the proposed project, a significant impact to water resources is presumed to occur if a project:

- Is located within an urbanized area of the county and the project construction or redevelopment individually or as a part of a larger common plan of development or sale would disturb one (1) or more acres of land;
- Increases the amount of impervious surfaces on a site by 25% or more;
- Results in channelization or relocation of a natural drainage channel;
- Results in removal or reduction of riparian vegetation or other vegetation (excluding non-native vegetation removed for restoration projects) from the buffer zone of any streams, creeks or wetlands;
- Discharges pollutants that exceed the water quality standards set forth in the applicable NPDES permit, the Regional Water Quality Control Board's (RWQCB) Basin Plan or otherwise impairs the beneficial uses¹ of a receiving water body;
- Results in a discharge of pollutants into an "impaired" water body that has been designated as such by the SWRCB or the RWQCB under Section 303 (d) [codified at 33 USC § 1313] of the Federal Water Pollution Prevention and Control Act (i.e., Clean Water Act); or
- Results in a discharge of pollutants of concern to a receiving water body, as identified by the RWQCB.

¹ Refer to Section 3.11.2.2 for beneficial uses designated for Romero Creek.

An impact to water services or supply would occur if the project would:

- Exceed established threshold values which have been set for each overdrafted groundwater basin;
- Substantially reduce the amount of water otherwise available for public water supplies;
- Result in a net increase in pumpage from a well that would substantially affect production or quality from a nearby well.

Additional thresholds of significance for water resources are taken from the CEQA Guidelines Appendix G, and they identify significant impacts if the proposed project 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;
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
- 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;
- Expose people or structures to a significant risk of tsunami, seiche or mudflow.

Thresholds from the CEQA Guidelines Appendix G also identify significant impacts to water supply or service if the proposed project would:

- Have insufficient water supplies available to serve the project from existing entitlements and resources, requiring new or expanded entitlements.

3.11.3.2 Impact Assessment Methodology

The impact assessment methodology used in this analysis consisted of evaluating three types of impacts: 1) degradation of surface water or groundwater quality resulting from construction of the proposed project (e.g., construction materials or urban pollutants, such as oil, grease, and heavy metals) and long-term impacts due to the development (e.g., hydromodification and watershed health); 2) potential impacts to the proposed project resulting from exposure to an existing flood hazard; and 3) potential impacts to potable water supply due to project construction or operational demand. The analysis included review of published data sources and consultation with regulatory personnel familiar with site conditions.

3.11.3.3 Mitigation Measures Contained in the Proposed Project

The applicant has proposed a series of mitigation measures to reduce potential adverse construction and operational effects of the project, which have been incorporated into the project design and future operations as follows:

- A 50-foot habitat restoration buffer from the top of the bank of the drainage along the western side of the site. Restoration would include planting of native oaks and riparian species, and would adhere to a detailed Habitat Restoration Plan to be approved by the County.
- During construction, washing of concrete, paint, or equipment would be confined to areas where polluted water and materials can be contained for subsequent removal from the site. Washing would not be allowed near sensitive biological resources. A designated area for washing functions would be identified.
- Inclusion of water quality protection measures would be incorporated into site design, including use of porous paving in parking areas to minimize runoff and increase infiltration, and treatment of runoff in graded vegetated swales prior to offsite discharge.
- The maintenance bay drainage system would be designed and maintained to capture all wastewater, leaks, and spills. Drains would be tied to a sand and oil separator prior to discharging to the sanitary sewer.
- The vehicle/equipment wash area would be self-contained and designed with a 'rain switch' valve system, allowing storm water to regularly collect/discharge to the storm drain, but would switch over to the sanitary sewer during vehicle/equipment washing activities.

3.11.3.4 Project Impacts and Mitigation Measures

Impact

WAT-1 The proposed project would result in adverse, but less than significant, short-term impacts to surface water quality due to potential erosion, runoff, and sedimentation during construction activities (Class III).

The proposed project would involve excavation and grading of an estimated 8,000 cy of cut and 600 cy of fill in order to provide level building pads and internal circulation. Up to 7,400 cy of cut would be exported via haul trucks to a site determined to be acceptable at the time of construction. This grading could temporarily create an increase in soil erosion and sediment transport into surrounding surface water bodies due to runoff waters moving over exposed areas and entering the drainages to the west and south of the site. Such soil erosion could result in the creation of onsite rills and gully systems, clog

existing drainage channels, degrade offsite surface water quality, and damage downstream aquatic habitats. Soil movement would occur in exposed graded or excavated areas as well as unprotected drainage culverts or basins. This surface runoff may also contain eroded construction material and oil, grease, or spilled fuel from construction equipment that could potentially degrade surface water quality. To reduce surface water and groundwater quality impacts during construction activities, all pertinent regulatory requirements would be adhered to and required erosion control and sediment management practices would be put into effect at the project site. Such potential impacts would be reduced to an adverse, but less than significant level through imposition of erosion and sedimentation control BMPs such as avoiding grading during rainy season, installation of sediment basins, use of straw bales or bundles, and other measures that would be included in a Storm Water Pollution Prevention Plan (SWPPP) required by the RWQCB and enforced as part of the County's Grading Permit. Potential for erosion and sedimentation at the receiver site for exported soils would be reduced to an acceptable level because the site could not receive the soils without having all required permissions and associated BMPs in place prior to export of soil. In addition to the sediment control measures included in Section 3.7, *Geologic Processes*, these practices would include site-specific measures to reduce the occurrence of soil movement during precipitation events and to minimize sediment and polluted runoff from entering nearby tributaries and water bodies, per the SWRCB NPDES General Permit. Therefore, due to the short-term nature of construction and implementation of required standard water quality measures (see *MM WAT-1* below), impacts during construction would be considered *adverse, but less than significant* (Class III).

Standard Regulatory Conditions

The proposed project would adhere to the following standard regulatory requirements as part of the permit approval process, which would ensure that impacts would be less than significant.

MM WAT-1 Prior to issuance of any construction/grading permit and/or the commencement of any clearing, grading, or excavation, a Notice of Intent (NOI) shall be submitted to the State Water Resources Control Board Storm Water Permit Unit. Compliance with the General Permit includes the preparation of a Storm Water Pollution Prevention Plan (SWPPP), which is required to identify potential pollutant sources that may affect the quality of discharges to storm water, and includes design and placement

of Best Management Practices (BMPs) to effectively prohibit the entry of pollutants from the project site into area water bodies during construction. This measure represents a standard County condition of approval for a project and shall be required by the County as part of permit approval process.

Plan Requirements and Timing. Prior to construction, the applicant shall submit a NOI to the State Water Resources Control Board. The applicant would be required to provide a copy of the RWQCB's NOI acceptance letter and the required SWPPP to the County for review and approval. BMPs described in the SWPPP would be required to be shown on plans prior to issuance of the Development Permit.

The applicant shall notify the County prior to commencement of grading. Erosion and sediment control measures would be required to be maintained for the duration of the grading period and development of the project until graded areas have been permanently stabilized by structures, long-term erosion control measures or landscaping. The County would conduct periodic "tailgate" meetings about site maintenance and water quality issues.

Monitoring. The County and other agencies, as appropriate, shall inspect the site during construction, particularly during the rainy season (between November 1 and April 15), for compliance with the SWPPP. Grading inspectors would monitor technical aspects of grading activities, and ensure enforcement of County requirements consistent with the Grading Ordinance. County staff shall inspect the site for all requirements prior to final inspection. Upon strict adherence to requirements set forth in the RWQCB-approved SWPPP, including site monitoring routines, additional downstream water quality sampling and testing would not be necessary.

Impact

WAT-2 The proposed project would result in adverse, but less than significant long-term impacts to surface water quality due to polluted runoff during long-term operational activities (Class III).

Operation of the proposed station would involve the use of fuel and oil/grease that would result from onsite vehicle and equipment maintenance and washing of emergency vehicles, and fertilizers, pesticides, and "household" cleaners and chemicals associated with overall landscape and building maintenance. However, the proposed fire station would be subject to federal, state, and local regulations pertaining to storage and use of any hazardous materials/waste, including obtaining appropriate permits, training, and

agency inspections. These regulations would require implementation of standard good housekeeping measures, BMPs, and site maintenance and security precautions. In addition, compliance with standard NPDES Permit requirements would include development of a Storm Water Pollution Prevention Plan (SWPPP), implementation of BMPs, and discharge monitoring (see *MM WAT-2* below). Further, the proposed project has been designed to include water quality engineering controls, such as a vehicle/equipment wash area ‘rain switch’ valve system to allow discharge switch over from the storm drain to the sanitary sewer during vehicle/equipment washing activities, a maintenance bay drainage system tied to a sand and oil separator prior to discharging to the sanitary sewer, and vegetated swales that would allow for uptake of storm water runoff along with the uptake of potential surface water pollutants. The southerly vegetated swale is designed to be 105 feet long at no great than two percent slope, which would meet County *Standard Conditions for Project Plan Approval- Water Quality BMPs*. An approximately 130-foot long vegetated swale in the western portion of the site would also channel and filter flows towards the detention basin. The detention basin outlet structure would include a fossil filter to further clarify water runoff in compliance with County standards. Therefore, potential long-term water quality impacts would be considered *less than significant* (Class III).

Standard Regulatory Conditions

The proposed project would adhere to the following standard regulatory requirements as part of the permit approval process, which would ensure that impacts would be less than significant.

MM WAT-2 The applicant would be required to apply for and be consistent with all National Pollution Discharge Elimination System (NPDES) permits that apply, which could include Construction and Municipal General Permits. These permits would be consistent with all requirements of the federal Clean Water Act.

Plan Requirements and Timing. Prior to construction, the applicant would be required to submit a NOI to the State Water Resources Control Board. The applicant would be required to provide a copy of the RWQCB’s NOI acceptance letter and the required SWPPP to the County for review and approval.

Monitoring. Upon strict adherence to requirements set forth in the RWQCB-approved SWPPP, including site monitoring routines, additional downstream water quality sampling and testing would not be necessary.

Impact

WAT-3 The proposed project would result in potentially significant (but mitigable) long-term increases in runoff to site drainages and watersheds due to increase in impervious surfaces, including buildings, aprons, and driveways (Class II).

The project site currently has limited or no impervious surfaces, with the exception of very small areas of degraded asphalt along an orchard access road. Project construction would result in installation of approximately 1.07 acres of impervious surfaces on the project site, including driveways, parking areas, patios, and the roofs of proposed structures, thereby increasing runoff volumes and rates. These impervious surfaces would result in incrementally diminished watershed infiltration. Incremental increases in peak flows to adjacent drainages could also cause increased erosion within the channels, and flows to the roadside drainage ditch along East Valley Road could contribute to exceedance of capacity. Because the circulation pavements within the fire station must withstand heavy fire engines, water trucks, and other heavy equipment on a regular basis, permeable paving is not feasible for much of the site. However, consistent with Santa Barbara County's Low Impact Development (LID) policy, the project would incorporate 0.07 acres of permeable paving surfaces in parking areas and would direct most of the site's runoff to vegetated swales and a detention basin located in the southwest portion of the project site. Analysis of the proposed storm water detention basin and swale show no peak runoff increase for the post-development condition from the pre-development condition for all storm events (2, 5, 10, 25, 50, and 100 years) (Appendix L). With incorporation of mitigation measure *MM WAT-3* requiring site drainage to include a detention basin to reduce peak flows, along with design review of the drainage plan by County Planning and Development (P&D) and Flood Control, impacts to increased runoff would be reduced to *Class II, significant but feasibly mitigated*.

Mitigation Measures

MM WAT-3 The onsite detention basin shall be designed such that the post-developed peak discharge rate to offsite drainages shall not exceed the pre-developed peak discharge rate for the 2-year through 100-year storm events.

Plan Requirements and Timing. Drainage plan shall be submitted to County P&D and Flood Control for review and approval prior to approval of Conditional Use Permit.

Monitoring. County P&D shall site inspect during grading.

Impact

WAT-4 The proposed project would result in a reduction of long-term water demand for this 2.55-acre site, potentially reducing demand for regional and groundwater water supplies as a result of replacing water-intensive agricultural use with low water uses including a fire station and drought-tolerant landscaping; therefore, impacts to water supply would be less than significant (Class III).

As discussed above, Montecito faces challenges in the provision of water supplies adequate to meet long-term demand, with water demand in the community exceeding reliable supplies in 2007 by an estimated 600 AFY (MWD 2008). The community is currently in a drought emergency of unknown duration, with the potential for construction of Station 3 to overlap with drought conditions if such conditions continue. However, because of the current comparatively high water use onsite, the proposed project is expected to reduce long-term water use onsite. As discussed above, because the site may receive water from the MWD as well as from a mix of wells and stream diversions, the lower demand of the proposed project could incrementally reduce demand for supplies from some or all of these sources.

Based on water use factors in the *Thresholds Manual for Environmental Review of Water Resources in Santa Barbara County* (Santa Barbara County 2015), total water use for the project would be 1.39 AFY (Table 3.11-1). Because the existing water consumption for the estimated 2.0+ acres of lemon orchard (3.00 AFY) would be discontinued, the net water consumption for the project would be negative; i.e., less water would be consumed under the proposed project than under existing conditions. However, because it is unknown which source of water the site relies upon, the potential for incremental increases in demand from the MWD during a critical drought would be considered an adverse, but not significant impact due to either decreased water demand or a minor increase in demand from the MWD. Therefore, the proposed project would have an *adverse, but less than significant impact* on water supplies in the region (Class III).

Table 3.11-1. Proposed Project Water Demand

				Potable Water Demand (AFY)
	Demand Source	Demand Factor	Multiplier	
<i>Project Use</i>	Structures – Firefighters ¹	0.0737 AFY/ person	4	0.29
	Structures – Admin. ²	0.10 AFY/ 1,000 square feet (sf)	1,222 sf	0.12
	Landscaping ³	1 AFY/ acre	0.43 acres	0.43
	Topping off of Trucks ⁴	150 gallons/ fill	52 fills per year	0.024
	Hose Training ⁵	8,000 gallons/ year	N/A	0.025
	Miscellaneous ⁶	N/A	N/A	0.50
Total Project Use				1.39
<i>Historic Use</i>	Lemon Orchards	1.5 AFY/acre	2.0 acres ⁷	3.00
Net Water Consumption for Project				-1.61

¹ Uses residential factors from Table 8a of County Groundwater Thresholds Manual, assumes 4 persons living at station.

² Uses factors for “General Office” from the Santa Barbara area in Table 8a of County Groundwater Thresholds Manual.

³ Assumes landscaping would be entirely composed of drought-tolerant plants and trees.

⁴ Assumes trucks would be partially filled on site only once per week, at other times would be filled from hydrants off-site. This is consistent with activities at the other MFPD stations.

⁵ Assumes hose training between January and June each year, consistent with training at other MFPD stations. Annual water usage for hose training estimated by MFPD.

⁶ Estimate; includes washing of equipment and other incidental use.

⁷ Area estimated from measurement of geo-referenced aerial photograph.

3.11.3.5 Cumulative Impacts

The cumulative hydrology and water quality setting includes existing, pending, and reasonably foreseeable future land uses within: 1) the watersheds identified for the proposed project area; and 2) the South Coast Hydrologic Unit. The South Coast Hydrologic Unit is delimited in the Basin Plan and generally includes the area south of the Santa Ynez Mountains between Carpinteria and Point Arguello. Cumulative hydrology and water quality impacts, similar to direct impacts, result from increased impervious surface runoff, accelerated erosion, and pollutant loading generally associated with urban and agricultural development. Most of the proposed project’s contribution to cumulative hydrology and water quality impacts would occur during the construction phase. Similar to the proposed project, all other pending projects would also be subject to site-specific requirements for storm water management during construction and post-construction. Other pending projects would also undergo the same drainage design review by the County. Incorporation of storm water management design features into the

landscaping and construction of the other pending projects would reduce impacts to water quality. Mitigation measure *MM WAT-3* and standard conditions of permit approval would reduce the project's incremental contribution to this cumulatively significant impact within the South Coast Hydrologic Unit to less than significant.

In terms of long-term water supply, the project would result in a net decrease from overall existing water use and therefore would not contribute substantially to cumulative water supply impacts associated with pending development projects, even during a critical drought. Depending on the actual mix of water sources used on the site, demand for water from the MWD could potentially increase, incrementally increasing demand on the District's overburdened water supplies. However, total net water demand from the mix of MWD, groundwater and stream diversions currently used to irrigate the site would decrease, leaving project contributions to cumulative impacts *less than significant* (Class III).

3.11.3.6 Residual Impacts

After the implementation of the identified mitigation measures, impacts would be reduced to *less than significant* (Class III).