5.5 Hydrology and Water Quality

5.5 HYDROLOGY AND WATER QUALITY

This section analyzes the Project's potential to impact hydrology and water quality, and groundwater supplies and recharge. Mitigation measures are recommended, where necessary, to avoid or reduce potential impacts to less than significant levels. Information in this section is based primarily on the Project's Waste Discharge Requirements (WDR) permits obtained from the Central Coast Regional Water Quality Control Board (CCRWQCB):

- *NPDES General Permit, Waste Discharge Requirements for Discharges of Stormwater Runoff Associated with Construction Activities*, Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ (CCRWQCB).
- *Waste Discharge Requirements National Pollutant Discharge Elimination System General permit for Discharges with Low Threat to Water Quality*, Order No. R3-2011-0223, NPDES No. CAG993001 (CCRWQCB).
- *Waste Discharge Requirements*, Order No. R3-2014-0047 (CCRWQCB).
- *Waste Discharge Requirements*, Order No. 010-100, modified November 14, 2014 (CCRWQCB).
- *Waste Discharge Requirements and Water Recycling Requirements*, Order No. R3-2014-0050 (CCRWQCB).
- *Cambria Emergency Water Supply Project San Simeon Creek Basin Groundwater Modeling Report* (GMR) (CDM Smith, May 2014) (see Appendix E, *Biological Resources Reports)*.
- *Technical Memorandum - San Simeon Creek Flows* (CDM Smith, October 16, 2015) (see Appendix E*)*.

These Permits are available for review at the CCSD offices located at 1316 Tamson Drive, Suite 201, Cambria, California 93428.

5.5.1 ENVIRONMENTAL SETTING

EXISTING HYDROLOGY AND DRAINAGE CONDITIONS

The Project site is located in the lower portion of the San Simeon Creek valley, extending approximately 3.5 miles upstream from the Pacific Ocean. The Project site vicinity includes areas underlain by a significant alluvial aquifer along San Simeon Creek, including the Van Gordon Creek tributary. Near the headwaters, the creek valley forms a steep, narrow canyon. Along the final three to five miles before reaching the ocean, the valley widens to a floodplain that is up to approximately 1,000 feet wide. The floodplain is underlain by the groundwater basin and is flanked by steep hillsides that rise 200 to 800 feet above the valley floor. The San Simeon Creek Lagoon, which is located in the lower portion of the valley, serves as an important ecological resource. San Simeon Creek Lagoon is located at, and immediately up-stream from, the outlet of where San Simeon Creek flows into the Pacific Ocean. When not under the influence of high

ocean surf, the lagoon in the lower portion of the valley, is primarily a fresh water lagoon, which forms behind an ocean beach berm and is supported by groundwater discharge and seasonal surface water inflows.

Based on the GMR, mean annual precipitation for the Project area from 1870 to 2013 was 21.93 inches. The majority of the annual rainfall occurs between November and April. Rainfall increases with distance from the shoreline and increases in elevation within the overall watershed area. Within the upper elevations of the watershed, annual rainfall increases to between 40 and 50 inches.

Existing onsite conditions are predominantly pervious surfaces including open fields vegetated with annual grassland and ruderal vegetation. Onsite soils are generally comprised of sandy and silty clays, underlain by clays and impermeable bedrock of Franciscan chert, volcanic rock, and sandstone. Onsite permeabilities generally decrease with depth and distance from surface waters. San Simeon Creek and Van Gordon Creek traverse the southeastern and western portions of the Project site, respectively. The onsite drainage occurs as sheet-flow along the natural land contours, depositing into the San Simeon Creek Lagoon, via the San Simeon Creek and Van Gordon Creek confluence.

FLOODPLAIN MAPPING

According to Federal Emergency Management Agency (FEMA), portions of the Project site are located within a 100-year floodplain; refer to the *National Flood Insurance Program* Section below.

GROUNDWATER

Groundwater occurs in the alluvial deposits beneath San Simeon Creek, which drains the western flanks of San Luis Obispo (SLO) County's Santa Lucia Range and discharges into the Pacific Ocean. The alluvium is saturated with groundwater near the ground surface at the creek's western extent. The alluvial aquifer is recharged primarily by seepage from San Simeon Creek, which typically flows during the winter and spring rainy seasons. During the periods when water is present in San Simeon Creek, groundwater levels are similar to those observed in the creek. The depth to groundwater increases away from the creek, since in many valley areas, the creek is incised below the adjacent terraces. Groundwater levels decline during dry periods due to lack of precipitation, natural dry-season drainage,[1] and in response to Cambria Community Services District (CCSD) pumping and surrounding agricultural users, which maintain private wells for farmland irrigation.

[1] USGS Report 98-4061, *Hydrogeology, Water Quality, Water Budgets, and Simulated Responses to Hydrologic Changes in Santa Rosa and San Simeon Creek Ground-Water Basins, San Luis Obispo County, Californi*a. p. 82: "A significant amount of dry-season water-level decline is not the result of pumping, but of natural dry season drainage processes. In the San Simeon Basin, there were natural dry-season water-level declines throughout the valley because water moved downvalley only as subsurface flow."

CCSD and agricultural water users along San Simeon Creek use wells in the alluvial aquifer. Along the San Simeon Creek valley, there are numerous private wells that irrigate farmlands on flat areas adjacent to the creek channel. Groundwater occurs in the alluvial deposits beneath the creek. The alluvial deposits form flat valley floors, which are used for irrigated and non-irrigated agriculture.

The Project site contains various water and wastewater facilities (i.e., a potable water well field, a potable water supply pipeline, extraction and monitoring wells, a discharge structure, and a treated wastewater effluent land disposal system), as illustrated on Exhibit 3-4, *Existing Site Conditions*. A total of 11 wells are located on the Project site, including six pumping wells and five monitoring wells. Eight (8) additional wells are located immediately northeast of the Project site, including four pumping wells and four monitoring wells.

The CCSD utilizes a series of percolation ponds between the well field and the ocean where secondary treated waste water is recharged back to the aquifer. Thus, water levels are mounded in the vicinity of the CCSD percolation ponds. Pumping during the dry season results in seasonal declines in groundwater levels, since production is supported by removal of water from storage in the aquifer when the stream is not flowing.

EXISTING STORMWATER QUALITY CONDITIONS

Nonpoint Source Pollutants

An important consideration in evaluating stormwater quality is to assess whether the beneficial use to the receiving waters is impaired. Nonpoint source pollutants have been characterized by the following major categories, in order to assist in determining the pertinent data and its use. Receiving waters can assimilate a limited quantity of various constituent elements; however, there are thresholds beyond which the measured amount becomes a pollutant and results in an undesirable impact. Standard water quality categories of typical urbanization are:

- *Suspended Solids/Sediment*. Suspended solids/sediments consist of soils or other surficial materials that are eroded and then transported or deposited by wind, water, or gravity. Excessive sedimentation can increase turbidity, clog fish gills, reduce spawning habitat, lower young aquatic organisms survival rates, smother bottom dwelling organisms, and suppress aquatic vegetation growth. Sediments in runoff also transport other pollutants that adhere to them, including trace metals, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and phosphorus (P). The largest source of suspended solids/sediment is typically erosion from disturbed soils.

- *Nutrients*. Nutrients include the macro-nutrients nitrogen and phosphorus. They commonly exist in the form of mineral salts dissolved or suspended in water and as particulate organic matter transported by stormwater. Excessive discharge of nutrients to

water bodies and streams can cause eutrophication, including excessive aquatic algae and plant growth, loss of dissolved oxygen, release of toxins in sediment, and significant swings in hydrogen ion concentration (pH). Primary sources of nutrients in urban runoff are fertilizers, trash and debris, and eroded soils. Urban areas with improperly managed landscapes can be substantial sources.

- *Metals*. This category includes certain metals that can be toxic to aquatic life if concentrations become high enough to stress natural processes. Metals of concern include cadmium, chromium, copper, lead, mercury, and zinc. Lead and chromium have been used as corrosion inhibitors in primer coatings and are also raw material components in non-metal products such as fuels, adhesives, paints, and other coatings. Copper and zinc are typically associated with building materials, including galvanized metal and ornamental copper, and automotive products, including tires and brake pads. Humans can be impacted from contaminated groundwater resources, and bioaccumulation of metals in fish and shellfish. Environmental concerns regarding the potential for release of metals to the environment have already led to restricted metal usage in certain applications, for example lead additives in gasoline. The primary source of metals in urban stormwater is typically commercially available metal products and automobiles.

- *Microbial Pathogens (Bacteria and Viruses)*. This category includes bacteria and viruses, which are ubiquitous microorganisms that thrive under a range of environmental conditions. Water containing excessive pathogenic bacteria and viruses can create a harmful environment for humans and aquatic life. The source of pathogenic bacteria and viruses is typically the transport of animal or human fecal wastes from the watershed, but pathogenic organisms do occur in the natural environment.

- *Oil and Grease*. Oil and grease are characterized as high-molecular weight organic compounds. Elevated oil and grease content can decrease the aesthetic value of the water body, as well as the water quality. Introduction of these pollutants to water bodies may occur due to the wide uses and applications of some of these products in municipal, residential, commercial, industrial, and construction areas. Primary sources of oil and grease are petroleum hydrocarbon products, motor products from leaking vehicles, esters, oils, fats, waxes, and high molecular-weight fatty acids.

- *Toxic Organic Compounds*. These include organic compounds (pesticides, solvents, hydrocarbons), which at toxic concentrations constitute a hazard to humans and aquatic organisms. Stormwater coming into contact with organic compounds can transport excessive levels organics to receiving waters. Dirt, grease, and grime retained in cleaning fluid or rinse water may also adsorb levels of organic compounds that are harmful or hazardous to aquatic life. Sources of organic compounds include landscape maintenance areas, vehicle maintenance areas, waste handling areas, and potentially most other urban areas.

- *Trash and Debris*. This category includes trash, such as paper, plastic, and various waste materials, that can typically be found throughout the urban landscape, and debris which includes waste products of natural origin which are not naturally discharged to water bodies such as landscaping waste, woody debris, etc. The presence of trash and debris may have a significant impact on the recreational value of a water body and upon the health of aquatic habitat.

Physical Characteristics of Surface Water Quality

Standard parameters to assess stormwater quality provide a method of measuring impairment. The background of these typical characteristics assists in understanding water quality requirements. The quantity of a material in the environment and its characteristics determine the degree of availability as a pollutant in surface run-off. In an urban environment, the quantity of certain pollutants in the environment is a function of land use intensity. For instance, a high density of automobile traffic makes a number of potential pollutants (such as lead and hydrocarbons) more available. The availability of a material, such as a fertilizer, is a function of the quantity and the manner in which it is applied. Applying fertilizer in quantities that exceed plant needs leaves the excess nutrients available for loss to surface or ground-water.

The physical properties and chemical constituents of water traditionally have served as the primary means for monitoring and evaluating water quality. Evaluating the condition of water through a water quality standard refers to its physical, chemical, or biological characteristics. Water quality parameters for stormwater comprise a long list and are classified in many ways. Typically, the concentration of an urban pollutant, rather than the annual load of that pollutant, is required to assess a water quality problem. Some of the physical, chemical, or biological characteristics that evaluate the quality of the surface run-off are listed below.

- *Dissolved Oxygen (DO)*. DO in the water has a pronounced effect on the aquatic organisms and the chemical reactions that occur. It is one of the most important biological water quality characteristics in the aquatic environment. The DO concentration of a water body is determined by the solubility of oxygen, which is inversely related to water temperature, pressure, and biological activity. DO is a transient property that can fluctuate rapidly in time and space, and represents the status of the water system at a particular point and time of sampling. The decomposition of organic debris in water is a slow process, as are the resulting changes in oxygen status. The oxygen demand is an indication of the pollutant load and includes measurements of biochemical oxygen demand or chemical oxygen demand.

- *Biochemical Oxygen Demand (BOD)*. The BOD is an index of the oxygen-demanding properties of the biodegradable material in the water. Samples are taken from the field and incubated in the laboratory at 20°C, after which the residual dissolved oxygen is

measured. The BOD value commonly referenced is the standard 5-day values. These values are useful in assessing stream pollution loads and for comparison purposes.

- *Chemical Oxygen Demand (COD)*. The COD is a measure of the pollutant loading in terms of complete chemical oxidation using strong oxidizing agents. It can be determined quickly because it does not rely on bacteriological actions as with BOD. COD does not necessarily provide a good index of oxygen demanding properties in natural waters.

- *Total Dissolved Solids (TDS)*. TDS concentration is determined by evaporation of a filtered sample to obtain residue whose weight is divided by the sample volume. The TDS of natural waters varies widely. There are several reasons why TDS is an important indicator of water quality. Dissolved solids affect the ionic bonding strength related to other pollutants such as metals in the water. TDS are also a major determinant of aquatic habitat. TDS affects saturation concentration of dissolved oxygen and influences the ability of a water body to assimilate wastes. Eutrophication rates depend on TDS.

- *pH*. The pH of water is the negative log, base 10, of the hydrogen ion (H+) activity. A pH of 7 is neutral; a pH greater than 7 indicates alkaline water; a pH less than 7 represents acidic water. In natural water, carbon dioxide reactions are some of the most important in establishing pH. The pH at any one time is an indication of the balance of chemical equilibrium in water and affects the availability of certain chemicals or nutrients in water for uptake by plants. The pH of water directly affects fish and other aquatic life; generally, toxic limits are pH values less than 5.7 and greater than 9.2.

- *Alkalinity*. Alkalinity is the opposite of acidity, representing the capacity of water to neutralize acid. Alkalinity is also linked to pH and is caused by the presence of carbonate, bicarbonate, and hydroxide, which are formed when carbon dioxide is dissolved. A high alkalinity is associated with a high pH and excessive solids. Most streams have alkalinities less than 200 milligrams per liter (mg/l). Ranges of alkalinity of 100-200mg/l seem to support well-diversified aquatic life.

- *Specific Conductance*. The specific conductivity of water, or its ability to conduct an electric current, is related to the total dissolved ionic solids. Long-term monitoring of project waters can develop a relationship between specific conductivity and TDS. Its measurement is quick and inexpensive and can be used to approximate TDS. Specific conductivities in excess of 2000 microohms per centimeter (µohms/cm) indicate a TDS level too high for most freshwater fish.

- *Turbidity*. The clarity of water is an important indicator of water quality that relates to the alkalinity of photosynthetic light to penetrate. Turbidity is an indicator of the property of water that causes light to become scattered or absorbed. Turbidity is caused by suspended

clays and other organic particles. It can be used as an indicator of certain water quality constituents, such as predicting sediment concentrations.

- *Nitrogen*. Sources of nitrogen in stormwater are from the additions of organic matter to water bodies or chemical additions. Ammonia and nitrate are important nutrients for the growth of algae and other plants. Excessive nitrogen can lead to eutrophication since nitrification consumes dissolved oxygen in the water. Nitrogen occurs in many forms. Organic nitrogen breaks down into ammonia, which eventually becomes oxidized to nitrate-nitrogen, a form available for plants. High concentrations of nitrate-nitrogen (N/N) in water can stimulate growth of algae and other aquatic plants, but if phosphorus (P) is present, only about 0.30 mg/l of nitrate-nitrogen is needed for algal blooms. Some fish life can be affected when nitrate-nitrogen exceeds 4.2 mg/l (nitrate measured as N, or NO_3–N). There are a number of ways to measure the various forms of aquatic nitrogen. Typical measurements of nitrogen include Kjeldahl nitrogen (organic nitrogen plus ammonia), ammonia, nitrite plus nitrate, nitrite, and nitrogen in plants. The principal water quality criterion for nitrogen focuses on nitrate and ammonia.

- *Phosphorus*. Phosphorus is an important component of organic matter. In many water bodies, phosphorus is the limiting nutrient that prevents additional biological activity from occurring. The origin of this constituent in urban stormwater discharge is generally from fertilizers and other industrial products. Orthophosphate is soluble and is considered to be the only biologically available form of phosphorus. Since phosphorus strongly associates with solid particles and is a significant part of organic material, sediments influence concentration in water and are an important component of the phosphorus cycle in streams. Important methods of measurement include detecting orthophosphate and total phosphorus.

Existing Water Quality Conditions

According to the 2010 California 303(d) list, San Simeon Creek is listed as impaired by chloride, low dissolved oxygen, nitrate, and sodium.[2,3] The potential sources for impairment are agriculture, grazing, natural sources, and wastewater disposal. San Simeon Creek is scheduled to complete the Total Maximum Daily Load (TMDL) requirements for pollutants by 2021. TMDL is a regulatory term in the U.S. Clean Water Act; see discussion below.

[2] State Water Resources Control Board, 2010 Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report) – Statewide, http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml, Accessed May 4, 2015.

[3] However, the CCSD notes that tidal over wash and flooding of the lagoon with seawater also influences the chloride and sodium levels at the State's lower San Simeon Creek Central Coast Ambient Monitoring Program (CCAMP) monitoring station location (at the campground pedestrian bridge).

Beneficial Uses

The Water Quality Control Plan for the Central Coast Basin (Basin Plan) designates beneficial uses for water bodies in the Central Coast Region, and establishes water quality objectives and implementation plans to protect those beneficial uses; see the *Water Quality Control Plan for the Central Coastal Region* Section below. Beneficial uses are defined as the uses of water necessary for the survival or wellbeing of man, plants, and wildlife. These uses of water serve to promote the tangible and intangible economic, social, and environmental goals of mankind. Examples include drinking, swimming, industrial and agricultural water supply, and the support of fresh and saline aquatic habitats. The Basin Plan identifies the following beneficial uses for the Project site's receiving waters:

San Simeon Groundwater Basin

- MUN – Municipal and Domestic Supply;
- IND – Industrial Service Supply;
- PROC – Industrial process supply; and
- AGR – Agricultural supply.

San Simeon Creek

- MUN – Municipal and Domestic Supply;
- AGR – Agricultural Supply;
- IND – Industrial Service Supply;
- GWR – Groundwater Recharge;
- REC 1 – Water Contact Recreation;
- REC 2 – Non-Contact Water Recreation;
- WILD – Wildlife Habitat;
- COLD – Cold Fresh Water Habitat;
- WARM – Warm Fresh Water Habitat;
- MIGR – Migration of Aquatic Organisms;
- SPWN – Spawning, Reproduction, and/or Early Development;
- BIOL – Preservation of Biological Habitats of Special Significance;
- RARE – Rare, Threatened, or Endangered Species;
- FRESH – Freshwater Replenishment; and
- COMM – Commercial and Sport Fishing.

San Simeon Creek Lagoon

- GWR – Groundwater Recharge;
- REC 1 – Water Contact Recreation;
- REC 2 – Non-Contact Water Recreation;
- WILD – Wildlife Habitat;
- COLD – Cold Fresh Water Habitat;
- MIGR – Migration of Aquatic Organisms;

- SPWN – Spawning, Reproduction, and/or Early Development;
- BIOL – Preservation of Biological Habitats of Special Significance;
- RARE – Rare, Threatened, or Endangered Species;
- EST – Estuarine Habitat;
- COMM – Commercial and Sport Fishing; and
- SHELL – Shellfish Harvesting.

TSUNAMI, SEICHE, AND MUDFLOW

Tsunami

A tsunami is a sea wave generated by an earthquake, landslide, volcanic eruption, or even by a large meteor hitting the ocean. An event such as an earthquake creates a large displacement of water resulting in a rise or mounding at the ocean surface that moves away from this center as a sea wave. Tsunamis generally affect coastal communities and low-lying (low-elevation) river valleys in the vicinity of the coast. Buildings closest to the ocean and near sea level are most at jeopardy. Portions of the Project site are located within a tsunami inundation area. Refer to the *California Geological Survey Tsunami Inundation Maps* Section below.

Seiche

A seiche is an earthquake or slide-induced wave that can be generated in an enclosed body of water of any size from swimming pool, to a harbor, or lake. Given that the nearest large, enclosed open body of water is Lake Nacimiento, located approximately 12 miles northeast of the Project site, beyond the Santa Lucia Mountain Range, the potential for the Project site to be affected by seiching is nonexistent.

Mudflow

Mudflows result from the downslope movement of soil and/or rock under the influence of gravity. The Project site is relatively flat. However, the surrounding area includes steeper hillsides associated with the Santa Lucia range. Potential risk from mudflow (i.e., mudslide, debris flow) may exist within the Project area.

5.5.2 REGULATORY SETTING

FEDERAL

Clean Water Act

The principal law governing pollution of the nation's surface waters is the Federal Water Pollution Control Act (Clean Water Act [CWA]). Originally enacted in 1948, it was amended in 1972 and has remained substantially the same since. The CWA consists of two major parts: provisions that authorize federal financial assistance for municipal sewage treatment plant construction and regulatory requirements that apply to industrial and municipal dischargers. The CWA authorizes the establishment of effluent standards on an industry basis. The CWA also requires states to adopt water quality standards that "consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses." The CWA forms the basic national framework for the management of water quality and the control of pollution discharges; it provides the legal framework for several water quality regulations, including the National Pollutant Discharge Elimination System (NPDES), effluent limitations, water quality standards, pretreatment standards, antidegradation policy, nonpoint-source discharge programs, and wetlands protection. The United States Environmental Protection Agency (USEPA) has delegated the responsibility for administration of portions of the CWA to state and regional agencies.

National Pollutant Discharge Elimination System

To achieve its objectives, the CWA is based on the concept that all discharges into the nation's waters are unlawful, unless specifically authorized by a permit. The NPDES is the permitting program for discharge of pollutants into surface waters of the United States under CWA Section 402. Thus, industrial and municipal dischargers (point source discharges) must obtain NPDES permits from the appropriate Regional Water Quality Control Board (RWQCB) (i.e., the Central Valley region). The existing NPDES (Phase I) stormwater program requires municipalities serving more than 1,000,000 persons to obtain a NPDES stormwater permit for any construction project larger than five acres. Proposed NPDES stormwater regulations (Phase II) expand this existing national program to smaller municipalities with populations of 10,000 persons or more and construction sites that disturb more than one acre. For other dischargers, such as those affecting groundwater or from non-point sources, a Report of Waste Discharge (ROWD) must be filed with the RWQCB. For specific situations, some permits may be waived and some discharge activities may be handled through inclusion in an existing General Permit.

Impaired Waterbodies

CWA Section 303(d) and California's Porter-Cologne Water Quality Control Act (described below) require the State to establish the beneficial uses of its State waters and adopt water quality standards to protect those beneficial uses. Section 303(d) establishes a TMDL, which is the maximum quantity of a particular contaminant that a water body can maintain without experiencing adverse effects, to guide the application of State water quality standards. Section 303(d) also requires the State to identify "impaired" streams (water bodies affected by the presence of pollutants or contaminants) and establish the TMDL for each stream. The San Simeon Creek is currently listed as impaired *(per earlier discussion on p. 5.5-7 under Existing Water Quality Conditions section*), while the Van Gordon Creek is not.

National Flood Insurance Program

Congress passed the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. These Acts are intended to reduce the need for large publicly funded flood control structures and disaster relief by restricting development on floodplains.

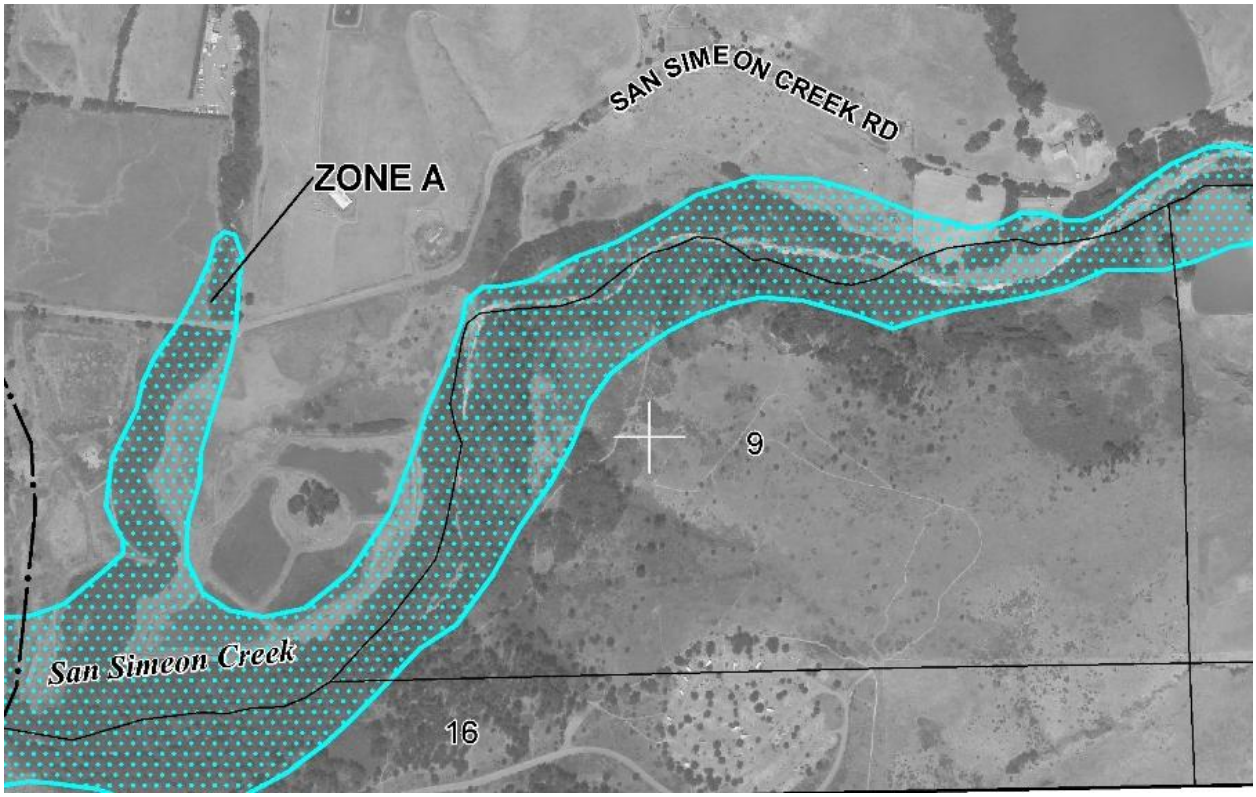
The National Flood Insurance Program (NFIP) provides a means for property owners to financially protect themselves from flood damage. The NFIP offers flood insurance to homeowners, renters, and business owners if their community participates in the program. Participating communities agree to adopt and enforce ordinances that meet or exceed FEMA requirements to reduce the risk of flooding. SLOC is a participant and must adhere to the NFIP.

Through its Flood Hazard Mapping Program, FEMA identifies flood hazards, assesses flood risks and partners with states and communities to provide accurate flood hazard and risk data. Flood Hazard Mapping is an important part of the NFIP, as it is the basis of the NFIP regulations and flood insurance requirements. FEMA maintains and updates data through Flood Insurance Rate Maps (FIRMs) and risk assessments. A FIRM is an official community map that indicates where FEMA has delineated both the special hazard areas and the risk premium zones applicable to the community.

A Special Flood Hazard Area (SFHA) is an area within a floodplain having a one percent or greater chance of flood occurrence within any given year (commonly referred to as the 100 year flood zone). SFHAs are delineated on flood hazard boundary maps issued by FEMA. The Flood Disaster Protection Act of 1973 and the National Flood Insurance Reform Act of 1994 make flood insurance mandatory for most properties in SFHAs. Mandatory flood insurance purchase requirements and floodplain management standards apply to those areas located within SFHAs (including Zone A designated areas). Zone A is defined as areas within the 100-year floodplain, which are subject to inundation by the one percent-annual-chance flood event (herein referenced as the 100-year flood zone). Any construction in Zone A could require a Conditional Letter of Map Revision (CLMR) from FEMA prior to Grading Permit or Certificate of Occupancy issuance.

According to FEMA and as illustrated below, portions of the Project site are located within SFHA Zone A.[4]

Flood Insurance Rate Map Number 06079C0530G



Particularly, the onsite areas along Van Gordon and San Simeon Creeks are located in Zone A. It is noted, the Van Gordon Reservoir is located outside of SFHA Zone A.

STATE

Porter-Cologne Water Quality Control Act

The CWA places the primary responsibility for the control of surface water pollution and planning the development and use of water resources with the states, although it does establish certain guidelines for the states to follow in developing their programs. The CWA allows the EPA to withdraw control from states with inadequate implementation mechanisms.

[4] Federal Emergency Management Agency, Flood Insurance Rate Map, Map Number 06079C0530G, Map Revised November 16, 2012, http://msc.fema.gov/portal, Accessed May 4, 2015.

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act (Water Code §§ 13000, et seq.). The Porter-Cologne Act grants the State Water Resources Control Board (SWRCB) and the RWQCBs authority and responsibility to adopt plans and policies, regulate discharges to surface and groundwater, regulate waste disposal sites, and require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum products.

Each RWQCB must formulate and adopt a water quality control plan for its region. The regional plans must conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its state water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

State Water Resources Control Board

The SWRCB administers the State's water rights, water pollution control, and water quality functions, while the RWQCBs conduct planning, permitting, and enforcement activities. Concerning the Project, the NPDES permit is divided into two parts: construction; and post-construction. Construction permitting is administered by the SWRCB, while post-construction permitting is administered by the RWQCB. In California, NPDES permits are also referred to as Waste Discharge Requirements (WDRs) that regulate discharges to waters of the United States.

CONSTRUCTION ACTIVITIES

Development projects typically result in the disturbance of soil that requires compliance with the NPDES General Permit, Waste Discharge Requirements for Discharges of Stormwater Runoff Associated with Construction Activities (Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ). This Statewide General Construction Permit regulates discharges from construction sites that disturb one or more acres of soil. By law, all stormwater discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance of at least one acre of total land area must comply with the provisions of this NPDES Permit, and develop and implement an effective Stormwater Pollution Prevention Plan (SWPPP). The SWPPP is required to contain a site map(s), which shows the construction site perimeter, existing and Project buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the Project. The SWPPP is required to list Best Management Practices (BMPs) the discharger must use to protect stormwater runoff and the placement of those BMPs. Additionally, the SWPPP must contain the following: a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

Construction General Permit Section A describes the required SWPPP elements. A project applicant must submit a Notice of Intent (NOI) to the SWRCB, to be covered by the NPDES General Permit, and prepare the SWPPP before beginning construction. SWPPP implementation starts at the commencement of construction and continues through Project completion. Upon Project completion, the applicant must submit a Notice of Termination (NOT) to the SWRCB to indicate that construction is complete.

For post construction activities, state regulations pertaining to the treatment, storage, processing, or disposal of solid waste are found in Title 27, CCR, Section 20005 et seq. (hereafter Title 27). In general, the Waste Discharge Requirements (WDRs) Program regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

California Geological Survey Tsunami Inundation Maps

The California Geological Survey provides geologic and seismic expertise to the public, other State government offices, and local government agencies (cities and counties). The California Geological Survey is working closely with the California Emergency Management Agency (CEMA) and the Tsunami Research Center at the University of Southern California to produce statewide tsunami inundation maps for California. These maps are used by coastal communities to produce emergency evacuation plans.

A tsunami is a sea wave generated by an earthquake, landslide, volcanic eruption, or even by a large meteor hitting the ocean. Basically, an event such as an earthquake creates a large displacement of water resulting in a rise or mounding at the ocean surface that moves away from this center as a sea wave. These sea waves can move more than 800-kilometers (500-miles) per hour. As they approach land and as the ocean shallows, these waves slow down, making them grow in height (amplitude). Tsunamis generally affect coastal communities and low-lying (low-elevation) river valleys in the vicinity of the coast. Buildings closest to the ocean and near sea level are most at jeopardy.

According to the Tsunami Inundation Map for Emergency Planning for the Cambria Quadrangle (July 1, 2009), portions of the Project site are located within a tsunami inundation area.[5] It is noted that the Van Gordon Reservoir is located outside of this tsunami inundation area.

[5] State of California Department of Conservation, Tsunami Inundation Map for Emergency Planning, http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/SanLuisObispo/Documents/Tsunami_Inundation_Cambria_Quad_SLO.pdf, Accessed May 4, 2015.

California Coastal Act

The California Coastal Act of 1976 (Coastal Act) mandates that local governments prepare a land use plan and schedule of implementing actions to carry out the policies of the Coastal Act. Under the Coastal Act mandate, local governments are confronted with the need for implementing policies that are more specific and that address non-traditional issues not commonly associated with the normal role of a local government general plan. A major concern of the Coastal Act is to ensure protection of the quality of coastal waters. Such waters include streams, estuaries, wetlands, and lakes. A second concern is that new development not create or contribute to erosion. Erosion, sediment movement, and runoff are all parts of a natural cycle in which landforms are built up, worn down by wind and water, and then built up again. Most of the time, these processes are slow enough for nature to respond to the changing landforms. Man's activities, however, may speed up or slow down the natural rates of the cycle, taxing nature's ability to adjust.

Regional Water Quality Control Board

As previously noted, post-construction permitting is administered by the RWQCB. The Project site is located within CCRWQCB jurisdiction.

The quality of the State's waters can be affected by many sources that come in different forms and amounts. For regulatory purposes, these sources are categorized by whether they are planned, easily-identified "end-of-pipe" waste discharges from a single, discrete source such as constructed conveyance systems (known as "point source discharges"), or from planned or unplanned discharges from more diffuse runoff that covers a wide area (known as "nonpoint source discharges"). The waste can be in liquid or solid form, and can be in small to very large volumes. Through the NPDES Permit Program, the RWQCB regulates waste discharges to both surface waters, such as rivers and the ocean, and groundwaters (via discharge to land). The type of permits issued by the RWQCBs to control these various sources of pollutants depends on the type/category of waste, where the waste is discharged, and State and federal laws and regulations.

Water Quality Control Plan for the Central Coastal Region

The Water Quality Control Plan for the Central Coastal Region (Basin Plan) is the CCRWQCB's master water quality control planning document. The Basin Plan's objective is to show how the quality of the surface and groundwaters in the Central Coast Region should be managed to provide the highest water quality reasonably possible. The Basin Plan lists the various water uses (or Beneficial Uses) and describes the water quality, which must be maintained to allow those uses (Water Quality Objectives). The Basin Plan also describes the programs, projects, and other actions which are necessary to achieve the water quality objectives. The CCRWQCB implements the Basin Plan by issuing and enforcing WDRs to individuals, communities, or businesses whose waste discharges can affect water quality.

Basin Plan Section VIII.B, *Urban Runoff Management*, identifies four basic approaches to controlling pollution from urban runoff: (1) prevent contaminants from reaching urban land surfaces; (2) improve street cleaning and cleaning of other areas where contaminants may be present; (3) treat runoff prior to discharge to receiving waters; and (4) control land use and development. In addition to these direct approaches, measures to reduce the volume of runoff from urban areas are also specified.

LOCAL

San Luis Obispo County General Plan

LOCAL COASTAL PROGRAM (LCP) POLICY DOCUMENT

The San Luis Obispo County Local Coastal Program Policies relevant to the Project are as follows:

Coastal Watersheds

LCP 1 Preservation of Groundwater Basins. The long-term integrity of groundwater basins within the coastal zone shall be protected. The safe yield of the groundwater basin, including return and retained water, shall not be exceeded except as part of a conjunctive use or resource management program which assures that the biological productivity of aquatic habitats are not significantly adversely impacted.
[THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD]

LCP 2 Water Extractions. Extractions, impoundments, and other water resource developments shall obtain all necessary county and/or state permits. All pertinent information on these uses (including water conservation opportunities and impacts on in-stream beneficial uses) will be incorporated into the data base for the Resource Management System and shall be supplemented by all available private and public water resources studies available. Groundwater levels and surface flows shall be maintained to ensure that the quality of coastal waters, wetlands, and streams is sufficient to provide for optimum populations of marine organisms, and for the protection of human health.
[THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD]

Coastal Streams

LCP 20 Coastal Streams and Riparian Vegetation. Coastal streams and adjoining riparian vegetation are environmentally sensitive habitat areas and the natural hydrological system and ecological function of coastal streams shall be protected and preserved.
[THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD AND PURSUANT TO CZLUO SECTION 23.07.174]

LCP 21 Development in or Adjacent to a Coastal Stream. Development adjacent to or within the watershed (that portion within the coastal zone) shall be sited and designed to prevent impacts which would significantly degrade the coastal habitat and shall be compatible with the continuance of such habitat areas. This shall include evaluation of erosion and runoff concerns.
[THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD AND PURSUANT TO CZLUO SECTION 23.07.174]

LCP 23 County and State Review of Coastal Stream Projects. The State Water Resources Control Board and the County shall ensure that the beneficial use of coastal stream waters is protected, for projects over which it has jurisdiction. For projects which do not fall under the review of the State Water Resources Control Board, the county (in its review of public works and stream alterations) shall ensure that the quantity and quality surface water discharge from streams and rivers shall be maintained at levels necessary to sustain the functional capacity of streams, wetland, estuaries and lakes.
[THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD AND PURSUANT TO CZLUO SECTION 23.07.174]

Hazards

LCP 1 New Development. All new development proposed within areas subject to natural hazards from geologic or flood conditions (including beach erosion) shall be located and designed to minimize risks to human life and property.
[THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD]

LCP 2 Erosion and Geologic Stability. New development shall ensure structural stability while not creating or contributing to erosion or geological instability.
[[THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD]

LCP 3 Development Review in Hazard Areas. The County shall require a detailed review of development proposed within the geologic study area and flood hazard combining designations as indicated on the Land Use Element maps for the coastal zone. The review shall be performed by a qualified registered and/or certified engineering geologist and shall be adequately detailed to provide recommendations and conclusions consistent with this plan. Residential, commercial and industrial development shall be prohibited within the l00 year floodplain (one percent (1%) chance of inundation in any year) as delineated in the Flood Hazard combining designation except for those areas within an urban reserve line.
[THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO CZLUO SECTIONS 23.07.082 (GSA), 23.07.084, 23.07.062 AND 23.07.066]

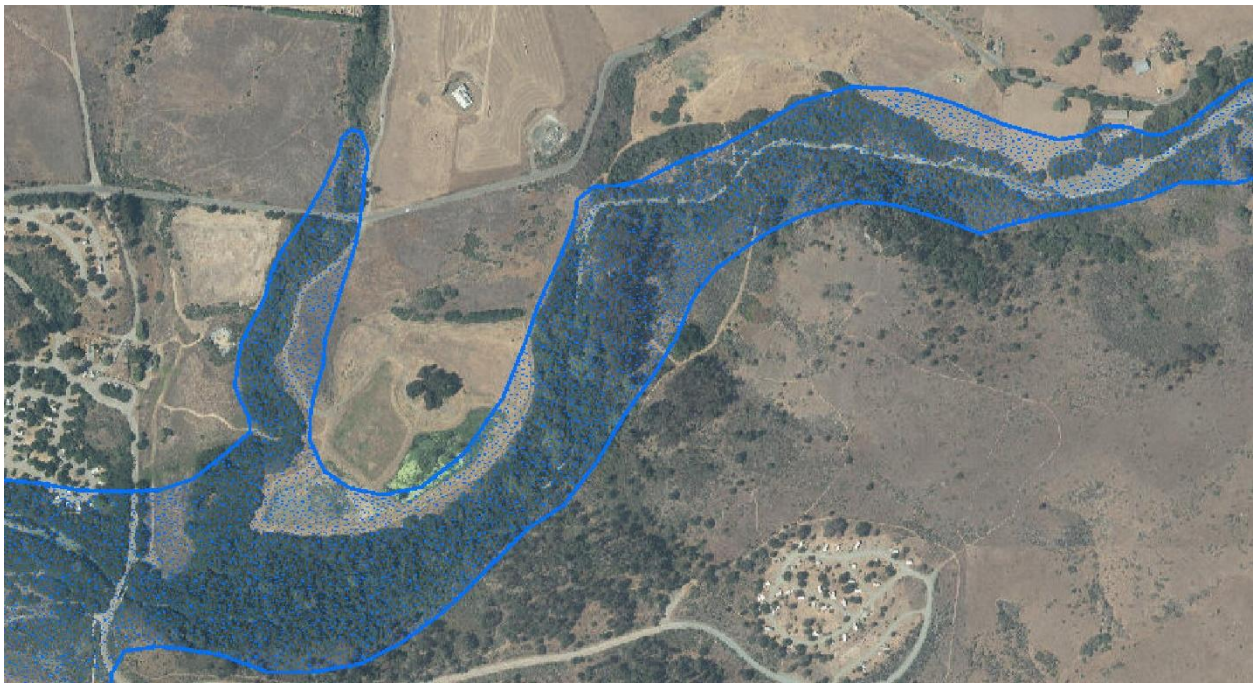
NORTH COAST AREA PLAN (NCAP)

NCAP Combining Designations

Combining Designations are special overlay land use categories applied in areas of the County with potentially hazardous conditions or significant natural resources. Combining Designations assigned to NC areas are illustrated on the *Coastal Zone North Coast Planning Area Rural Combining Designation Map*. The Combining Designations assigned to the Project site are also illustrated on the *San Luis Obispo County Permit View Maps*[6] and further described according to NCAP Chapter 6 (page 6-1). The Flood Hazard (FH) overlay (San Simeon and Van Gordon Creeks) includes identified areas of potential flood hazards illustrated below.

As shown on the *Flood Hazard Overlay Map*, portions of the Project site are located within the FH Overlay. As also shown on the Map, the evaporation pond is located outside of the FH Overlay.

Flood Hazard Overlay Map



[6] San Luis Obispo County Website, *Permit View Maps*, http://www.sloplanning.org/PermitView/MapSearch, Accessed October 27, 2015.

San Luis Obispo County Building and Construction Ordinance

In California, construction regulations consist of the California Building Code (CBC) and any additions or modifications to the CBC implemented by the local government. The San Luis Obispo County Building and Construction Ordinance (San Luis Obispo County Code Title 19) (BCO) was established and adopted to protect and promote the public health, safety, and welfare. This ordinance is intended to regulate the design and construction of buildings and structures through basic standards for site preparation, erosion and sedimentation control, construction activities, quality of materials, occupancy classifications, the location and maintenance of buildings and structures and certain equipment associated with buildings and structures.

Sun Luis Obispo County Coastal Zone Land Use Ordinance (CZLUO) Standards

CZLUO Chapter 23.05 (Site Development Standards). This Chapter establishes standards for the preparation of sites for development and construction activities, to protect the health, safety, and welfare of persons living on or near a project site by protecting against unwarranted or unsafe grading, or soil erosion resulting from grading; by defining appropriate circumstances for tree removal; by providing for adequate drainage and fire protection facilities; and by identifying appropriate standards for other aspects of site development.

CZLUO Sections 23.05.022 through 23.05.039. Establish standards for grading and excavation activities to minimize hazards to life and property; protect against erosion and the sedimentation of water courses; and protect the safety, use, and stability of public rights-of-way and drainage channels. Additional standards for grading within a Sensitive Resource Area (SRA) are in Sections 23.07.160 et seq.

CZLUO Section 23.07.060 - Flood Hazard Area (FH). The Flood Hazard combining designation is applied to areas where terrain characteristics would present new developments and their users with potential hazards to life and property from potential inundation by a 100-year frequency flood or within coastal high hazard areas. These standards are also intended to minimize the effects of development on drainage ways and watercourses.

CZLUO Section 23.07.062 - Applicability of Flood Hazard Standards. All uses proposed within a Flood Hazard combining designation are subject to the standards of Sections 23.07.064 through 23.07.066, except:

a. *Temporary Uses:* With the approval of the Director of Public Works, the Planning and Building Director may authorize construction or placement of a temporary structure or use within a Flood Hazard area pursuant to the required land use permit without meeting these standards, provided that the structure or use will not be in place from October 15, to April 15.

b. *Emergency Work:* Emergency work may be undertaken where necessary to preserve life or property. Within 48 hours after commencement of such work, the Director of Public Works is to be notified and an application filed with the Department of Planning and Building in compliance with the provisions of Section 23.07.064.

Section 23.07.174 (Streams and Riparian Vegetation). Coastal streams and adjacent riparian areas are environmentally sensitive habitats. The provisions of this section are intended to preserve and protect the natural hydrological system and ecological functions of coastal streams.

a. *Development Adjacent to A Coastal Stream:* Development adjacent to a coastal stream shall be sited and designed to protect the habitat and shall be compatible with the continuance of such habitat.

Refer to Section 5.3, *Biological Resources*, for a discussion of the Project's compliance with CZLUO Section 23.07.174.

Emergency Coastal Development Permit (E-CDP) Conditions

Refer to Appendix C, *E-CDP Conditions of Approval*, for a list of E-CDP Conditions. E-CDP Conditions 6 and 20 are applicable to hydrology and water quality.

5.5.3 SUMMARY OF WATER MASTER PLAN PEIR CONCLUSIONS

WMP PEIR Section 5.9, *Hydrology*, analyzes impacts concerning hydrology and water quality, as summarized below:

Stormwater Quality – Construction. Grading, excavation, and construction activities associated with the WMP improvements could impact stormwater quality due to sheet erosion of exposed soils and subsequent deposition of particles and pollutants in drainage areas. Additionally, potential impacts could occur where the pipelines cross or are located within the Van Gordon Creek and San Simeon Creek drainage courses and boundaries of their floodplains. Submittal of an NOI for coverage under the Statewide General Construction Permit and implementation of BMPs would be required to mitigate construction-related water quality impacts. Compliance with the NPDES regulatory provisions (including implementation of BMPs), and the County's SWPPP, CZLUO, and NCAP Standards would also be required. Impacts were concluded to be less than significant following compliance with federal, state and SLO County regulatory requirements. A future project-specific EIR/EIS would be needed to further determine the potential for construction-related water quality impacts.

Hydrology and Drainage. Implementation of the WMP improvements could alter the existing drainage pattern or the rate/amount of surface runoff at the development sites. The subterranean

water system components would not alter the existing drainage pattern or the rate/amount of surface runoff along their respective alignments. Also, improvements at existing facilities would not significantly alter drainage patterns or surface runoff. Alterations to existing drainage patterns or the rate/amount of surface runoff may require construction of local drainage facilities, which can include storm drains, surface inlets, ditches, and down drains. Through the County's development review process, future WMP improvements would be evaluated to determine the appropriate permits for authorizing their use and the conditions for their establishment and operation. Impacts were concluded to be less than significant following compliance with federal, state, and SLO County regulatory requirements.

Stormwater Quality – Long-Term. Implementation of the WMP improvements could result in long-term impacts to the quality of stormwater and urban runoff. The subterranean water system components would not result in long-term impacts to the quality of stormwater and urban runoff; therefore, long-term water quality impacts are not anticipated in this regard. Following compliance with the NPDES regulatory requirements (including implementation of BMPs), the NCAP Standards, and the County's SWPPP and CZLUO, the potable and recycled water system improvements would result in less than significant long-term impacts to stormwater quality. Impacts were concluded to be reduced to less than significant levels following compliance with federal, state, and SLO County regulatory requirements. However, further review may be necessary on a project-by-project basis.

Flooding. Implementation of the WMP could expose people or structures to risk involving flooding. All WMP components (unless exempted by the County Engineer) would require a drainage plan, which provides a drainage design/other measures to accommodate increases in runoff and minimize the risk of flooding. WMP improvements that may increase the risk of flooding would be reviewed for relationship and consistency with the Cambria Flood Control Project. Impacts would be reduced to less than significant following compliance with CZLUO and NCAP standards, and the Cambria Flood Control Project. A future project-specific EIR/EIS would need to further determine the potential impacts associated with flooding.

5.5.4 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

CEQA Guidelines Appendix G contains the Initial Study Environmental Checklist, which includes questions relating to hydrology and water quality. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, the Project may create a significant adverse environmental impact if it would:

- Violate any water quality standards or waste discharge requirements (refer to Impact Statements 5.5-1 and 5.5-2);

- Substantially deplete groundwater supplies or substantially interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted) (refer to Impact Statement 5.5-3);

- 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 that would result in substantial erosion or siltation on- or off-site (refer to Impact Statement 5.5-4);

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface run-off in a manner that would result in flooding on- or off-site (refer to Impact Statement 5.5-4);

- Create or contribute to run-off water that would exceed the capacity of existing or planned stormwater drainage systems or provision of substantial additional sources of polluted run-off (refer to Impact Statement 5.5-4);

- Otherwise substantially degrade water quality (refer to Impact Statements 5.5-1 and 5.5-2);

- 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 (refer to Section 8.0, *Effects Found Not To Be Significant*);

- Place a structure within a 100-year flood hazard area that would impede or redirect flood flows (refer to Impact Statement 5.5-5);

- 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 (refer to Section 8.0); and

- Result in inundation by seiche, tsunami, or mudflow (refer to Impact Statement 5.5-6).

Based on these standards, the Project's effects have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to less than significant through the application of mitigation, it is categorized as a significant unavoidable impact.

5.5.5 IMPACTS AND MITIGATION MEASURES

As discussed in detail in Section 5.0, *Environmental Analysis*, for purposes of the following impact analyses, "Sustainable Water Facility" (SWF) involves the built and operational Project components, whereas "Mitigation Measures (Project modifications)" involve proposed Project modifications in compliance various SWF mitigation measures.

IMPACT 5.5-1 WATER QUALITY – CONSTRUCTION-RELATED IMPACTS

- **WOULD THE PROJECT VIOLATE ANY WATER QUALITY STANDARDS OR WASTE DISCHARGE REQUIREMENTS?**

- **WOULD THE PROJECT OTHERWISE SUBSTANTIALLY DEGRADE WATER QUALITY?**

Impact Analysis: There are three construction-related stormwater pollution sources associated with the Project, as follows:

- Handling, storage, and disposal of construction materials containing pollutants;
- Maintenance and operation of construction equipment; and
- Earthmoving activities.

These sources, if not controlled, can generate soil erosion and on- and off-site transport via storm run-off or mechanical equipment. Poorly maintained construction vehicles and heavy equipment leaking fuel, oil, antifreeze, or other vehicle-related fluids on the Project site could also generate short-term sources of stormwater pollution and soil contamination. Generally, standard safety precautions for handling and storing construction materials can adequately reduce the potential pollution of stormwater by these materials. These types of standard procedures can be extended to non-hazardous stormwater pollutants such as sawdust, concrete washout, and other wastes.

In addition, grading activities can greatly increase erosion processes, leading to impacts including sediment loading to storm run-off flows. Two general strategies are recommended to prevent soil materials from leaving a property. First, implementation of erosion control procedures is required for those areas that must be exposed, and secondly, the construction site must be secured to control off-site transport of pollutants.

Dischargers whose projects disturb one or more acres of soil are required to obtain coverage under the General Construction Permit. Construction activity subject to this Permit includes clearing, grading, and ground disturbances, such as stockpiling or excavation.

SUSTAINABLE WATER FACILITY

The SWF involves construction of various water facilities, as described in Section 3.5.1. The vast majority (approximately 90 percent) of the SWF conveyance piping was installed above grade to minimize ground disturbance, thereby minimizing construction-related water quality impacts. Horizontal directional drilling construction was used to install the reverse osmosis (RO) concentrate disposal and lagoon water supply pipeline reaches under Van Gordon Creek without disturbing the ground surface. Additionally, the advanced water treatment plant (AWTP) is contained in pre-fabricated modular shipping containers, which minimized construction activities. Notwithstanding, SWF construction disturbs one or more acres of soil, thus, is required to obtain coverage under the General Construction Permit. SWF construction involves activities subject to this Permit including clearing, grading, and ground disturbances, which could result in short-term water quality impacts. A Notice of Intent and SWPPP must be prepared and submitted to the SWRCB demonstrating compliance with the General Construction Permit. SWF construction activities are subject to inspection by the County Department of Public Works. The General Permit requires that non-stormwater discharges from construction sites be eliminated or reduced to the maximum extent practicable, that a SWPPP be developed governing construction activities for the Project, and that routine inspections be performed of all stormwater pollution prevention measures and control practices being used at the site, including inspections before and after storm events. Upon completion, a Notice of Termination must be submitted to the SWRCB to indicate that construction is completed.

Overall, SWF construction-related activities could violate water quality standards/degrade water quality. However, as described in Section 5.5.2, *Regulatory Setting*, the SWF is subject to compliance with NPDES requirements, Coastal Streams LCP 20, LCP 21, and LCP 23, and Hazards LCP 2, (implemented through compliance with CZLUO Section 23.07.062), and E-CDP Condition 20, which address potential construction-related water quality impacts. Compliance with NPDES requirements, including the Project's SWPPP that was implemented during construction, and E-CDP Condition 20 pertaining to minimizing sediment from entering nearby water bodies or prominent drainage courses through BMPs during construction, ensured that construction-related impacts to water quality were reduced to less than significant levels.

Construction-Related Measures/Standards: Compliance with construction-related NPDES requirements occurred before/during SWF construction. In compliance with NPDES requirements, a SWPPP (CDM Smith, July 2014) was prepared for the SWF and submitted to the SWRCB demonstrating compliance with the General Construction Permit. BMPs included in the Project's SWPPP included scheduling, preservation of existing vegetation, hydraulic mulching, hydroseeding, soil binders, straw mulch, geotextiles and mats, wood mulching, soil preparation-roughening, non-vegetated stabilization, and wind erosion control. In addition to these BMPs, all open trenches for pipeline installation were backfilled and stabilized at the end of each work day. If trench backfill and stabilization was infeasible prior to precipitation, the open trench and all spoils were covered completely to eliminate erosion. Further, the following non-stormwater

control BMPs were implemented to control sediment at the Project site: water conservation practices; paving and grinding operation; illicit connect/discharge; potable water/irrigation; vehicle and equipment cleaning, fueling, and maintenance; concrete curing and finishing, and temporary batch plants.

The SWPPP required that materials and waste management pollution control BMPs be implemented to minimize stormwater contact with construction materials, wastes and service areas; and prevent materials and wastes from being discharged off-site. The primary mechanisms concerning stormwater contact included in the SWPPP addressed: direct contact with precipitation; contact with stormwater run-on and runoff; wind dispersion of loose materials; direct discharge to the storm drain system through spills or dumping; and extended contact with some materials and wastes, such as asphalt cold mix and treated wood products, which can leach pollutants into stormwater. Materials and waste management BMPs included: material delivery and storage, material use, stockpile management, spill prevention and control, solid waste management, hazardous waste management, concrete waste management, sanitary-septic waste management, and liquid waste management.

Compliance with additional construction-related measures/standards occurred before/during SWF construction, as summarized below.

CZLUO Chapter 23.05 (Site Development Standards). As discussed above, the Project prepared a SWPPP, which was submitted to the CCRWQCB and implemented required BMPs and E-CDP Condition 20 to minimize site disturbance activities during construction.

CZLUO Sections 23.05.022 through 23.05.039. As discussed above, the Project prepared a SWPPP, which was submitted to the CCRWQCB and implemented required BMPs and E-CDP Condition 20 to protect against erosion and the sedimentation of water courses and protect the safety, use, and stability of public rights-of-way and drainage channels.

CZLUO Section 23.07.060 - Flood Hazard Area (FH). As all proposed aboveground improvements that were located within the Flood Hazard combining designation were temporary and ceased after 180 days. No permanent aboveground structures are located within the FH overlay.

CZLUO Section 23.07.062 (LCP 3). As all proposed aboveground improvements that were located within the Flood Hazard combining designation were temporary and ceased after 180 days, the Project is not subject to CZLUO Sections 23.07.064 through 23.07.066 standards, per CZLUO Section 23.07.062. As required by CZLUO Section 23.07.062, construction activities did not occur between October 15 and April 15.

CZLUO Section 23.07.174 (LCP 20, LCP 21, and LCP 23). Refer to Section 5.3, *Biological Resources*, for a discussion of the Project's compliance with CZLUO Section 23.07.174.

MITIGATION MEASURES (PROJECT MODIFICATIONS)

The Mitigation Measures (Project modifications) involve construction of various water facilities, as described in Section 3.5.2. These Project modifications would disturb one or more acres of soil and, thus, are required to obtain coverage under the General Construction Permit. Construction of the Project modifications would involve activities subject to this Permit including clearing, grading, and ground disturbances, which could result in short-term water quality impacts. A Notice of Intent and SWPPP must be prepared and submitted to the SWRCB demonstrating compliance with the General Construction Permit.

Overall, construction of the Project modifications could violate water quality standards and/or degrade water quality. However, as described in Section 5.5.2, *Regulatory Setting*, the Project modifications would be subject to compliance with NPDES requirements, which address potential construction-related water quality impacts. Compliance with NPDES requirements would ensure construction-related impacts to water quality form the Project modifications are reduced to less than significant.

Standards and Regulations:

NPDES

- General Construction Permit requirements (Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ).

SLOC

- Code Title 19.

LCP Policies

- LCP 3, Development Review in Hazard Areas;
- LCP 20, Coastal Streams and Riparian Vegetation;
- LCP 21, Development in or Adjacent to a Coastal Stream; and
- LCP 23, County and State Review of Coastal Stream Projects.

CZLUO

- Chapter 23.05, Site Development Standards; and
- Sections 23.05.022 through 23.05.039.

Mitigation Measures: No mitigation is required.

Level of Significance: Less Than Significant Impact.

IMPACT 5.5-2 WATER QUALITY – OPERATIONAL IMPACTS

- **WOULD THE PROJECT VIOLATE ANY WATER QUALITY STANDARDS OR WASTE DISCHARGE REQUIREMENTS?**

- **WOULD THE PROJECT OTHERWISE SUBSTANTIALLY DEGRADE WATER QUALITY?**

Impact Analysis:

SUSTAINABLE WATER FACILITY

The SWF transfers extracted groundwater to the AWTP, which treats brackish water to produce potable water. The treated AWTP product water is re-introduced/pumped for injection into the groundwater basin. The RO concentrate is disposed for evaporation in the evaporation pond and the MF backwash is discharged to the existing percolation ponds. As detailed in Table 3-3, *AWTP Process Design Flows*, the SWF specifically includes the following activities that involve discharges to groundwater and land: reinjects 452 gpm into the San Simeon Creek aquifer further up-gradient at the well field; returns 100 gpm to the San Simeon Creek Lagoon; discharges 39 gpm of RO concentrate to the evaporation pond; and discharges 37 gpm of MF backwash to the percolation ponds.

As previously noted, the SWF transfers extracted groundwater to the AWTP, which treats brackish water to produce potable water. To meet California Department of Public Health (DPH) and CCRWQCB regulations, the treated AWTP product water is re-introduced/pumped for injection into the groundwater basin. De-chlorinated/oxygenated product water (filtrate) is pumped during dry weather conditions for surface discharge habitat enhancement in the San Simeon Creek Lagoon. An above-ground pipeline delivers 100 gpm of water from the AWTP to a surface discharge structure; see Exhibit 3-5. The discharge structure, which is located just north of the San Simeon Creek tree line, dissipates velocity, in order to create a sheet flow of mitigation water, prior to entering upstream of the San Simeon Creek Lagoon. The RO concentrate from the AWTP is disposed for evaporation in the Van Gordon Reservoir, an existing storage pond that was rehabilitated/modified into an evaporation pond to meet State Title 27 requirements. The CCRWQCB classifies the RO concentrate as a *Special Waste* and prohibits its discharge to Waters of the State in excess of background levels. The evaporation pond is lined with an impermeable liner system with leak detection to contain the RO concentrate and protect the underlying soil and groundwater. The RO concentrate evaporation is aided with five mechanical spray evaporators.

Therefore, because the SWF includes activities that involve discharges to groundwater and land, a ROWD for the SWF was filed with the CCRWQCB, pursuant to California Water Code Section 13260. The ROWD provides the technical information in support of the WDR Permits necessary,

in order to protect nearby surface, coastal, and groundwaters. The CCRWQCB issued the WDR Permits for injecting AWTP product water into the groundwater basin (at the well field and percolation ponds) and the surface discharge at the evaporation pond and the lagoon. These WDR Permits are summarized below:

Order No. R3-2014-0050. This Order permits the treatment and discharge of 452 gpm into the San Simeon Creek aquifer up-gradient at the well field. Chemicals used in the AWTP process include sodium hypochlorite, ammonia, sulfuric acid, and anti-scalant used with the RO System, hydrogen peroxide used with the UV disinfection, and caustic soda and calcium chloride used for product water stabilization. In addition, citric acid, sodium hypochlorite, and caustic soda are used intermittently for chemical cleaning of the membranes.

Per Water Code Section 13540, recycled water may only be injected into an aquifer used as a source of domestic water supply if SWRCB Division of Drinking Water (DDW) finds the recharge would not degrade the quality of the receiving aquifer as a source of water supply for domestic purposes. Per this Order, provided that the water recycling requirements (WRR) meets all of the permit conditions of this Order, the DDW found that the Project can provide injection recharge water that would not degrade groundwater basins as a source of water supply for domestic purposes. Due to the SWF's AWTP removing salts, while further reducing nitrate concentrations from the existing groundwater source, it does provide a benefit to the existing groundwater quality.[7]

The Basin Plan contains beneficial uses and water quality objectives for the San Simeon Groundwater Basin, which is the receiving water affected by the injection of recycled water from the SWF. The beneficial uses of the San Simeon Groundwater Basin include MUN, IND, PROC, and AGR.

Per this Order, the Project is required to meet the identified water quality objectives for the San Simeon Groundwater Basin, after the injection point for sodium hypochlorite and before injection into the aquifer.

Order No. R3-01-100. The Project modified the existing Order No. R3-01-100 (modified November 14, 2014) in order to allow for the additional permitted waste discharge of 37 gpm of MF backwash to the percolation ponds. The primary objectives of this updated Order are to:

1) Regulate the discharge of treated wastewater to land;
2) Update the Discharge Monitoring Program; and
3) Bring the site into compliance with the Basin Plan and all applicable laws and regulations pertaining to this discharge.

[7] Further corroborated by Howard Kolb of the CCRWQCB during an April 1, 2015 public presentation at the Cambria Vets Hall on the San Simeon Creek Watershed Draft TMDL report.

Depth to groundwater at the percolation ponds is approximately 17 feet at the evaporation pond and nine (9) feet at the percolation ponds. However, depth to groundwater is as little as four (4) feet in low lying areas near San Simeon Creek. Groundwater movement within the disposal area is generally towards San Simeon Creek, to the south-southwest. Cambria's primary source of water supply is the up-gradient San Simeon Creek well field. Provision D2 (i.e., maintaining gradient control) has been included in this Order requiring that the Project take steps to ensure that degradation of the water supply does not occur.

Currently, all storm water is directed away from the treatment facility. Storm water that comes into contact with the treatment process is collected and treated. The Project site is protected from flooding or washout from a 100-year flood event. In 2014, the CCSD added supplemental treatment units including microfiltration and RO to produce water of suitable quality for upstream groundwater recharge (the Project). Microfiltration reject and backwash flows are discharged to the disposal area.

Monitoring and reporting requirements are included as part of this Order. Minor changes were made to the program as part of the Project. In addition to the previous requirements pertaining to monitoring of groundwater levels, the Project must also monitor nitrogen and ammonia levels in effluent.

Present and anticipated beneficial uses of groundwater in the vicinity of the waste discharge include MUN and AGR.

Evidence of increased salts in water in the Project vicinity was noted. This Order contains provisions to maintain a salts management program to reduce salt mass loadings, and to ensure compliance with the Basin Plan objectives.

Order No. R3-2011-0223; NPDES No. CAG993001. Permits the discharge of 100 gpm to the San Simeon Creek Lagoon through this Region-wide General NPDES Permit for Discharges with Low Threat to Water Quality (General Permit). Low-threat discharges are dischargers that contain minimal amounts of pollutants and pose little or no threat to water quality and the environment. To be authorized by this General Permit, the Project has shown that this discharge meets the following criteria:

a. Pollutant concentrations in the discharge do not (a) cause, (b) have a reasonable potential to cause, or (c) contribute to an excursion above any applicable water quality objectives, including prohibitions of discharge.
b. The discharge does not include water added for the purpose of diluting pollutant concentrations.
c. Pollutant concentrations in the discharge will not cause or contribute to degradation of water quality or impair beneficial uses of receiving waters.

d. Pollutant concentrations in the discharge shall not exceed the limits in Attachment D of this Order unless the Executive Officer determines that the applicable water quality control plan (i.e., Ocean Plan and/or State Implementation Policy) does not require effluent limits (Application Requirement A.9 of this Order).
e. The discharge shall not cause acute or chronic toxicity in receiving waters.
f. The discharger shall demonstrate the ability to comply with the requirements of this General Permit.

Existing and potential beneficial uses of surface waters in the Central Coast Region may include:

a. Municipal and domestic Supply;
b. Agricultural supply;
c. Industrial process and service supply;
d. Groundwater recharge;
e. Freshwater replenishment;
f. Navigation;
g. Hydropower generation;
h. Water contact recreation;
i. Non-contact water recreation;
j. Commercial and sport fishing;
k. Aquaculture;
l. Cold and warm fresh water habitat;
m. Inland saline water habitat;
n. Estuarine habitat;
o. Marine habitat;
p. Wildlife habitat;
q. Preservation of biological habitats of special significance;
r. Rare, threatened or endangered species;
s. Migration of aquatic organisms;
t. Spawning, reproduction and/or early development;
u. Shellfish harvesting; and
v. Areas of special biological significance.

Many surface waters within the region recharge underlying groundwater basins. The existing and potential beneficial uses of groundwater within the Central Coast Region include:

a. Municipal and domestic supply;
b. Agricultural supply; and
c. Industrial process and service supply.

The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for receiving waters within the Region. Pollutant concentrations in the discharge does not exceed the limits in Attachment D of this Order unless the Executive Officer determines that the applicable water quality control plan (i.e., Ocean Plan and/or State Implementation Policy) does not require effluent limits (Application Requirement A.9 of this Order). The discharge does not cause acute or chronic toxicity in receiving waters. Monitoring and Reporting Program (MRP) No. R3-2011-0223 is part of this General Permit. The MRP requires routine effluent and receiving water monitoring to verify compliance with this General Permit and protection of water quality.

Order No. R3-2014-0047. Permits the discharge of 39 gpm of RO concentrate to the evaporation pond. The pond is lined with an impermeable liner to meet Title 27 Class II waste discharge standards. In compliance with Title 27 requirements, an impermeable liner, a leachate collection and removal system (LCRS), and a vadose zone monitoring system were installed in the Van Gordon Reservoir. The primary liner and textured drain liner materials are impermeable. The LCRS includes a perforated conductor pipe and trench along the evaporation pond bottom terminating into a collection sump. The LCRS is designed to maintain less than 1.0 foot of head on the secondary liner. The LCRS sump has a surface entry pipe for monitoring and removal of any accumulated leachate. Also, the pipe carrying RO concentrate from the AWTP to the evaporation pond is equipped with secondary containment to help prevent potential impacts to surface waters due to pipe leakage or failure. Last, to accelerate evaporation of the disposed RO concentrate, five (four on-duty and one standby) mechanical spray evaporators were installed. Per this Order, an on-site weather station is connected to the spray evaporators to prevent mist drift outside of the evaporation pond. The weather station is used to measure local weather conditions, including wind velocity, wind direction, humidity, and temperature. The spray evaporators shut down when weather conditions could allow off-site drift of evaporative mist (e.g., high wind events and wind directions that would blow mist away from the evaporation pond). To further minimize potential RO concentrate drift, evaporator operations were optimized, as described in Section 3.5.1.3, following initial start of the SWF. Among various other optimization measures, evaporator operational adjustments included:

- Reducing the maximum allowable wind speed for mechanical evaporator shut down from 6 miles per hour (mph) to 3 mph;

- Reducing the time delay in shutting off the evaporator blowers from approximately 30 seconds to 10 seconds, thereby allowing any mist being discharged from each evaporator to settle into the pond more rapidly in response to high wind detection; and

- Adjusting the discharge angle of each evaporator from horizontal to downward.

The wastewater consists of RO concentrate, waste water from the analytical instruments, and spent membrane cleaning solutions. This waste, classified by Title 27 as a nonhazardous waste that must be discharged to a Class II surface impoundment (the evaporation pond), increases in concentration overtime. The Project is required to remove waste as a slurry utilizing submersible pumps, as needed to maintain the evaporation pond holding capacity. RO concentrative slurry removal is expected to occur once every ten years depending on the frequency of the evaporation pond's use and capacity.

Per this Order, CCRWQCB staff have evaluated the evaporation pond and determined that it meets the Title 27 requirements, is consistent with the performance goal of the prescriptive standards, and affords equivalent protection against water quality impairment. The Project is

required to collect groundwater monitoring samples up- and down-gradient of the evaporation pond to ensure the lining and LCRS system are working properly.

It is noted that with implementation of the recommended Mitigation Measure AES-2, the mechanical spray evaporators would be removed and the evaporation pond would be repurposed to storing raw (untreated) potable water. Therefore, with implementation of AES-2, the potential for RO concentrate drift would no longer occur. This is because the AES-2 Project modifications would allow RO concentrate to be stored in on-site Baker Tanks for periodic off-site disposal. With implementation of these Project modifications, the Project would be required to amend Order No. R3-01-11), as discussed in Mitigation Measures (Project modifications) below.

Beneficial uses of Van Gordon Creek include the following:

- Municipal and domestic Supply;
- Water contact recreation;
- Non-contact water recreation;
- Wildlife habitat;
- Cold fresh-water aquatic habitat;
- Migration of aquatic organisms;
- Spawning, reproduction, and/or early development;
- Warm fresh-water aquatic habitat;
- Preservation of biological habitats of special significance; and
- Rare, threatened, or endangered species.

Authorization to discharge waste is conditioned upon the Project complying with provisions of Division 7, CWC and with any more stringent limitations necessary to implement the Basin Plan, protect beneficial uses, and prevent nuisance. Compliance with this Order ensures that conditions are met and mitigating any potential changes in water quality attributed to the evaporation pond.

Further, it is noted that the Project was subject to the E-CDP Conditions prior to and during SWF construction. As required by E-CDP Condition 6, as part of the complete application for a regular Coastal Development Permit, the permittee was required to, at a minimum, provide the following information:

A. Identify the Project's expected discharge volumes into those ponds, the expected chemical constituents of the discharge, and the concentrations of those constituents. The constituents identified was required to include those from both the source water (e.g., nitrates, mercury, etc.) and from project operations (e.g., cleaning compounds, flocculants, etc.). The Project was also required to identify the expected evaporation rate from the ponds and all measures to be implemented that prevented mobilization of these constituents into nearby coastal waters during storm events.

B. The Project was required to provide results of hydrogeologic modeling showing the expected extent and elevations of aquifer drawdown from Project operations and the extent of any "cone of depression" in relation to nearby wetlands, streams, and other coastal waters.

C. The Project was required to identify measures, such as drawdown tests, monitoring wells, etc., that ensured Project operations would not adversely affect nearby coastal waters.

D. Based on the modeling results (discussed above), the Project was also required to identify measures that would ensure Project operations would not result in drawdown of nearby coastal waters, and describe how monitoring measures would be applied to ensure coastal waters are not adversely affected due to Project operations.

G. Documentation of the impacts of withdrawals on creek and stream resources.

Review of the Project through the established SLO County regulatory framework ensures the ROWD contains the necessary technical information in support of a WDR Permit to protect the nearby surface, coastal, and groundwaters (Waters of the State). Further, with implementation of Order Nos. R3-2014-0050, R3-01-100, R3-2011-0223 (NPDES No. CAG993001), and R3-2014-0047, the Project complies LCP 23, as these Orders protect identified beneficial uses.

In conclusion, SWF operational activities could violate water quality standards/degrade water quality. However, as described in Section 5.5.2, the SWF is subject to compliance with Order Nos. R3-2014-0050, 01-100, R3-2011-0223 (NPDES No. CAG993001), and R3-2014-0047, which continue to ensure that potential water quality impacts remain less than significant during operation through ongoing monitoring required and enforced by the CCRWQCB. Further, SWF operations also improve groundwater quality by removing salts and further reducing nitrate concentration of its source groundwater.

MITIGATION MEASURES (PROJECT MODIFICATIONS)

The Project modifications involve discharging the AWTP RO concentrate to Baker tanks for storage prior to offsite disposal, instead of the evaporation pond. The mechanical spray evaporators would be removed. The evaporation pond would be repurposed as a potable water supply storage basin. The source water for the potable water supply storage basin would be potable water from the CCSD groundwater pumps. The potable water supply storage basin would be seasonally filled during the wet season when there is adequate flow occurring in the local creeks. The potable water supply storage basin's water quality would generally be similar to the Well SS-1 and Well SS-2 water quality. However, because the potable water supply storage basin would be uncovered, water quality could potentially degrade due to various sources of contamination, including bird and animal waste, algal growth, insects and fish, and airborne deposition. Because open storage would diminish water quality, a containerized surface water treatment plant (SWTP) would ensure water quality criteria are met. These Project modifications

would not include activities that involve discharges to groundwater or land, with the exception of the lagoon surface discharge extension.

The lagoon surface discharge extension would be required to file an Amendment to the Region-wide General NPDES Permit for Discharges with Low Threat to Water Quality (General Permit). The proposed 100 gpm discharge to the San Simeon Creek Lagoon would remain the same as the Project, although the location of the discharge point would be relocated further south to the northern San Simeon Creek bank. The proposed discharge at the creek bank would provide more efficient delivery of water into San Simeon Creek to maintain water levels in the lagoon, while also avoiding the potential favoring of water quality samples taken from nearby monitoring well 16D1 due to the lagoon water discharge's high quality. At the revised discharge point, articulating concrete block (ACB) (Armorflex) lining is proposed to protect the northern San Simeon Creek channel bank from erosion. Armorflex allows for the continued growth of riparian vegetation, further protecting the channel from any potential erosion.

Based on these changes, it is anticipated that this Project modification would continue to be a low-threat discharge, as this discharge would contain minimal amounts of pollutants and pose little or no threat to water quality and the environment (similar to the Project), which would be reinforced through the Amended General Permit.

Standards and Regulations:

NPDES

- Region-wide General NPDES Permit for Discharges with Low Threat to Water Quality;
- Order No. R3-2014-0050;
- Order No. R3-01-100;
- Order No. R3-2011-0223 (NPDES No. CAG993001); and
- Order No. R3-2014-0047.

LCP Policies

- LCP 3, Development Review in Hazard Areas.

CZLUO

- Section 203.07.060, Flood Hazard Area (FH); and
- Section 23.07.062, Applicability of Flood Hazard Standards.
-

Mitigation Measures: No mitigation is required.

Level of Significance: Less Than Significant Impact.

IMPACT 5.5-3 GROUNDWATER

- **WOULD THE PROPOSED PROJECT SUBSTANTIALLY DEPLETE GROUNDWATER SUPPLIES OR SUBSTANTIALLY INTERFERE WITH GROUNDWATER RECHARGE?**

Impact Analysis:

SUSTAINABLE WATER FACILITY

All of Cambria's potable water is supplied from groundwater wells in the San Simeon and Santa Rosa Creek aquifers. The San Simeon and Santa Rosa aquifers are relatively shallow and porous, with the groundwater levels typically recharged every year during the rainy season. With pumping, groundwater levels generally exhibit a consistent pattern of high levels during the wet season, steady decline during the dry season, and rapid rise when the wet season resumes.

The SWF was constructed in response to the current severe drought condition that placed Cambria's water supply in immediate jeopardy. As a result of this condition, the CCSD Board of Directors declared on January 30, 2014 a Stage 3 Water Shortage Emergency Condition for Cambria, the most stringent of three water shortage levels. Reflecting the severity of the severe drought conditions experienced in Cambria, as well as the rest of the State of California, on January 17, 2014, Governor Jerry Brown declared a drought emergency for the State of California, and on March 11, 2014, SLO County Board of Supervisors proclaimed a local emergency due to the County's drought conditions. The Governor issued a subsequent drought declaration on April 24, 2014. The CCSD anticipates continued water shortages and drought conditions over the course of the next 20 years, as a result of climate change impacts, and the likely need for the continuous use of the SWF for the next 20 years. Moreover, the SWF improves overall supply reliability by not relying upon a past gradient control practice that had pumped freshwater into the creek during the late dry season, which also lowered the amount of remaining freshwater storage. Rather, the SWF now recovers brackish water at the percolation pond, treats it to very high levels, and re-injects it back into the aquifer further up gradient into the potable well field for indirect potable reuse via the CCSD's existing San Simeon well field pumps. The project's indirect potable reuse of percolated wastewater effluent combined with its more efficient means to control the hydraulic gradient serves to lessen depletion of the existing fresh, groundwater supply. Although the CCSD may elect to ultimately lift its current water moratorium that could conceivably lead to constructing homes off of its existing wait list, the demands from such homes would be offset by requiring stringent water conservation measures on any new construction, as well as continuing with its water conservation retrofitting and rebate incentive programs (see related discussion on future demand projections within Section 3.0, Project Description). The decision to construct homes off the CCSD wait list would also be subject to the County's consensus via its biennial Resource Management System reporting and review process, which is associated with the County's administration of its Growth Management Ordinance.

As detailed in Table 3-3, *AWTP Process Design Flows*, the SWF proposes to withdraw up to 629 gpm of water through existing Well 9P7. Reinjection of up to 452 gpm of highly treated water for indirect potable reuse after appropriate residence time in the aquifer and gradient control occurs at the SWF's recharge well, while up to 100 gpm is discharged to San Simeon Creek to support the fresh water lagoon. Therefore, the SWF would not substantially deplete groundwater supplies and, given the area's drought history and its impacts, would instead work toward alleviating an existing problem.

As discussed in Impact Statement 5.5-2, above, these withdraws and reinjections are subject to Order No. R3-01-100, which requires that the Project take steps to ensure that degradation of the water supply does not occur. Maintenance of a minimum ground water level differential is necessary to protect the water supply well field from dissolved salts and nitrates in the wastewater discharge. The effluent limitation for total dissolved solids is based on maintaining the prescribed differential. The requirements for the monitoring and reporting are included as part of this Order. Minor changes were made to the program as part of the Project. In addition to the previous requirements pertaining to monitoring of groundwater levels, the Project must also monitor nitrogen and ammonia levels in effluent. This Order also contains provisions to limit the impacts of salt at the percolation ponds and plan for future salts management in order to ensure no substantial impacts to beneficial uses occurs.

Review of the Project through the established regulatory framework ensures the ROWD contains the necessary technical information in support of a WDR Permits to protect the nearby surface, coastal, and groundwaters (Waters of the State).

Further, with implementation of Order No. R3-01-100, the Project complies with the LCP Policies, described as follows:

LCP 1 Preservation of Groundwater Basins. With compliance with Order No. R3-01-100, the long-term integrity of groundwater basins within the coastal zone would be protected. Continued efforts in water conservation (see related demand projection discussion in Section 3.0) would also result in future diversions staying below the historic amounts pumped under the CCSD's existing SWRCB-issued diversion permits. The CCSD's diversion of water from the aquifer, including return and retained water from the SWF project, in combination with meeting permitted conditions, assures that the biological productivity of aquatic habitats are not significantly adversely impacted. Refer to Section 5.3, *Biological Resources*, for a discussion of the Project's compliance with LCP 1 regarding biological impacts.

LCP 2 Water Extractions. LCP 2 requires that extractions, impoundments, and other water resource developments obtain all necessary county and/or state permits. As described in Impact Statement 5.5-2, the SWF has obtained permits for Order Nos. R3-2014-0050 (reinjecting 452 gpm into the San Simeon Creek aquifer further up-gradient at the well

field), R3-01-100 (discharges 37 gpm of MF backwash to the percolation ponds), R3-2011-0223 (NPDES No. CAG993001) (returning 100 gpm to the San Simeon Creek Lagoon), and R3-2014-0047 (discharges 39 gpm of RO concentrate to the evaporation pond). Besides the aforementioned permits, the CCSD has existing diversion permits issued by the SWRCB that further condition the operation of its existing well field pumps. A related discussion in Section 3.0 on future projected water demands shows that in combination with continuing a water conservation program, the CCSD could stay within the amounts it has historically pumped under its SWRCB diversion permits. Therefore, the CCSD may consider licensing its existing SWRCB diversion permits following adoption of an updated water conservation program. A conservation program updating effort is currently in progress by the CCSD, which would be in compliance with the Urban Water Management Planning Act[8].

LCP 23 County and State Review of Coastal Stream Projects. As described in Impact Statement 5.5-2, the SWF has obtained permits for Order Nos. R3-2014-0050, R3-01-100, R3-2011-0223 (NPDES No. CAG993001), and R3-2014-0047, which protect identified beneficial uses.

The Project enhances recharge to the groundwater basin, since fresh water that is currently lost to the ocean from operation of the treated waste water percolation ponds is captured, highly treated, and recharged to the groundwater basin to maintain CCSD well production and protective hydraulic gradients. The Project also results in a smaller decline in groundwater basin water levels than continuing current operations, since water from well 9P7 would be beneficially used for recharge, rather than lost as discharge to the ocean.

Thus, with implementation of the required Order No. R3-01-100, the Project is required to replenish extracted groundwater in order to avoid a substantial drop in production of existing nearby wells. Upon compliance with the required Monitoring Program required per this Order, the Project results in a less than significant impact involving long-term operational groundwater supplies and no mitigation is required.[9]

The GMR was prepared to support evaluation of the groundwater basin water management alternatives to develop additional water supplies for CCSD to meet the emergency conditions; see Appendix E. The analysis of alternatives presented in the report compared modeled residence times for recharged water with regulatory requirements for indirect potable reuse. In addition,

[8] The Urban Water Management Planning Act contains provisions exempting such plan updates from CEQA. It is mentioned within this SEIR to further support the water extractions discussion.

[9] As addressed in Section 5.3.5, Mitigation Measure BIO-6 proposes an Adaptive Management Program (AMP) to address potential impacts to biological resources (riparian habitat/species) in the San Simeon Creek Lagoon, San Simeon Creek, and Van Gordon Creek. Mitigation Measure BIO-6 provides for an increase in the SWF's proposed rate of lagoon water discharge, should that become necessary to avoid significant impacts to those biological resources.

the potential impacts on San Simeon Creek and the fresh water lagoon areas were evaluated to allow for the development of avoidance and mitigation measures.

GMR Section 6.4, *Emergency Alternative 4 (Indirect Potable Reuse)*, describes Alternative 4, which was followed in completing design of the SWF to maximize recovery of the percolated secondary treated wastewater while maintaining a mound to avoid movement of percolated waste water toward the existing well field (See GMR Figure 6-5, *Emergency Alternative 4 Summary)*.

Following completion of the GMR, an October 16, 2015 Technical Memorandum, " San Simeon Creek Stream Flows," (SSC TM) was completed, which incorporated field data collected from a temporary level sensor and data logger installed at the lower San Simeon Creek pedestrian bridge. This data was used to further support the analysis and calibrate modeling of the SWF lagoon water supply Project Design Feature. The SSC TM is included in Appendix E.

SSC TM Figures 4 and 5 show the simulated lagoon levels under normal and extreme drought conditions. This calibrated modeling effort concluded that the SWF improved water level conditions within the lagoon when compared to without SWF conditions.

MITIGATION MEASURES (PROJECT MODIFICATIONS)

These Project modifications, which generally involve evaporation pond repurposing, mechanical spray evaporator/enclosure removal, offsite RO concentrate disposal, surface water treatment, and modified surface discharge, are illustrated on Exhibit 3-12, *Mitigation Measures (Project Modifications)*. Repurposing the evaporation pond to store raw (untreated) potable water (i.e., potable water supply storage basin) provides further reliability to the supply system, while also addressing potential aesthetic and biological impacts from the evaporation pond operations. This repurposing indirectly provides greater protection of the existing groundwater supply by allowing CCSD operators to alternate the source of supply among the two aquifer well fields, the SWF, and the stored raw water. Such resting and alternating of supply sources aids in well recovery, maintaining groundwater basin storage, and in meeting unplanned conditions, such as the loss of a well due to mechanical failure or other causes. The potable water supply storage basin is also proposed as an open, uncovered pond to allow for its potential use as a fire fighting helicopter fill station, should it ever be needed in response to a local wildfire. Having such a quiescent fill source would be beneficial, particularly when there are high surf conditions that make using ocean water unsafe. Repurposing the evaporation pond as a potable water supply storage basin requires SWTP to meet required water quality criteria. The repurposed evaporation pond would hold approximately 6 to 7 million gallons for potential emergency use, as well as for augmenting the existing groundwater supply sources during the dry season. It would be replenished by the San Simeon Well Field pumps during the wet season and to maintain its readiness during the summer season (e.g., periodic, minimal pumping, to offset evaporative loss). These Project modifications would not include activities that involve discharges to groundwater. Thus, no impacts to groundwater would result due to Project modifications.

Standards and Regulations:

NPDES

- Order No. R3-01-100.

LCP Policies

- LCP 1, Preservation of Groundwater Basins;
- LCP 2, Water Extractions; and
- LCP 23, County and State Review of Coastal Stream Projects.

Mitigation Measures: No mitigation is required.

Level of Significance: Less Than Significant Impact.

IMPACT 5.5-4 DRAINAGE

- **WOULD THE PROJECT SUBSTANTIALLY ALTER THE EXISTING DRAINAGE PATTERN OF THE PROJECT SITE OR AREA IN A MANNER THAT WOULD RESULT IN SUBSTANTIAL EROSION OR SILTATION ON- OR OFF-SITE?**

- **WOULD THE PROJECT SUBSTANTIALLY ALTER THE EXISTING DRAINAGE PATTERN OF THE SITE OR AREA, OR SUBSTANTIALLY INCREASE THE RATE OR AMOUNT OF SURFACE RUN-OFF IN A MANNER THAT WOULD RESULT IN FLOODING ON- OR OFF-SITE?**

- **WOULD THE PROJECT CREATE OR CONTRIBUTE TO RUNOFF WATER THAT WOULD EXCEED THE CAPACITY OF EXISTING OR PLANNED STORMWATER DRAINAGE SYSTEMS OR PROVISION OF SUBSTANTIAL ADDITIONAL SOURCES OF POLLUTED RUN-OFF?**

Impact Analysis:

SUSTAINABLE WATER FACILITY

The SWF does not involve development of vast impervious surface areas (such as roadways, rooftops, or parking lots) that would increase runoff or substantially alter the existing drainage patterns. A nominal increase in onsite impervious surface areas would occur due to the AWTP. As shown on Exhibit 3-5, *SWF Project Facilities*, the water facilities occur outside of the creek corridors, with the exception of the lagoon water filtrate pipeline and RO concentrate disposal pipeline, which tunnel beneath the Van Gordon Creek. Additionally, the SWF proposes to rehabilitate/modify the existing Van Gordon Reservoir for disposal of the RO concentrate by adding impermeable liners, a LCRS, a vadose zone monitoring system, and mechanical spray

evaporators. However, these improvements required only nominal earthwork, which are regulated by Order No. R3-01-100 (discussed in Impact Statement 5.5-2). Exhibit 3-8, *Evaporation Pond Plan and Section*, shows the evaporation pond. The SWF proposes to demolish/regrade the existing spillway along the evaporation pond's southern berm to provide a uniform top of slope elevation around the evaporation pond and grade the bottom of the evaporation pond for installation of the liners, LCRS, and monitoring system. These SWF improvements would not substantially alter the Project site's drainage patterns or alter the course of San Simeon or Van Gordon Creeks.

Further, as discussed in Impact Statement 5.5-2, the SWF surface water discharge to the San Simeon Creek Lagoon is a permitted condition through Order No. R3-2011-0223 (NPDES No. CAG993001). This permit allows the SWF's discharge of 100 gpm to the San Simeon Creek Lagoon with compliance with permit requirements, based on the fact that this discharge is a low-threat discharge. Low-threat discharges are dischargers that contain minimal amounts of pollutants and pose little or no threat to water quality and the environment. Regarding potential erosion/siltation concerns, the filtrate pipeline is used to deliver the lagoon water from the AWTP to a surface discharge structure. The discharge structure, which is located just north of the San Simeon Creek tree line, dissipates velocity, to create a sheet flow of mitigation water, prior to entering the upstream end of San Simeon Creek Lagoon, which minimizes the erosion/siltation potential.

In addition to the surface discharge to San Simeon Creek Lagoon, surface water runoff through the AWTP area is potential cause for concern regarding stormwater and additional sources of polluted runoff. However, per Order No. R3-01-100, all storm water is directed away from the AWTP. Storm water that comes into contact with the treatment process is collected and treated. The site is protected from flooding or washout from a 100-year flood event. Thus, drainage through the Project site is captured and treated and would not runoff to adjoining properties or streams.

Implementation of the SWF is not anticipated to result in a rise in the groundwater table, such that the adjacent streams would be altered. Proposed withdrawal and reinjection activities are highly monitored per Order No. R3-01-100 to ensure that groundwater table levels are maintained. Thus, increased erosion/ siltation as a result of altered streambeds is not anticipated due to the change in the groundwater table from the Project.

In conclusion, SWF implementation would not result in significant impacts to surface water/drainage features with implementation of Order No. R3-01-100. The SWF would not result in substantial erosion or siltation during operations. The SWF would not result in substantial increases in the rate or amount of surface run-off and would not exceed the capacity of the existing or planned stormwater drainage systems such that additional sources of polluted runoff would occur. Less than significant impacts would result in this regard.

MITIGATION MEASURES (PROJECT MODIFICATIONS)

These Project modifications, which generally involve evaporation pond repurposing, removal of the mechanical spray evaporators/enclosures, offsite RO concentrate disposal, surface water treatment, and modified lagoon water surface discharge, are illustrated on Exhibit 3-12, *Mitigation Measures (Project Modifications)*. These Project modifications would not include activities that involve discharges to land, with the exception of the modified surface discharge.

The modified surface discharge would be required to file an Amendment to the Region-wide General NPDES Permit for Discharges with Low Threat to Water Quality (General Permit). The proposed 100 gpm discharge to the San Simeon Creek Lagoon would remain the same as the Project, although the location of the discharge point would be relocated further south to the San Simeon Creek bank. The proposed discharge at the creek bank would provide more efficient delivery of water to San Simeon Creek, in order to maintain water levels in the lagoon for the purposes of maintaining biological resources, as discussed in Impact Statement 5.3, *Biological Resources*. At the discharge point, Armorflex lining is proposed to protect the San Simeon Creek channel banks from erosion. Armorflex allows for the continued growth of riparian vegetation, further protecting the channel from any potential erosion.

With implementation of an Amendment to the General Permit, this Project modification would not result in substantial erosion or siltation during operations. The Project modifications would not result in substantial increases in the rate or amount of surface run-off and would not exceed the capacity of the existing or planned stormwater drainage systems such that additional sources of polluted runoff would occur. Less than significant impacts would result in this regard.

Standards and Regulations:

NPDES

- Order No. R3-2011-0223 (NPDES No. CAG993001); and
- Region-wide General NPDES Permit for Discharges with Low Threat to Water Quality.

Mitigation Measures: No mitigation is required.

Level of Significance: Less Than Significant Impact.

IMPACT 5.5-5 FLOOD HAZARD AREA – STRUCTURES

- **WOULD THE PROJECT PLACE A STRUCTURE WITHIN A 100-YEAR FLOOD HAZARD AREA STRUCTURES WHICH WOULD IMPEDE OR REDIRECT FLOOD FLOWS?**

Impact Analysis:

SUSTAINABLE WATER FACILITY

Portions of the Project site are situated within a 100-year flood plain and designated as FH Combining Designation. The proposed aboveground improvements that are located within the 100-year flood zone and Flood Hazard combining designation are: the surface discharge structure; RIW, MW-4, and portions of the product water pipeline. No other permanent aboveground SWF facilities are located within the 100-year flood zone. These facilities, as well as the SWF, were specifically designed to be protected from flooding or washout from a 100-year flood event. Further, the SWF is not subject to the CZLUO Sections 23.07.064 through 23.07.066 standards, per CZLUO Section 23.07.062. As required by CZLUO Section 23.07.062, construction activities did not occur between October 15 and April 15. Further, during construction of underground SWF features located within the 100-year flood zone, the SWF complied with E-CDP Condition 6, pertaining to development in floodplains. As part of this condition, all SWF-related development within the 100-year floodplain, including water delivery pipes, were identified. As the facilities within the 100-year flood zone were designed to be protected from flooding or washout during the 100-year flood event, the SWF results in a less than significant impact involving the placement of structures within a flood hazard area, since flows are not impeded or redirected as a result of the SWF.

SWF Construction-Related Measures/Standards: Compliance with construction-related measures/standards occurred before/during SWF construction, as summarized below:

CZLUO Section 23.07.060 - Flood Hazard Area (FH). Proposed aboveground improvements are located within the Flood Hazard combining designation, as specified above. However, these were designed to be protected from flooding or washout during the 100-year flood event and are exempt from Sections 23.07.064 through 23.07.066 standards via *Emergency Work* (Section 23.07.060(b)).

CZLUO Section 23.07.062 (LCP 3). Proposed aboveground improvements are located within the Flood Hazard combining designation, as specified above. Per CZLUO Section 23.07.060, the SWF is not subject to CZLUO Sections 23.07.064 through 23.07.066 standards. As required by CZLUO Section 23.07.062, construction activities did not occur between October 15 and April 15. Further, E-CDP Condition 6, required as part of the complete application for a regular Coastal Development Permit, required the Project to, at a minimum, provide the following information:

E. *Development in Floodplains:* The permittee shall identify all project-related development within the 100-year floodplain, including water delivery pipes, wells, and evaporation ponds.

MITIGATION MEASURES (PROJECT MODIFICATIONS)

The Project modifications would not include the construction of structures within the 100-year flood zone, with the exception of the modified surface discharge extension. This structure would include Armorflex lining along the San Simeon Creek channel banks to protect the slopes from erosion. The Armorflex would allow for the continued growth of riparian vegetation, further protecting the channel from any potential erosion. These Project modifications are not anticipated to result in the impediment or redirecting of flood flows during the 100-year storm event.

These Project modifications located within the 100-year FH overlay would be subject to CZLUO Sections 23.07.064 through 23.07.066 standards, per CZLUO Section 23.07.062. As required by CZLUO Section 23.07.062, construction activities would not occur between October 15 and April 15.

These improvements within the 100-year flood zone would not result in significant impact involving the placement of structures within a flood hazard area, such that flows are impeded or redirected. Impacts in this regard would be less than significant.

Standards and Regulations:

LCP Policies

- LCP 3, Development Review in Hazard Areas.

CZLUO

- Section 203.07.060, Flood Hazard Area (FH);
- Section 23.07.062, Applicability of Flood Hazard Standards; and
- Sections 23.07.064 through 23.07.066.

Mitigation Measures: No mitigation is required.

Level of Significance: Less Than Significant Impact.

IMPACT 5.5-6 SEICHE, TSUNAMI, OR MUDFLOW

- **WOULD THE PROJECT RESULT IN INUNDATION BY SEICH, TSUNAMI, OR MUDFLOW?**

Impact Analysis:

SUSTAINABLE WATER FACILITY

A seiche is an earthquake or slide-induced wave that can be generated in an enclosed body of water of any size from swimming pool, to a harbor, or lake. Given that the nearest large, enclosed open body of water is Lake Nacimiento, located approximately 12 miles northeast of the Project site, beyond the Santa Lucia Mountain Range, the potential for seiching is nonexistent. It is noted that the SWF includes an evaporation pond. However, the evaporation pond is not large enough to cause inundation to off-site properties as a result of a seiche.

Due to its location, the Project site has the potential to be exposed to mudflow (i.e., mudslide, debris flow) and tsunami inundation. However, the SWF water facilities do not include habitable structures, or people residing at the Project site. Thus, less than significant impacts result involving the risk associated with tsunami inundation or mudflow.

MITIGATION MEASURES (PROJECT MODIFICATIONS)

Similar to the SWF, Project modifications would not include habitable structures, or people residing at the Project site. Thus, less than significant impacts would result involving the risk associated with tsunami inundation or mudflow.

Standards and Regulations: No standards or regulations are applicable.

Mitigation Measures: No mitigation is required.

Level of Significance: Less Than Significant Impact.

5.5.6 CUMULATIVE IMPACTS

- **WOULD PROJECT IMPLEMENTATION COMBINED WITH OTHER RELATED CUMULATIVE PROJECTS RESULT IN INCREASED RUN-OFF AMOUNTS, DEGRADED WATER QUALITY, AND DECREASED GROUNDWATER SUPPLIES?**

Impact Analysis: For purposes of hydrology and water quality analyses, cumulative impacts are considered for related projects proposed throughout the North Coast Planning Area, and according to the WMP; see Section 4.0, *Basis of Cumulative Analysis*. Cumulative projects would have the potential to affect hydrology and water quality at their respective sites, particularly those involving ground disturbing activities on previously undeveloped sites.

As summarized above, WMP implementation could impact hydrology and water quality. Short term impacts to stormwater quality during grading, excavation, and construction activities

associated with WMP improvements could occur due to sheet erosion and subsequent deposition of particles and pollutants within drainage areas. Analysis concluded short term impacts to water quality would be less than significant following compliance with federal, state, and SLO County regulatory requirements. Also, WMP improvements to existing drainage patterns or the rate/amount of surface runoff may require construction of local drainage facilities and impacts to hydrology and drainage were concluded to be less than significant following compliance with federal, state, and SLO County regulatory requirements. Impacts to long-term stormwater quality were concluded to be reduced to less than significant levels however further review may be necessary on a project-by-project basis. In addition, implementation of the WMP could expose people or structures to risk involving flooding. However, these impacts would be reduced to less than significant levels following compliance with CZLUO and NCAP standards, and the Cambria Flood Control Project.

Short-Term Impacts. Cumulative projects contribute to potential erosion/siltation and pollutants during construction. For potential cumulative impacts from construction activities, all future construction projects would be required to adherence to state-required construction requirements, including NPDES requirements that ensure water quality is maintained during construction. Each project would be required to comply with specific BMPs during construction, as necessary. Therefore, through compliance with state-enforced NPDES requirements during construction, overall cumulative impacts are less than significant.

As discussed in Impact Statement 5.5-1, the SWF was required to adhere to NPDES requirements, Coastal Streams LCP 20, LCP 21, and LCP 23, and Hazards LCP 2, (implemented through compliance with CZLUO Section 23.07.062), and E-CDP Condition 20, which address potential construction-related water quality impacts. Compliance with NPDES requirements, including the SWF's SWPPP that was implemented during construction, and E-CDP Condition 20 pertaining to minimizing sediment from entering nearby water bodies or prominent drainage courses through BMPs during construction, ensured that construction-related impacts to water quality were reduced to less than significant levels. Therefore, the SWF's construction impacts were not cumulatively considerable, and impacts in this regard are less than significant.

Long-Term Impacts. Cumulative projects have the potential to affect hydrology and drainage of the area. The projects contribute stormwater flows to the local and regional stormwater system and drainage facilities, as well as further withdrawal of the groundwater. However, each individual project is required to submit individual analyses to the County for review and approval prior to issuance of grading or building permits. Each analysis must demonstrate how peak flows generated from each related project site would be accommodated by the County's existing and/or proposed storm drainage facilities. Future projects are also required to comply with existing water quality standards, implement site-specific improvements, and include BMPs as necessary. Further, the CCSD would approve all future withdrawals of groundwater within their service area, as planned through the WMP. Therefore, through compliance with standards, regulations, and permit requirements, the overall cumulative impacts are less than significant.

As discussed in Impact Statements 5.5-2, 5.5-3, and 5.5-4, the SWF would result in less than significant impacts to water quality, groundwater, and drainage, with compliance with Order Nos. R3-2014-0050, 01-100, R3-2011-0223 (NPDES No. CAG993001), and R3-2014-0047. Thus, the long-term impacts of the SWF are not cumulatively considerable, and impacts in this regard are less than significant.

Flood Hazards. Cumulative projects may result in development of structures in a 100-year flood zone that could result in impacts pertaining to impeding or redirecting flood flows. However, these improvements would be subject to CZLUO regulations pertaining to the Flood Hazard (FH) overlay. Through compliance with the CZLUO, cumulative impacts are reduced to less than significant levels.

As discussed in Impact Statement 5.5-5, the SWF would not result in significant impacts pertaining to the impediment or redirecting of flood flows, as the SWF has no aboveground facilities within the 100-year flood zone. Thus, the SWF is not cumulatively considerable, and impacts in this regard are less than significant.

Risk from Tsunamis and Mudflows. The cumulative projects could potentially expose people to tsunami run-up associated with seismic activity due to their proximity to the coast as well as exposure of people to potential mudflows. However, as discussed in Impact Statement 5.5-6, the SWF results in less than significant impacts pertaining to risk associated with tsunami inundation and mudflow, as the SWF does not include habitable structures, or people residing at the Project site. Therefore, the SWF would not contribute to cumulative impacts pertaining to risk from tsunamis and mudflows and impacts in this regard are not cumulatively considerable.

Standards and Regulations:

NPDES

- Region-wide General NPDES Permit for Discharges with Low Threat to Water Quality;
- Order No. R3-2014-0050;
- Order No. R3-01-100;
- Order No. R3-2011-0223 (NPDES No. CAG993001); and
- Order No. R3-2014-0047.

LCP Policies

- LCP 1, Preservation of Groundwater Basins;
- LCP 2, Water Extractions;
- LCP 3, Development Review in Hazard Areas;
- LCP 20, Coastal Streams and Riparian Vegetation;
- LCP 21, Development in or Adjacent to a Coastal Stream; and
- LCP 23, County and State Review of Coastal Stream Projects.

CZLUO

- Chapter 23.05, Site Development Standards; and
- Sections 23.05.022 through 23.05.039.
- Section 203.07.060, Flood Hazard Area (FH); and
- Section 23.07.062, Applicability of Flood Hazard Standards.

Mitigation Measures: No mitigation is required.

Level of Significance: Less Than Significant Impact.

5.5.7 SIGNIFICANT UNAVOIDABLE IMPACTS

The Project would not result in significant unavoidable impacts involving hydrology and water quality.

5.5.8 SOURCES CITED

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State Water Resources Control Board, 2010 Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report) – Statewide, http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml, Accessed May 4, 2015.

State Water Resources Control Board, *National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order No. 2012-0006-DWQ, NPDES No. CAS000002.

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United States Environmental Protection Agency Website, Regulatory Definitions of Large CAFOs, Medium CAFO, and Small CAFOs, http://www.epa.gov/npdes/pubs/sector_table.pdf, Accessed June 23, 2014.

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