4.12 Hydrology and Water Quality

This section describes the effects on hydrology and water quality that could be caused by the implementation of the proposed Project. This section describes existing environmental conditions in the affected areas, identifies and analyzes environmental impacts for the proposed Project, and recommends mitigation measures to reduce or avoid adverse impacts anticipated from Project construction and operation. In addition, existing laws and regulations would serve to reduce or avoid certain impacts that might otherwise occur with the implementation of the Project.

4.12.1 Environmental Setting

Surface Water

The surface water setting is as described in the LWEP EIR in Section 3.15.1.1. In summary, the Project would be located on primarily rural land on the coastal ridges of the Santa Ynez Mountains in the South Coast and the Santa Ynez River hydrologic units. The site is hilly and drains into Honda, San Miguelito, and Espada creeks. Several unnamed intermittent streams are present in the area and along the power line corridor. Several seeps and springs also are scattered through the Project area, particularly at high elevations. Frick Springs is a source of water for several residences in Miguelito Canyon and Miguelito County Park and is part of Lompoc's municipal water supply. This water is treated at a City of Lompoc facility located near the eastern border of the SWEP site. Several small ponds are also present on the site. Small freshwater marshes have developed on a few areas of the steep terrain.

The proposed transmission line would generally follow adjacent to but not in San Miguelito Creek. This transmission line would cross San Miguelito Creek at two locations and would cross several small tributaries to San Miguelito Creek and the Santa Ynez River.

No portion of the Project site is within the 100-year floodplain mapped by the Federal Emergency Management Agency (FEMA, 2012, 2018). There would be unmapped floodplains associated with all the watercourses on the property, but these would be minor and local. A hydrologic analysis (Appendix D) has been prepared that gives 100-year discharges in cubic feet per second (cfs) at the property line for Honda Creek (1,160 cfs), a tributary to Honda Creek (589 cfs), San Miguelito Creek (698 cfs), and Espada Creek (205 cfs).

Groundwater

Groundwater is as described in the LWEP EIR Section 3.15.1.2. The Project is not located within any mapped groundwater basins. Local groundwater exists at various locations within the Project site. Low-producing wells in the area provide a minimal amount of water supply for domestic use and cattle grazing operations. No irrigated agriculture occurs on the site.

The SWEP Project's well feasibility study (Appendix E-1) found four possible well sites on the property with capacity to extract small amounts of local groundwater (up to 20 gallons per minute). The wells proposed for the Project's domestic and construction water supply are located in a 1,000-acre-foot aquifer located east and west of San Miguelito Creek approximately one-half mile south of Frick Springs. This aquifer contains two offsite wells located as shown in Figure 1 of Appendix E-4. The Project's proposed domestic water supply has been approved by the County Department of Environmental Health Services (EHS).

Water Quality

Beneficial uses of water on the site are as described in the LWEP EIR Section 3.15.1.3. Beneficial uses of Honda Creek identified in the 2017 Water Quality Control Plan for the Central Coastal Basin (Basin Plan) include municipal and domestic supply, agricultural supply, groundwater recharge, water contact recreation, non-water-contact recreation, wildlife habitat, cold freshwater habitat, warm freshwater habitat, supportive of habitat suitable for migration, spawning habitat, supportive of habitat for rare and endangered species, freshwater replenishment, and commercial and sport fishing. Beneficial uses of San Miguelito Creek include municipal and domestic supply, agricultural supply, groundwater recharge, water-contact recreation, non-water-contact recreation, wildlife habitat, cold freshwater habitat, warm freshwater habitat, spawning habitat, and commercial and sport fishing. Beneficial uses of Espada Creek include municipal and domestic supply, groundwater recharge, water contact recreation, non-water-contact recreation, wildlife habitat, warm freshwater habitat, and commercial and sport fishing.

San Miguelito Creek is listed as impaired for chloride, fecal coliform, nitrate, dissolved oxygen, pH, sodium, toxicity and water temperature by the Regional Water Quality Control Board (RWQCB) under Section 303(d) of the Federal Water Pollution Prevention and Control Act (the Clean Water Act). All pollutant sources are unknown (SWRCB, 2016).

Groundwater quality is generally as described in the LWEP EIR. Groundwater from an unused well on the Signorelli had elevated salinity at a level of approximately 25 percent of typical seawater, with elevated salts exceeding federal and state secondary drinking water regulations. Water quality in other areas of the site is generally suitable for potable use (Appendix D).

4.12.2 Regulatory Setting

Federal

Clean Water Act

As described in the LWEP EIR (Section 3.15.2, *Regulatory Framework for Water Resources*), federal regulations include the Clean Water Act (CWA) which regulates discharges of wastewater and storm-water into surface waters through the issuance of National Pollutant Discharge Elimination System (NPDES) permits and setting pretreatment standards. In California, the State Water Resources Control Board is the permitting authority and it has adopted a statewide General Permit for Stormwater Discharges Associated with Construction Activity (General Permit) that applies to projects resulting in one or more acres of soil disturbance. For additional discussion of the NPDES, see Section 3.15.2.1 of the LWEP EIR.

In addition to the aspects of the CWA described in the LWEP EIR, Section 401 of the CWA requires that any activity that may result in a discharge into waters of the U.S. be certified by the RWQCB. This certification ensures that the proposed activity not violate State and/or federal water quality standards. Section 404 of the CWA authorizes the U.S. Army Corps of Engineers (USACE) to regulate the discharge of dredged or fill material to the waters of the U.S. and adjacent wetlands. Discharges to waters of the U.S. must be avoided where possible and minimized and mitigated where avoidance is not possible. Permits are issued by the USACE.

State

State regulations are described in the LWEP EIR (Section 3.15.2, *Regulatory Framework for Water Resources)* and include the Porter Cologne Water Quality Control Act which authorizes the SWRCB to draft state policies regarding water quality. It requires that the SWRCB, or the appropriate RWQCB, adopt water quality control plans (Basin Plans) for the protection of water quality. State regulations also include the California Department of Fish and Wildlife's (CDFW) Streambed Alteration Program which regulates activities that would "substantially divert or obstruct the natural flow of, or substantially change the bed, channel, or bank of, or use material from the streambed of a natural watercourse" that supports wildlife resources. Projects within a streambed would require a Streambed Alteration Agreement issued by the CDFW. For additional information, see Section 3.15.2.2 of the LWEP EIR.

Local

Local regulations related to surface water quality, groundwater, and onsite sewage are described in the LWEP EIR Section 3.15.2 and include policies and regulations contained within the Santa Barbara County General Plan and the Santa Barbara County Code. For additional information, see Section 3.15.2.3 of the LWEP EIR.

In addition to the local regulations described in the LWEP EIR, Santa Barbara County Surface and Storm Water Quality Significance Guidelines (described in Section 4.12.3 below) require that all projects determined to have a potentially significant storm water quality impact must prepare and implement a Storm Water Quality Management Plan (SWQMP) to reduce the impact to the maximum extent practicable. The SWQMP shall include the following elements:

- identification of potential pollutant sources that may affect the quality of the discharges to storm water;
- the proposed design and placement of structural and non-structural best management practices (BMPs) to address identified pollutants;
- a proposed inspection and maintenance program; and
- a method of ensuring maintenance of all BMPs over the life of the project.

Implementation of best management practices identified in the SWQMP will generally be considered to reduce the storm water quality impact to a less-than-significant level.

4.12.3 Significance Thresholds

Santa Barbara County Thresholds

Significance thresholds (impact criteria) are based on the County's 2018 Environmental Thresholds and Guidelines Manual (2018). A significant water quality impact would occur if the SWEP:

1. Is located within an urbanized area of the county and the project construction or redevelopment individually or as a part of a larger common plan of development or sale would disturb one (1) or more acres of land;
2. Increases the amount of impervious surfaces on the site by 25 percent or more;
3. Results in channelization or relocation of a natural drainage channel;

4. Results in removal or reduction of riparian vegetation or other vegetation (excluding non-native vegetation removed for restoration projects) from the buffer zone of any streams, creeks or wetlands;
5. Is an industrial facility that falls under one or more of categories of industrial activity regulated under the NPDES Phase I industrial storm water regulations (facilities with effluent limitation; manufacturing; mineral, metal, oil and gas, hazardous waste, treatment or disposal facilities; landfills; recycling facilities; steam electric plants; transportation facilities; treatment works; and light industrial activity);
6. Discharges pollutants that exceed the water quality standards set forth in the applicable NPDES permit, the Regional Water Quality Control Board's (RWQCB) Basin Plan or otherwise impairs the beneficial uses of a receiving waterbody;
7. Results in a discharge of pollutants into an "impaired" waterbody that has been designated as such by the State Water Resources Control Board or the RWQCB under Section 303 (d) of the Federal Water Pollution Prevention and Control Act (i.e., the Clean Water Act);
8. Results in a discharge of pollutants of concern to a receiving water body, as identified in by the RWQCB; or
9. The project size, location (proximity to sensitive waterbodies, location on hillsides, etc.), construction timing and duration, nature and extent of directly- connected impervious areas, alteration of drainage patterns, disturbance to riparian corridors, disturbance to other native vegetation on or off site, type of storm water pollutants expected, and the extent to which water quality best management practices are included in the project design, are such that substantial alteration of water quality is expected.

Standard CEQA significance criteria also include separate criteria related to flooding and flood hazards, erosion and siltation, alteration of drainage patterns, increased runoff rates, and mudflow. Impacts due to erosion and siltation would be covered under the criteria listed above. Due to the Project location on hilltops, outside the 100-year floodplain and County of Santa Barbara regulations regarding mitigation of increased flood flows, the additional CEQA significance criteria are considered non-existent or not significant as described in the impact analysis.

LWEP Thresholds

CEQA impact significance criteria listed in the Final EIR for the LWEP are as follows, with comments added in italics to describe their relevance to the current analysis:

a. Violate any water quality objectives or regulations of the Central Coast RWQCB Basin Plan. *This impact criterion is covered under Impact Criterion #6.*

b. Substantially deplete groundwater supplies or interfere with groundwater recharge. *This criterion is no longer included in the Santa Barbara County significance criteria but is evaluated in Impact WAT-4.*

c. Increase the amount of impervious surfaces on a site by 25 percent or more. *This impact criterion is covered under Impact Criterion #2.*

d. Place permanent structures within a 100-year floodplain that would impede or redirect flows. *This criterion is no longer included in the Santa Barbara County significance criteria. The site is*

not within a 100-year floodplain. No structures are proposed that would impede or redirect flood flows. This impact would be less than significant and is not evaluated further in this analysis.

e. Result in the channelization or relocation of a natural drainage channel. *This impact criterion is covered under Impact Criterion #9.*

f. Result in removal or reduction of riparian vegetation or other vegetation (excluding non-native vegetation removed for restoration projects) from the buffer zone of any streams, creeks, or wetlands. *This impact criterion is covered under Impact Criterion #9.*

g. Discharge pollutants that exceed the water quality standards set forth in the applicable NPDES permit or RWQCB Basin Plan, or otherwise impair the beneficial uses of a receiving body of water. *This impact criterion is covered under Impact Criterion #6.*

h. Result in a discharge of pollutants into an "impaired" body of water that has been designated as such by the SWRCB or the RWQCB under Section 303(d) of the Federal Water Pollution Prevention and Control Act (that is, the CWA). *This impact criterion is covered under Impact Criterion #7.*

i. Result in a discharge of pollutants of concern to a receiving body of water, as identified in by the RWQCB. *This impact criterion is covered under Impact Criterion #8.*

j. Projects that do not specifically include these criteria or are located outside the "urbanized areas" could also have a project-specific impact on stormwater quality. Stormwater quality impacts associated with these projects must be evaluated on a project-by-project basis for a determination of significance. The potential impacts of these projects should be determined in consultation with the County Water Agency, Flood Control Division, and RWQCB. The issues that should be considered are:

- Size of the development
- Location (such as proximity to sensitive bodies of water or locations on hillsides)
- Timing and duration of the construction activity
- Nature and extent of directly connected impervious areas
- Extent to which the natural runoff patterns are altered
- Disturbance to riparian corridors or other native vegetation on or off site
- Type of stormwater pollutants expected
- Extent to which water quality BMPs are included in the project design

This impact is covered under Impact Criterion #9.

4.12.4 Environmental Impacts and Mitigation Measures

This evaluation of impacts and Mitigation measures uses the same impact statements as were used for the LWEP. A review of the SWEP in comparison to the LWEP revealed that the two projects are sufficiently similar that the same impact statements used for the LWEP can be used for the SWEP. These impact statements comprise all the relevant significance criteria described in Section 4.12.3, as is described in the description of each impact.

Table 4.12-1 below lists the impacts and mitigation measures identified for hydrology and water quality in the LWEP Final EIR. These same impacts are addressed in this section for the SWEP. The right-hand column of the table below indicates whether the LWEP impacts or mitigation measures have been modified for the SWEP.

Table 4.12-1. LWEP Impacts and Mitigation Measures – Hydrology and Water Quality

Impact No.	LWEP Impact Statements	LWEP Mitigation Measures	SWEP Changes
WAT-1	Erosion and Sedimentation. The proper implementation of erosion and sedimentation control would reduce erosion rates during and after construction to essentially natural rates.	WAT-1: Erosion Control Plan. GEO-2: Grading and Drainage Plan.	Modified impact statement. Updated impact discussion. Removed mitigation.
WAT-2	Pollutant Discharge. Water quality could be affected by small fuel or oil spills, concrete, and trash and litter during construction.	None.	No changes.
WAT-3	Stormwater Runoff/Flooding. Although some acres will be temporarily and permanently disturbed by changes to stormwater runoff/flooding, hydrologic conditions and stormwater quality would remain about the same as current conditions.	WAT-2: Minimize Watercourse Encroachment in Road Widening.	Modified impact statement. Updated impact discussion.
WAT-4	Groundwater. The Project would not substantially deplete groundwater supplies or interfere with groundwater recharge. Effluent from facility drains would be disposed of through a proposed leach line system.	None.	Modified impact statement. Updated impact discussion. Added new mitigation (MM WAT-1).
WAT-5	Riparian Vegetation Removal. The Project could result in the removal or reduction of vegetation from the buffer zone of streams, creeks, or wetlands along roadways, which could affect water quality.	None.	Updated impact discussion. Revised mitigation (MM WAT-2).

The primary differences between the LWEP and SWEP that affect water resources are the well location and groundwater source (see Impact WAT-4 below) and the different route of the proposed transmission line for the SWEP. Where these differences are relevant to the respective impacts, they are described below. Other differences between the LWEP and SWEP, which involve the specific site plan and location of Project features, do not affect the general impact descriptions nor the impact classifications except as described below.

The hydrology and water quality impacts of the proposed SWEP are discussed below.

WAT-1 **Erosion and Sedimentation.** Project-related ground disturbance could induce erosion and sedimentation into local watercourses.

Erosion and sedimentation impacts would affect water quality (Significance Criteria 1, 2, 6, 7, 8, and 9). Impacts under the SWEP are the same as described for Impact WAT-1 in the LWEP. There is a potential for Project construction and decommissioning to disturb soils and thereby generate the

potential for increased erosion and sedimentation from disturbed areas. Total earth disturbance would be approximately 950,237 cubic yards compared to 219,000 identified in the LWEP EIR (Table 2-1). Figure 2-3b shows the location of grading activities, much of which would be along ridgelines outside of stream beds. However, there would be 3.2 acres of grading along San Miguelito Creek as shown in Figures 2-6a-c. San Miguelito Creek is the receiving water for portions of the site drainage, as well as to the proposed transmission line construction. San Miguelito Creek is now impaired for a variety of pollutants which do not include sedimentation, though it is possible for runoff-borne sediments to carry other pollutants.

Similar to the LWEP, a SWPPP would be required under the provisions of the Clean Water Act. The SWPPP would include BMPs that would reduce erosion rates during and after construction and decommissioning to essentially natural rates. A grading, erosion-control and drainage plan would also be required as per Santa Barbara County requirements (LWEP MM WAT-1, therefore, would not be needed). In addition, because the Project would potentially have an impact on water quality, a SWQMP would be required by the County of Santa Barbara to reduce the water quality impact to levels that do not exceed RWQCB water quality standards. Santa Barbara County requires that disturbed slopes be vegetated with appropriate native or drought-tolerant vegetation, permanent channel crossings be stabilized, and energy dissipators such as riprap be used at outlets of new storm drains, culverts, conduits or channels that enter unlined channels. Detention basins are required to reduce post-development peak storm water runoff discharge rates. With all the standard measures required by the various agencies, erosion and sedimentation impacts would be reduced to a less-than-significant level (Class III).

WAT-2 **Pollutant Discharge.** Water quality could be affected by small fuel or oil spills, concrete, and trash and litter during construction and operation.

Pollutant discharge impacts could affect water quality (Significance Criteria 1, 2, 5, 6, 7, 8, and 9). Impacts under the SWEP are the same as described for Impact WAT-2 in the LWEP EIR. The general description of the SWEP impact is the same as for WAT-2 described in the LWEP EIR and is similar to SWEP RISK-5 (Section 4.11), which includes a description of the amount of chemicals that would be used by the SWEP.

There is a potential for accidental releases of hazardous materials (oil, lubricants, fuel, trash, paint, etc.) during construction, operation and decommissioning of the SWEP. As stored chemicals would be held in onsite tanks or drums equipped with secondary containment areas to prevent runoff, and the substation would be graded for containment in the event of equipment failure, the risk of spill is low during Project operations.

The potential for construction-related releases extends along San Miguelito Creek due to the proposed transmission line construction. As an impaired water body, discharges of pollutants into San Miguelito Creek could be significant under Significance Criterion 7.

Similar to the LWEP, adherence to a SWPPP would be required under the provisions of the Clean Water Act to control pollutants during construction. The applicant proposes a Hazardous Materials Management Plan and a Spill Prevention Control and Countermeasures Plan to reduce the accidental release of contaminants and to clean up any accidental releases. The SWQMP would require identification of pollutant sources, BMPs to address identified pollutants, and an inspection and maintenance program to maintain BMPs for the life of the Project. In addition, MMs RISK-1 to RISK-4 (associated with Impact RISK-5) require a Hazardous Materials Management Plan, contact information for spillage from

refueling vehicles, proper maintenance of vehicles, and avoidance of sensitive areas. Therefore, similar to the LWEP, potential water quality impacts associated with the Project's discharge of pollutants would be adverse, but not significant (Class III) due to implementation of regulatory requirements imposed by various agencies.

WAT-3 **Stormwater Runoff/Flooding.** Temporary and permanent land disturbance could affect stormwater runoff/flooding and stormwater quality.

Stormwater runoff/flooding impacts could affect water quality (Significance Criteria 2 and 9), as well as potentially increasing peak runoff rates or otherwise exacerbating flood and erosion hazards through drainage alteration or placement of structures in flood-prone areas. The general description of the Project impact is the same as Impact WAT-3 in the LWEP EIR, which stated that the project impervious area is such a small percentage of the watershed area that hydrologic conditions would change little, and that there would be little potential for spillage of chemicals as described in Impact WAT-2.

Appendix D shows that similar to the LWEP, the permanent impervious area of the SWEP would represent a small percentage (less than 1 percent) of the total Project area, indicating that hydrologic conditions would remain about the same as current conditions. The Project would not significantly affect flows in the 100-year floodplain because the Project is primarily on hillsides, not located in a 100-year floodplain, and except for road crossings would be outside other flood-prone areas. Disturbances of drainage channels would be minimal.

Impacts from stormwater runoff and flooding and to water quality would be less than significant (Class III) with the implementation of the SWPPP, Grading and Drainage Plan, and BMPs (associated with Impact WAT-2 and Impact RISK-5), the SWQMP (associated with Impact WAT-1), and the Hazardous Materials Management Plan (associated with Impact RISK-5). In addition, implementation of MM WAT-2 (associated with Impact WAT-5) would help avoid unnecessary encroachment into watercourse areas and thereby further reduce the potential for adverse impacts to water quality. (The classification is considered Class III instead of Class II because there is no project-specific mitigation and only standard County requirements.)

WAT-4 **Groundwater.** The Project could substantially deplete groundwater supplies or interfere with groundwater recharge.

Groundwater impacts could relate to groundwater quality (Significance Criteria 6 and 8) as well as potentially adversely affecting the availability of groundwater to other users. Impacts are the same as Impact WAT-4 in the LWEP EIR. However, the proposed groundwater source for the SWEP is different from the LWEP.

As described in the LWEP EIR, the Project is not located above a designated groundwater basin recognized and named by the California Department of Water Resources. Groundwater from a small, local, unmapped basin with approximately ~~40~~ 1,000 acre feet of available water would be used by the Project. The SWEP proposes to use a well that would be installed approximately 8,000 feet east of the O&M building along San Miguelito Road (Figure 2-3b). The LWEP well would have been on the Signorelli Ranch approximately 4,700 feet northwest of the proposed well shown on Figure 2-3b. According to a well feasibility study and pumping test (Appendix E-2) the proposed well to be used by

the SWEP Project has capacity to supply the 250 gallons per day required for operations with a long-term static water level drawdown of less than a foot.

~~As described in Section 4.12.1, the site is not above any mapped groundwater basin. Only local groundwater is available and there are few low-producing wells in the area.~~ There is an offsite well located approximately 1,000 feet northwest of the proposed water supply well that could potentially be affected by the water extraction for the Project (Appendix E-3). A second offsite well approximately 3,800 feet northwest of the proposed water supply well could also be affected (Appendix E-4). Given the results of the SWEP well test, ~~(Appendix E-2), long-term water level drawdown for operational uses for the SWEP well would be less than one foot.~~ any induced drawdown at the offsite well 1,000 feet away from the proposed water supply well is expected to be much less than one foot and ~~The existing adjacent well is 50 feet deep with a static water level 7 feet below the ground surface (Appendix E-2). A one-foot long-term drawdown for operational uses~~ is therefore unlikely to adversely affect the production of this existing offsite well or the more distant offsite well.

Water quality from the proposed well would be adequate for potable use, but with iron exceeding the EPA Secondary Maximum Containment Level (SMCL). SMCLs are unenforced, non-mandatory water quality standards considered as guidelines for public water systems. SMCL contaminants are not considered to present a risk to human health. Iron-removal options are available (Appendix E-2).

Construction water would be supplied either from the same 1,000-acre-foot aquifer ~~well~~ described above or by the City of Lompoc's Regional Wastewater Reclamation Plant (LRWRP). The primary uses of water during construction would be dust control and mixing of concrete batches. The Applicant has received a "Can and Will Serve" Letter from LRWRP for up to 20,000 gallons per day of recycled water for the Project. Neither water source would cause a significant adverse impact to surface water quality (see Impacts WAT-1 through WAT-3) which could lead to infiltration to and contamination of the area groundwater.

In the event construction water is obtained from the local onsite aquifer, as many as three additional wells could be drilled for that purpose (Appendix E-3). ~~Construction water use would be up to 19,000 gallons per day for six months, plus 3,300 gallons for each of the 30 WTG foundations for a total of approximately 11 acre feet. According to the well feasibility study and pump test (Appendix E-1 and E-2), the local aquifer has approximately 40 acre feet of water total, and extraction of 43,200 gallons of water (a little more than two days of construction water) over a 12-hour period caused a 38-foot drawdown in the water level. Based on this evidence, it appears that use of the proposed well for construction-related purposes could cause a significant adverse impact to the water level in existing, adjacent wells. Implementation of MM WAT-1 (Construction Water Source) would require that construction water not be obtained from onsite wells, which would avoid this impact.~~ Construction water use, if derived from these wells, would likely exceed the natural recharge to the local aquifer (Appendix E-3 and E-4). Water production in the nearest offsite well described above could be temporarily adversely affected. Frick Springs and the additional (Ranch) spring described in Appendix E-4 are outside the aquifer and unlikely to be affected.

As with the LWEP, the estimated permanent impervious area would represent a small percentage (less than 1 percent) of the total Project area, indicating that groundwater recharge would remain about the same as current conditions. The Project would therefore not interfere with groundwater recharge. There could be a temporary depletion of the local aquifer during construction if construction water is obtained on site. ~~Thus, with implementation of~~ MM WAT-1~~,~~ will ensure that ~~the Project would not substantially~~ the use of an onsite well during construction ~~deplete~~ would not adversely affect

groundwater supplies for other wells that draw ground water from the same aquifer. ~~supplies or interfere with groundwater recharge.~~

During the operational phase of the Project, a normal staff of 4 to 7 full-time staff would be employed at the O&M facility. Effluent from the office drains would be disposed of through a proposed leach line septic system. For such a system, the Santa Barbara County Environmental Health requires soil with adequate permeability to absorb leachates after solids are deposited in the septic tank. Additionally, depending upon the permeability of the soil, there is a minimum separation requirement between the bottom of the leach trenches and the ground water table. A wet weather soil boring is required to confirm the highest expected groundwater elevation. Percolation test results show that the O&M facility site vicinity is characterized by native soils with permeability ranging from 42 to 100 minutes per inch. Groundwater levels are expected to fluctuate with rainfall. Local perched ground water was observed by boring to be at a depth of 9 feet after a period of heavy rain.

Design sewage flow generated by the O&M facility is estimated at 250 gallons per day, which is conservative since the California plumbing code estimate roughly 20 gallons per person per day for a typical office. Five to seven employees are expected to occupy the O&M facility, which would make actual use approximately 100 to 140 gallons per day.

The desired onsite disposal system is a conventional in-ground system including a septic tank to remove solids and grease, a 4-inch pipeline at 3 percent slope to a distribution box, and two leach lines, sized to accommodate the design flows for the field soils. The septic tank and leach lines will be located just north of the O&M facility in native soil, beginning just beyond the area of fill for the new building. The septic system design will depend on final engineering calculations. At this time, it is estimated that a 1,000-gallon septic tank with roughly 200 feet of leaching lines (two lines each 100 feet long) would be adequate to dispose of the generated wastes. A leach trench depth of approximately 42 inches would have adequate (more than five feet) separation from the wet weather groundwater location.

Through compliance with County standards and implementation of MM WAT-1 (Construction Water Source) below, the Project's impact on groundwater quality would be reduced to a less-than-significant level (Class II). MM WAT-1 is based on the groundwater analysis in Appendix E-4 that shows that a drawdown of 14 feet in the nearest adjacent offsite well would be the threshold for causing a loss in production to that well.

Mitigation Measure

MM WAT-1 **Construction Water Source.** ~~Onsite wells shall not be used for construction water.~~ If the proposed new onsite well is used for construction water, the Applicant shall install a monitoring well as close to the existing offsite well as reasonably possible to monitor groundwater levels within the aquifer. The monitoring well shall be equipped with an automatic water-level recorder (e.g., pressure transducer). Water level data from the monitoring well shall be recorded hourly and reported to the County on a bi-weekly basis during the first six months of construction and monthly thereafter until three months following the end of construction. Water-level data reported to the County shall include an interpretation of water levels and anticipated construction activity and water use. The reporting interval shall change from bi-weekly to weekly if the water level declines in the monitoring well 7 feet or more.

If water-level trends at the monitoring well indicate that a drawdown of 14 feet or more is anticipated to occur at any time during the use of the well for construction

purposes, the Applicant shall adjust and/or reduce construction well production to avoid water levels reaching the drawdown threshold of 14 feet in the nearest offsite well.

Plan Requirements. The Applicant shall ~~use the reclaimed water from the City of Lompoc's Regional Wastewater Reclamation Plant for all construction-related purposes, including water used for dust control, grading activities, and generation of concrete for WTG foundation~~ prepare a groundwater monitoring plan for the onsite well to be used as a water source during construction. The monitoring plan shall remain in effect during construction and three months after completion of construction activities.

The Applicant shall provide Santa Barbara County with documentation of an alternate available source of water prior to the initiation of construction, i.e., City of Lompoc recycled water.

Timing. The groundwater monitoring plan must be approved by the County prior to the initiation of construction. ~~This condition shall be written on the grading plans prior to Zoning Clearance.~~

Monitoring. ~~No monitoring required~~ Water level data from the monitoring well shall be reported to the County on a bi-weekly basis during the first six months of construction and monthly thereafter until three months following the end of construction. Water-level data reported to the County shall include an interpretation of water levels and anticipated construction activity and water use.

WAT-5 Riparian Vegetation Removal. The Project could result in the removal or reduction of vegetation from the buffer zone of streams, creeks, or wetlands, which could affect water quality.

Removal of riparian vegetation could affect surface water quality (Significance Criteria 4 and 9). The potential effect of this impact would be the same as described for Impact WAT-5 in the LWEP EIR. Road construction and grading for road construction could result in the removal or reduction of riparian vegetation or other vegetation from the buffer zone of streams, creeks, or wetlands, which could affect water quality by increasing the potential for erosion and removing vegetation which serves as shade (effects to water temperature can be considered an adverse impact on water quality) and a filter for pollutants. The permanent removal of 3.02 acres of riparian vegetation (see Table 4.5-3) is described in Impacts BIO-1a and BIO-4. The location of riparian vegetation is shown in Figure 4.5-1. The impacts from vegetation removal are potentially significant, but can be reduced to a less-than-significant level with mitigation (Class II). Implementation of MMs BIO-3 (Site Restoration and Revegetation Plan), BIO-10 (Riparian Habitat Restoration), and WAT-2 (Minimize Watercourse Encroachment) would reduce potential impacts to water quality associated with the removal or reduction of vegetation to a less-than-significant level.

Mitigation Measures

MM BIO-3 **Site Restoration and Revegetation Plan.** The full text of this measure is presented in Section 4.5, *Biological Resources*.

MM BIO-10 **Riparian Habitat Restoration.** The full text of this measure is presented in Section 4.5, *Biological Resources*.

MM WAT-2 **Minimize Watercourse Encroachment.** Prior to final approval of the Project, a plan showing all watercourse encroachments shall be submitted to Santa Barbara County for review and approval. The plan shall demonstrate that any disturbance to riparian vegetation is the minimum practicable, and does not adversely affect the creek channel, vegetative cover over the stream, or flow pattern.

Plan Requirements. Plan requirements shall be noted on all grading and building plans. The Applicant shall notify County Permit Compliance prior to commencement of grading.

Timing. The Watercourse Encroachment Plan shall be submitted for review and approval by the County prior to zoning clearance for construction.

Monitoring. County Permit Compliance will ensure compliance with the road widening plan. Grading inspectors will monitor technical aspects of the construction activities.

4.12.5 Cumulative Effects

Geographic Extent/Context

The geographic extent of the hydrology and water quality cumulative effects is the Lompoc Valley (Santa Ynez River) as described in the LWEP EIR, plus the Honda Creek watershed extending to the Pacific Ocean south of the Lompoc Valley. All of the cumulative projects relevant to hydrology and water quality are in the Lompoc Valley. The location of the relevant cumulative projects is shown in Figure 3-1. Most of these are small urban commercial or residential projects in and around the city of Lompoc. There are a winery and an aggregate mine along the Santa Ynez River upstream of Lompoc. The SWEP site also drains to the Santa Ynez River via San Miguelito Creek. The Santa Ynez River is classified as impaired by the RWQCB for sedimentation/siltation, sodium, water temperature, total dissolved solids and toxicity.

All the proposed projects shown in Figure 3-1 could have adverse effects on the water quality of the Santa Ynez river based on the significance criteria described in Section 4.12.3. The aggregate projects could have an effect on groundwater, but in a different groundwater basin not connected to the groundwater beneath the SWEP. Each project would be subject to the requirements described in Section 4.12.2, which are intended to reduce and mitigate adverse impacts and avoid detriment to beneficial uses.

Impact Categories

Erosion and Sedimentation. All the cumulative projects would involve ground disturbance which could produce erosion and sedimentation, which is one of the impairments of the Santa Ynez River. Impacts would primarily occur during construction, though long-term impacts would be possible, particularly for the winery, aggregate and residential projects. The SWEP would contribute to the potential for erosion and sedimentation as described in Impact WAT-1.

SWPPPs would be required for all projects greater than one acre in size. Santa Barbara County imposes additional requirements, which include pollution and sediment control, drainage and erosion BMPs, and revegetation of disturbed areas. The purpose of these measures is to avoid adversely impacting

beneficial uses and water quality, including sedimentation. Therefore, the overall cumulative impact is expected to be minor and not significant, to which the SWEP would make a contribution that is not substantial.

Pollutant Discharge. All the cumulative projects could affect water quality through discharge of pollutants during construction and operation, and adversely affect the impaired Santa Ynez River. The SWEP would contribute to the potential for pollutant discharge as described in Impact WAT-2.

SWPPPs would be required for all projects greater than one acre in size. Additional requirements would be imposed by Santa Barbara County as described in Section 4.12.3. The purpose of these measures is to avoid adversely impacting beneficial uses and water quality. Therefore, the overall cumulative impact is expected to be minor and not significant. The SWEP, through compliance with existing regulations, and the proposed Hazardous Materials Management Plan and a Spill Prevention Control and Counter-measures Plan, would not make a substantial contribution to this cumulative impact.

Stormwater Runoff/Flooding. All the projects would have the potential to increase stormwater runoff and flooding, but it is unlikely storm discharges would be significantly increased due to Santa Barbara County detention requirements. The contribution of the SWEP would not be significant for the same reason.

Groundwater. The SWEP, not being above any groundwater basin that would be affected by cumulative projects would have no contribution to cumulative groundwater impacts.

Riparian Vegetation Removal. Most of the relevant cumulative projects are not within riparian areas and would not contribute to riparian vegetation removal. The proposed sand and gravel operation (Project #16 in Figure 3-1) may remove some riparian vegetation along the Santa Maria River. Therefore, the SWEP, which would remove riparian vegetation along San Miguelito Creek, would have a relatively large contribution to the cumulative impact on riparian vegetation. Since this impact would be mitigated, the Project would not make a substantial contribution to this impact.

4.12.6 Residual Impacts

As summarized in Section 4.12.4, Impacts WAT-1, WAT-2, and WAT-3 would be less than significant. With implementation of proposed mitigation measures, residual effects from Impacts WAT-4 and WAT-5 would be less than significant.

4.12.7 Impact and Mitigation Summary

Table 4.12-2 below provides a summary of the SWEP's impacts related to hydrology and water quality. The table also indicates the mitigation measures proposed to reduce each significant impact.

Table 4.12-2. SWEP Impact and Mitigation Summary – Hydrology and Water Quality

Impact No.	Impact Statement	Mitigation Measures	Significance Conclusion
WAT-1	Erosion and Sedimentation. Project-related ground disturbance could induce erosion and sedimentation into local watercourses.	None required; however, standard regulatory requirements apply.	Class III
WAT-2	Pollutant Discharge. Water quality could be affected by small fuel or oil spills, concrete, and trash and litter during construction and operation.	None required; however, standard regulatory requirements apply.	Class III

Impact No.	Impact Statement	Mitigation Measures	Significance Conclusion
WAT-3	Stormwater Runoff/Flooding. Temporary and permanent land disturbance could affect stormwater runoff/flooding and stormwater quality.	None required.	Class III
WAT-4	Groundwater. The Project could substantially deplete groundwater supplies or interfere with groundwater recharge.	WAT-1: Construction Water Source. Also, standard regulatory requirements apply.	Class II
WAT-5	Riparian Vegetation Removal. The Project could result in the removal or reduction of vegetation from the buffer zone of streams, creeks, or wetlands, which could affect water quality.	WAT-2: Minimize Watercourse Encroachment MM BIO-3: Site Restoration and Revegetation Plan MM BIO-10: Riparian Habitat Restoration	Class II

Class I. Significant unavoidable adverse impact.

Class II. Significant environmental impacts that can be feasibly mitigated or avoided.

Class III. Adverse impacts found not to be significant.

Class IV. Impacts beneficial to the environment.

4.12.8 References

FEMA (Federal Emergency Management Agency). 2012. National Flood Insurance Program Flood Insurance Rate Map Santa Barbara County, California. Panel 1002.

FEMA (Federal Emergency Management Agency). 2018. National Flood Insurance Program Flood Insurance Rate Map Index Santa Barbara County, California. Map #6083CIND1D.

SWRCB (State Water Resources Control Board). 2016. Final 2014/2016 California Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report). [online]: https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml. Accessed October 23, 2018.