

## Section 3.6

# Hydrology and Water Quality

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### 3.6.1 Introduction

This section identifies and evaluates issues related to hydrology and water quality from implementation of the Proposed Project. The existing environmental and regulatory setting for water resources is described and discussed, and potential impacts of the Proposed Project are identified, as are mitigation measures to reduce those impacts where necessary.

The information in this section is based on the 1982 Final Environmental Impact Report (EIR), associated studies, information provided by the Dunes Center and the City of Santa Maria, and regional information available in previous EIRs prepared by the County.

### 3.6.2 Environmental Setting

#### 3.6.2.1 Surface Water

The Guadalupe Dunes are part of the Santa Maria Watershed, which is identified by the United States Geologic Survey (USGS) as Hydrologic Unit Code 18060008. The South Coast Regional Water Quality Control Board (RWQCB) has included the area as part of the Santa Maria River Hydrologic Unit, which encompasses approximately 1,880 square miles and also includes the Cuyama River and the Sisquoc River. The lower Santa Maria River Watershed is heavily altered by levees and flood control channels and basins (California State Water Resources Control Board [SWRCB] 2003).

There are several surface water features in the vicinity of the Proposed Project. The Pacific Ocean lies to the west, within approximately 1 mile of the site. Multiple drainages pass through or near the Guadalupe Dunes on their way to the Pacific Ocean. Oso Flaco Creek and Little Oso Flaco Creek are located several miles north of the site, and empty into Little Oso Flaco Lake. The Santa Maria River is also close to the Project Site, running from east to west through the City of Guadalupe to the Pacific Ocean. Additionally, Orcutt Creek approaches the Project Site from a more southerly direction before joining with the Santa Maria River, approximately 1 mile east of the coast.

#### 3.6.2.2 Groundwater

The Proposed Project is located near the western edge of the Santa Maria Groundwater Basin, which is an alluvial basin of approximately 170 square miles (County of Santa Barbara Public Works Department 2005). The Santa Maria Groundwater Basin is bordered by the San Rafael Mountains to the east, the Pacific Ocean to the west, the Nipomo Mesa to the north, and the Solomon-Casmalia Hills to the south. Water-bearing formations within the basin include Holocene alluvium, dune sands, the Orcutt Formation, the Paso Robles Formation, the Careaga Formation, and the Pismo Formation (California Department of Water Resources [CDWR] 2004). Recharge sources include Pismo Creek, Arroyo Grande Creek, and the Santa Maria River. Groundwater flow is generally westward towards the Pacific Ocean. Water levels have fluctuated, but remain relatively stable in the western portion of the basin. Depth to groundwater can range from 89 to 225 feet (City of Santa

Maria Utilities Department 2010). In the vicinity of the Proposed Project, the groundwater table slopes westerly at approximately 5 feet per mile.

Since 1946, multiple groundwater studies have concluded that the basin was in overdraft. In 2001, a report prepared by the Santa Barbara County Water Agency determined that the annual overdraft of the Santa Maria Water Basin at that time averaged from 2,000-3,000 acre-feet per year (County of Santa Barbara Public Works Department 2005). It is believed that the overdraft is focused in the principal areas of pumping, in the central portion of the basin, and is due to agricultural, municipal, and industrial uses. The ground water basin was adjudicated in 2008 as a form of groundwater management (CDWR 2014).

### **3.6.2.3 Water Quality**

Seven surface water features in the vicinity of the Project Site are listed under the State Water Resources Control Board's 303(d) List (see Table 3.6-1). The 303(d) List is required by the 1972 Amendments to the Federal Water Pollution Control Act, also known as the Clean Water Act (CWA), and is established with the purpose of regulating water pollution in the United States. The seven water bodies in the vicinity of the Project Site were first listed between 2002 and 2010 for a variety of different pollutants. The most common pollutants include, but are not limited to: ammonia, fecal coliform, nitrate, chloride and sediment toxicity (SWRCB 2013).

Historically, high nitrate concentrations have been documented within the Santa Maria Groundwater Basin. The concentrations have been as high as 240 mg/l (milligrams per liter) (CDWR 2004). Additionally, elevated total dissolved solids (TDS), sulfate, and/or chloride concentrations impact certain regions of the basin. Recent TDS concentrations near Guadalupe were measured to be approximately 1500 mg/L (County of Santa Barbara Public Works Department 2014).

### **3.6.2.4 Precipitation**

The climate in the Santa Maria and Guadalupe area is typically mild year-round and influenced by the Pacific Ocean. Precipitation falls during late autumn, through the winter, and into the early spring. The majority of rainfall usually occurs from December until March. The monthly average rainfall at the City of Guadalupe is presented in Table 3.6-2. Total water year annual average rainfall is approximately 12.73 inches (County of Santa Barbara Public Works Department 2013). A water year runs from September 1 to August 31, and is used rather than a calendar year to more accurately document rainfall during a season.

### **3.6.2.5 Flood Hazards**

Flood hazards vary throughout the Guadalupe Dunes. The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) indicate the Guadalupe Dunes area is mostly within flood insurance rate Zone X (i.e., moderate flood hazard area), with regions immediately adjacent to the Santa Maria River being designated as Zone A. The Project Site would be entirely within Zone X designations.

Zone A represents the 100-year flood zone and is defined as having a 1 percent chance of flooding annually. Because detailed hydraulic analyses have not been performed for such areas, no base flood elevations or depths are shown within this zone. Zone A areas are located primarily near rivers and creeks and downslope from mountain drainages where topography indicates an increased potential for flooding.

**Table 3.6-1. Surface Waters in the Vicinity of the Proposed Project on the California 303(d) List**

<b>Water Body</b>	<b>Calwater / USGS Hydrologic Unit Code</b>	<b>Pollutant(s)</b>	<b>Listing Category</b>	<b>Earliest Listing Date</b>
Green Valley Creek (Santa Barbara County)	31210030 / 18060008	Ammonia, Chlorpyrifos, low dissolved oxygen, nitrate, temperature, turbidity, unknown toxicity	5A (TMDL required)	2010
Little Oso Flaco Creek	31210030 / 18060008	Fecal coliform, nitrate, sediment toxicity, unknown toxicity	5A (TMDL required)	2010
Orcutt Creek	31210030 / 18060008	Ammonia, boron, chloride, chlorpyrifos, DDT, diazinon, dieldrin, electrical conductivity, fecal coliform, nitrate, sediment toxicity, sodium, temperature, turbidity, unknown toxicity	5A (TMDL required)	2002
Oso Flaco Creek	31210030 / 18060008	Ammonia, chloride, fecal coliform, nitrate, sediment toxicity, sodium, unknown toxicity	5A (TMDL required)	2002
Oso Flaco Lake	31210030 / 18060008	Dieldrin, nitrate	5A (TMDL required)	2002
Santa Maria River	31210030 / 18060008	Chloride, chlorpyrifos, DDT, dieldrin, endrin, Escherichia coli, fecal coliform, nitrate, sediment toxicity, sodium, toxaphene, turbidity, unknown toxicity	5A (TMDL required)	2002
Santa Maria River Estuary	31210030 / 18060008	Escherichia coli, fecal coliform, total coliform	5 (TMDL required)	2010
Definitions: DDT = dichlorodiphenyltrichloroethane TMDL = total maximum daily load USGS = United States Geological Survey				

**Table 3.6-2. Average Monthly Rainfall in Guadalupe in inches (Water Years 1920–1921 to 2012–2013)**

Precipitation	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Water Year
Mean	0.19	0.52	1.25	2.12	2.48	2.65	2.16	1.00	0.26	0.08	0.02	0.03	12.73
Maximum	2.64	2.53	5.88	9.88	13.0	10.4	8.39	5.17	2.22	1.53	0.21	0.72	30.80

The majority of the Guadalupe Dunes in the vicinity of the Proposed Project is classified as Zone X, which corresponds to areas outside of the 500-year flood zone and is defined as the flood insurance rate zone that corresponds to areas outside of the 0.2 percent annual chance floodplain, areas within the 0.2 percent annual chance floodplain, areas of 1percent annual chance flooding where the contributing drainage is less than 1 square mile, and areas protected from the 1percent annual chance flood by levees. No base flood elevations or depths are shown within the zone (FEMA 2005).

### 3.6.3 Regulatory Setting

#### 3.6.3.1 Federal

#### Clean Water Act

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

The CWA requires states to adopt water quality standards for water bodies and have those standards approved by EPA. Water quality standards consist of designated beneficial uses for a particular water body (e.g., wildlife habitat, agricultural supply, and fishing), along with water quality criteria necessary to support those uses. Water quality criteria include quantitative set concentrations, levels, or loading rates of constituents—such as pesticides, nutrients, salts, suspended sediment, and fecal coliform bacteria—or narrative statements that represent the quality of water that support a particular use.

#### Clean Water Act, Section 303, List of Water Quality Limited Segments

Section 303 of the CWA requires that the state adopt water quality standards for surface waters. When designated beneficial uses of a particular water body are being compromised by water quality, Section 303(d) of the CWA requires identifying and listing that water body as impaired. Once a water body has been deemed impaired, a Total Maximum Daily Load (TMDL) must be developed for each impairing water quality constituent. A TMDL is an estimate of the total load of pollutants from point, non-point, and natural sources that a water body may receive without exceeding applicable water quality standards (often with a “factor of safety” included, which limits the total load of pollutants to a level well below that which could cause the standard to be

exceeded). Once established, the TMDL is allocated among current and future dischargers into the water body.

### **Clean Water Act, Section 402, National Pollutant Discharge Elimination System**

Direct discharges of pollutants into waters of the U.S. are not allowed, except in accordance with the NPDES program established in Section 402 of the CWA. Non-point source discharges to stormwater are regulated under stormwater NPDES permits for municipal stormwater discharges, industrial activities, and construction activities. These permits require development and adherence to Storm Water Pollution Prevention Plans (SWPPP).

### **Clean Water Act, Sections 404 and 401**

Under Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged or fill material into waters of the U.S., which are those waters that have a connection to interstate commerce, either direct via a tributary system or indirect through a nexus identified in the USACE regulations. Under Section 401 of the CWA, the SWRCB must certify all activities requiring a 404 permit. The RWQCB regulates these activities and issues water quality certifications for those activities requiring a 404 permit.

### **Flood Insurance Rate Maps issued by the Federal Emergency Management Administration**

FEMA divides flood areas into three zones: Zone A for areas of 100-year flood, base flood elevations not determined; Zone B for areas of 500-year flood; and Zone C for areas of minimal flooding. The National Flood Insurance Program 100-year floodplain is considered to be the base flood condition. This is defined as a flood event of a magnitude that would be equaled or exceeded an average of once during a 100-year period. Floodways are defined as stream channels plus adjacent floodplains that must be kept free of encroachment as much as possible so that 100-year floods can be carried without substantial increases (no more than 1 foot) in flood elevations. Development in these floodplain areas are subject to the standard conditions of approval of the Santa Barbara County Flood Control and Water Conservation District, and the requirements and development standards set forth in the County Flood Plain Management Ordinance (Chapter 15-A of the County Code) and the Development Along Water Courses Ordinance (Chapter 15-B of the County Code).

## **3.6.3.2 State**

### **State Water Resources Control Board**

SWRCB is responsible for statewide regulation of water resources. SWRCB's mission is to "ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses." SWRCB thus has joint authority over water allocation and water quality protection. SWRCB supports the efforts of the individual RWQCBs, of which there are nine statewide. These are semiautonomous and consist of Board members appointed by the Governor and confirmed by the Senate. Regional boundaries are based on watershed, and water quality requirements are based on the unique differences in climate, topography, geology, and hydrology for each watershed.

Each RWQCB makes critical water quality decisions for its region, including setting standards, issuing waste discharge requirements, determining compliance with those requirements, and taking

appropriate enforcement actions. Water quality standards are defined in each RWQCB's respective Basin Plan. Basin plans must conform to the policies set forth in the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) and established by SWRCB in its state water policy. The Porter-Cologne Act also provides that an RWQCB may include in its region a regional plan with water discharge prohibitions applicable to particular conditions, areas, or types of waste. The RWQCBs are also authorized to enforce discharge limitations, take actions to prevent violations of these limitations from occurring, and conduct investigations to determine the status of quality of any of the waters of the State within their region. Civil and criminal penalties are also applicable to persons who violate the requirement of the Porter-Cologne Act or SWRCB/RWQCB orders.

## **California Porter-Cologne Water Quality Control Act**

The federal CWA places the primary responsibility for the control of water pollution and for planning the development and use of water resources with the individual states, although it does establish certain guidelines for the states to follow in developing their programs.

California's primary statute governing water quality and water pollution is the Porter-Cologne Act, which grants the SWRCB and RWQCBs broad powers to protect water quality and is the primary vehicle for implementation of California's responsibility under the CWA. The Porter-Cologne Act grants the SWRCB and RWQCBs the authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites, and to 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, oil, or petroleum product.

## **Water Quality Control Plan, Central Coast Basin (Basin Plan)**

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

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

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

## **State General Permit for Storm Water Discharges Associated with Construction Activity (Construction General Permit)**

On September 2, 2009, SWRCB adopted the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit; Order 2009-0009-DWQ; NPDES No. CAS000002). In accordance with NPDES regulations, the State of California requires that any construction activity disturbing 1 acre or more of soil comply with the Construction General Permit. To obtain authorization for proposed stormwater discharges pursuant to this permit, the landowner (discharger) is required to submit a Permit Registration Documents, including a Notice of Intent (NOI), risk assessment, site map, SWPPP, annual fee, and signed certification statement to SWRCB. Dischargers are required to implement Best Management Practices (BMPs) meeting the technological standards of Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate stormwater pollution. BMPs include programs, technologies, processes, practices, and devices that control, prevent, remove, or reduce pollution. Permittees must also maintain BMPs and conduct inspection and sampling programs as required by the permit. Dischargers are also required to comply with monitoring and reporting requirements to ensure that discharges comply with the numeric action levels and numeric effluent limitations specified in the permit.

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

### **3.6.3.3 Local**

## **Santa Barbara County Integrated Regional Water Management Program**

The County of Santa Barbara's Integrated Regional Water Management Program's (IRWM's) intent is to promote and practice integrated regional water management strategies to ensure sustainable water uses, reliable water supplies, better water quality, environmental stewardship, efficient urban development, and protection of agricultural and watershed awareness.

## **County of Santa Barbara Storm Water Management Program**

The County of Santa Barbara Storm Water Management Program (SWMP) has been prepared pursuant to SWRCB Water Quality Order No. 2003-005-DWQ, NPDES General Permit No. CAS0000004 Water Discharge Requirements for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (General Permit). The General Permit establishes certain unincorporated areas on the South Coast, in the Santa Ynez Valley, and in the Orcutt area of the Santa Maria Valley where the County is responsible for water quality and storm drains and surface drainages. The goals of the SWMP are to: (1) protect the health of the public and the environment, (2) meet CWA mandates through compliance with the General Permit requirements and applicable regulations, and (3) increase public involvement and awareness. The SWMP describes those BMPs that will reduce, control, or eliminate identified pollutants of concern.

## County of Santa Barbara Comprehensive Plan

### Flood Protection

This section profiles the goals, policies, objectives, and implementation measures adopted by the County to limit the negative effects of flooding and demonstrate compliance with applicable state laws.

- **Flood Goal 1:** Protect the community from unreasonable risks of flooding pursuant to Government Code §65302(g) et. seq.
- **Flood Objective 1:** Pursuant to County Code Chapter 15A-Flood Plain Management, promote the public, health, and general welfare, and minimize public and private losses due to flood conditions.
- **Flood Policy 1:** The County shall avoid or minimize risks of flooding to development through the development review process pursuant to Government Code §65302(3)(g)(2)(i).
- **Flood Policy 2:** The County shall evaluate whether development should be located in flood hazard zones, and identify construction methods or other methods to minimize damage if development is located in flood hazard zones pursuant to Government Code §65302(3)(g)(2)(ii).
- **Flood Policy 3:** The County shall maintain the structural and operational integrity of essential public facilities during flooding pursuant to Government Code §65302(3)(g)(2)(iii).
- **Flood Policy 4:** The County shall locate, when feasible, new essential public facilities outside of flood hazard zones, including hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities or identify construction methods or other methods to minimize damage if these facilities are located in flood hazard zones pursuant to Government Code §65302(3)(g)(2)(iv).
- **Flood Policy 5:** The County shall establish cooperative working relationships among public agencies with responsibility for flood protection pursuant to Government Code §65302(3)(g)(2)(v).
- **Flood Policy 6:** The County shall review current National Flood Insurance Program maps and state and local sources of information on a regular basis and utilize the data to assure that measures are taken to reduce potential risks from flooding pursuant to the National Flood Insurance Program of 1968.
- **Flood Policy 7:** All proposed surface mining operations shall demonstrate that they will not exacerbate or significantly alter the floodplain in which they are located. For projects that cannot meet this standard, a Letter of Map Amendment or Letter of Map Revision shall be obtained from FEMA prior to construction pursuant to the Surface Mining and Reclamation Act of 1975.
- **Flood Policy 8:** The County Public Works Department should continue working with the County Office of Emergency Services in updating flood information in the Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan.
- **Flood Policy 9:** The County shall utilize information on areas included in wildfires to determine areas subject to increased risk of flooding, including mudslides and flash flooding.

- **Flood Policy 10:** The County should review the floodplain improvement projects identified in the Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan annually for progress and necessary revisions.
- **Flood Policy 11:** The County Office of Emergency Services (OES) shall continue coordinating emergency planning for the Santa Barbara Operational Area pursuant to the California Emergency Services Act of 1970.
- **Flood Policy 12:** The County should reference the Santa Barbara County Multi- Jurisdiction Hazard Mitigation Plan when considering measures to reduce potential harm from flood-related activity to property and lives.

### 3.6.4 Environmental Impact Analysis

This section discusses the potential hydrology and water quality impacts associated with the various components of the Proposed Project. Mitigation measures are identified where appropriate to minimize environmental impacts.

#### 3.6.4.1 Thresholds of Significance

##### CEQA Guidelines

Appendix G of the State California Environmental Quality Act (CEQA) Guidelines states that a project is considered to have a significant impact on hydrology and water quality if it would result in any of the following.

- Violate any water quality standards or waste discharge requirements (i.e., as established by the Central Coast office of the RWQCB).
- Substantially deplete ground water supplies or interfere substantially with ground water recharge such that there would be a net deficit in aquifer volume or a lowering of the local ground water table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.
- 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 runoff in a manner which would result in flooding on- or off-site.
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
- Otherwise substantially degrade water quality.
- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.
- Inundation by seiche, tsunami, or mudflow.

## County of Santa Barbara Environmental Thresholds and Guidelines

The following guidelines, taken from the Santa Barbara County Environmental Thresholds and Guidelines Manual (County of Santa Barbara 2008), have been designated by the County to be used in conjunction with CEQA thresholds for the analysis of project-related impacts on surface and stormwater quality. A significant water quality impact is presumed to occur if a project involves any of the following.

- 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 1 or more acres of land.
- Increases the amount of impervious surfaces on a site by 25 percent or more.
- Results in channelization or relocation of a natural drainage channel.
- Results in removal or reduction of riparian vegetation or other vegetation (excluding nonnative vegetation removed for restoration projects) from the buffer zone of any streams, creeks, or wetlands.
- 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).
- Discharges pollutants that exceed the water quality standards set forth in the applicable NPDES permit, the RWQCB Basin Plan or otherwise impairs the beneficial uses of a receiving waterbody.
- 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).
- Results in a discharge of pollutants of concern to a receiving water body, as identified by the RWQCB.
- Results in a groundwater basin to enter a state of overdraft due to pumpage of groundwater.

### 3.6.4.2 Impacts of the Proposed Project

This section discusses the impacts to hydrology and water quality from the Proposed Project. Table 3.6-3 below provides a summary of the hydrology and water quality impacts resulting from the Proposed Project and alternatives.

The Proposed Project would leave the Project Site in its current condition. Therefore, conditions would remain as they are described under the existing setting and no impacts to water quality, surface runoff, impervious surfaces, groundwater, or discharge would occur as a result of the Proposed Project.

### 3.6.4.3 Impacts of the No Project Alternative

This section discusses the impacts to hydrology and water quality from the No Project Alternative. Table 3.6-3 below provides a summary of the hydrology and water quality impacts resulting from the Proposed Project and alternatives.

#### **Impact ALT1-HWQ-1. Impacts to water quality or surface runoff resulting from implementation of the No Project Alternative.**

The only use of water in the No Project Alternative would be in the wet screening process that would be used to remove larger gravel. This would include the use of an approximately 35 foot by 100 foot reclamation pond for reclaiming and recycling process water. No other activities of the No Project Alternative have the potential to affect water quality or surface water runoff in any way. The No Project Alternative would not be expected to affect rates or quantities of surface water runoff, as no foreign elements would be added to the dunes and all areas of the Project Site, including the Upper Area, Road Site, Site 2, and Site D would be expected to return to natural dune habitat. Mitigation measures from the 1982 Final EIR would reduce the potential for detrimental effects to water quality should the pond breach or water is otherwise introduced into the environment. These measures include requiring all supplies and wastes to be stored in impervious containers, and all toxic or harmful wastes to be removed from the dune area for proper disposal. Therefore, this impact would be considered less than significant after mitigation (Class II).

#### **Impact ALT1-HWQ-2. Impacts to impervious surfaces, groundwater, and discharge resulting from implementation of the No Project Alternative.**

The No Project Alternative would be located entirely within the Guadalupe Dunes, away from the Santa Maria River and other any surface waters. No discharge would be expected to occur as a result of the No Project Alternative, and the No Project Alternative would not involve altering or otherwise affecting impervious surfaces. No affects to riparian vegetation or other flooding characteristics would occur. In addition, the location of the Project Site is in an area designated as Zone X and no development would be added to the Project Site as a result of the No project Alternative. The Project Site is covered entirely with dune sand. Mitigation measures from the 1982 Final EIR would reduce any detrimental effects to groundwater quality and discharge by requiring all supplies and wastes to be stored in impervious containers, and all toxic or harmful wastes to be removed from the dune area for proper disposal. Therefore, this impact would be considered less than significant after mitigation (Class II).

### 3.6.4.4 Impacts of the Partial Gravel Removal Alternative

This section discusses the impacts to hydrology and water quality from the Partial Gravel Removal Alternative. Table 3.6-3 below provides a summary of the hydrology and water quality impacts resulting from the Proposed Project and alternatives.

#### **Impact ALT2-HWQ-1. Impacts to water quality or surface runoff resulting from implementation of the Partial Gravel Removal Alternative.**

Impacts to water quality and surface runoff as a result of the Partial Gravel Removal Alternative would be the same as for the No Project Alternative, but with a reduced scope. Since the gravel removal would only take place in the Road Site and Site D, any potential impacts would be limited to

these areas. Other than the reclamation pond, no activities of the Partial Gravel Removal Alternative have the potential to affect water quality or surface water runoff in any way. The Partial Gravel Removal Alternative would not be expected to affect rates or quantities of surface water runoff, as no foreign elements would be added to the dunes and the Road Site and Site D would be expected to return to natural dune habitat following completion of the Partial Gravel Removal Alternative. Mitigation measures from the 1982 Final EIR would reduce the potential for detrimental effects to water quality should the pond breach or water is otherwise introduced into the environment. These measures include requiring all supplies and wastes to be stored in impervious containers, and all toxic or harmful wastes to be removed from the dune area for proper disposal. Therefore, this impact would be considered less than significant after mitigation (Class II).

### **Impact ALT2-HWQ-2. Impacts to impervious surfaces, groundwater, and discharge resulting from implementation of the Partial Gravel Removal Alternative.**

The Partial Gravel Removal Alternative would be very similar to the No Project Alternative, but with a reduced to scope including only the Road Site and Site D. No discharge would be expected to occur as a result of the Partial Gravel Removal Alternative, and the Partial Gravel Removal Alternative would not involve altering or otherwise affecting impervious surfaces. No affects to riparian vegetation or other flooding characteristics would occur. In addition, the location of the Project Site is in an area designated as Zone X and no development would be added to the Project Site as a result of the Partial Gravel Removal Alternative. The Project Site is covered entirely with dune sand. Mitigation measures from the 1982 Final EIR would reduce the potential for detrimental effects to groundwater quality and discharge by requiring all supplies and wastes to be stored in impervious containers, and all toxic or harmful wastes to be removed from the dune area for proper disposal. Therefore, this impact would be considered less than significant after mitigation (Class II).

**Table 3.6-3. Summary of Hydrology and Water Quality Impacts**

<b>Hydrology and Water Quality Impacts</b>	<b>Mitigation Measure</b>	<b>Residual Significance</b>
<b>Proposed Project</b>		
No Impact	N/A	N/A
<b>No Project Alternative</b>		
Impact ALT1-HWQ-1. Impacts to water quality or surface runoff resulting from implementation of the No Project Alternative	MM 1982-HWQ-1	Less than Significant after Mitigation (Class II)
Impact ALT1-HWQ-2. Impacts to impervious surfaces, groundwater, and discharge resulting from implementation of the No Project Alternative	MM 1982-HWQ-1	Less than Significant after Mitigation (Class II)
<b>Partial Gravel Removal Alternative</b>		
Impact ALT2-HWQ-1. Impacts to water quality or surface runoff resulting from implementation of the Partial Gravel Removal Alternative	MM 1982-HWQ-1	Less than Significant after Mitigation (Class II)
Impact ALT2-HWQ-2. Impacts to impervious surfaces, groundwater, and discharge resulting from implementation of the Partial Gravel Removal Alternative	MM 1982-HWQ-1	Less than Significant after Mitigation (Class II)