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6.13 WATER RESOURCES

This section assesses the potential impacts of the Project on water resources; specifically, groundwater quality and supply, surface water quality, wastewater discharge, stormwater runoff, flooding hazards, and water supply. This water resources analysis supports the Application for a SPPE.

In assessing the potential water resource impacts associated with the Project, the following potential areas were evaluated, and are discussed in this section.

Will the Project:

- Violate any water quality standards or waste discharge requirements?
- Substantially deplete groundwater supplies or interfere with groundwater recharge?
- Substantially alter the existing drainage pattern, including through the alteration of a stream course or river, resulting in substantial erosion?
- Substantially alter the existing drainage pattern, including through the alteration of a stream course or river, resulting in substantial surface runoff?
- Create or contribute surface water runoff that would exceed existing stormwater drainage systems, or provide substantial additional sources of polluted runoff?
- Otherwise substantially degrade water quality?
- Place structures or housing within a 100-year flood hazard area?

The analysis concluded that the Project would not have an impact on the following resource areas:

- Groundwater quality and supply
- Surface water quality
- Flooding hazard
- Wastewater
- Water supply and use

6.13.1 Affected Environment

This section describes the existing environment relative to water resources in the vicinity of the Project Site.

6.13.1.1 Groundwater Quality and Supply

The Project Site is located within the Colorado River Hydrologic Region that covers approximately 20,000 square miles in southeastern California. An average annual precipitation of 5.5 inches and average annual runoff of only 200,000 acre-feet makes this the most arid hydrologic region in California. More specifically, the Project Site overlays the Imperial Valley Groundwater Basin; bounded on the east by the Sand Hills, on the west by the impermeable

rocks of the Fish Creek and Coyote Mountains, and to the north by the Salton Sea. The basin surface area is approximately 1,870 square miles (California DWR, Bulletin 118, 2004 update).

The basin has two major aquifers separated by a semi-permeable aquitard. The upper aquifer ranges from an average thickness of 200 to 450 feet. The lower aquifer ranges from an average thickness of 380 to 1,500 feet. These aquifers consist mostly of alluvial deposits of late Tertiary and Quaternary age. The San Andreas, Algodones, and Imperial faults are present within the basin, but data on whether these faults control groundwater movement are lacking. The only known barriers to groundwater flow are the lake deposits of clay that obstruct downward seepage of surface waters in the central and western part of the basin (DWR, Bulletin 118, 2004 update).

Recharge of the groundwater basin is primarily from irrigation return. Other recharge sources have been deep percolation of rainfall and surface runoff, underflow into the basin, and seepage from historically unlined canals (e.g., the All American Canal and Coachella Canal) (DWR, Bulletin 118, 2004 update).

Groundwater within the basin generally flows toward the axis of the Imperial Valley and then northwestward toward the Salton Sea. Water levels vary widely within the basin due to differing hydraulic heads and the localized confining clay beds in the area. In the eighteen explorations conducted at the Project Site in support of the geotechnical study, no groundwater was observed within 91 feet of the surface. The total storage capacity is estimated to be 14 million acre-feet for this basin (DWR, Bulletin 118, 2004 update).

The basin may have saturated sedimentary deposits as thick as 20,000 feet; however, a large portion of this groundwater is undesirable because of the high TDS concentrations. TDS content ranges from 498 to 7,280 milligrams per liter (mg/L). Data from the Department of Health Services (DOHS) revealed an average TDS concentration of 712 mg/L, and a range of 662 to 817 mg/L, from five public supply wells. As a result, the groundwater is generally unusable for domestic and irrigation purposes without treatment (DWR, Bulletin 118, 2004 update).

There are no groundwater production, monitoring, or injection wells located on the Property. Further, there are no provisions of the Project that would require the construction of production, monitoring or injection wells.

6.13.1.2 Surface Water Quality

The Project Site is located in the Imperial Valley Planning Area and approximately 5 miles from the Salton Sea. The present Salton Sea was formed between 1905 and 1907 by overflow from the Colorado River. Today, it serves as a drainage reservoir for irrigation return water and stormwater from the Coachella Valley, Imperial Valley, and Borrego Valley, and also receives drainage water from the Mexicali Valley in Mexico. In 1992, the TDS concentration in Salton Sea was approximately 44,000 mg/L. One of the water quality objectives of the Water Quality Control Plan (WQCP) for the Colorado River Basin, Region 7, has been to reduce and stabilize the TDS at 35,000 mg/L. This objective has been found to be difficult to implement based on the quality of the receiving waters entering the Salton Sea (Colorado River Basin – Region 7 WQCP).

The Colorado River is an important waterway that supplies water for use within the Colorado River Basin and elsewhere and is essentially the only source of fresh water in the Project area. Regional drainage to the River is from a strip about 200 miles long, with a watershed which (in

California) ranges from 7 to 40 miles in width. This watershed strip is referred to as the East Colorado River Basin (Colorado River Basin – Region 7 WQCP).

Near Parker Dam, water is diverted by the Metropolitan Water District for export through the Colorado River Aqueduct to coastal counties. A dam forms at Lake Havasu. At Palo Verde Diversion Dam, water is diverted for irrigation in Palo Verde Valley. At Imperial Dam, water is diverted to the All-American Canal, which conveys water in California to the Bard Valley, and to the agricultural areas of the Imperial and Coachella Valleys (Colorado River Basin – Region 7 WQCP).

The water provided by the GSWC has a relatively high concentration of Total Dissolved Solids (TDS) with concentrations of approximately 800mg/L. An analysis of the supply water is provided in Appendix L, Water Resources. If utilized for the Project, this water supply would require treatment for removal of minerals.

The WQCP for the Colorado River Basin – Region 7, lists and defines the various beneficial water uses, and describes the water quality that must be maintained to support such uses for the Project area.

Historical beneficial uses of water within the Colorado River Basin region have largely been associated with irrigated agriculture and mining. From a quality standpoint, agricultural use is the present predominant beneficial use of water in the Colorado River Basin Region, with the major irrigated acreage being located in the Coachella, Imperial, and Palo Verde valleys.

The Water Quality Control Plan, Colorado River Basin – Region 7 sets surface water quality objectives for aesthetics, tainting substances, toxicity, temperature, pH, dissolved oxygen, suspended solids and settleable solids, total dissolved solids, bacteria, biostimulatory substances, sediment, turbidity, radioactivity, chemical constituents, and pesticide wastes.

6.13.1.3 Climate and Precipitation

Imperial Valley is primarily a warm desert region, except during late October until mid-April. The rainy season is specifically considered November 1 through the end of March. The 85-year average annual rainfall is 2.93 inches with June being the driest month. The highest rainfall in one day was recorded on September 6, 1939, when 4.08 inches was measured.

The winters are mild and the summers are hot. The lowest temperature ever recorded in Imperial Valley was 16°F on January 22, 1937. The highest temperature ever recorded was 121°F on July 28, 1995. The only recorded snowfall of consequence occurred on December 12, 1932. Snow began falling at 8:45 p.m. and by 5:00 a.m. the following day, 2-½ inches had been recorded. In the southwest portion of Imperial Valley, 4 inches of snow was reported that day.

6.13.1.4 Water Supply and Use

Water Supply

The potable water source to the Project Site is supplied by GSWC, a subsidiary of American States Water Company, via a 12-inch mainline water pipe running diagonally northeast to southwest primarily across the northern portion of the Property. The water is treated Colorado River water and GSWC has 2.0 million gallons of storage capacity held in storage tanks at their

plant just northeast of the Project Site. The GSWC water supply is sourced through a pipeline that originates at the Calipatria water treatment plant located approximately 10 miles to the south. The Project has obtained from GSWC a will-serve letter that states that their existing 12-inch pipeline supplying the Town of Niland has sufficient capacity to also supply the Project (see Appendix L, Water Resources Information).

Water would be delivered to the Project Site through a buried 8-inch service lateral that connects to the 12-inch GSWC main line. Water demand from the GSWC water pipeline for service water associated with normal plant operations would be 40 gpm (average demand while in operation). During an emergency that requires use of water for fire protection, fire water replenishment would require a water demand of up to 500 gpm for an approximately 8-hour period.

Water Use

As compared to other power plants with similar configurations, this Project will use a small amount of water through the incorporation of engineered features, including:

- A dry low NO_x combustion system to eliminate water injection.
- An air-cooled chiller to eliminate the need for a cooling tower.
- Chiller coil condensate recovery and reuse.

A small amount of water is used for the SPRINT power augmentation system on each combustion turbine (see Figure 2.7-1, Water Balance Diagram).

The maximum demineralized (process) water consumption is estimated at approximately 21 acre-feet per year (afy) based upon the permitted operating hours. This assumes no condensate recovery from the chiller coils. With condensate recovery included, the 35.21 gpm could be reduced to 19.43 gpm (based upon a blended average of expected ambient conditions), or approximately 12 afy.

A significant portion of the water necessary for SPRINT augmentation would come from the recovery and demineralization of the chiller condensate. Depending on temperature and humidity, that portion of chiller condensate available would range from 30 to 60 percent of the total water needs, and is expected to average about 45 percent on an annual basis. See Table 6-13-1, Water Consumption, for an estimate of the Project's water consumption expressed in afy.

TABLE 6.13-1
WATER CONSUMPTION

Operating Hours	Annual Consumption[1]	Raw Water Consumption	Coil Condensate Recovery
6,400	20.75 acre-feet	11.45 acre-feet	9.30 acre-feet

[1]In calculating annual water usage, 20 percent of the time was assumed to be at 115°F, 40 percent of the time was assumed to be at 110°F, and 40 percent of the time was assumed to be at 100°F.

6.13.1.5 Water Policy

The 2003 Integrated Energy Policy Report (IEPR) provides that "..the Commission will approve use of fresh water for cooling purposes…only where alternative water supply sources and alternative cooling technologies are shown to be "environmentally undesirable" or "economically unsound." Economically unsound is defined as economically or otherwise infeasible. Feasible means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, legal, social, and technological factors (Commission Policy Criteria).

The Commission's regulations require the Applicant to provide information on the source of water supply, the rationale for its selection, and if fresh water is to be used for cooling purposes, to discuss all other potential sources and why they were not considered feasible.

SPRINT Technology

The primary water use associated with the Project is for the SPRINT. This option was selected by IID for the GE LM6000 CTG. The SPRINT technology is not a heat rejection cooling method as is typical with cooling towers or other cooling devices in power generation. Rather, the SPRINT technology uses minimal water and provides significant capacity (MW) improvements to the Project as illustrated in Section 7, Alternatives, Table 7.5-1, Configuration Alternatives (@ 110°F. The SPRINT technology adds over 7 MW of capacity and energy for minimal water use identified above.

Water used for SPRINT technology is used for power enhancement and not for waste heat rejection purposes, therefore this use is not inconsistent with the Commission's Policy Criteria.

Alternative Water Supply Considerations

If the Commission Policy Criteria was applied to the Project, the Commission Policy would support the water supply alternative selected by IID. The following section discusses the water source alternatives considered for water supply to the Project in accordance with the Commission Policy Criteria.

Alternative 1: Ocean Water

Ocean Water is not considered a feasible alternative since this water source is not locally available

Alternative 2: Brackish water from Natural Sources or Irrigation Return Flow

Irrigation return flows and discharges from wastewater treatment plants in Imperial County and along the border in Mexico are directed to and serve as the primary source of replenishment water to the Salton Sea. A balance between inflowing water and evaporation sustains the Salton Sea. The California Department of Water Resources (DWR) is working with the California Department of Fish and Game to develop the Salton Sea Ecosystem Restoration Plan, a preferred alternative for the restoration of the Salton Sea ecosystem and the protection of wildlife dependent on the ecosystem. Although the Ecosystem Restoration Plan is not scheduled for completion until December 31, 2006, it is anticipated that diversions of these brackish water sources would be contrary to the objectives of the plan. In addition, irrigation return flow is

considered infeasible due to the cost of infrastructure development to delivery the water to the Project Site and the cost of water treatment and disposal.

Alternative 3: Municipal Wastewater

The Niland Sanitary District Wastewater Treatment Plant (WWTP) located at 125 West Alcott Road, is approximately 2 miles from the Project Site in a direct line. This WWTP was designed to have a treatment capacity of 0.50 million gallons per day (mgd), with a permitted discharge of 0.49 mgd. Based on discussions with local management of the WWTP, the flows are expected to decrease to 0.25 mgd by 2008. The wastewater effluent from this facility for use by the Project was considered infeasible for several reasons.

- The WWTP does not treat wastewater for industrial reuse nor does it distribute water for this purpose.
- When IID evaluated alternative technologies that required higher water use (i.e. PC SPRINT with cooling tower), the quantity of effluent available was not of sufficient quantity or reliability to supply the Project.
- It has been determined that the construction of a pipeline from the WWTP to the Project Site is economically unsound due to the length of pipeline that would be required (in the range of 3 to 5 miles) based on any feasible route from the WWTP to the Project Site. Although the WWTP is located 2 miles from the Project Site, the length of the pipeline would be significantly greater due to the need to avoid existing development and to use existing utility right of way. Connecting the Project Site to the WWTP would require a significant disruption to the community of Niland's facilities and infrastructure, including crossing Highway 111 in one location, and the Union Pacific Railroad in two locations. In addition, this may result in linear impacts on the environment. As the elevation of the Project Site is above that of the WWTP, a pump station would be required to lift the water to the Project Site. Increased operating costs would be associated with this water source to the lifting cost and significant treatment cost.
- As with agricultural drainage flows discussed above, wastewater treatment plant discharges are needed to maintain the level of the Salton Sea. Therefore, it is anticipated that diversions of these discharges for Project use would be contrary to the objectives of the Salton Sea Ecosystem Restoration Plan.

  These factors cause this inland wastewater alternative environmentally undesirable due to (1) impacts on Salton Sea, and (2) increased infrastructure development in the form of linears and pump stations. The alternative is also economically unsound due to high improvement and treatment costs to access a maximum water supply of only 0.25 mgd by the time the Project is commercial.

  There were no other waste water supply sources identified within a 5-mile radius of the Project Site.

Alternative 4: Other Inland Waters

The following inland water supplies sources were considered for the Project:

- The East Highline Canal, an imported water distribution canal operated by the Imperial Irrigation District and located adjacent to the site (Colorado River Water).

- Groundwater at or near the site.
- Demineralized water from the El Centro Generating Station transported to the Project Site by truck (Colorado River Water).
- Water from the GSWC pipeline that crosses the Property and supplies the Town of Niland with potable water.

The first two inland water supply options were considered and are not being pursued for the following reasons:

- Water from the East Highline Canal. This option was considered environmentally and uneconomically sound. Although this is the same source of water as provided by the GSWC, additional on-site treatment for removal of suspended solids and off-site lateral impacts would be required for implementation.
- Based on discussions with the RWQCB, the presence of groundwater of sufficient quality or quantity at or nearby the Project Site is considered to be unlikely.

Based on the foregoing considerations, two options remain:

- Using demineralized water transported by truck from IID's El Centro Generating Station (ECGS) located approximately 37 miles to the south.

  The ECGS, owned and operated by the IID, is located approximately 37 miles from the Project Site. Demineralized water is available at the ECGS and could be transported by tanker truck to the Project Site. Assuming a maximum demineralized water supply requirement of up to 50,700 gallons per day (based on 24 hours of operation), and a truck approximately 8,000 gallons in size, this alternative would require six to seven round trips per day. It has been determined that this alternative will be used only as a backup demineralized supply due to the reduced reliability, cost, air quality and potential traffic impacts associated with this alternative. In addition, as the ECGS also relies on water imported from the Colorado River for supply, this alternative would provide no net reduction in imported use relative to use of the potable supply from the GSWC.
- Using water from the GSWC's water pipeline that crosses the Property (Proposed Alternative).

Based on the minor annual water requirements of no more than 21 acre-ft per year, the use of potable water from GSWC is preferred as the primary water supply option for the Project.

However, under any emergency conditions caused by outages on the GSWC system, alternate demineralized supplies could be transported from the El Centro Generating Station.

This Proposed Alternative is based on the following:

- The pipeline is located on the Property therefore no off site linears are required and interconnection costs are manageable.
- The minor water supply requirements for the Project.
- The more than adequate water supply from GSWC, and the robust storage capacity available near the Project Site.

The desire to avoid creating additional impacts to the environment via the exhaust emissions associated with operation of diesel trucks during the summer months between the El Centro Generating Station and the Project.

6.13.1.6 Wastewater Streams

The Project is designed to have no process wastewater discharge. Sanitary sewage at the Project Site will be managed based on the estimated two employees. Generated waste will be collected and held onsite in a 1,500 gallon septic holding tank, and will be pumped to tanker truck and shipped to a sanitary water treatment plant on a monthly basis.

6.13.1.7 Stormwater Runoff

Stormwater runoff from the Property is not currently controlled, and follows natural topographical flows during storm events. The Project will include mechanisms to control surface flows during storm events, and provide a relief for potential water quality contamination. Project Site grading and earthwork activities will be designed to direct stormwater generated on the Project Site away from equipment and buildings (see Figure 2.2-6, Site Grading and Drainage Plan), and to direct stormwater generated on the Property away from the Project Site (offsite flows).

During the rare storm event that occurs in the vicinity if the Project, stormwater typically flows across the Property in a southwesterly direction, from the northeast corner of the Property toward the Project Site. A total of three stormwater basins will be constructed for the Project, and they are described below. These basins will be sized in accordance with the ”Engineering Guidelines Manual for the Preparation and Checking of Street Improvement, Drainage and Grading Plans Within Imperial County.” The design of the basins will take into account historical rainfall patterns, evaporation rates, subsurface conditions, percolation rates, and groundwater depths. Due to the low amount of annual rainfall, infrequency of rain events, and extremely hot climate, the likelihood that any significant amount of water will be contained in the basins at any given time is considered extremely low.

Onsite Flows

An unlined stormwater retention basin will be located at the south central portion of the Project Site. The basin will be sized to retain the equivalent volume of 5 inches of stormwater spread across the Project Site. The basin will retain all stormwater generated onsite and will not discharge stormwater offsite. Collected stormwater will pass through an oil-water separator, will then be collected in the basin, which will empty by evaporation and/or percolation. Appropriate provisions will be taken to address mosquito abatement where necessary. The volume of the retention basin for managing runoff from the Project Site will be approximately 290,000 cubic feet, based on it’s approximate area of 1.5 acres (65,340 SF) by it’s approximate 4.5 feet depth.

Offsite Flows

Stormwater flowing southwesterly across the Property toward the Project Site will be intercepted by trenches located along the east and north fence lines, and directed to two separate “offsite” stormwater detention basins. The two detention basins will be located at the northwest and

southeast corners of the Project Site inside the fence. They will not be designed to contain a particular storm event, but rather, will have the effect of reducing the velocity of the surface flow and settling out silt. Once in the basins, collected stormwater will typically evaporate and/or percolate into the ground. On those rare occasions when stormwater may overflow the basins, it will be directed via lined channels to existing natural channels downstream of the Project Site. The combined volume of the detention basins for managing offsite stormwater is approximately 105,000 cubic feet, based on an approximate area of 0.8 acres (0.4 acres each or 34,848 SF) by their approximate 3.0 feet depth. The material excavated for the interceptor trenches (approximately 82,000 CF) will be used to construct berms adjacent to the north and east fence lines of the Project, which will assist in the directing of offsite stormwater.

The Project will also file for coverage under the General Construction National Pollutant Discharge Elimination System (NPDES) permit because construction activities will disturb five or more acres of land. All appropriate site-specific BMPs and requirements within the General Permit will be incorporated into the Project SWPPP to ensure the protection of water quality during construction. At the conclusion of the construction, a Notice of Termination will be filed to terminate coverage under the General Permit.

6.13.1.8 Flooding Hazards

FEMA's Flood Insurance Rate Map (FIRM) Community Panel Number 0600650275B (1984) shows that the Project Site is not within a 100-year floodplain area. The Salton Sea is a designated floodplain area. The Salton Sea is approximately 5 miles west and downgradient of the Project Site.

6.13.2 Environmental Consequences

To evaluate the environmental consequences of the Project relative to water resources, the following criteria were used to determine if Project-related impacts would be significant. Impacts would be considered significant if the Project would:

- Violate any water quality standards or waste discharge requirements.
- Substantially deplete groundwater supplies or interfere with groundwater recharge.
- Substantially alter the existing drainage pattern, including through the alteration of a stream course or river, resulting in substantial erosion.
- Substantially alter the existing drainage pattern, including through the alteration of a stream course or river, resulting in substantial surface runoff.
- Create or contribute surface water runoff that would exceed existing stormwater drainage systems, or provide substantial additional sources of polluted runoff.
- Otherwise substantially degrade water quality.
- Place structures or housing within a 100-year flood hazard area.

Based on the analysis in this section, it was determined that the Project will not affect any of these water resources impact areas.

6.13.2.1 Groundwater Quality and Supply

The quality of the groundwater beneath the Project Site has been impacted primarily by historical agricultural land uses, recharge from surface runoff, and the seepage from unlined agricultural canals in the region. As a result, the groundwater is high in TDS and generally unusable for domestic and irrigation purposes without treatment.

There are no provisions of the Project that require the use of groundwater either through the operation, construction, or maintenance of the facility. There will be no production, injection, or monitoring wells developed as part of the Project. The stormwater retention basins will be unlined which allows for the percolation of these stormwaters into the groundwater basin. The Project Site surface area will be either paved, and surface runoff will be controlled so as not to impact the quality of groundwater resources.

Construction activities will include subsurface excavations to approximately 6 feet. Based on information found in DWR Bulletin 118, it is not expected that groundwater will be encountered at that depth. Therefore, it is unlikely that subsurface excavations will impact groundwater resources, or that dewatering will be required as part of construction.

6.13.2.2 Surface Water Quality

The Project Site is currently undeveloped, unpaved land. It is not expected that there will be a need to use such volumes of water during construction as to create runoff that would cause erosion and sediment loss from the site. In addition, construction BMPs and general NPDES requirements will be implemented to further control runoff and any impacts to surface water quality.

There will be no discharge of any process waters to surface water bodies. Therefore, there will be no significant surface water quality impacts to surrounding canals or ultimately to the Salton Sea.

Three stormwater basins will be associated with the Project. See Section 6.13.1.7 for a detailed description of stormwater management measures that will be implemented. Stormwater runoff at the Project Site will be collected and held in these retention basins. Therefore, there will be no significant surface water quality impacts to surrounding canals or ultimately to the Salton Sea from any stormwater runoff.

Spill protection measures will be implemented as part of the Project as described in other sections of this document. Containment structures and berms will be installed at chemical storage and handling areas to prevent the release of contaminants. As described in Section 6.14, Hazardous Materials, a Spill Prevention, Control, and Countermeasures Plan (SPCCP) will be prepared and implemented for the Project. Therefore, there will be no potential impacts to surface water quality from any releases of contaminated materials.

6.13.2.3 Flooding Hazards

The Project will not increase the risk of flooding, erosion, or siltation. Although there will be minimal changes in absorption rates, drainage patterns, or the rate or amount of surface runoff due to the surface paving and the presence of new structures, surface water runoff will be

contained and allowed to evaporate and percolate. The Project Site does not receive stormwater runoff from off site and is not within a 100-year floodplain.

6.13.3 Cumulative Impacts

Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. There are no provisions of the Project that result in significant adverse Project-specific water resources impacts. Therefore, the Project's contribution to cumulative water resources impacts is not considered to be cumulatively considerable and, therefore, is not significant.

6.13.4 Mitigation Measures

Based on the fact that there are no Project-specific water resources impacts, there are no mitigation measures for this Project. BMPs have been incorporated into the Project design to reduce any potential impacts on water resources.

6.13.5 Laws, Ordinances, Regulations, and Standards

The Porter-Cologne Water Quality Control Act (Porter-Cologne) is the principal law governing water quality regulation in California. This statute established the SWRCB and the nine RWQCBs, which are charged with implementing its provisions. Porter-Cologne establishes a comprehensive program for the protection of water quality and the beneficial uses of water. It applies to surface waters, wetlands, and groundwater and to both point and nonpoint sources. Porter-Cologne is found in the California Water Code beginning with Section 13000. In addition, Title 23 of the CCR contains administrative and regulatory elements of water quality and quantity management in California. The SWRCB was formed in 1967 when the State Water Rights Board and the SWQCB were merged by the State Legislature, based on the realization that decisions affecting water quality and water rights are inseparable. Under its dual legal authority, the SWRCB allocates rights to the use of surface water and, together with the nine RWQCBs, protects water quality in all waters of the state.

The Project Site is located within Region 7 – the Colorado River Basin RWQCB. The SWRCB provides program guidance and oversight, allocates funds, and reviews RWQCB decisions. The RWQCBs have responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions.

Porter-Cologne also incorporates many provisions of the federal Clean Water Act (CWA) such as delegation to the SWRCB and RWQCBs of the NPDES permitting program. The SWRCB has established a water policy on the use of surface waters for power plant cooling.[1] As the Project is completely based upon air-cooling technology, the State Water Policy will not apply. The Project will only use water for power augmentation through the combustion turbine SPRINT technology as described above.

[1] Water Quality Control Policy on the Use and Disposal of Inland Waters Used for Power Plant Cooling. State Water Resources Control Board Resolution No. 75-58, June 19, 1975.

The Project will be constructed, operated, and maintained in accordance with all applicable LORS. The LORS that are potentially applicable to this Project are identified in Table 6.13-2, Applicable Water Resource LORS, including the LORS that require a permitting effort.

TABLE 6.13-2
APPLICABLE WATER RESOURCE LORS

LORS	Administering Agency	Applicability	Conformance
FEDERAL			
Clean Water Act §402	RWQCB-Region 7	Stormwater runoff during construction is subject to NPDES requirements.	The Project will prepare a Notice of Intent to comply with the NPDES general construction permit. Further, a Stormwater Pollution Prevention Plan will be prepared and implemented.
STATE			
Porter-Cologne Act	RWQCB-Region 7	Stormwater runoff during construction is subject to NPDES requirements.	The Project will prepare a Notice of Intent to comply with the NPDES general construction permit. Further, a Stormwater Pollution Prevention Plan will be prepared and implemented.
Porter-Cologne Act	RWQCB-Region 7	Stormwater runoff from industrial facilities is subject to NPDES requirements.	For this Project, since there are no discharges from the Project Site, the Project will obtain a determination from the RWQCB that coverage under the NPDES General Industrial Permit is not needed.
LOCAL			
N/A	N/A	N/A	N/A

NPDES = National Pollutant Discharge Elimination System
RWQCB = Regional Water Quality Control Board

6.13.5.1 Federal

CWA of 1977 (including 1987 amendments) §402; 33 USC §1342; 40 CFR Parts 122-136

Administering Agency: RWQCBs.

Compliance: The Project will file an NOI and comply with the NPDES General Permit No. CAS000002 for stormwater runoff associated with construction activities.

6.13.5.2 State

California Porter-Cologne Water Quality Control Act of 1998; California Water Code §13000-14957; Division 7, Water Quality.

Administering Agency: SWRCB, RWQCB.

Compliance: This statute established the SWRCB and the nine RWQCBs, which are charged with implementing its provisions. Porter-Cologne establishes a comprehensive program for the protection of water quality and the beneficial uses of water. It applies to surface waters, wetlands, and groundwater and to both point and nonpoint sources.

Porter-Cologne also incorporates many provisions of the federal CWA, such as delegation to the SWRCB and RWQCBs of the NPDES permitting program.

6.13.5.3 Local

No applicable local LORS or codes have been identified.

6.13.5.4 Industry

No applicable industry LORS or codes have been identified.

6.13.6 Involved Agencies and Agency Contacts

Imperial County
Planning/Building Development Department
801 Main Street
El Centro, CA 92243
Phone: 760.482.4236
http://www.imperialcounty.net/planning

Imperial County
Division of Environmental Health Services
Courthouse – B7
939 Main Street
El Centro, CA 92243
Phone: 760.482.4203
Contact: Mark Johnston, Supervisor

Colorado River Basin RWQCB (Region 7)
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260
Phone: 760.346.7491
http://www.waterboards.ca.gov/coloradoriver/region7.html

6.13.7 Permits Required and Permit Schedule

This section describes the required permits related to water resources for the Niland Gas Turbine Plant. Table 6.13-3, Permits Required, summarizes these required permits.

TABLE 6.13-3
PERMITS REQUIRED

Responsible Party	Permit/Approval	Schedule
SWQCB	File NOI to comply with the Construction Activities Stormwater General Permit (controls stormwater runoff during construction) and implement a Storm Water Pollution Prevention Plan.	Prior to start of construction.

SWQCB- State Water Quality Control Board

The California SWRCB Water Quality Order 99-08-DWQ: "NPDES General Permit for Storm Water Discharges Associated with Construction Activity (General Permit)" authorizes a general permit for stormwater discharges associated with construction activities.

The General Permit requires submittal of an NOI to comply with the permit and the development of a SWPPP for construction activities. The SWPPP will describe BMPs, including erosion controls, sediment controls, and other controls to prevent stormwater from affecting offsite surface water bodies. The SWPPP will also include a stormwater monitoring program.

6.13.8 Conclusions

The CEQA Guidelines and applicable LORS define significance criteria for compliance in each of these areas. In accordance with these criteria, the potential environmental impacts to water resources were investigated. The Project will have no significant impacts on water resources as summarized below.

Groundwater Quality and Supply

There are no provisions of the Project that include withdrawals of groundwater, or the injection of any materials into the groundwater basin. Although stormwater basins will be constructed on the Project Site that will allow stormwater to percolate into the groundwater basin, any potentially contaminated water will be captured and treated before being released into the basin for recharge. As a result, no groundwater supply or quality impacts are anticipated.

Water Supply and Use

Assuming no chiller coil condensate recovery, the total demineralized water supply requirement is approximately 40 gpm, or approximately 33,800 gallons per day, based upon 16 hours of operation. In continuous 24-hour operation, approximately 50,700 gallons per day would be used. The total annual usage based on permit limits is 21 afy or 7 acf when considering the maximum predicted benefit of coil condensate recovery.

The Project has incorporated three components to minimize water use, including: (1) a dry low NO_x combustion system to eliminate water injection; (2) an air-cooled chiller to eliminate the need for a cooling tower; and (3) chiller coil condensate recovery and reuse. In addition, GSWC

has indicated that they have the capacity to serve the Project's needs. Other water source options have been explored, but none have been determined to be feasible.

Surface Water Quality

There are no provisions of the Project that will allow surface water to flow directly off site and impact any surrounding surface waterways. Stormwater runoff will be captured in a retention basin, and other drainage mechanisms to oil/water separators will be in place to preserve and protect water quality.

During construction, surface water quality on site and off site will be protected by compliance with the general NPDES requirements.

Flooding Hazards

The Project Site is not within a 100-year floodplain, nor will it add to any existing adjacent or surrounding floodplain area, or flooding hazard.

6.13.9 References

California Department of Water Resources (DWR). 2003. *California's Groundwater*. DWR, Bulletin 118, Update 2004.

Colorado River Basin Regional Water Quality Control Board. 2005. *The Water Quality Control Plan (Basin Plan) for the Colorado River Basin – Region 7*.