

5.2 WATER RESOURCES

The following paragraphs describe the characteristics of the Modified Project that could affect water resources in a different manner than the Approved Project.

5.2.1 Project Changes Related to Water Resources

Characteristics of the Modified Project that have the potential to impact water resources differently than the Approved Project include the following:

- replacement of concentrating solar helio-trough and associated HTF collections and circulation system with PV modules;
- elimination of all the power blocks and cooling towers;
- reduction in the water treatment facilities from 4 to 1;
- reduction in the acreage of evaporation ponds from up to 32 acres to up to 8 acres;
- addition of inverter pads;
- less intensive grading of the site to accommodate PV;
- elimination of the large drainage control channels; and
- reduction of water use from up to 600 AFY to up to 88 AFY.

5.2.2 Changes in Environmental Impacts

The Commission Final Decision concluded that, with the implementation of the Conditions, the Approved Project would comply with all applicable LORS, and would not result in any unmitigated and significant direct, indirect or cumulative adverse impacts related to water resources.

The Commission Final Decision addressed three areas within the context of water resources. Those areas are: 1) potential storm water impacts related to flooding/drainage, erosion and sedimentation; 2) water supply and use, including groundwater; and 3) groundwater quality. As described below, in all cases the Modified Project results in less potential impacts than the Approved Project.

5.2.2.1 Storm Water: Flooding, Erosion and Sedimentation

Preliminary hydraulic analyses were prepared to reflect the effects of the movement of storm water under the Modified Project and are contained in Appendix B to this Petition.

Since the grading of the site is less, it is anticipated that stormwater can be controlled without the need for large drainage channels. A Preliminary Grading Design will be submitted under separate cover.

There is the potential that the hydrologic, hydraulic, and sediment response for the Modified Project may change from that of the Approved Project as a result of the PV module spacing, coverage, post size, and PV module orientation. A revised DESCP will be prepared and submitted under separate cover.

5.2.2.2 Water Supply and Use

The Modified Project would use the same groundwater wells as the Approved Project. The amount of groundwater to be used during construction is reduced from 4,100 AF to between 3,500 and 4,000 AF. Additionally the amount of groundwater used for operations will be reduced from 600 AFY for the Approved Project to a maximum of 88 AFY for the Modified Project.

This reduction in groundwater use for the Modified Project would therefore reduce the potential effects on nearby well owners or on the Palo Verde Groundwater Basin. With the Conditions of Certification contained in the Final Decision which fully mitigated the BSPP groundwater use, the Modified Project will not have a significant impact on groundwater.

An updated water mass balance diagram demonstrating water use during operations was not available at the time of this Petition and will be provided under separate cover.

5.2.2.3 Wastewater

The following paragraphs demonstrate that the impacts associated with the Modified Project on sanitary wastewater, construction wastewater, and process wastewater systems are reduced and less than significant with the implementation of the existing Conditions of Certification.

5.2.2.3.1 Sanitary Wastewater

The Modified Project would require fewer workers during construction and operation than would the Approved Project, so lower demands would be imposed on sanitary systems. The Modified Project, like the Approved Project, would utilize temporary portable toilets during construction prior to the installation of a septic tank and leach field.

5.2.2.3.2 Construction Wastewater

Wastewater generated during construction would consist of equipment washwater but would no longer include piping and vessel hydrostatic test water.

5.2.2.3.3 Process Wastewater

The Modified Project will no longer construct the 8-acres of evaporation ponds at each power block because the power blocks have been eliminated. However, water treatment facilities will be located in the central portion of the site to produce high quality water for panel washing activities. The wastewater from treatment of the groundwater will be discharged into evaporation ponds that may take up to 8 acres. The evaporation ponds will be constructed in accordance with the Commission Final Decision which includes the Waste Discharge Requirements (WDRs) from the Colorado River Basin Regional Water Quality Control Board.

5.2.3 Compliance With LORS

In the Commission Final Decision, the Commission concluded that, with the implementation of the Conditions, the Approved Project would comply with all applicable LORS. The same conclusion can be made for the Modified Project as there are neither changed circumstances nor new LORS applicable to the Modified Project since the Final Decision.

There are also no “Waters of the United States” on the BSPP site and, therefore, federal wetland permitting is not required under Section 404, and a 401 Water Quality Certification is not required either for the Approved Project or the Modified Project. See Appendix E.

5.2.4 Conditions of Certification

Minor modifications to some of the Conditions of Certification are necessary to remove any reference to HTF is required. Additionally once the Preliminary Grading Design is completed, it may result in the need to revise Conditions of Certification **SOIL&WATER-11, 12, 13, 14, and 15**. No other modifications to the Conditions of Certification are required to accommodate the Modified Project.