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**Stipulation between
High Desert Power Project LLC,
California Energy Commission Staff, and
California Department of Fish and Wildlife
In Support of
Proposed Amendments to Soil&Water Conditions of Certification
to Provide for Interim Drought Relief**

June 1, 2016

SOIL&WATER-1 The only water used for project operation (except for domestic purposes) shall be State Water Project (SWP) water obtained by the project owner consistent with the provisions of the Mojave Water Agency's (MWA) Ordinance 9 and/or appropriately treated recycled waste water, and/or an alternative water supply obtained from the Mojave River Basin (MRB) consistent with the "Judgment After Trial" dated January 1996 in City of Barstow, et al., v. City of Adelanto, et al. (Riverside County Superior Court Case No. 208568) (collectively, "MRB ~~Adjudicated~~ Water Rights") as administered by the Watermaster (the "Judgment").

~~a. Whenever recycled waste water of quality sufficient for project operations is available to be purchased from the City of Victorville, the project owner shall use direct delivery of maximum quantities of such water for project operations. Whenever the quantity or quality of recycled waste water is not sufficient to support project operations, the project may supplement recycled water supplies with SWP water, banked SWP water from the four HDPP wells as long as the amount of water used does not exceed the amount of water determined to be available to the project pursuant to SOIL&WATER-5, and/or MRB Adjudicated Water Rights. The Project Owner shall consume no more than 2,000 AF in water year 2014/2015 (October 1 2014– September 30, 2015) and no more than 2,000 AF in water year 2015/2016 (October 1, 2015– September 30, 2016) of MRB Adjudicated Water Rights and the acquisition, use and transfer of MRB Adjudicated Water Rights shall be in compliance with the Judgment and Rules and Regulations of the MWA Watermaster.~~

The project owner shall implement an interim "Loading Sequence" in the following order:

1. The project owner will use recycled waste water as the primary water supply, to the extent it is available and its quality is sufficient to maintain cooling tower functions and reliable operation of the facility.

2. If there is insufficient recycled waste water of quality or quantity sufficient to maintain cooling tower functions and reliable operation of the facility, recycled waste water may be blended with either (a) directly available SWP water or (b) banked SWP Water from the four HDPP wells as long as the amount of banked SWP water used does not exceed the amount of water determined to be available to the project pursuant to SOIL&WATER-5.

3. If there is insufficient directly available SWP Water of quality or quantity sufficient to maintain cooling tower functions for reliable operation of the facility and the amount of banked SWP water determined to be available to the project pursuant to SOIL&WATER-5 is less than 4,000 acre-feet (AF) in water year 2015/2016 (ending September 30, 2016) and less than 5,000 AF in water year 2016/2017 (ending September 30, 2017), the project owner may blend recycled waste water with MRB Water Rights to achieve the required cooling tower blowdown rate or cooling tower functionality, subject to the limitations contained above.

4. The Project Owner shall consume no more than 2,000 AF of MRB Water Rights in water year 2015/2016 (October 1, 2015 – September 30, 2016) and no more than 2,000 AF in water year

2016/2017 (October 1, 2016 – September 30, 2017). The acquisition, use and transfer of MRB Water Rights shall comply with the Judgment and Rules and Regulations of the Watermaster.

At the project owner's discretion, dry cooling may be used instead, if an amendment to the Commission's decision allowing dry cooling is approved.

~~b.~~ The project owner shall report, on or before the 15th of each month, the use of water from all sources for the prior month to the Energy Commission CPM in acre-feet. The monthly report shall include acre-foot usage by source, as well as total.

~~c. The project owner shall submit a Petition to Amend (PTA) no later than November 1, 2015 that will implement reliable primary and backup HDPP water supplies that are consistent with state water policies or an alternate cooling system like dry cooling.~~

~~d. (Item Deleted)~~

~~e.~~ The project's water supply facilities shall be appropriately sized and utilized to meet project needs. The project shall make maximum use of recycled waste water for power plant cooling given current equipment capabilities and permit conditions.

~~f. The project owner shall continue with the feasibility study evaluating the use of 100 percent recycled water for evaporative cooling purposes and other industrial uses. The feasibility study shall be completed by the project owner and submitted to the CPM.~~

Verification: The project owner shall provide final design drawings of the project's water supply facilities to the CPM, for review and approval, thirty (30) days before commencing project construction. The project owner shall submit to the CPM documentation showing the agreements entered into between the project owner, MWA Watermaster, and water right owners in MRB regarding the acquisition, use and transfer of MRB ~~Adjudicated~~ Water Rights. The project owner shall report all use of water in acre feet from MRB to the Energy Commission CPM on a monthly basis for each supply: Recycled Water, SWP Water, Banked SWP Water, and MRB Water Rights. The monthly report shall contain a brief statement on (1) the water quantity and water quality of the supplies available in the prior month and (2) a summary of efforts to use available supplies to provide cooling water for operations, build the HDPP groundwater bank, and/or preserve the HDPP water bank on the 15th day of every month that describes why there was a change in the loading sequence from recycled water as the primary supply, including the days when the owner decided to use groundwater from the adjudicated MRB for blending and the reason why the decision to use the adjudicated groundwater was made, and the amount of adjudicated groundwater used.

[Note: Remainder of current Verification is deleted.]

SOIL&WATER-4 Injection Banking Schedule

a. The project owner shall inject one thousand (1000) acre-feet of SWP water within twelve (12) months of the commencement of the projects commercial operation.

b. By the end of the four years and two months from the start of commercial operation, the project owner shall install and begin operation of a pre-injection ultraviolet (UV) disinfection system.

c. By the end of the fifth year of commercial operation, the project shall submit a report to the CPM demonstrating that HDPP has maintained an average THM concentration level consistent with the WDR permit requirements.

d. After the end of the fifth year of commercial operation, the project owner shall inject SWP water when it is available in excess of volumes needed to operate the project, up to a cumulative quantity of 13,000 acre-feet, subject to equipment capabilities and permit requirements. The amount of injected SWP water available to HDPP for extraction is equal to Injection minus Extraction minus Dissipation minus 1000 acre-feet, as defined in **SOIL&WATER-6**.

e. As an additional method to build the project's groundwater bank, the project owner will work with the Mojave Water Agency (MWA), Mojave Basin Area Watermaster, the City of Victorville or the Victorville Water District to seek a feasible agreement or modify existing agreements to allow the project to bank SWP water in the Mojave River Basin through percolation using existing MWA facilities for the sole use of HDPP at HDPP. If agreement is reached, the project shall be permitted to bank SWP water through percolation in accordance with the terms of such agreement(s).

Verification: The project owner shall submit an installation and operation report describing the pre-injection ultraviolet disinfection system (UV) by the end of the fourth year of commercial operation. Forecasted estimates of SWP water to be injected shall be included in the quarterly Aquifer and Storage Recovery Well Report. The project owner shall submit a UV performance report by the fifth year of commercial operation. For other related items, see the verification to **Condition 5**. See also the verification to **Condition 12**. **If the project owner, MWA, Mojave Basin Area Watermaster, City of Victorville or the Victorville Water District are able to reach an agreement or modify existing agreements regarding use of existing MWA facilities for the percolation and banking of SWP water that is feasible for the facility, the project owner shall provide a copy of such agreement or modified agreements to the CPM.**

SOIL&WATER-5 Calculation of Water Bank Balance

a. The amount of banked groundwater as injected SWP water available to the project shall be calculated by the CEC staff using the HDPP model, FEMFLOW3D. **The amount of banked groundwater as percolated SWP water by MWA available to the project shall be calculated by MWA or the Mojave Basin Area Watermaster.** The amount of banked groundwater available shall be updated on a calendar year basis by the CEC staff, taking into account the amount of groundwater pumped by the project during the preceding year and the amount of water banked by the project during the preceding year.

SOIL&WATER-6 Banked Water Available for Project Use

a. The amount of banked groundwater available to the project during the first twelve (12) months of commercial operation is the amount of SWP water injected by the project owner into the High Desert Power Project (project) wells, minus the amount of groundwater pumped by the project owner, minus the amount of dissipated groundwater, and minus any amount described in SOIL&WATER-5(b).

b. The amount of banked groundwater available to the project after the first twelve (12) months of commercial operation is: **(1) the amount of SWP water percolated by MWA and (2) the amount of SWP water injected by the project owner into the project wells,** minus the amount of groundwater pumped by the project owner, minus the amount of dissipated groundwater, minus one thousand (1,000) acre feet, and minus any amount described in SOIL&WATER-5(b).

SOIL&WATER-12

The project owner shall prepare and submit to the CEC CPM and, if applicable, to the Lahontan RWQCB for review and approval, a water treatment and monitoring plan that specifies the type and characteristics of the treatment processes and identify any waste streams and their disposal methods. The plan shall provide water quality values for all constituents monitored under requirements specified under California Code of Regulations, Title 22 Drinking Water Requirements, from all production wells within two (2) miles of the injection wellfield for the last five (5) years.

The plan shall also provide SWP water quality sampling results from Rock Springs, Silverwood Lake, or other portions of the East Branch of the California Aqueduct in this area for the last five (5) years. Also identified in the plan will be the proposed treatment level for each constituent based upon a statistical analysis of the collected water information. The statistical approach used for water quality analysis shall be approved prior to report submittal by the CEC CPM and, if applicable, the RWQCB. Treatment of SWP water prior to injection shall be to levels approaching background water quality levels of the receiving aquifer or shall meet drinking water standards, whichever is more protective. The plan will also identify contingency measures to be implemented in case of treatment plant upset.

The plan submitted for approval shall include the proposed monitoring and reporting requirements identified in the Report of Waste Discharge (Bookman-Edmonston 1998d) with any modifications required by the RWQCB.

Verification: Ninety (90) days prior to **banking injection** of SWP water within the Regional Aquifer, the project owner shall submit to the Lahontan RWQCB and the CEC CPM a proposed statistical approach to analyzing water quality monitoring data and determining water treatment levels. The project owner shall submit the SWP water treatment and monitoring plan to the CEC CPM and, if appropriate, to the Lahontan RWQCB for review and approval. The CEC CPM s review shall be conducted in consultation with the MWA, the VVWD, and the City of Victorville. The plan submitted for review and approval shall reflect any requirements imposed by the RWQCB through a Waste Discharge Requirement.

SOIL&WATER-13

The project owner shall implement the approved water treatment and monitoring plan. All **banked injected** SWP water shall be treated to meet local groundwater conditions as identified in Condition SOIL&WATER-12. Treatment levels may be revised by the CEC and, if applicable, by the RWQCB, based upon changes in local groundwater quality identified in the monitoring program not attributable to the groundwater banking program. Monitoring results shall be submitted annually to the CEC CPM and, if applicable, to the RWQCB.