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Comments of Robert Sarvey on the Staff Analysis of the HDPP Amendment

Additional submitted attachment is included below.

Robert Sarvey
501 W. Grantline Rd.
Tracy, Ca. 95376
209 835-7162

STATE OF CALIFORNIA
Energy Resources Conservation
and Development Commission

In the Matter of:)
)
Application for Certification for the)
High Desert power Plant) Docket No. 97-AFC-01
)
_____)

Comments of Robert Sarvey on the Staff Analysis of the HDPP Amendment

The High Desert Power Project was originally certified by the California Energy Commission in May 2000. According to the original decision CEC Staff and CDFG developed a modeling regimen to assess the projects water related impacts. As the decision states " *The evidence establishes that the model was designed to represent the major hydrogeological properties of the groundwater system, as well as the hydraulics of the interaction with the Mojave River. It employed conservative assumptions based upon the best available data and accounted for the pumping and injection activities of the project in order to ascertain any project related changes in the groundwater levels or the stream flow of the Mojave River. The model also considered the loss of injected water through*

dissipation.”¹ After the exhaustive analysis the Energy Commission Decision based on the evidence in the record conditioned the project with the following water plan designed to mitigate significant impacts to water resources:

1) the HDPP will use only imported SWP water for cooling uses; other water may not be substituted for this purpose (10/7/99 RT 272:7-13, 275:5-12, 291:16-19, 306:13 to 307:3);²

2) at all times, including prior to commencing operations and at the conclusion of operations, a balance of 1000 acre-feet (after accounting for dissipation) must be stored in the project’s water "bank" (10/7/99 RT 199, 206, 209; 10/8/99 RT 116);

3) if at any time the water balance in the bank is at 1000 acre-feet, the HDPP must shut down (10/7/99 RT 208; 10/8/99 RT 26, 122, 124);³

4) though the annual amount of SWP water imported for the project will vary, no later than the end of five years after the commencement of operations a total of 13,000 acre-feet of water must be injected into the groundwater system ⁴(10/7/99 RT 337; 10/8/99 RT 25, 113-14);⁵

¹ Commission Decision page 214, 215 http://www.energy.ca.gov/sitingcases/highdesert/documents/2000-05-03_HD_DECISION.PDF

² COMMISSION DECISION on the APPLICATION FOR CERTIFICATION for the **HIGH DESERT POWER PROJECT** Soil and Water 1

³ COMMISSION DECISION on the APPLICATION FOR CERTIFICATION for the **HIGH DESERT POWER PROJECT** Soil and Water 6 (e)

⁴ COMMISSION DECISION on the APPLICATION FOR CERTIFICATION for the **HIGH DESERT POWER PROJECT** Soil and Water 4 (b)

⁵ COMMISSION DECISION on the APPLICATION FOR CERTIFICATION for the **HIGH DESERT POWER PROJECT** page 217

The decision concluded that, “*With these restrictions and the importation of SWP water for project use, Staff and CDFG conclude that the HDPP would cause no impacts to the area’s water resources, either to the Mojave River Alluvial Aquifer, Mojave River base flows, downstream water users, or, on average, to water levels in nearby wells. (10/8/99 RT 107-09; Ex. 87, p. 25.)*”⁶ Since that time the Commission has allowed several amendments to the decision that compromise most of the environmental protections installed in the decision designed by CDFG and CEC Staff to protect wild life and water resources. The Commission has done this without ever consulting CDFG or without utilizing and updating the hydrological model developed by CDFG and CEC Staff during the certification process.⁷

In 2006 the project owner filed an amendment to postpone the requirements of condition 4 (b) which required, “*By the end of the fifth year of commercial operation, the amount of water injected minus the amount of banked groundwater used for project operation, minus the amount of dissipated groundwater shall meet or exceed thirteen thousand (13,000) acre-feet.*” This 13,000 acre feet of water was to provide a cushion for the power plant in the event of a drought. The commission **mistakenly** relaxed the requirement and granted an amendment to extend the banking of the 13,000 acre-feet of water ten more years until the 15th year of project operation. As of October 2008 the applicant had a banked groundwater balance of only 3,084 acre feet.⁸ According to the staffs 2014 analysis

⁶ Commission Decision Page 217

⁷ COMMISSION DECISION on the APPLICATION FOR CERTIFICATION for the **HIGH DESERT POWER PROJECT** CEC DOCKET NO. 97-AFC-1 Page 215,216

⁸ <http://docketpublic.energy.ca.gov/PublicDocuments/Compliance/97-AFC-1C/2009/TN%2051196%2004-20-09%20Staff%20Analysis%20of%20Proposed%20Modifications%20to%20Remove%20the%20Prohibition%20of%20the%20Use%20of%20Recycled%20Water%20for%20Pr.pdf> page 4 of 13

the project owner has only 3,000 acre feet banked at this time.⁹ As the original decision states, “*Evidence presented by Staff and CDFG establishes that, unless adequately mitigated, the project’s pumping of stored water could cause a decline in river bank discharges and base flows, or in the water level of the Mojave River Alluvial Aquifer. This in turn would result in adverse effects upon riparian vegetation and, ultimately, species dependent upon this vegetation.*” Despite this finding based on an analysis by CDFG and Staff, the applicant has still only banked 3,000 acre feet of water in 10 years of operation. Now the power plant does not have enough banked water to survive the drought!!!

Realizing that it had failed to bank adequate water, in 2009 the applicant filed another amendment and requested permission to use a prohibited source of water recycled water from VVWA. As stated in the original decision, “ CDFG opposed the use of these sources (VVWA recycled water) since such use would take water from the basin and potentially cause adverse impacts to riparian vegetation.”¹⁰ The Commission eliminated the requirement in Soil and Water Condition 1 that, “only water used for project operation shall be State Water Project water.” The Commission also eliminated the prohibition in Soil and Water Condition 1 (d) prohibiting the use of recycled water. This was done without consultation with CDFG or without updating the original model used by CDFG and Staff to analyze the effects of recycled water use on levels and stream flows in the Mohave River. Obviously under the extreme drought conditions that have occurred since 2008 the conditions in the basin are worse than in 2008 when recycled water use was allowed. In 2009 the commission also required a feasibility study of using 100 percent recycled water, no later than December 31,

⁹ http://docketpublic.energy.ca.gov/PublicDocuments/97-AFC-01C/TN203003_20140828T141029_Staff_Analysis_of_the_Proposed_Petition_to_Allow_High_Desert_Po.pdf Page 9 of 21

¹⁰HDPP Final Commission Decision Page 223

2011. In 2011 the Commission extended the deadline for the recycled water study until 2013. Now in September of 2014 the recycled water feasibility study has still not been conducted. The AFC level water analysis in consultation with CDFG has not been conducted despite recycled water use since 2008.

Now in 2014 the applicant is again seeking a new source of prohibited water, groundwater through acquisition of free production allocations (FPA) from the adjudicated MRB. The use of groundwater for cooling power plants is contrary to State and Commission policy. The Commission Final Decision in 2000 addressed the use of this water. The Commission noted that the CDFG opposed the use of MRB water, “*since such use would take water from the basin and potentially cause adverse impacts to riparian vegetation.*”¹¹ The Commission specifically did not allow use of this water in the conditions of certification. Staff’s analysis of the current amendment demonstrates no consultation with CDFG or any analysis which addresses CDFG concerns from 2000. Staff admits in its current analysis that , “ *allowing the project owner to participate in the MRB exchange of water rights is not an environmentally desirable alternative compared to the use of recycled water for cooling purposes and is inconsistent with state and Energy Commission policy.* ”

Conclusions and Recommendation

Previous amendments allowed by this Commission have gutted the environmental protections instituted in the original decision to protect wildlife and water resources and provide adequate water supplies in the event of a drought. With the Commission’s approval the applicant has only banked 3,000 acre feet of water in ten years. The applicant was originally required to bank 13,000 acre feet in the first five years of operation so in the event of drought or reduction in SWP

¹¹ HDPP Final Commission Decision Page 223

water the power plant could reliably operate on banked water. The applicant has been granted the use of VVWA recycled water despite its prohibition in the original decision. That did not alleviate the project's water reliability issues and possibly has had environmental impacts that are unknown since the Commission failed to assess the impacts of recycled water use with their hydrological model when the amendment was granted. Now the applicant proposes to violate State and Commission water policy by utilizing pumped groundwater in an admittedly overdrawn water basin. Staff has admitted this is an environmentally unsound proposition and violates State water policy. The Commission needs to consult with CDFG on this amendment. The Staff and CDFG need to reanalyze the conditions in the basin and update their models and analysis. The analysis needs to include the impacts that have occurred from the use of recycled water since 2008. Then the Commission must hold an evidentiary hearing and allow all parties to present their evidence.

This amendment pursues the third source of cooling water for this project. Ultimately if the Commission really wants to ensure a reliable environmentally sound source of power plant cooling for a desert power plant they must require hybrid or dry cooling. Any other form of cooling method in a desert setting will have reliability issues and impacts to the environment.