

DOCKETED

Docket Number:	97-AFC-01C
Project Title:	High Desert Power Plant (COMPLIANCE)
TN #:	206296
Document Title:	Record of Conversation for Staff Visit to VVWRA Treatment Plant in May 2014
Description:	ROC documenting information that staff learned during a visit to the VVWRA treatment plant to discuss issues with recycled water delivery to HDPP.
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Organization:	California Energy Commission
Submitter Role:	Commission Staff
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Siting and Environmental Protection Division

FILE: (97-AFC-1C)

		PROJECT TITLE: High Desert Power Project	
<input type="checkbox"/> Telephone		<input checked="" type="checkbox"/> Meeting Location: VVWRA Treatment Plant, 20111 Shay Rd., Victorville, CA 92394	
NAME:	Abdel-Karim Abulaban	DATE:	5/8/2014
WITH:	VVWRA and VWD representatives		
SUBJECT:	Recycled water delivery to HDPP		

Energy Commission staff, Paul Marshall and Karim Abulaban, met with staff from Victor Valley Wastewater Reclamation Authority's (VVWRA) wastewater treatment plant and Victorville Water District (VWD) to discuss issues raised by the owner of High Desert Power Project (HDPP) regarding delivery of recycled water to the project. Representing VVWRA plant were Gilbert Perez, manager of operations and maintenance at VVWRA's treatment plant, and James Bryant, operations supervisor. Representing VWD was Arnold Villarreal, water production supervisor.

DISCUSSIONS:

Staff wanted to discuss the reasons why VVWRA was unable to deliver recycled water in the quantity and quality needed for HDPP as was stated by HDPP representatives on multiple occasions. Staff learned the following from the VVWRA and VWD representatives:

- The quantity of recycled water available to HDPP depends on the water level in the Mojave River and production at the VVWRA treatment plant.
- In 2009, VVWRA had to send 6 million gallons per day (MGD) to the river because flow in the river was low.
- VWD sells a portion of VVWRA recycled water to HDPP.
- The pipeline from VVWRA plant to HDPP is owned and maintained by VWD.
- Pumping capacity at VVWRA is currently up to 3 MGD (approximately 3,300 acre-feet per year, or AFY).
- Recycled water from the VVWRA plant is pumped to a storage pond, from which it is pumped to an elevated 155-ft high storage tank. Recycled water can then be released from the tank to meet HDPP peak instantaneous demand of 4,000 gpm.
- The recycled water cannot be pumped directly to the elevated tank because that would require a pipe that can withstand a pressure of 200 psi at the pump. Arnold Bryant stated that the preference would be to pump the water directly to the storage tank and not to the storage pond. This would also help because the tank is used as a staging station in order to eliminate deterioration of water quality that occurs when it sits in the pond. It would also save in pumping costs.
- Pumping capacity at the VVWRA plant is limited by the existing pipe which is rated for a pressure of 160 psi. The VVWRA plant is currently configured so that the pipe can easily be replaced and an additional pump could be added to meet peak and continuous demand for HDPP.
- VWD would need to fund the pipe and pump improvements to expand the pumping capacity at the VVWRA plant.



- Recycled water from the Industrial Wastewater Treatment Plant (IWWTP) goes directly to the elevated storage tank described above, unless the tank overflows, in which case the water is stored in the storage pond by the tank.
- While IWWTP is not obligated to send its effluent to the VVWRA plant, recycled water from IWWTP has been and can be sent to HDPP through existing plumbing, but it is generally higher in total dissolved solids and not as desirable as the recycled water from the VVWRA plant.
- Recycled water from IWWTP is higher in pH, which benefits VVWRA's recycled water when blended with it since the higher pH helps the de-nitrification process.
- Water quality sampling: VWD samples for water quality, but VVWRA samples for TDS only. Staff pointed out that the recycled water contract for delivery to HDPP specifies Silica concentrations of 40 ppm. A few tests of silica concentration indicate the water quality is within specification for this analyte. Gilbert Perez indicated that VVWRA would be willing to sample for silica more frequently, such as daily in order to verify the HDPP owner's claim that the water quality is out of specification.
- In a follow up phone conversation, staff learned from VVWRA treatment plant staff that interruptions in recycled water delivery do occur when the plant has to go offline for maintenance work. However, those interruption typically don't last for more than 7 to 10 days.

cc:	Signed:
	Name: Abdel-Karim Abulaban