



Regional Brine Management Study Objective: Evaluate alternatives to the original Pure Water AWWP RO concentrate (brine) conveyance alignment to the Salinity Management Pipeline (SMP). Evaluate alternative brine management strategies using existing infrastructure for conveyance including Thousand Oaks’ sewer collection system and Hill Canyon Treatment Plant (HCTP) for NPDES discharge to Conejo Creek.

Evaluations Conducted:

- High-level capacity assessment of the Thousand Oaks sewer collection system and HCTP to verify adequate capacity
- Evaluation of HCTP treatment performance implications due to the addition of Pure Water brine into collections system
- Water quality assessment of discharging HCTP effluent/Pure Water brine blend into Conejo Creek
- Capability of and implications to Camrosa WD non-potable water system using HCTP effluent/Pure Water brine blend

Alternatives Evaluated:

- Alternatives involving discharge of HCTP/Pure Water brine blend to Conejo Creek:
 - Modify HCTP disinfection to UV to reduce chloride levels and achieve NPDES compliance
 - Construct HCTP desalter (MF/RO) to achieve NPDES compliance
 - Construct larger desalter to achieve NPDES compliance and agricultural irrigation water quality targets
 - Construct desalter to achieve NPDES compliance and convey lower TDS effluent to Camrosa non-potable system
 - Modify HCTP disinfection to UV and construct desalter to achieve NPDES compliance
 - Modify HCTP disinfection to UV and construct larger desalter to achieve agricultural irrigation water quality targets
- Alternatives involving direct Pure Water brine conveyance to SMP
 - Original Title XVI Feasibility Study Alignment
 - New alignment through Thousand Oaks, running adjacent to HCTP, connecting to SMP at Hill Canyon Drive

Preliminary Findings:

- Collection system would not surcharge with additional brine flows (additional modeling recommended if project proceeds)
- Brine addition would not hinder nitrification performance or settling in the HCTP activated sludge treatment process (additional process modeling recommended if project proceeds)
- Applying safety factors appropriate for this level of analysis, no alternatives incorporating Thousand Oaks infrastructure would be cost competitive to the original concept of direct conveyance of Pure Water brine to the SMP.
- Alternatives involving discharge of HCTP/Pure Water brine blend to Conejo Creek with desalter capacity at HCTP were not cost competitive with the original concept.
- Alternate brine conveyance alignment to SMP through Thousand Oaks would be slightly longer, and potentially more costly, than original Title XVI alignment, but with added regional benefits of brine disposal for Thousand Oaks brackish wells desalter.

Study Status:

- Conducting additional “sensitivity analysis” of alternatives
- Draft report due end of June 2020