

Las Posas Basin Plan Discussion Paper No. 11

Approach to Addressing Key Uncertainties, v. 1.0

February 23, 2011

As described in Discussion Paper No. 9, several key uncertainties were identified that must be addressed to move the basin plan forward. In January, the Users Group agreed that the best approach is to make reasonable assumptions about the uncertainties and then move forward with developing the basin management approaches in the context of those assumptions. The purpose of this Discussion Paper is to document those assumptions.

For now, the assumptions listed below are draft and provided for discussion purposes only. You will notice that some portions are incomplete. Once the assumptions are completed and approved (goal is February or March meeting), this Discussion Paper will be updated and redistributed (note version numbering above). From that point forward, updates will be made as new information becomes available.

Please direct any comments to Bryan Bondy at bryanb@unitedwater.org.

Attachment: Key Uncertainties and Associated Assumptions

1. CMWD ASR Facility Operational Plan

- a. Operating criteria - protect overlying pumpers and meet Calleguas MWD needs for supplemental water during planned and emergency short duration outages of imported supplies, during the summer months (after 2020), and after a major earthquake which cuts off imported supplies.
- b. Legacy issue – redemption of credits earned on in-lieu deliveries outside of East Las Posas Basin

Assumptions

1. *CMWD will implement a monitoring program to characterize the effect of ASR operations on water levels in ELP and to track movement of poor quality water in the vicinity of the ASR well fields.*
2. *CMWD will develop an operational plan for the ASR well fields based on the monitoring results and groundwater modeling (future).*
 - a. *No long duration pumping for drought supply (MWD agreement will be renegotiated);*
 - b. *Retain ~12 months of pumping capacity (approx. 50,000 acre feet) stored in ELP Basin for an emergency (earthquake);*
 - c. *Future storage will be limited to injection or in-lieu deliveries to pumpers within ASR zone of influence (Exception: Until the Salinity Management Pipeline is constructed, CMWD will make in-lieu water deliveries to Zone Mutual Water Company for use as blend water); and*
 - d. *Non-emergency operations will be limited to short duration pumping for maintenance and to address future peak demand issues.*
3. *CMWD will develop alternative options for redeeming credits earned from in-lieu deliveries to other basins.*
 - a. *~18,000 AF – Oxnard Plain/Pleasant Valley – Redeem through program similar to Forebay Supplemental M&I Program*
 - b. *~25,000 AF – West Las Posas Basin (WLP & ELP formerly understood to be connected, e.g. North LP) – CMWD would like to be able pump this water from ELP, provide it can be pumped w/o harming local pumpers (perhaps these credits could be relegated to an “emergency fund” e.g. last to be pumped and only during emergency)*

2. **Fate and utilization of non-native inflows from Simi Valley and Moorpark**
 - a. Will inflow continue?
 - a. Fraction needed to meet safe yield?
 - b. Is it acceptable to capture 100% of non-native inflow, i.e. no outflow to PV? (Simi flows have been recharging northern Pleasant Valley Basin since the mid-90s).
 - c. Fraction available for development of supplemental supplies?

Assumptions

1. *0 - 5 years: assume non-native inflows will continue at current rates. ~16,000 AF/yr of dry weather flows (~14,000 AF/yr measured at Hitch Blvd + ~2,000 AF/yr Moorpark POTW)*
2. *5 – 10 years: assume WWD-1 and Simi Valley will develop/expand their recycled water programs causing net decrease in recharge of 1,250 AF/yr (750 AF/yr Simi Valley [SV 2030 General Plan] and 500 AF/yr WWD-1)*
3. *10+ years: assume Simi Valley & WWD-1 recycled water programs will increase at same rate as inflows to POTWs (i.e. no net loss to surface water)*
4. *Estimated inflow needed to maintain basin water levels = ~4,000 – 7,000 AF/yr*
5. *Zero outflow to Pleasant Valley Basin is acceptable.*
6. *Estimated inflow available for supplemental supplies:*
 - a. *0 – 5 years = ~9,000 – 12,000 AF/yr;*
 - b. *5 - 10 years = ~7,750 – 10,750 AF/yr*
 - c. *10+ years = ~7,750 – 10,750 AF/yr*

Note:

The above is based on very preliminary data and information. CMWD is actively working with Simi Valley to refine their future water re-use estimates so we can project future reductions in the non-native water inflows to the SLP & ELP basins (if any). This information will be available in the next several weeks. CMWD is initiating a surface water flow characterization study to quantify surface water inflows/outflows and groundwater recharge in SLP & ELP Basins. Preliminary data is expected by May 2011 (weather permitting). The above-listed assumptions will be updated accordingly.

3. Salinity Management Pipeline

- a. Schedule
- b. Fees

Assumptions

1. Schedule (see map below)



2. Fees

a. Discharge Fee

- \$500 per AF of concentrate (brine) discharged; assume fee will increase 3%/yr
 - AG ~\$88 per AF permeate produced (assume 15% brine)
 - M&I ~\$125 - \$167 per AF permeate produced (assume 20-25% brine)

b. Brine Discharge Station (required for discharge)

- Design and construction: \$200,000 - \$300,000
- O&M: \$45,000/yr

4. Future Desalter Projects

- a. Location(s)
- b. Project Yield(s)
- c. Schedule
- d. Fees
- e. Opportunity for agricultural participation?

Assumptions

1. Proposed M&I Desalters

- a. *Northern Pleasant Valley Desalter (potable) – Regional Purveyor Group*
(Note: this facility will be located outside of Las Posas Basin)
 - *Location: NW of Las Posas Rd. and Somis Rd.*
 - *Yield: 7,300 AF/yr*
 - *Schedule: approx. 2014*
 - *Cost: ~\$950/AF*
- b. *Somis Desalter – project no longer being pursued by M&I*
- c. *Moorpark Desalter – VCWWD-1 (potable)*
 - *Location: Hitch Blvd. upstream of Moorpark POTW*
 - *Yield: initial 5,000 AF/yr, build out capacity 15,000 AF/yr*
 - *Schedule: approx. 2017*
 - *Cost: ~\$1,000/AF*

2. Agricultural Desalters: INPUT NEEDED FROM STAKEHOLDERS

- a. *Zone MWC?*
- b. *Berylwood Heights MWC?*
- c. *Arroyo Las Posas MWC?*
- d. *Bell Ranch?*
- e. *Others?*