

Water Resources Committee

Summary Notes

Meeting Date: Oct. 21, 2013

Start Time: 5:00 p.m.

Directors Present: John Greci
Bill Stevens
AJ Machaevich

Staff Present: T. Rooze, M. Katen,
K. Arends, J. Duerig,
J. Chahal

1. Public Comment on Items Not on the Agenda

None.

2. Salt Management Plan Update

Staff gave a presentation and answered questions from the committee.

Summary of Presentation

Staff summarized the history of the 2004 Salt Management Plan (SMP), its implementation, the desire for an update to include nutrients due to the 2009 State Board's Recycled Water Policy, current salt and nutrient loading assumptions, results from salt management strategies, conclusions, and recommendations. Based on the input received from the retailers through various meetings held throughout the year, staff recommended "Scenario G" for salt management. Scenario G assumes the entire Chain-of-Lakes (COLs) to be online in 2060, includes a pipeline connecting Lake A to Lakes H and I (to convey water around the unavailable lakes for recharge in lakes owned and operated by Zone 7) and the construction of a Second Demineralization Plant in 2030. This strategy optimizes the available recharge facilities and groundwater demineralization plant through 2030 to stabilize the Basin's average Total Dissolved Solids (TDS). Then when the Delta Fix comes online (projected by 2027), Scenario G includes increasing recharge with low TDS water, increasing groundwater pumping, and adding a second Demineralization plant in 2030. With this strategy the Main Basin TDS is projected to eventually decrease to the basin objective (500 mg/L) and continue to decline in the long-term.

As for Nutrients, the basin-wide average nitrate concentration is below the drinking water standard and the Basin Plan Objective (both 45 mg/L) except for a few hot spots, the majority of which are in the eastern and northern portions of the Valley. Preliminary estimates indicate that there is currently no overall net nitrogen loading to the Basin, and none projected for the future, therefore the basin-wide average concentration should decrease over time. Staff suggested that the existing Best Management Practices (BMPs) and policies, with some project-specific measures near the nitrate hot spots, would be sufficient to keep the overall nutrient loading in the Basin in check.

Staff also plans to include a recommendation for continued monitoring for salts and nutrients as already conducted as part of Zone 7's Groundwater Management Program. Monitoring for constituents of emerging concern (CEC) is not required at this time since the planned recycled water use in the Basin is limited to irrigation projects only.

Committee Comments and Questions

The Water Resources Committee (Committee) complemented the good work by staff and emphasized the need for protecting the groundwater basin water quality and the importance of groundwater storage for Zone 7.

The Committee asked specific questions regarding the Delta Fix, COLs coming online in 2058, major sources of salts for the Basin, nitrate hot spots in the eastern portion of the Valley, nitrates in the deep aquifer, and CEC monitoring, as follows:

Delta Fix

The Committee asked how the Delta fix benefits salt loading. Zone 7 staff answered that the Delta fix improves imported water quality (lower TDS) from the State Water Project and makes the supplies more reliable, both of which will improve Zone 7's capability to recharge with more, lower TDS water.

Chain-of-Lakes

The Committee asked if the salt management strategies assume the transfer of all COLs to be delayed until 2058. Staff indicated that at this time the assumption is that Lakes B through G will be delayed until 2058 but through negotiations with the gravel mining companies, some lakes such as A may come to Zone 7 earlier if the mining operations by CEMEX end earlier than 2058.

Sources of salt for the groundwater basin

The Committee asked what the major source of salt inflow is for the groundwater basin. Staff explained that potable water irrigation and artificial recharge with untreated water are the main sources of salt loading to the groundwater basin.

Nitrate plumes in the eastern portion of the Valley

The Committee asked about the sources of nitrate plumes in the eastern portions of the Valley shown on the map and discussed the sewer options for Buena Vista area residential properties. Staff explained that septic systems are ongoing sources for the plume near Buena Vista area; old chicken farms are the potential sources for the plume near Tesla Road and Greenville Road; and the former wastewater sludge handling is likely the potential source for the plume near the Livermore Wastewater Plant. Staff indicated that although the existing BMP's might be sufficient for overall nitrate management in the Main Basin, the RWQCB shares staff's concerns about localized hot spots, and will likely want to control nitrate loading through site-specific measures such as exploring the possibility of connecting septic systems to sewer lines whenever possible and adding other conditions for septic tank approvals. Staff also indicated that there is a plan to give a similar presentation to the Alameda County Planning Department to educate them about the existing nitrate hot spots and the potential mitigation measures being explored.

Nitrates making it to the deep aquifer

The Committee commented on how some of the nitrates make it to the deep aquifers. Staff explained that the majority of the deep aquifer not only meets but is significantly below the drinking water standard except for a few wells in the eastern portion of the Valley which are near the plumes discussed above; the cause, in part, may be the minimal confining layer separating the shallow aquifer from the deep aquifer in that area.

Monitoring for CECs

The committee asked why CEC monitoring is not required. Staff explained that CEC monitoring is required only for groundwater basins where recycled water is being actively recharged using either injection or surface spreading. Since neither is planned for the Valley, CEC monitoring is not required. Dr. Tom Hall, EOA, speaking as a member of public, explained how the State Board established a panel of experts a few years ago to come up with CEC monitoring recommendations as part of the State's Recycled Water Policy.

3. Verbal Reports

None.

4. Adjournment

Meeting was adjourned at 6:05 p.m.