

**COUNTY OF SONOMA
AGENDA ITEM
SUMMARY REPORT**

Clerk of the Board Use Only
Meeting Date **Held Until**

Agenda Item No: **Agenda Item No:**

Department:
 Sonoma County Water Agency

() 4/5 Vote Required

Contact: Jay Jasperse **Phone:** (707)547-1959 **Board Date:** 04-13-09

Deadline for Board Action:

AGENDA SHORT TITLE:
 Water Supply and Planning Workshop

REQUESTED BOARD ACTION(S):

1. Consider staff presentation and public input;
2. Direct Agency to offer water supply workshop presentations to water contractor governing bodies and interested community organizations on April 13, 2009;
3. Following presentations and water contractor and community input, return within 6 months to:
 - report on input received from community and water contractors;
 - present an updated water supply strategic plan with refined strategies that inform budgeting and financial planning;
 - direct strategic plan implementation next steps, including recommendations regarding Urban Water Management Plan 2010 and future water projects

CURRENT FISCAL YEAR FINANCIAL IMPACT

<u>EXPENDITURES</u>		<u>ADD'L FUNDS REQUIRING BOARD APPROVAL</u>	
Estimated Cost	\$	-0-	Contingencies \$
			(Fund Name:)
Amount Budgeted	\$	-0-	Unanticipated Revenue \$
			(Source:)
Other Avail Approp (Explain below)	\$		Other Transfer(s) \$
			(Source:)
Additional Requested:	\$	-0-	Add'l Funds Requested: \$ -0-

Explanation (if required):

Prior Board Action(s):

Alternatives - Results of Non-Approval:

Background:

This year presents difficult water supply challenges to the region and the Sonoma County Water Agency's (Agency) operation of its water supply transmission system. Lake Mendocino storage is very low, water conservation and reduced water supply has decreased water sales, expenses have increased to ensure protection of endangered species, and the economic downturn affects all activities. Long-term, the Agency and its water contractors must develop sustainable water supplies and reduce environmental impacts by diversifying their water supply portfolios. These portfolios include water conservation, recycled water, Russian River and other surface water supplies, and groundwater.

These immediate challenges must be managed while confronting long-term issues of increased regulation, limited supply, aging facilities, and increasing demand. In this workshop, Agency staff will review Sonoma County's water supply situation, key challenges to ensuring a reliable and sustainable supply, and strategies to address these issues. Information from this workshop and follow up activities will be used to develop planning documents, including the Agency's 2010 Urban Water Management Plan, and to evaluate the need for and scope of future water projects.

Agency Operations:

The Agency stores water in Lake Mendocino and Lake Sonoma and releases that water into the Russian River and Dry Creek for water supply purposes and to meet instream flow requirements set in 1986 by the State Water Board's Decision 1610 (D-1610). Instream flows are measured by a few stream gages along the rivers and, although many municipal and agricultural users also take water, the Agency must maintain instream flows regardless of how much water is taken by others. Water in Lake Sonoma comes from rainfall runoff, but water in Lake Mendocino not only comes from rainfall but also from PG&E's diversions from the Eel River via its Potter Valley Project (PVP). These diversions have significantly decreased since 2006.

In addition to meeting D-1610 requirements, the Agency must comply with a September 2008 Biological Opinion (BO) from the National Marine Fisheries Service that details changes the Agency must make to ensure its operations do not harm threatened or endangered fishery species. The BO concludes that the instream flows required by D-1610 may be too high for listed fish species and requires a process for changing those flows. A significant aspect of the BO is restriction of allowable maximum flows in Dry Creek during the summer months to protect juvenile salmonids. These flow restrictions occur at the same time the Agency's water contractors experience the greatest demand for water.

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Attachments:

On File With Clerk:

CLERK OF THE BOARD USE ONLY

Board Action (If other than "Requested")

Vote:

Background (continued):

The Agency's water supply facilities consist of a series of collector wells along the Russian River downstream of the confluence with Dry Creek and pipes and pumps that deliver the water to the Agency's water contractors, the cities of Cotati, Petaluma, Rohnert Park, Santa Rosa, the Town of Windsor and the Forestville, North Marin and Valley of the Moon Water Districts. The system is relatively unique in California because river gravels naturally filter the water, allowing the Agency to provide high quality water without treating it in a water treatment plant. The system was originally designed and is operated to meet the peak demands of the water contractors as set out in the Restructured Agreement for Water Supply, the successor to agreements that have been in place between the Agency and its contractors since the 1970s.

Agency System and Regional Supply:

Agency-provided water is only one source of water for the Agency's contractors. To meet demand from their customers, each contractor has water conservation programs and their own unique water supply portfolio consisting of Agency supplied water, recycled water, and local supplies (groundwater and local surface water supplies). The Agency and its water contractors implement water conservation programs in compliance with the California Urban Water Conservation Council (CUWCC) best management practices. Some communities and unincorporated parts of the County do not receive Agency water and rely on their own supplies, much of which is groundwater. Many of these areas do not have formal water conservation programs or fully implement CUWCC best management practices.

Climate Change, Water Supply, and Energy:

The Agency is working with national experts to evaluate the impacts of climate change so water supply decisions will be based on up-to-date information. The Agency will use this information during the 2010 Urban Water Management Planning effort. Evaluation of climate change for coastal non-snowpack watersheds such as the Russian River watershed is especially challenging given the influence of fog and rainfall events on water supply rather than snowpack. In recent years however, the predictive modeling capabilities for such an analysis has improved and the Agency is currently working to improve its modeling capability to incorporate these impacts to the extent possible.

The connection between water supply and energy is increasingly important and the responsibility to reduce greenhouse gas emissions is shared by water agencies. Approximately 19% of California's energy use is due to the conveyance, production treatment, and use of water. The Agency spends about 20% of its water supply and transmission system budget on power and has, in recent years, taken a number of actions to diversify its energy portfolio and reduce consumption. The Agency has joined with Sonoma County and all of its cities in committing to reduce its greenhouse gas emissions by 25% below 1990 levels by 2015.

Issues and Challenges:

The Agency and region must deal with each year's unique water supply situation but there are ongoing regulatory challenges as well. For example, the critical Lake Mendocino storage situation this year is the result both of the amount and timing of rainfall and reduced diversions from PG&E's Eel River diversions (only about 30% of pre-2006 averages) caused by unanticipated changes in PG&E's license from the Federal Energy Regulatory Commission (FERC). Implementing the BO also presents challenges. As a result of the reduced PVP flows to Lake Mendocino, it has been increasingly difficult to meet the needs of fisheries, agriculture, and potable water supply while maintaining required minimum instream flows on the upper reach of the Russian River. Compounding the problem, D-1610's instream flow requirements for the Russian River are based on inflow conditions to Lake Pillsbury which is no longer representative of the Russian River watershed. The challenges also include implementing the BO and managing the impacts of climate change on the water supply.

Background (continued):

There are other challenges as well. The Agency's transmission system was designed many years ago. Operating and maintaining a system to meet peak demands is expensive. The Agency has taken a number of steps to reduce costs, but more will be necessary and changing the way the system operates (from a "peak" demand to a "base" demand system) may provide significant savings. In addition, the Agency's facilities span a large, seismically active geographic area. The Agency recently conducted a natural hazard reliability assessment. This assessment indicated that there are several areas of the system vulnerable to seismic events and that certain projects should be implemented to increase the resiliency of the system to seismic hazards.

Additionally, there is one "water" – a continuum in a physical sense, best managed through coordinated efforts, rather than the fragmented assemblage of agencies now existing. Creating a data base of shared information would aid the Agency and other parties to make sound, fact-based water management decisions.

Recommended Strategies:

Agency staff will discuss a number of possible strategies to address these challenges. These include:

1. Address Dry Creek summer flow constraints in response to the BO
2. Modify operation of the Russian River system (Update D-1610)
3. Evaluate impacts of climate change on future water supply
4. Pursue opportunities to coordinate water supply and flood control activities
5. Work with county and cities to develop low impact development programs
6. Work with stakeholders to promote sound, fact-based water supply planning
7. Increase the operational reliability of the transmission system
8. Prioritize and fund projects to protect Agency facilities from natural hazards (mainly earthquakes)
9. Reevaluate the way the transmission system operates
10. Take advantage of energy and water synergies
11. Renegotiate the Restructured Agreement for Water Supply
12. Overcome organizational fragmentation to promote efficiency of water system operations and water management planning

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