

# County Of Sonoma Agenda Item Summary Report

Clerk of the Board Use Only

Meeting Date

Held Until

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Agenda Item No:

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**Department:** Sonoma County Water Agency

**4/5 Vote Not Required**

**Contact:**  
Erica Phelps

**Phone:**  
(707) 547-1934

**Board Date:**  
8/25/2009

**Deadline for Board Action:**

**AGENDA SHORT TITLE:** Water Project Redirection and New Water Supply Strategies.

**REQUESTED BOARD ACTION:**

See Supplemental Page

**CURRENT FISCAL YEAR FINANCIAL IMPACT - None.**

**Explanation (if required):** None.

**Prior Board Action:**

**12-09-08:** Direction authorizing the release of the Water Project Draft Environmental Impact Report (Water Project Draft EIR) for public review, establishing a 90-day review period, setting public hearings, and filing of a Notice of Completion;

**06-24-08:** Resolution deferring finalization of Water Project Draft EIR pending approval of Sonoma County General Plan 2020, and the issuance of the NMFS Russian River Biological Opinion by National Marine Fisheries Service;

**05-01-07:** Water Project Update directing that water supply alternatives for the Water Project, including the Dry Creek Bypass Pipeline be included at a program level of analysis in the EIR, and development of a strategy that includes participation by elected officials of the water contractors in the hearing process for the Draft EIR;

**11-09-04 :**Resolution 04-1089 directing preparation of an EIR for a Water Supply, Transmission, and Reliability Project.

**Alternatives – Results of Non-Approval:** If staff is directed to continue the Water Project, additional staff time and funds would be used to respond to comments on the Draft EIR, perform additional analyses, and prepare a Final EIR for a project that ultimately would not be consistent with current and developing water supply strategies. Funding for these tasks has not been budgeted and is not covered by existing water rates.

**Background:****The Water Project**

The Water Project was originally developed in the early 1990s, nearly two decades ago. Proposed by the Sonoma County Water Agency (Agency) on behalf of its water contractors, the objective of the Water Project was to provide a safe, economical and reliable water supply to meet the then defined current and future needs in the Agency's service area. The Water Project proposed water conservation measures, increased diversions and rediversions from the Russian River system up to 101,000 acre-feet per year, and transmission system facilities to add reliability to the existing system and deliver future water supplies.

Although the Water Project has been modified over the years in response to changes in circumstances, in the past three years, major changes in conditions have occurred, which make it infeasible and impractical for the Agency to carry out the Water Project. These changes include reduced flows into the Russian River from the Eel River, the issuance of new federal requirements that restrict the Agency's ability to use the channel of Dry Creek to convey water from Warm Springs Dam to the Russian River, climate change, new strategies for managing demands for water and energy, and economic conditions that make it unlikely that the Agency's water contractors would impose the water rates necessary to finance the project.

**Potter Valley Project Diversions**

In 2004, the Federal Energy Regulatory Commission amended the license held by Pacific Gas & Electric (PG&E) for the Potter Valley Project. The amendment required PG&E to change flows in the East Fork Russian River and the Eel River as specified by the federal National Marine Fisheries Service (NMFS) in a "Biological Opinion" for the Potter Valley Project. At the time, it was anticipated that the amendment would result in relatively minor decreases in diversions into the Russian River watershed from the Potter Valley Project. However, it is now clear that this assumption was incorrect, and that PG&E's reoperation of the Potter Valley Project as required by the license amendment has resulted in a significant, material reduction in diversions from the Eel River (and, in addition, has made such diversions much more variable). As a result, current inflows into Lake Mendocino are much less than those assumed when the Water Project was developed.

**NMFS Russian River Biological Opinion**

The NMFS Russian River Biological Opinion for the Agency's Russian River system, issued in September 2008, requires the Agency to take specific actions to protect threatened and endangered salmonids in the Russian River, including lowering summertime flows in the mainstem Russian River and on Dry Creek, and constructing habitat enhancements on Dry Creek. If the Agency completes these activities, the Agency will be able to continue its current water supply activities without violating the terms of the Endangered Species Act.

The Water Project, however, was developed based upon the assumption that the Agency would be able to release all of the additional water necessary to meet increased water contractor demands from Lake Sonoma. Given the NMFS Russian River Biological Opinion's requirement that Dry Creek flows be lowered, this assumption may no longer be valid.

**Climate Change and Water Conservation**

Climate change may also impact the Agency's water supplies in ways we are only now beginning to evaluate. Accumulating evidence suggests that accelerated warming of the Earth's atmosphere is occurring and may continue to occur due to increased emissions of greenhouse gases related to human activities. The possible impacts of this warming on water supply in the Agency's service area are only now being analyzed. Recently, predictive modeling capabilities have improved and the Agency is working with the United States Geological Survey to incorporate the impacts of climate change into its modeling programs. This new modeling capability is expected to be completed by the end of 2011.

Water supply and water treatment activities within the Agency's service area consume large amounts of electrical energy, contributing to greenhouse gas emissions. The Agency, together with all Sonoma County cities, has committed to reducing greenhouse gas emissions to 25% below 1990 levels by the year 2015. Achieving this goal will take significant effort.

Water conservation measures contribute not only to a reduction in potable water use, but also to a reduction in greenhouse gas emissions. Advances in water conservation devices and techniques can result in significant potable water savings at reasonable costs, particularly when incorporated into new building standards and low impact development standards, and when installed in existing structures through retrofit programs and, where appropriate, upon the sale of properties.

The Water Project was developed based on the comprehensive demand and water conservation analyses prepared in conjunction with the Agency's Urban Water Management Plan 2005 and the Urban Water Management Plans of the Agency's contractors. Since then, increased concern regarding climate change, energy use, and changing technologies in water conservation and efficiency indicate that additional conservation savings beyond those anticipated in 2005 can be achieved, and would be more cost-effective than the new infrastructure projects contemplated by the Water Project. Two studies that document this potential within the Agency's service area are on file with the clerk.

In response to all of the water supply challenges facing the region, water supplies and demands must be reevaluated to ensure that the Agency and its water contractors develop sustainable water supplies and reduce environmental impacts by diversifying their water supply portfolios and conserving water to the maximum extent feasible.

### **Financing**

Financial constraints upon the Agency and its water contractors have made it more difficult to finance large, costly capital projects. In this difficult economic time, the Agency's water contractors, being subject to the provisions of Proposition 218, face increasing hurdles to raising water rates charged to their customers, and have become increasingly sensitive to rate increases proposed by the Agency. At the same time, given the changes in circumstances described above, the cost of the Water Project has significantly increased. In particular, the significant costs associated with overcoming the NMFS Russian River Biological Opinion's limitations on summertime Dry Creek flows were not contemplated by the Agency or the water contractors when they entered into the Eleventh Amended Agreement or the Restructured Agreement for Water Supply. The kind of rate increases that would be necessary to pay for the construction and development of the facilities contemplated by the Water Project may no longer be feasible. Moreover, many of the facilities anticipated to be constructed for the Water Project serve, principally, peak summer demand. Alternative strategies for serving this demand may be much less expensive.

### **Water Project Draft Environmental Impact Report**

The Board directed the Agency to prepare the Water Project EIR in 2004, after a previous EIR for a similar project was set aside after California Environmental Quality Act (CEQA) litigation. A Notice of Preparation was released in 2005, initiating the CEQA review process. Preparation of the Draft EIR involved a lengthy schedule, complex studies and analysis, and concerted and diligent effort on the part of the numerous staff and consultants to incorporate and balance the need for the Water Project with the water supply issues of the region. Throughout this process the water contractors supported and urged the timely completion and release of the Draft EIR. The Board approved the release of the Water Project Draft EIR in December 2008.

The 90-day review period for the Draft EIR concluded in March 2009. The Agency received written comments from 28 commentors, and a total of 12 speakers provided oral comments at the six public hearings. Written comments total approximately 150 pages with 2,300 pages of attachments.

Unsurprisingly, many of the comments received in response to the Water Project Draft EIR reflect the ongoing challenges facing the region's water supply discussed above. The majority of comments touched on these common themes: implementation of the NMFS Russian River Biological Opinion including flow constraints on Dry Creek and the need to change the minimum instream flow requirements of Decision 1610, ongoing Eel River diversions from PG&E's Potter Valley Project, water conservation, and climate change issues. A number of comments questioned the adequacy of the analyses included in the Draft EIR, particularly the subject areas of alternatives, greenhouse gas emissions, hydrology and water quality, fisheries, growth-related impacts, and cumulative impacts. A number of comments expressed confusion about how certain issues were covered in the Draft EIR pertaining to ongoing water supply challenges, and questioned the wisdom of moving forward with a future project prior to resolving issues related to existing supplies.

### **Petition to Change Russian River Minimum Instream Flows**

The NMFS Russian River Biological Opinion requires the Agency to take specific actions over the next 15 years to protect threatened and endangered fish, regardless of whether any future water supply projects go forward. The Agency must take these actions, to comply with the requirements of the federal Endangered Species Act. One action NMFS required is that the Agency petition the State Water Resources Control Board (SWRCB) for changes to the Agency's water rights permits, in order to reduce minimum instream flows in the Russian River. If the Agency is no longer requesting approval of the Water Project – for which the Agency has applied to the SWRCB for increases in Russian River diversions and rediversions to 101,000 acre-feet per year – it may be less difficult to obtain SWRCB approval for the NMFS Russian River Biological Opinion-required minimum flow reductions.

Staff resources and funding should be directed to implementing the NMFS Russian River Biological Opinion to ensure the Agency's current water supply and operations are consistent with the water supply strategies. Securing the Agency's ability to fully use its existing water rights is a high priority and compliance with the terms of the NMFS Russian River Biological Opinion will allow the Agency to protect its right to divert and re-divert up to 75,000 acre-feet per year under these rights. Lakes Sonoma and Mendocino can store more than 330,000 acre-feet of water for water supply purposes and, at an appropriate time in the future, as demands for water in the water contractors' service areas grow (despite the conservation and other measures described above), the Agency is likely to request SWRCB approval of an increase in its annual acre-foot diversion limit. However, completion of a new climate change model, and further evaluation of the needs in the Agency's service area and demonstration that the Agency's contractors have maximized water use efficiencies will be necessary to support such a request.

### **New Water Supply Strategies**

On April 13, 2009, the Board held a workshop to review Sonoma County's water supply situation, key challenges to ensuring a reliable and sustainable supply, and strategies to address these issues. At the workshop, the Board generally approved the following 12 strategies (to be further refined as necessary) to address water supply challenges, develop planning documents (including the Agency's 2010 Urban Water Management Plan), and to evaluate the need for and scope of future water supply projects (including the Water Project):

1. Address Dry Creek summer flow constraints in response to the NMFS Russian River Biological Opinion
2. Modify operation of the Russian River system (update Decision 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 Sonoma County (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

As directed by the Board, Agency staff has presented and discussed these strategies with all but one of the water contractors (the remaining presentation, to the City of Petaluma, is scheduled for September 14). In addition, staff have presented this information to numerous other organizations representing agricultural, business, civic, and environmental interests. After completing this outreach, staff will report to the Board on the input received, changes to the water supply strategies that staff recommend based on this input, and a water supply strategic plan based on these strategies.

### **Restructured Agreement for Water Supply**

Both the Eleventh Amended Agreement for Water Supply and its successor, the Restructured Agreement for Water Supply, contain entitlement limits and other provisions that were based upon the assumption that the Water Supply and Transmission System Project would be implemented and constructed. The entitlement limits in the Restructured Agreement are not consistent with the demand analysis undertaken by the Agency for its 2005 Urban Water Management Plan, and do not take into account the latest advances in water conservation devices and techniques,

which can result in significant potable water savings at reasonable costs, particularly when incorporated into new building standards and low impact development standards, and when installed in existing structures through retrofit programs and, where appropriate, upon the sale of properties.

Because the Water Project is no longer feasible or practical to carry out given the unanticipated changes in circumstances described above, and because the Restructured Agreement no longer accurately reflects reasonable expected future water contractor demands on the transmission system, the General Manager/Chief Engineer recommends that a new water supply agreement be negotiated between the Agency and its water contractors to account for these changes.

#### **Meeting Reasonable Expected Future Water Needs**

Agency staff recognizes that water supply is a core function of the Agency, and that the Agency's water contractors depend on the Agency in large part for their water supplies. Although the Water Project is no longer feasible, Agency staff will continue to work with the water contractors and other interested stakeholders to develop future water supply projects that will allow the water contractors, using the entire suite of new water supply strategies, climate change analysis, maximum levels of water conservation and efficiency measures, recycled water, conjunctive use and low-impact development strategies, to meet their reasonable expected future water needs in an environmentally sensitive and financially feasible way.

#### **Conclusion**

The Water Project was originally developed nearly two decades ago. Continued pursuit of the Water Project by the Agency is no longer feasible or practical given the foregoing circumstances that were not foreseen by the Agency or the water contractors when the Agency developed the Water Project and entered into the Restructured Agreement for Water Supply. Continued pursuit of the Water Project by the Agency is not in the best interest of the Agency or the water contractors, or in the public interest. The General Manager/Chief Engineer recommends that the Board redirect Agency efforts to the new water supply strategies described above, and that the Agency no longer pursue development and implementation of the Water Project described in the Draft Environmental Impact Report dated June 2008.

#### **REQUESTED BOARD ACTION(S):**

##### Resolution

- a. Authorizing and directing the General Manager/Chief Engineer, with the input of the water contractors and other interested stakeholders, to commence and continue the development of new water supply projects, plans, and strategies to meet the reasonable expected future water demands of the Agency's water contractors, taking into account the National Marine Fisheries Service Russian River Biological Opinion constraints and reduced Potter Valley Project flows, and incorporating the water supply strategies attached as Exhibit A, climate change analysis, maximum levels of water conservation and efficiency measures, recycled water, conjunctive use, and low impact development strategies;
- b. Declaring that the Agency will redirect its efforts towards the pursuit of such new water supply strategies and will no longer pursue development and implementation of the Water Project described in the Draft Environmental Impact Report dated June 2008, due to changes in circumstances giving rise to environmental, regulatory, and financial constraints that render development and implementation of the Water Project infeasible and impractical, and authorizing and directing the General Manager/Chief Engineer to cease work on the Water Project Environmental Impact Report;
- c. Authorizing and directing the General Manager/Chief Engineer and County Counsel to negotiate a new Agreement for Water Supply reflecting the Board's direction above;
- d. Authorizing and directing the General Manager/Chief Engineer to commence preparation of the Agency's 2010 Urban Water Management Plan based upon the assumption that the Agency will redirect its efforts towards pursuit of new water supply strategies as described above and will not implement the Water Project;

e. Authorizing and directing County Counsel and the General Manager/Chief Engineer, following consultation with the Agency's water rights counsel, to take appropriate steps to withdraw or modify the Agency's pending application and petitions with the State Water Resources Control Board to increase the limit on the Agency's authorized Russian River diversions to 101,000 acre-feet per year, while preserving the Agency's rights to store, divert, and redivert water now and in the future under its existing water-right permits to the maximum extent possible.

**Attachments:** Resolution with exhibit (attached).

**On File With Clerk:** "Greenhouse Gas Emissions Related to Water and Wastewater Services: Baseline, Reduction Strategies, and Recommendations," June 2008. Prepared for the City of Santa Rosa, Utilities Department and "Sustaining Our Water Future, A Review of the Marin Municipal Water District's Alternatives to Improve Water Supply Reliability," prepared for Food & Water Watch.

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**Board Action (If other than "Requested")**

**Vote:**

**Supplemental Page:**

**REQUESTED BOARD ACTION(S):**

Resolution

- a. Authorizing and directing the General Manager/Chief Engineer, with the input of the water contractors and other interested stakeholders, to commence and continue the development of new water supply projects, plans, and strategies to meet the reasonable expected future water demands of the Agency's water contractors, taking into account the National Marine Fisheries Service Russian River Biological Opinion constraints and reduced Potter Valley Project flows, and incorporating the water supply strategies attached as Exhibit A, climate change analysis, maximum levels of water conservation and efficiency measures, recycled water, conjunctive use, and low impact development strategies;
- b. Declaring that the Agency will redirect its efforts towards the pursuit of such new water supply strategies and will no longer pursue development and implementation of the Water Project described in the Draft Environmental Impact Report dated June 2008, due to changes in circumstances giving rise to environmental, regulatory, and financial constraints that render development and implementation of the Water Project infeasible and impractical, and authorizing and directing the General Manager/Chief Engineer to cease work on the Water Project Environmental Impact Report;
- c. Authorizing and directing the General Manager/Chief Engineer and County Counsel to negotiate a new Agreement for Water Supply reflecting the Board's direction above;
- d. Authorizing and directing the General Manager/Chief Engineer to commence preparation of the Agency's 2010 Urban Water Management Plan based upon the assumption that the Agency will redirect its efforts towards pursuit of new water supply strategies as described above and will not implement the Water Project;
- e. Authorizing and directing County Counsel and the General Manager/Chief Engineer, following consultation with the Agency's water rights counsel, to take appropriate steps to withdraw or modify the Agency's pending application and petitions with the State Water Resources Control Board to increase the limit on the Agency's authorized Russian River diversions to 101,000 acre-feet per year, while preserving the Agency's rights to store, divert, and redivert water now and in the future under its existing water-right permits to the maximum extent possible.