Sonoma County Water Agency

Water Supply Strategies Action Plan

September 21, 2010

Even while we take Mother Water for granted, humans understand in our bones that she is the boss. We stake our civilizations on the coasts and mighty rivers. Our deepest dread is having too little moisture – or too much.

--Barbara Kingsolver, "Fresh Water," National Geographic, April 2010

September 21, 2010

For more than half a century, the Sonoma County Water Agency has made sure that its North Bay customers have the water they need, when they need it. Our job is to make sure that the Agency can make the same claim in 2060. Yet the Agency and its contractors face big challenges, including:

- An economic downturn that has impacted residents' ability and willingness to pay higher water rates.
- Aging infrastructure, located in a seismically active region, that will require new projects to increase the reliability of water deliveries.
- A federal mandate to change the way we do business to help save endangered coho salmon and threatened steelhead.
- Uncertain water supply conditions, including the effects of climate change on both the amount and timing of rainfall.

Goals, Priorities, Strategies

In Spring 2009 the Water Agency Board of Directors held a workshop to discuss these challenges and to review 12 proposed strategies. The strategies were developed by staff to address the following goals: Improve reliability of facilities; comply with the Russian River Biological Opinion; maintain current water supply and quality; ensure projects are affordable; reduce organizational fragmentation and increase communication with Water Contractors and other partners; and plan for the future.

These goals are further detailed in Page 4 of this document, as are the priorities identified by the Water Contractors. As the table on Page 4 illustrates, the goals of the Water Agency and the priorities of the Water Contractors are generally aligned.

Public Input

Following the 2009 workshop, the Board of Directors directed Water Agency staff to seek input from Water Contractors and the community. In summer and fall 2009, presentations were made to all the contractors and several community groups. In the spring of 2010, Water Agency staff presented the revised strategies and a draft action plan to the Water Contractors Technical Advisory Committee (TAC) and the Water Advisory Committee. Based on comments received, the strategies and the action plan were clarified, revised and combined. In the summer of 2010, Water Agency staff made one more round of presentations to the boards and councils of Water Contractors, and received 118 comments. Many of these comments are reflected in the newly revised action plan.

Action Plan

The following document, the DRAFT Water Supply Strategies Action Plan, lays out nine strategies and associated actions. A more detailed analysis with links to source documents and studies will be created and posted on the Water Agency's website after the Board of Directors has reviewed the action plan. It's important to note the following:

- The strategies are not ends to themselves. They are mechanisms to accomplish goals and priorities identified by the Water Agency and its customers.

- Partnerships with the Water Agency's Contractors and others are necessary for successful action plan implementation. Ideally, contractors will add their own projects to provide a regional action plan. (Note: Some contractors have already provided project lists; these will be incorporated into the plan after Board review.)

- None of the strategies stand alone. They are interconnected and related to other Water Agency activities and to projects conducted by Water Contractors or state or federal agencies.

- Although the public is not identified in each action as an "involved party," public and community group involvement is critical to the success of each strategy. Specific stakeholders that are involved in many of the actions include the Sonoma County Water Coalition and other environmental groups and the business and the agriculture communities.

- This is a living document. Activities are continually progressing and changing.

We hope that this document will be useful to you. Please email Ann DuBay at ann.dubay@scwa.ca.gov if you have any questions, concerns or input.

Thank you,

GRANT DAVIS
Interim General Manager

JAY JASPERSE
Interim Chief Engineer

Sonoma County Water Agency Goals

1. Improve reliability of the Water Agency's facilities.

2. Comply with Biological Opinion to ensure existing water supply and to enhance opportunities for steelhead, coho, and Chinook.

3. Maintain current water supply and high-level of water quality.

4. Acknowledge funding limitations and ensure projects are affordable.

5. Reduce organizational fragmentation and increase transparency and communication.

6. Identify the need for and type of future water supply projects based on fiscal resources and updated projections of water demand.

Water Advisory Committee (WAC) Priorities

1. Protect water quality and restore reliability of current water supply and current transmission system capacity (75,000 acre-feet per year and 92 mgd respectively).

2. Address impacts on listed salmonid species through compliance with the Biological Opinion.

3. Protect water quality.

4. Prioritize SCWA's and water ratepayers' resource to achieve current and future water supply reliability.

5. Provide transparency and collaboration with the water contractors in water supply planning decisions.

6. Fulfill contractual requirements to achieve a reliable future water supply and develop future transmission system capacity pursuant to a water supply master plan approved be the Water Contractors. Current SCWA contractual requirements total 101,000 acre-feet per year and delivery entitlements per the Restructured Agreement total 148.9 mgd.

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This plan identifies three levels of action:

Immediate Action: Ongoing or to be initiated within the next year because:

1. Required by regulatory or other deadlines;
2. Other strategies or actions are dependent on outcome;
3. Achievable in the near-term;
4. Funding and resources are available.

Near Term Action: To be initiated within one to three years because:

1. Anticipated, yet not immediate, deadline;
2. Funding is proposed;
3. Necessary for planning and development of long-term actions.

Long-term Action: No defined start date for action, likely longer than three years, because:

1. Not enough information to proceed at this time;
2. Lower priority;
3. Funding not available.

Acronyms Used in Plan

Acronyms are used throughout the Water Supply Strategies Action Plan to keep the document as concise as possible.

ACWA	Association of California Water Agencies
AFY	Acre feet per year
AMR	Automated Meter Reading
BOR	Bureau of Reclamation
CDFG	California Department of Fish and Game
CDPH	California Department of Public Health
CEQA	California Environmental Quality Act
CSD	County Sanitation District
CUWCC	California Urban Water Conservation Council
D1610	Decision 1610
DWR	Department of Water Resources
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
GHG	Green House Gas
HMT	Hydrometeorology Test
IRWMP	Integrated Regional Water Management Plan
MCIWPC	Mendocino County Inland Water and Power Commission
mgd	Million Gallons a Day
MMWD	Marin Municipal Water District
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NMWD	North Marin Water District
NOAA	National Oceanic and Atmospheric Administration
OES	Office of Emergency Services
PG&E	Pacific Gas & Electric
PRMD	Permit & Resource Management Department
PWRPA	Power and Water Resources Pooling Authority
RCD	Resource Conservation District
RCPA	Regional Climate Protection Authority
SCADA	Supervisory Control and Data Acquisition
SCEIP	Sonoma County Energy Independence Program
SCWA	Sonoma County Water Agency
SVCSD	Sonoma Valley County Sanitation District
SWRCB	State Water Resources Control Board
TAC	Technical Advisory Committee
USACE	U.S. Army Corps of Engineers
USGS	U.S. Geological Survey
UWMP	Urban Water Management Plan
VOM	Valley of the Moon
VOMWD	Valley of the Moon Water District
WAC	Water Advisory Committee
WREGIS	Western Renewable Energy Generation Information System
WSD	Water Smart Development

Water Supply Strategy One

ADDRESS DRY CREEK SUMMER FLOWS

Immediate Action One:

Habitat enhancement, as required by the Biological Opinion, to increase capability of Dry Creek to accommodate summer flows while protecting coho and Steelhead.

A. Project: Feasibility Study

Conduct detailed geomorphology study to identify possible sites and specific habitat improvement projects.

STATUS: Phase I study to be released Spring 2010. Phase 2 to be completed Fall 2010.

B. Project: Demonstration Project

Build first mile of Dry Creek habitat enhancement by 2014.

STATUS: Working with willing landowners to build by 2012.

Involved Parties (A and B):

- Dry Creek property owners, National Marine Fisheries Service (NMFS), US Army Corps of Engineers (USACE), California Department of Fish and Game (CDFG), Water Contractors

C. Project: Development of success measures.

Water Agency consultant, ESSA Technologies, has initiated a facilitated process among the Water Agency, NMFS, USACE and CDFG to develop and implement specific criteria for success regarding Dry Creek habitat enhancement. Contractors will be kept apprised of the status of the facilitation and success of habitat enhancement projects.

STATUS: Process is underway.

Involved Parties:

- NMFS, USACE, CDFG

Immediate Action Two:

Reduce peak demands that affect Warm Springs Dam releases (also see Strategy 8)

A. Project: New Reuse

Potential new reuse projects involving Water Agency include Windsor (Airport Service Area) and Sonoma Valley.

STATUS: Windsor and Water Agency working on scope of work to update feasibility study for recycled water project. In Sonoma Valley, feasibility study and CEQA/NEPA completed.

Involved Parties:

- Windsor (in Airport area). In Sonoma, Sonoma Valley County Sanitation District (SVCSD), possibly city of Sonoma and Valley of the Moon Water District (VOMWD); Bureau of Reclamation (as part of North San Pablo Recycled Water Project)

B. Project: Storage - Groundwater Banking Feasibility Study

Develop Phase 1 regional study and Phase 2 site-specific work plans to implement pilot studies for each Water Contractor.

STATUS: Consultant team selected. Phases 1 and 2 to be completed Spring 2011.

Involved Parties:

- Cotati, Rohnert Park, Windsor, Sonoma, and VOMWD

C. Project: Retrofit/Conservation

- SVCSD direct install program
- Implementation of AB715 and SB407 mandate high efficiency toilets and fixture retrofit on resale
- Water management grant funding tied to water conservation Best Management Practices
- Sonoma County developing new water conservation development standards
- Urban Water Management Plan (UWMP) 2010 conservation planning, including SB7x-7 (20X2020 WC Plan)

Involved Parties:

- For local retrofit program, SVCSD and possibly city of Sonoma and VOMWD. For state-mandated efforts, all Water Contractors. For new county development standards, Water Contractors plus county Permit and Resource Management Department (PRMD)

Immediate Action Three:

Study feasibility of bypass pipeline to convey water from Lake Sonoma to Russian River.

A. Project: Feasibility Study

Biological Opinion requires completion of feasibility study on possible routes and inlet and outlet options.

STATUS: Study to be complete by December 2010.

Involved Parties:

- NMFS, USACE, CDFG, Water Contractors

Immediate Action Four:

Implement Dry Creek tributary restoration projects, as required by Biological Opinion, with goal of enhancing coho and steelhead habitat.

A. Project: Grape Creek Restoration Project

STATUS: First phase completed. Phase II constructed in 2010.

B. Project: Wine/Grape and Wallace Creek Fish Passage Projects

STATUS: Completed funding agreement with County Public Works; construction slated to begin in 2010.

C. Project: Mill Creek Restoration Project

STATUS: Sotoyome Resource Conservation District (Sotoyome RCD) has started permitting process.

Involved Parties (A, B, and C):

- Private landowners, Sotoyome RCD, County Public Works, NMFS, CDFG

Immediate Action Five:

Identify and secure federal, state, and grant funding for implementation of the Biological Opinion.

A. Project: Seek Federal and State funding

Water Agency advocates in Washington, D.C. and Sacramento have been tasked with pursuing funding for studies and projects required by the Biological Opinion.

STATUS: Ongoing

Involved Parties:

- NMFS, USACE, CDFG, Water Contractors

B. Project: Proactively work with Water Contractors to ensure their timely assistance in funding efforts and report activities at WAC meetings.

STATUS: Ongoing

Involved Parties:

- Water Contractors

Near Term Action One:

Construct second and third miles of Dry Creek habitat enhancement, per Biological Opinion.

A. Project: Habitat Enhancement

STATUS: To be completed by October 2017, and monitored to evaluate performance.

Involved Parties:

- Dry Creek property owners, NMFS, USACE, CDFG

Near Term Action Two:

Develop contingency plan for funding and construction of Dry Creek bypass pipeline if, contrary to expectations, habitat enhancement efforts fail.

A. Project: Bypass pipeline contingency planing

STATUS: To be determined during budget discussions after completion of habitat enhancement studies and pipeline feasibility study.

Involved Parties:

- NMFS, USACE, CDFG, Water Contractors

Long-Term Action One:

Construct fourth, fifth and sixth miles of Dry Creek habitat enhancement, per Biological Opinion.

A. Project: Habitat Enhancement

STATUS: To be completed by 2021 if first three miles restored and found successful by NMFS/CDFG in 2018.

Involved Parties:

- Dry Creek property owners, NMFS, USACE, CDFG

Long-Term Action Two:

In the event that the habitat enhancement efforts are unsuccessful, build Dry Creek bypass pipeline.

A. Project: Conduct necessary financial and environmental studies and identify timing of projects

STATUS: To be determined.

B. Project: Construct bypass pipeline

STATUS: To be determined.

Involved Parties (A and B):

- NMFS, USACE, CDFG, Water Contractors

Water Supply Strategy Two

MODIFY OPERATION OF RUSSIAN RIVER SYSTEM

Immediate Action One:

Modify Decision 1610 minimum instream flow requirements as required by Biological Opinion and make technical adjustments to existing water rights.

A. Project: D1610 Changes

Petition for changes to D1610 instream flow requirements, as required by Biological Opinion, and develop petitions for water rights technical adjustments.

STATUS: Petition filed October 2009 for Biological Opinion-required changes.

Involved Parties:

- State Water Resources Control Board (SWRCB), Water Contractors, USACE

B. Project: Demand Analysis

Develop new detailed water demand analysis on Russian River for ResSim model.

STATUS: Demand analysis of non-water contractor Russian River water users, completed February 2010. Water Contractors initiated demand forecasts in March 2010 (Strategy 8).

Involved Parties:

- Water Contractors, Russian River agricultural water users, other Russian River municipal water users

C. Project: Modeling

Conduct modeling for flow-change EIR using new ResSim model, updated demand profile, proposed new non-Lake Pillsbury hydrologic index, and Biological Opinion-specified summer flows.

STATUS: Depends on completion of demand analysis (project B above) and other internal work.

Involved Parties:

- Internal Water Agency activity

D. Project: Environmental Impact Report (EIR)

Prepare EIR to modify minimum instream flow requirements, plus technical water rights D1610 adjustments.

STATUS: Certified EIR must be completed by 2013 per Biological Opinion. Notice of preparation will be released in September 2010.

Involved Parties:

- Water Contractors, SWRCB, USACE, NMFS, CDFG

E. Project: Submit Annual Interim Change Petitions

STATUS: As per Biological Opinion, the Water Agency will annually submit petitions to SWRCB.

Involved Parties:

- SWRCB, Water Contractors, NMFS, CDFG, Russian River water users

Immediate Action Two:

A. Project: Estuary Adaptive Management

Biological Opinion requires modification of the Water Agency's Russian River estuary program, which includes breaching the sandbar that closes mouth of river. Program also includes water quality and fisheries studies.

STATUS: As required by Biological Opinion, program is underway. Draft EIR release anticipated Fall 2010.

Involved Parties:

- NMFS, CDFG

Immediate Action Three:

Work with grape growers to support development and implementation of agricultural water conservation strategies.

A. Project: Pilot projects

Conduct pilot studies of water conservation practices related to vineyard irrigation and frost protection.

STATUS: Frost protection demonstration project underway. Irrigation demonstration project final report completed December 2010.

Involved Parties:

- Sonoma County Winegrape Commission, grape growers

Immediate Action Four:

Develop water management program with grape growers in Mendocino Russian River watershed, Alexander Valley and Upper Russian River Valley.

A. Project: Framework

Prepare framework memorandum detailing process, structure, and technical program for non-regulatory water management based on practical solutions.

STATUS: Meetings held in 2009. Framework memorandum has been submitted by agricultural representatives. Final memorandum is dependent on status of frost protection issues . Progress will require additional resources from Water Agency, growers and State and Federal agencies.

Involved Parties:

- Grape growers, SWRCB, NMFS

Immediate Action Five:

Support enhanced weather forecasting for frost protection and irrigation by agriculture.

A. Project: Funding

Provide funding to Winegrape Commission for more sophisticated weather forecasting service based on network of weather stations installed by property owners. Improved forecasting will benefit Water Agency operations and agriculture water management (linked to Strategy 9, Collaborative Platform). (Coordinate with Strategy 3, Immediate Action 2 if possible.)

STATUS: Agreement approved March 30, 2010.

Involved Parties:

- Grape growers and Sonoma County Winegrape Commission, Water Contractors

Immediate Action Six:

Implement water management in Dry Creek per agreement with Dry Creek property owners.

A. Project: Variety of Actions

Implement actions related to water management programs, studies, and monitoring activities specified in Dry Creek water management agreement.

STATUS: Awaiting land owner sign ups from Dry Creek Agricultural Water Users, Inc. Also need federal approval.

Involved Parties:

- Dry Creek Agricultural Water Users, Inc., Secretary of Army

Immediate Action Seven:

Enhance operations at Lake Mendocino to increase water supply.

A. Project: Corps Operations

Enter into Memorandum of Agreement (MOA) with USACE to evaluate potential options for modified reservoir operations.

STATUS: USACE response expected Winter 2010. Working on collaborative program to improve flood control data collection and predictive modeling.

Involved Parties:

- USACE, plus National Oceanic and Atmospheric Administration (NOAA) and National Weather Service for data collection and modeling

B. Project: Local Users

Develop comprehensive water use agreement with Mendocino County water districts.

STATUS: Discussion ongoing.

Involved Parties:

- Mendocino County Russian River water users, SWRCB

Immediate Action Eight:

Prepare reports on Water Agency's water rights.

A. Project: Reports

Prepare annual water rights reports, detailing total water use including local supplies and recycled water for offset of Russian River supplies.

STATUS: Ongoing.

Involved Parties:

Water Contractors, SWRCB, other Russian River water users under contract to the Water Agency

Immediate Action Nine:

A. Project: Evaluate discrepancies between FERC Final Order and Modeling/CEQA/NEPA Analyses

Support Mendocino County Inland Water and Power Commission's (MCIWPC) efforts in requesting a review by the Federal Energy Regulatory Commission (FERC) of unintended impacts on water supply by the Final Order for the Potter Valley Hydroelectric Project. Language in the Final Order does not reflect assumptions used in modeling flow alternatives evaluated during the license amendment proceeding.

STATUS: FERC has recently requested that PG&E respond to MCIWPC's request

Involved Parties:

FERC, PG&E, NMFS, MCIWPC, Round Valley Tribes, Water Contractors, Russian River water users

Near Term Action One:

Implement studies, monitoring, and modeling activities to evaluate surface water and groundwater conditions in Mendocino, Alexander Valley and Upper Russian River Valley to ensure reliable river management under new flow conditions, as specified by Biological Opinion.

A. Project: Work Plan

Implement technical work plan developed as part of framework document described above.
STATUS: Depends on framework developed in Immediate Action 4 (see above).

Involved Parties:

- Grape growers, Water Contractors, SWRCB, NOAA, other Russian River water users

Near-Term Action Two:

A. Project: Prepare for Potter Valley Project re-licensing proceeding

Pacific Gas and Electric's current license from the Federal Energy Regulatory Commission to operate the Potter Valley Project will expire in April 2022. The relicensing process will likely be initiated in the next several years. The Water Agency and its customers must prepare to participate in the relicensing and in any proposed sale to ensure their interests and those of the Russian River system are incorporated into future operation of the project.

Involved Parties:

- FERC, PG&E, NMFS, Round Valley Tribes, Water Contractors, Russian River water users

Water Supply Strategy Three

EVALUATE POTENTIAL CLIMATE CHANGE
IMPACTS ON WATER SUPPLY & FLOOD PROTECTION

Immediate Action One:

Initiate climate change modeling for Russian River and Sonoma Valley watersheds.

A. Project: Develop Model

Develop predictive model for Sonoma Valley and Russian River watersheds that downscales large climate models to local watershed scale. Model will consider effects of fog and provide hydrology input to Water Agency's model (ResSim) and to Sonoma Valley and Santa Rosa Plain groundwater models.

STATUS: To be completed in Fall 2010 or Winter 2011.

Involved Parties:

- U.S. Geological Survey (USGS), Regional Climate Protection Authority

Immediate Action Two:

Support development of Hydrometeorology Test bed (HMT) for the Russian River basin.

A. Project: Support Federal Partners

Support federal agencies in installing additional weather sensors to provide more accurate forecasting. Could help reservoir operations and result in water supply benefits. (Coordinate with Strategy 2, Immediate Action 5, if possible by including locally owned weather stations into the HMT program.)

STATUS: NOAA is leading effort to secure pilot project funds in 2011 federal funding cycle.

Involved Parties:

- NOAA, USACE, USGS, National Weather Service

Near Term Action One:

Develop Adaptation Measures

A. Project: Develop Reliability Actions

Once climate change predictive modeling is complete, develop actions to increase reliability of water supply, reservoir and river management, conjunctive use, and saline water management.

Involved Parties:

- USACE, Regional Climate Protection Authority, Water Contractors

Long-Term Action One:

Update Climate change analysis.

A. Project: To be determined

Based on advances in scientific understanding of climate processes and predictive modeling.

Involved Parties:

- USGS, Regional Climate Protection Authority

Water Supply Strategy Four

PURSUE COMBINED WATER SUPPLY & FLOOD CONTROL PROJECTS

Immediate Action One:

Identify projects within Water Agency Flood Control Zones that reduce flooding and increase groundwater recharge.

A. Project: Roadmapping

Conduct feasibility study for flood control/water supply projects for Zones 1A, 2A, and 3A.
STATUS: Consultants have been selected. Studies anticipated to began in Fall 2010.

Involved Parties:

- Flood Zone advisory committees, Sonoma County Agricultural Preservation and Open Space District (Open Space District), resource conservation districts (RCD), and cities in Zones 1A, 2A, and 3A

B. Project: Promote Small-Scale Sonoma Valley Projects

Continue to work with the Southern Sonoma RCD, Sonoma Valley Basin Advisory Panel, farmers, environmental groups, and citizens to develop small-scale flood control/water supply guidelines and projects in Sonoma Valley.
STATUS: Ongoing. Guidebook released Summer 2010.

Involved Parties:

- Sonoma Valley Basin Advisory Panel, Open Space District, Southern Sonoma RCD, Sonoma Valley farmers/growers, PRMD, Regional Water Quality Control Boards

C. Project: Seek Funding

Apply for state, federal, and private grants to fund studies and potential projects. Green infrastructure grant application has been included in the SF Bay Integrated Regional Water Management Plan (IRWMP).
STATUS: A project schedule pending State's availability of funds.

Involved Parties:

- North Bay Watershed Association, SF Bay IRWMP, North Coast IRWMP, Sonoma Ecology Center, Southern Sonoma RCD

Near Term Action One:

Initiate efforts to obtain property rights for project sites identified during immediate steps. Obtain funding for such projects.

A. Project Implementation

Implement projects identified in feasibility study described above.
STATUS: To be initiated once study is completed and funding identified.

Involved Parties:

- Property owners, resource conservation districts, cities

Long-Term Action One:

Design and construct multipurpose stormwater detention facilities.

A. Project:

Specific projects will be constructed dependent on completion of above steps.

Involved Parties:

- Property owners, resource conservation districts, cities, Flood Zone committees

Water Supply Strategy Five

WORK WITH STAKEHOLDERS TO PROMOTE SOUND,
INFORMATION-BASED WATER SUPPLY PLANNING PROGRAMS

Immediate Action One:

Non-regulatory AB 3030/SB1938 management plans that emphasize local control. Emphasize development of diversified water supply "portfolios" for each contractor. Continue with Sonoma Valley program and initiate program in Santa Rosa Plain.

A. Project: Sonoma Valley

Implement Sonoma Valley groundwater management plan.
STATUS: In progress.

Involved Parties:

- Basin Advisory Panel, private well owners, environmental groups, agriculture, business/development interests, City of Sonoma, Valley of the Moon Water District, other water purveyors

B. Project: Santa Rosa Plain

Continue planning Santa Rosa Plain groundwater management.
STATUS: Stakeholder assessment complete. Steering committee has been meeting and is conducting outreach.

Involved Parties:

- Private well owners, environmental groups, agriculture, business/development interests, cities, Water Contractors, other water purveyors

Immediate Action Two:

Pursue funding opportunities enhanced by developed management plans. Ranking for state funding enhanced if groundwater management plans are in place.

A. Project: Funding

STATUS: Ongoing effort. Sonoma Valley has received two grants to date. Santa Rosa Plain stakeholder process has received state funding for facilitator services. Santa Rosa Plain groundwater management process included in North Coast IRWMP.

Involved Parties:

- State agencies, legislators, North Coast and San Francisco Bay IRWMP

Immediate Action Three:

Initiate discussions on form of collaborative agreement with Alexander Valley and Upper Russian River Valley growers.

A. Project:

See Strategy 2.

Involved Parties:

- Agricultural interests in Russian River watershed, (including Farm Bureau and Russian River Property Owners Association), SWRCB

Immediate Action Four:

Seek to form basis of collaboration with Dry Creek growers. (See strategy 2, Immediate Action 6)

Immediate Action Five:

Assist Sonoma County in responding to recent legislation (SBx7-6) requiring groundwater level monitoring in Bulletin 118 identified basins. Monitoring plans need to be developed by July 2011.

A. Project: Preliminary Activities - Program Development

DWR must first develop statewide guidelines before local implementation strategies can be developed.

STATUS: The Water Agency is involved in the following activities associated with implementation of SBx7-6:

(1) Participation in an ACWA workgroup formed to provide input to DWR on program implementation

(2.) Outreach and coordination in Sonoma County and North Coast Region with potential monitoring entities

(3.) Preparation of Proposition 84 grant application to fund, in part, development of groundwater level monitoring programs.

Involved Parties:

- Sonoma County, cities, other stakeholders located in DWR Bulletin 118-specified basins

Water Supply Strategy Six

IMPROVE TRANSMISSION SYSTEM RELIABILITY

Immediate Action One:

In consultation with Water Contractors, develop plan to provide consistent funding for natural hazard reliability projects.

A. Project: Local Hazard Mitigation Program Schematic Design/CEQA
B. Project: Rogers Creek Fault Crossing Mitigation
C. Project: Collector 3 and 5 Liquefaction Mitigation

A. Project: Isolation Valves First Two Years

A. Project: Flow Monitoring
B. Project: Russian River Crossing
C. Project: River Diversion System Liquefaction Mitigation
D. Project: Mark West Creek Crossing
E. Project: Collector 6 Liquefaction Mitigation
F. Project: Emergency Wells
G. Project: Mirabel Dam Response Plan
H. Project: Kawana To Sonoma Booster Station Pipeline
I. Project: Upgrade Sonoma Booster Pump Station
J. Project: Upgrade Ely Booster Pump Station
K. Project: Bennett Valley Fault Crossing (Sonoma Aqueduct)
L. Project: Petaluma River Crossing (Petaluma Aqueduct)
M. Project: Sonoma Creek Crossing (Lawndale/Madrone)
N. Project: Sonoma Creek Crossing (Verano Ave)
O. Project: Calabasas Creek Crossing

STATUS:

- Green Projects: Funded FY 2010/2011
- Yellow Projects: Received minimal funding in 2010/2011
- Blue Projects: Have not been funded given water rate concerns as expressed by Water Contractors

Immediate Action Two:

Continue to pursue state and federal funding for natural hazard reliability projects.

A. Project: Advocacy

Advocate for funding in Sacramento and Washington, D.C. Effort will be enhanced with regional implementation plan that demonstrates local stakeholder commitment.

STATUS: Ongoing.

Involved Parties:

- Water Contractors, state/federal agencies

Immediate Action Three:

Work with Water Contractors to reduce peak demand on transmission system via conservation, groundwater banking, local supply, and recycled water.

A. Project:

See Strategies 1, 4, 5, 8 and 9.

Involved Parties:

- Water Contractors

Immediate Action Four:

Continue research on natural filtration capacity of Russian River alluvial materials.

A. Project: Research on Pathogen Removal

Continue applied research partnership with USGS to evaluate pathogen removal mechanisms by alluvial materials.

STATUS: Ongoing.

Involved Parties:

- Water Contractors, California Department of Public Health (CDPH), U.S. Environmental Protection Agency (EPA)

B. Project: Research on Surface Water/Groundwater Interaction

Continue studies and modeling of surface water/groundwater interactions in collaboration with Lawrence Berkeley Laboratory to better understand flow mechanics of the Water Agency facilities as they relate to production and water quality.

STATUS: Ongoing.

Involved Parties:

- Water Contractors, CDPH, EPA

Immediate Action Five:

Continue planning new transmission system projects to increase reliability of existing system.

A. Project: Planning

Develop scope, cost, energy requests, and schedule of transmission system projects required to meet the Water Agency's portion of projected demands through the Urban Water Management Planning horizon. Projects identified using Water Agency's transmission system hydraulic model.

STATUS: To be conducted as part of 2010 UWMP. (Strategy 8)

Involved Parties:

- Water Contractors

Near Term Action One:

Develop emergency response capabilities for collaboration platform (Strategy 9).

Near Term Action Two:

Evaluate condition of Water Agency's transmission system, especially portions experiencing elevated velocities.

A. Project: Study

Evaluate operational condition of southern portion of Petaluma Aqueduct potentially employing emerging technologies. If successful, approach could be employed on other segments of transmission system that experience high velocities and pressures.

STATUS: Funding to be proposed for FY10/11 budget.

Involved Parties:

- Water Contractors

Near Term Action Three:

Five year update and renewal of the Local Hazard Mitigation Plan (certified in January 2008).

Near Term Action Four:

Create emergency preparedness plan for inflatable dam failure or damage

A. Project: Prepare Contingency Plan

Develop short-term emergency response and long-term replacement plan for inflatable dam.

STATUS: Funding to be proposed for FY10/11 budget.

Involved Parties:

- Water Contractors

Water Supply Strategy Seven

TAKE ADVANTAGE OF ENERGY & WATER SYNERGIES

Immediate Action One:

Promote programs emphasizing water and energy efficiency of Water Agency's transmission system operations.

A. Project: ISO 9000 and 14000

ISO 9001 and 14001 will assure a program of constant improvement in the Water Agency's quality of work and environmental management. Certification is expected in late 2010.

STATUS: Ongoing.

Involved Parties:

- Internal activity

B. Project: Reporting

Voluntarily report carbon emissions.

STATUS: Ongoing.

Involved Parties:

- Internal Activity

Immediate Action Two:

Develop and implement programs to increase Water Agency's renewable energy portfolio to achieve "Carbon Free Water".

A. Project: Power and Water Resources Pooling Authority

Support PWRPA's renewable energy projects, including Fresno solar, Gallo Dairy fuel cell and Harris Ranch fuel cell.

STATUS: In development. Expected completion within two years.

Involved Parties:

- PWRPA, several power developers, Water Contractors

B. Project: Fuel cells

Implement Water Agency fuel cell projects, including chicken manure project and fuel cells at major Water Agency energy loads.

STATUS: In development.

Involved Parties:

- PG&E, PWRPA, Water Contractors

Immediate Action Three:

Pursue state and federal funding for energy efficiency and renewable energy projects.

STATUS: Ongoing.

Involved Parties:

- Water Contractors and RCPA

Near Term Action One:

Pursue revenue opportunities associated with renewable energy efficiency projects.

A. Project: Register Renewable Energy Credits with Western Renewable Energy Generation Information System (WREGIS)

STATUS: Ongoing

Involved Parties:

- SCWA, WREGIS

B. Project: Solar

Develop Sonoma County Airport project and Water Agency facility projects.

STATUS: Airport in development. Solar completed at Water Agency administration building, Sonoma Valley Community Sanitation District and Airport-Larkfield-Wikiup Sanitation Zone. Sonoma-Marin site in development.

Involved Parties:

- PG&E, PWRPA, Water Contractors

Water Supply Strategy Eight

IMPLEMENT INTEGRATED WATER MANAGEMENT

Immediate Action One:

Perform analyses required by Urban Water Management Planning Act to develop regional and local supply, conservation/demand management, and recycled water projects and programs to meet reasonable future needs of Water Agency customers.

A. Project: Develop Water and Supply Projections

Conduct technical evaluations and discussions to develop regional water supply portfolio. Once portion of water supply that Water Agency will provide through 2035 is established, identify projects, costs, and financing mechanisms. Results will inform renegotiation of Restructured Agreement for Water Supply.

STATUS: Water Agency and Water Contractors commencing UWMP process. (See Flow Chart, Attachment D)

Involved Parties:

- Water Contractors

Immediate Action Two:

Conduct long-term financial analysis to support evaluation and development of water supply, conservation, demand management, and recycled water projects and programs.

A. Project: Financial planning

Use rate model to evaluate cost-benefit and feasibility of alternative Water Agency and local water supply, conservation, demand management, and recycled water projects and programs in connection with the 2010 UWMP. Results will inform the renegotiation of Restructured Agreement for Water Supply.

STATUS: Model is almost complete.

Involved Parties:

- Water Contractors

Immediate Action Three:

Develop countywide guidance manual and support the development of individual WSD standards by each land use jurisdiction in Sonoma County, with the goal of managing stormwater quantity and quality and reducing potable water required by new development. Guidance manual will also partially satisfy requirements of stormwater permit held by Water Agency, Sonoma County, and Santa Rosa.

A. Project: Countywide manual

Complete countywide manual with a comprehensive water balance approach that includes three primary WSD components: conservation, reuse and stormwater management.

STATUS: Draft countywide guidance manual circulated for review by stakeholders in Spring/Summer 2010.

B. Project: Local Jurisdiction Plans

Support the development of individual plans by each land use jurisdiction that specify goals for reduced potable water requirements via WSD measures for new development (consistent with local policies and programs).

STATUS: Outreach with Sonoma County land use planning entities initiated Winter 2010.

Involved Parties (A and B):

- PRMD, Regional Climate Protection Authority, Sonoma County cities, building community, North Coast Regional Water Quality Control Board, SWRCB

Immediate Action Four:

Consult with Water Contractors to evaluate feasibility of base demand system instead of continued peak summer demand system.

A. Project: Assess feasibility

Specific project will depend on outcome of implementation of peak reduction measures (Strategy 1, Immediate Action 2) such as conservation, reuse, local supplies and groundwater banking. Financial implications of base demand system will be evaluated as part of long-term financial modeling (Immediate Action 2).

STATUS: Ongoing discussion with Water Contractors as part of the Urban Water Management and financial planning processes.

Involved Parties:

- Water Contractors

Near Term Action One:

Evaluate alternative revenue models such as seasonal rates and fixed versus variable costs.

A. Project: Evaluate seasonal rates and rate models that consider fixed versus variable costs

STATUS: Will be started when financial model and demand projections are complete. Will require modification of financial model.

Involved Parties:

- Water Contractors

Near Term Action Two:

Compare actual gross demand, conservation, and source of water use (per the information completed by Immediate Action 8 Strategy 2) with the UWMP projection to ensure such projections are representative of actual conditions.

A. Project: Data comparison.

STATUS: Will be started after UWMP process is complete.

Involved Parties:

- Water Contractors, land use planning entities

Near Term Action Three:

Negotiate and develop new Restructured Agreement for water supply to reflect current conditions and identify future transmission system improvements.

A. Project: Identify changes

Development of term sheet for proposed changes to Restructured Agreement for Water Supply to

better reflect current and anticipated future conditions.
STATUS: To be determined.

Involved Parties:

Water Contractors

B. Project: Negotiate new agreement

STATUS: To be determined.

Involved Parties:

- Water Contractors

Water Supply Strategy Nine

OVERCOME ORGANIZATIONAL FRAGMENTATION TO PROMOTE EFFICIENCY OF WATER SYSTEM OPERATIONS & PLANNING

Immediate Action One:

Develop data management system "Collaboration Platform" in partnership with IBM that provides operational data of Water Agency's water supply and transmission system in addition to Water Contractors' systems.

A. Project: Demonstration Project - Collaboration Platform

Initial pilot project will integrate monitoring capabilities of SCADA systems for Cotati, Santa Rosa, Rohnert Park and Water Agency in order to improve communications, increase water and power efficiency.

STATUS: Currently in startup phase.

B. Project: Metering

Automated meter reading (AMR) capability integrated with IBM data management system will reduce costs, improve operations (especially in summer), and increase water efficiency.

STATUS: Initiated for Santa Rosa, Rohnert Park, and Cotati.

C. Project: Integrated Weather Forecasting

Integrate weather forecasting and weather station data (Strategy 3) into data management system.

STATUS: Part of pilot project design.

Involved Parties (A, B, and C):

- Water Contractors

Immediate Action Two:

Extend demonstration project including AMR to other Water Contractors.

A. Project: Extension of demonstration project

STATUS: Design is part of demonstration project; extension of project will depend on Water Contractors' willingness to participate and availability of funding.

Involved Parties:

- Water Contractors

Near Term Action One:

Develop emergency response capabilities for Collaboration Platform (see Immediate Action One).

A. Project: Develop real-time communications support tool to coordinate response during emergency events

STATUS: Initial planning level discussions have begun with IBM regarding scope and cost. Water Agency and IBM are pursuing funding opportunities.

Involved Parties:

- Water Contractors

Near Term Action Two:

Study possible collaborative opportunities with local regional and state partners.

A. Project: Possible survey

Survey elected officials in Mendocino, Sonoma and Marin counties to identify opportunities for more collaborative and efficient management of limited natural resources.

STATUS: Surveys authorized by SCWA Board in Fall 2009. Discussions will be initiated to determine need for and timing of surveys.

Involved Parties:

- Water Contractors, community groups, state agencies, legislators

Long-Term Action One:

Develop comprehensive data management system that builds off demonstration project and includes data from other non-water supply sources and models.

A. Project: To Be Determined

Involved Parties:

- Water Contractors, cities, water purveyors, regulatory agencies, nonprofits

Water Contractors' Actions

City of Santa Rosa

A. Project: Expanded Urban Reuse

The City has identified a phased urban reuse expansion project with ultimate delivery of up to 3,000 AFY that can be built in response to water supply and discharge capacity needs.

STATUS: Feasibility studies, CEQA documents, and pre-design is complete. The first segment of approximately 1 mile of pipe is under construction. Funding is needed for additional construction.

Involved Parties:

- Santa Rosa, Rohnert Park

B. Project: Water Conservation Implementation

The City is on track and continues to implement all CUWCC Best Management Practices. The City has identified an additional 1,200 – 1,600 AFY of conservation savings through implementation of beyond Best Management Practices programs, such as Cash for Grass, Irrigation System Upgrades, Greywater Rebates, and Rainwater Harvesting Rebates.

STATUS: Currently implementing beyond Best Management Practices incentive programs

Involved Parties:

- Santa Rosa

C. Project: Expanded Local Supplies

The City completed a Well Field Study identifying the need to develop additional emergency groundwater supply.

STATUS: The City has initiated a Capital Program to identify potential groundwater sources and has conducted exploratory drilling.

Involved Parties:

- Santa Rosa

D. Project: Solar PV Systems

The City intends to continue reducing energy consumption through the installation of solar PV systems in order to assist in achieving the countywide GHG Emission Reduction Target. Within the next 10 years, possible projects include but are not limited to: solar PV shade structure at Municipal Services Center North, a roof top solar system at Municipal Services Center South funded by California Renewable Energy Bonds, and a 1+MG Watt system at the decommissioned pond at the service center. The continued effort to reduce our power consumption through the creation of renewable energy is driven by bills such as AB32 Global Warming Solutions Act of 2006 and SB375 Planning and Global Warming of 2008, as well as, the City Council Resolution 26341-GHG Emission Reduction Target, the City's General Plan of 2035 and the City Council's (Environmental) Strategic Plan.

STATUS: Feasibility studies for projects are ongoing, and some projects are awaiting funding.

Involved Parties:

- Santa Rosa

E. Project: Regional Data Management Collaboration Platform

Develop data management system collaboration platform in partnership with IBM, SCWA and other contractors that provides operational data of Water Agency's water supply and transmission system in addition to contractors' systems. (See Strategy 10, Immediate Action 1)

STATUS: This project is currently on-going in partnership with SCWA.

Involved Parties:

- City of Cotati, Santa Rosa, other contractors, SCWA

Town of Windsor

Table ES- 6: CIP Project Phasing Summary

Project Number	CIP Year	Project Description	Location	Size	Quantity	Estimated Construction Cost	Estimated CIP Cost
Phase 1 Projects							
ST-1	2010	New 3.0 MG Storage Tank	Chalk Hill Road	3-MG	1-EA	$ 3,609,000	$ 4,782,000
WM-1	2010	Construct 5,495 lf of 12-inch pipe	Pleasant Avenue	12-in	5495-LF	$ 888,000	$ 1,110,000
WM-2	2010	Replace metering pipe: 65 lf of 18-inch pipe	East of RRWF	18-in	65-LF	$ 78,000	$ 98,000
WM-3	2010	Replace existing piping between pumps 7 and 8: 85 lf of 12-inch pipe	RRWF	12-in	85-LF	$ 60,000	$ 75,000
WM-4	2010	Replace existing piping between pumps 7 and 9: 85 lf of 12-inch pipe	RRWF	12-in	85-LF	$ 60,000	$ 75,000
W-1	2010	New Supply well located at existing Bluebird Well site	Bluebird	270 gpm	1-EA	$ 3,017,000	$ 3,832,000
W-2	2010	New Supply well located at existing Esposti Well site	Esposti	270 gpm	1-EA	$ 3,443,000	$ 4,373,000
W-3	2010	New Supply well located at Hiram Lewis Park	Hiram Lewis	270 gpm	1-EA	$ 3,619,000	$ 4,596,000
W-5	2010	Supplemental Water Supply Study- Off River Supply Development Program	TBD		1-EA		$1,500,000
W-6	2010	Supplemental Water Supply Study- Recycled Water Master Plan	TBD		1-EA		$500,000
					Phase 1 Projects Subtotal	**$ 14,774,000**	**$20,941,000**
Phase 2 Projects							
W-4	2010-2015	New Well at RRWF	RRWF	1300 gpm	1-EA	$ 2,656,000	$ 3,968,000
WM-5	2015	Replace existing 10-inch pipe: 2,245 lf of 12-inch pipe	Old Redwood Hwy.	12-in	2245-LF	$ 462,000	$ 652,000
WM-6	2010-2015	Construct parallel 2,440 lf of 18-inch pipe	RRWF to Eastside Rd.	18-in	2440-LF	$ 897,000	$ 2,040,000
WM-7	2015	Replace 150 lf of 8-inch diameter pipe with 10-inch pipe	Kensington Ln.	10-in	150-LF	$ 75,000	$ 94,000
WM-8	2015	Construct 5,410 lf of 10- and 12-inch pipe	Herb Rd.	Varies	5410-LF	$ 948,000	$ 1,185,000
WM-9	2015	Construct 1,180 lf of new 12-inch diameter pipe	Starr Rd.	12-in	1180-LF	$ 318,000	$ 730,000
WM-10	2015	Construct 680 lf of 12-inch pipe	Old Redwood Hwy.	12-in	680-LF	$ 165,000	$ 206,000
					Phase 2 Projects Subtotal	**$ 5,521,000**	**$ 8,875,000**
Phase 3 Projects							
ST-2	2020	New 1.5 MG Storage Tank	Lakewood Hills	1.5-MG	1-EA	$ 2,318,000	$ 3,168,000
WM-11	2020	Construct 6,595 lf of 12-inch pipe	Faught Rd., Chalk Hill Rd.	12-in	6595-LF	$ 1,065,000	$ 1,332,000
WM-12	2020	Replace 715 lf of discharge piping at Lakewood Tank Site	Lakewood Tank Site	16-in	715-LF	$ 258,000	$ 322,000
					Phase 3 Projects Subtotal	**$ 3,641,000**	**$ 4,822,000**
Phase 4 Projects							
WM-13	2025	Construct 1,685 lf of 12-in pipe	Emmerson St.	12-in	1685-LF	$ 286,000	$ 358,000
WM-14	2025	Construct 2,875 lf of 12-inch pipe	East of Ericksen Ln.	12-in	2875-LF	$ 500,000	$ 625,000
WM-15	2025-2035	Construct 2,430 lf of 8-in and 2,700 lf of 12-in pipe	Hembree Ln., Vinecrest Rd., and Jensen Ln.	Varies	5130-LF	$ 776,000	$ 970,000
					Phase 4 Projects Subtotal	**$ 1,562,000**	**$ 1,953,000**
					Total	**$ 23,702,701**	**$34,078,000**

City of Cotati

A. Project: Automated Meter Reading Pilot Project

This project will add AMR devices to existing meters to provide water use histories, flag leaks on the customer and city side of the meters, and would allow more frequent feedback to customers on usage relative to budgets or tiers.

STATUS: Pilot project has been initiated.

Involved Parties:

- City of Cotati, SCWA

B. Project: Water Smart Software Pilot Project

This project would provide our customers with hard copy and web-portal access to their usage information, including relative usage compared to other similar accounts, water budgets, and tiers (if adopted). The initial project would also provide information on available rebate programs and provide suggestions on the most cost-efficient methods to save water given the actual usage histories.

STATUS:

Involved Parties:

- City of Cotati, SCWA

C. Project: Groundwater Banking Feasibility Study

Develop Phase 1 regional study and Phase 2 site-specific work plans to implement pilot studies. (See Strategy 1, Immediate Action 2, Project B)

STATUS: Ongoing

Involved Parties:

- City of Cotati, SCWA, Rohnert Park, Windsor, Sonoma and VOMWD

D. Project: Regional Data Management Collaboration Platform

Develop data management system collaboration platform in partnership with IBM, SCWA and other contractors that provides operational data of Water Agency's water supply and transmission system in addition to contractors' systems. (See Strategy 10, Immediate Action 1)

STATUS: This project is currently on-going in partnership with SCWA.

Involved Parties:

- City of Cotati, Santa Rosa, other contractors, SCWA

E. Project: Joint Flood Control/Water Supply Projects

The City is interested in exploring the feasibility of joint flood control/water supply projects once funding has been identified. Potential projects areas include headwaters of Cotati Creek, Laguna de Santa Rosa at Helen Putnam Park, Laguna de Santa Rosa between the city limits and Stony Point Road. (See Strategy 4)

STATUS: Awaiting funding.

Involved Parties:

- City of Cotati, SCWA

City of Sonoma

A. Project: Sonoma Developmental Center Conjunctive Water Use Project

STATUS:

Involved Parties:

- VOMWD, City of Sonoma, SDC, SCWA

B. Project: Increasing Local Supply

The City's 10-year Capital Improvement Plan includes three proposed municipal wells.

STATUS: proposed Well No. 8 is in the siting and feasibility study phase. The City is reviewing other local supply projects and the list of proposed projects will be presented to Council and the public at an upcoming water workshop, currently anticipated to occur in late August or early September 2010.

Involved Parties:

- City of Sonoma

City of Rohnert Park

A. Project: Groundwater Banking Feasibility Study

Develop regional and site-specific work plans to implement groundwater banking pilot studies.

STATUS: In process.

Involved Parties:

- Cotati, VOM, SCWA, Windsor, Sonoma, Rohnert Park

B. Project: Regional Data Management Collaboration Platform

Develop data management system collaboration platform in partnership with IBM, SCWA and other contractors that provides operational data of Water Agency's water supply and transmission system in addition to contractors' systems.

STATUS: In process.

Involved Parties:

- SCWA, Rohnert Park, and other contractors

C. Project: Joint Flood Control/Water Supply Projects

The City of Rohnert Park is interested in pursuing flood control project, in particular those that can have

a beneficial impact on local water resources. Potential project exist on Copeland Creak, Hinebaugh Creek, Five Creek, Crane Creek, Coleman Creek.

D. Project: Expand Rohnert Park Recycled Water System

STATUS: Master Planning

Involved Parties:

- Rohnert Park, Santa Rosa (as Subregional Wastewater System manager)

B. Project: Increasing Local Supply

The City's 10-year Capital Improvement Plan includes three proposed municipal wells.
STATUS: proposed Well No. 8 is in the siting and feasibility study phase. The City is reviewing other local supply projects and the list of proposed projects will be presented to Council and the public at an upcoming water workshop, currently anticipated to occur in late August or early September 2010.

Involved Parties:

- City of Sonoma

Valley of the Moon Water District

A. Project: Sonoma Developmental Center Conjunctive Water Use Project

STATUS:

Involved Parties:

- VOMWD, City of Sonoma, SDC, SCWA

City of Petaluma

A. Project: Cotati pipeline to Corona vault

STATUS:

Involved Parties:

- City of Petaluma

B. Project: Willowbrook/Lichau detention ponds

STATUS:

Involved Parties:

- City of Petaluma

C. Project: Denman Flat detention and recharge

STATUS:

Involved Parties:

- City of Petaluma

D. Project: Adobe Creek sedimentation basins

STATUS:

Involved Parties:

- City of Petaluma

E. Project: Penngrove sanitary pump station upgrade

STATUS:

Involved Parties:

- City of Petaluma

North Marin Water District

A. Project: New Novato Reuse

New Novato reuse project involving NMWD, Novato Sanitary District and Las Gallinas Valley Sanitary District

STATUS: Feasibility study and CEQA/NEPA completed.

Involved Parties:

- NMWD, Novato Sanitary District, Las Gallinas Valley Sanitary District, BOR

B. Project: Novato Local Water Supply Enhancement Study

Evaluate options to achieve more local water production in Novato.

STATUS: Feasibility study planned FY 2010/11 and FY 2011/12

Involved Parties:

- NMWD, County of Marin, SWRCB

C. Project: Stafford Lake Solar Project

Development of a new solar energy production facility to power Stafford Lake Water Treatment Plant.

STATUS: Evaluating project proposals; scheduled completion in Fall 2010.

Involved Parties:

- NMWD, SPG Solar, PG&E

D. Project: NMWD Energy Efficiency Project

Enlarge North Marin aqueduct to avoid pumping from Kastania Pump Station. The aqueduct requires relocation due to the Marin-Sonoma Narrows Highway 101 Widening Project.

STATUS: Environmental review ongoing.

Involved Parties:

- NMWD, Transportation Authority of Marin, Sonoma County Transportation Authority, Caltrans

Marin Municipal Water District

A. Project: Peacock Gap Golf Course Recycled Water Project

This project includes providing recycled water to the Peacock Gap Golf Course.

STATUS: Design and CEQA analysis are in progress.

Involved Parties:

- MMWD

A. Project: Nicasio to Kent Pipeline Project

This project includes construction of a pipeline from Nicasio Reservoir to Kent Reservoir to boost the reliable yield of the District's reservoir system.

STATUS: Design and CEQA analysis are in progress. Construction scheduled to begin Summer 2011.

Involved Parties:

- MMWD

C. Project: Fairfax Transmission System Storage Project

This project includes evaluating storage options for the District's Fairfax Transmission System.

STATUS: Feasibility study in progress.

Involved Parties:

- MMWD

Water Supply Strategies Action Plan - Summary of Costs and Benefits of Immediate Actions

Strategy	Action Level	Action	Project	Description	Proposed Budget FY 10/11 (Footnote 1)	Actual/ Estimated Costs FY 09/10 (Footnote 2)	Funding Source		Potential Benefits
							Water Transmission (Footnote 3)	Other (Footnote 4)	
One	Immediate	One	A	Geomorphology Feasibility Study	$176,000	$908,700		√	Comply with Biological Opinion, improve habitat for ESA-listed salmonids, and secure existing water supplies. Compliance with the Biological Opinion is essential if Russian River supplies are to be utilized to help meet future water demands of the Agency's water customers.
	Immediate	One	B	Habitat Enhancement Demonstration Project (Mile 1)	$750,000			√	Comply with Biological Opinion, improve habitat for ESA-listed salmonids, and secure existing water supplies. Compliance with the Biological Opinion is essential if Russian River supplies are to be utilized to help meet future water demands of the Agency's water customers.
	Immediate	One	C	Development of success measures	$135,000	$25,000		√	Developing agreed-upon success criteria upfront could eliminate costly disagreements later in the project and will enable the Water Agency, NMFS and CDFG to judge success consistently throughout the project.
	Immediate	Two	A	Windsor Recycled Water Project	na	$50,000		√	Reduce demand for Russian River supplies.
	Immediate	Two	A	Sonoma Valley Recycled Water Project	$875,000	$133,650		√	Reduce demand for Russian River & groundwater, reduce potential for saline water intrusion of groundwater basin.
	Immediate	Two	B	Ground Water Banking Feasibility Study	$150,000	$265,000	√		Increase reliability of water supplies during drought, natural hazard events, and seasonal constraints of Russian River supplies. Help reduce groundwater level declines in basins and associated water quality impacts from over pumping (e.g., saline water intrusion).

Strategy	Action Level	Action	Project	Description	Proposed Budget FY 10/11 (Footnote 1)	Actual/ Estimated Costs FY 09/10 (Footnote 2)	Funding Source		Potential Benefits
							Water Transmission (Footnote 3)	Other (Footnote 4)	
One	Immediate	Two	C	Retrofit and Conservation	$-	$2,500,000		√	Direct install programs in each of the Sanitation Districts and Zones replaces plumbing fixtures and appliances with water efficient units, reducing potable water demand.
	Immediate	Three	A	Dry Creek Bypass Pipeline Feasibility Study	$171,000	$1,430,600		√	Comply with Biological Opinion, improve habitat for ESA-listed salmonids, and secure existing water supplies. Compliance with the Biological Opinion is also essential if Russian River supplies are to be utilized to help meet future water demands of the Agency's water customers.
	Immediate	Three	A	Dry Creek Bypass Pipeline Feasibility Study	$171,000		√		
	Immediate	Four	A	Grape Creek (Habitat) Restoration Project		$780,000		√	Comply with Biological Opinion, improve habitat for ESA-listed salmonids, and secure existing water supplies. Compliance with the Biological Opinion is essential if Russian River supplies are to be utilized to help meet future water demands of the Agency's water customers.
	Immediate	Four	B	Grape and Wallace Creek Fish Passage Projects	$77,000	$162,000		√	Comply with Biological Opinion, improve habitat for ESA-listed salmonids, and secure existing water supplies. Compliance with the Biological Opinion is essential if Russian River supplies are to be utilized to help meet future water demands of the Agency's water customers.

Strategy	Action Level	Action	Project	Description	Proposed Budget FY 10/11 (Footnote 1)	Actual/ Estimated Costs FY 09/10 (Footnote 2)	Funding Source		Potential Benefits
							Water Transmission (Footnote 3)	Other (Footnote 4)	
One	Immediate	Four	C	Mill Creek (Habitat) Restoration Project	$183,000			√	Comply with Biological Opinion, improve habitat for ESA-listed salmonids, and secure existing water supplies. Compliance with the Biological Opinion is essential if Russian River supplies are to be utilized to help meet future water demands of the Agency's water customers.
	Immediate	Five	A	Seek federal and state funding					Revenues received from federal and state sources will lessen impact on ratepayers. Revenues received from federal and state sources will lessen impact on ratepayers.
	Immediate	Five	B	Proactively work with Water Contractors on funding					
Two	Immediate	One	A	D1610 Change Petition	$311,025	$160,000	√		Comply with Biological Opinion, improve habitat for ESA-listed salmonids, improve regulatory certainty and secure existing water supplies. Compliance with the Biological Opinion is essential if Russian River supplies are to be utilized to help meet future water demands of the Agency's water customers.
				D1610 Change Petition		$14,000		√	Comply with Biological Opinion, improve habitat for ESA-listed salmonids, improve regulatory certainty and secure existing water supplies. Compliance with the Biological Opinion is essential if Russian River supplies are to be utilized to help meet future water demands of the Agency's water customers.
	Immediate	One	B	Russian River Demand Analysis	$110,000	$196,000		√	Improve information regarding use of Russian River water to enhance planning efforts.
	Immediate	One	C	Russian River Flow Modeling	$50,000	$71,200	√		Improve analysis of water supply.

Strategy	Action Level	Action	Project	Description	Proposed Budget FY 10/11 (Footnote 1)	Actual/ Estimated Costs FY 09/10 (Footnote 2)	Funding Source		Potential Benefits
							Water Transmission (Footnote 3)	Other (Footnote 4)	
Two	Immediate	One	C	Russian River Flow Modeling	$50,000	$71,200		√	
	Immediate	One	D	D1610 Change Petition - Environmental Documents	$250,000		√		Comply with Biological Opinion, improve habitat for ESA-listed salmonids, improve regulatory certainty and secure existing water supplies. Compliance with the Biological Opinion is essential if Russian River supplies are to be utilized to help meet future water demands of the Agency's water customers.
	Immediate	One	D	D1610 Change Petition - Environmental Documents	$620,400			√	Comply with Biological Opinion, improve habitat for ESA-listed salmonids, improve regulatory certainty and secure existing water supplies. Compliance with the Biological Opinion is essential if Russian River supplies are to be utilized to help meet future water demands of the Agency's water customers.
	Immediate	One	E	Interim Flow Change Petition	$45,000	$90,000	√		Comply with Biological Opinion, improve habitat for ESA-listed salmonids, improve regulatory certainty and secure existing water supplies. Compliance with the Biological Opinion is essential if Russian River supplies are to be utilized to help meet future water demands of the Agency's water customers.
	Immediate	One	E	Interim Flow Change Petition	$400,000			√	Water Quality Monitoring of the Russian River will comply with SWRCB Order and inform the D1610 EIR document.
	Immediate	Two	A	Estuary Adaptive Management	$1,064,000	$1,134,000			Comply with Biological Opinion, improve habitat for ESA-listed salmonids, obtain permits for continued breaching program.

Strategy	Action Level	Action	Project	Description	Proposed Budget FY 10/11 (Footnote 1)	Actual/ Estimated Costs FY 09/10 (Footnote 2)	Funding Source		Potential Benefits
							Water Transmission (Footnote 3)	Other (Footnote 4)	
Two	Immediate	Three	A	Vineyard Irrigation/Water Conservation Pilot Studies	$-	$67,200		√	Improved agricultural water efficiency could enhance river management under decreased summer flows mandated by the Biological Opinion, thus improving conditions for listed salmonid species.
	Immediate	Four	A	Agriculture Water Management Program	$200,000	$25,000		√	Coordinated water use and agricultural water management efforts (e.g., storage ponds, recycled water use, conservation, and conjunctive use) will help reduce impacts of lower summer river flows mandated by Biological Opinion. Another possible benefit is that impacts on listed salmonid species will be avoided or reduced.
	Immediate	Five	A	Enhanced Weather Forecast/Frost Protection (2 yr. program)		$25,000		√	Better weather information to improve agricultural water use efficiency will benefit overall water supply and improve conditions for listed salmonid species. In addition, more accurate weather forecasts will help the Agency manage river flows during frost events or heat spells. Water contractors will be able to better plan for heat waves.
	Immediate	Six	A	Dry Creek Water Management Program	$25,000	$25,000		√	Coordinated water use and agricultural water management efforts (e.g., storage ponds, recycled water use, conservation, and conjunctive use) will help reduce impacts of lower summer river flows mandated by Biological Opinion. Another possible benefit of these agricultural water management programs is that impacts on listed salmonid species will be avoided or reduced.

Strategy	Action Level	Action	Project	Description	Proposed Budget FY 10/11 (Footnote 1)	Actual/ Estimated Costs FY 09/10 (Footnote 2)	Funding Source		Potential Benefits
							Water Transmission (Footnote 3)	Other (Footnote 4)	
Two	Immediate	Seven	A	Enhance Operation of Lake Mendocino	$160,000			√	Increase water storage/reliability of water supply.
	Immediate	Eight	B	Mendocino County Water Management Agreement	$25,000	$25,000		√	Increase reliability of water supply.
	Immediate	Nine	A	Evaluate FERC order discrepancies	$255,000	$85,000		√	Secure and maintain Agency's water supply.
Three	Immediate	One	A	RR and SV Watershed Climate Change Modeling	$25,000	$25,000	√		Reconciling differences in FERC's final order and modeling assumptions could reduce pressures on Lake Mendocino in low water years.
	Immediate	One	A	RR and SV Watershed Climate Change Modeling	$46,000	$10,000		√	
	Immediate	Two	A	Hydrometeorology Test Bed - RR Basin	n/a	n/a	n/a		Improved analysis leads to more informed regional water supply planning and more secure supplies.
Four	Immediate	One	A	Roadmap Flood Control / Groundwater Recharge Projects	$825,000	$121,000		√	Developing a plan will help identify strategic opportunities for projects to improve both flood control and water supply. Multi-benefit projects reduce individual participant costs and increase likelihood of outside funding.

Strategy	Action Level	Action	Project	Description	Proposed Budget FY 10/11 (Footnote 1)	Actual/ Estimated Costs FY 09/10 (Footnote 2)	Funding Source		Potential Benefits
							Water Transmission (Footnote 3)	Other (Footnote 4)	
Four	Immediate	One	B	Sonoma Valley Small Scale Projects/Supply Guidelines	$50,000	$20,000		√	Support community interest in developing small-scale stormwater management project that also enhance groundwater recharge. Multi-benefit projects reduce individual participant costs and increase likelihood of outside funding.
	Immediate	One	C	IRWMP Green Infrastructure Grant Program	n/a	n/a	n/a		Obtain state funding for small and large-scale project to enhance flood control and improve water supply.
Five	Immediate	One	A	Implement Sonoma Valley Groundwater Management Plan	$150,000	$410,000	√		Increase the reliability and sustainability of water supplies in the Sonoma Valley through collaborative management by community based stakeholder process. Successful local management provides model for other regions and reduces possible future outside regulation. Increase opportunities to obtain state funding for water projects in the Sonoma Valley. See Footnote 5.
	Immediate	One	B	Santa Rosa Plain Groundwater Study & Management Plan	$370,000	$335,000	√		Increase the reliability and sustainability of water supplies in the Santa Rosa Plain through collaborative management by community based stakeholder process. Successful local management reduces possible future outside regulation. Increase opportunities to obtain state funding for water projects in the Santa Rosa Plain.
	Immediate	Two	A	Seek State Funding for GW Management Plans	n/a	n/a	n/a		Obtain state funding for water supply projects.

Strategy	Action Level	Action	Project	Description	Proposed Budget FY 10/11 (Footnote 1)	Actual/ Estimated Costs FY 09/10 (Footnote 2)	Funding Source		Potential Benefits
							Water Transmission (Footnote 3)	Other (Footnote 4)	
Five	Immediate	Three	A	Water Management Agreement Upper RR and Alx Valley	same as Strategy Two 3.A			√	See Strategy 2, Immediate Action 3, Project A.
	Immediate	Four	A	Water Management Agreement Dry Creek growers	same as Strategy Two 5.A			√	See Strategy 2, Immediate Action 5, Project A.
	Immediate	Five	A	Response to SBx7-6 -- Program development	n/a	n/a	n/a		Without groundwater monitoring plans, local jurisdictions could be ineligible for state grant funds.
Six	Immediate	One	A	LHM Programmatic Design/CEQA	$300,000		√		Improve the resiliency of water transmission system facilities against seismic events to improve reliability of water supply.
	Immediate	One	B	Rogers Creek Fault Crossing Mitigation	$2,000,000		√		Improve the resiliency of water transmission system facilities against seismic events to improve reliability of water supply. See Footnote 6.
	Immediate	One	C	Collector 3 and 5 Liquefaction Mitigation	$350,000		√		Improve the resiliency of water transmission system facilities against seismic events to improve reliability of water supply.
	Immediate	Two	A	Pursue State/ Federal Funding for Local Hazard Mitigation	n/a	n/a			Obtain state and federal funding for projects that will improve the reliability of water transmission system facilities.
	Immediate	Three	A	Reduction of Peak Demand (Con-servation, GW Banking…)					See other projects under strategies 1,5,6,9,and 10.

Strategy	Action Level	Action	Project	Description	Proposed Budget FY 10/11 (Footnote 1)	Actual/ Estimated Costs FY 09/10 (Footnote 2)	Funding Source		Potential Benefits
							Water Transmission (Footnote 3)	Other (Footnote 4)	
Six	Immediate	Four	A	Evaluation of Pathogen Removal	$150,000	$218,000	√		Improve understanding of the natural system utilized by the Agency's facilities to remove pathogens, resulting in safe and reliable water supply.
	Immediate	Four	B	Evaluation of Surface Water/ Groundwater Interaction	$125,000	$161,600	√		Improve understanding of how the Russian River and underlying groundwater interact to influence water yield and quality produced by Agency's facilities.
	Immediate	Five	A	Water Transmission System Planning/ Reliability	same as Strategy Nine 1.A				See strategy 9.
Seven	Immediate	One	A	ISO9000/14000 Certification	$100,000	$215,600		√	Improved business practices required by the ISO certification program will lead to continued efficiencies in business operations.
	Immediate	One	B	Voluntary Carbon Emissions Reporting	$30,000			√	Through this program the Agency will have independent verification of its carbon emission and documentation of "Carbon Free Water".
	Immediate	Two	A	PWRPA Projects	See Foot-note 7	$50,000		√	These energy projects focus on the reducing GHG emissions and meet the "carbon free water goal. In addition these projects can reduce energy costs that affect water rates.
	Immediate	Two	B	Implement Fuel Cell Projects	$300,000			√	These energy projects focus on the reducing GHG emissions and meet the "carbon free" water goal. In addition these projects can reduce energy costs that affect water rates.
	Immediate	Three	A	Pursue State/ Federal Funding for Renewable Energy Projects	$96,000	$381,000		√	The Agency's success in obtaining federal and state funding may affect water rates.

Strategy	Action Level	Action	Project	Description	Proposed Budget FY 10/11 (Footnote 1)	Actual/ Estimated Costs FY 09/10 (Footnote 2)	Funding Source		Potential Benefits
							Water Transmission (Footnote 3)	Other (Footnote 4)	
Eight	Immediate	One	A	Future Water Supply Planning - Regional Water Supply Portfolio	$825,000	$385,900	√		Develop portfolio of projects, in conjunction with Water Contractors, to provide a reliable water supply to meet reasonable documented future demands by the water contractors in an affordable manner. Regional and local projects must be planned and implemented in a coordinated and transparent manner.
	Immediate	Two	A	Long Term Financial Planning/ Financial Modeling	$50,000	$30,000		√	Incorporation of long-term financial planning with water supply planning (project 1A, above) is essential to ensure that projects are affordable to water contractors. Also can help to avoid surprises.
	Immediate	Three	A	County Wide Water Smart Development Manual	$40,000	$294,000		√	Comply with stormwater permit requirements, and improve water use efficiency and management for new development projects to increase the reliability of Russian River and groundwater supplies. This program will reduce impacts of development and make existing supplies go further. Successful local management can avoid State regulation.
	Immediate	Four	A	Assess feasibility of base demand system	n/a	n/a			Reducing peak demand could reduce need for expensive infrastructure additions and lessen wear and tear on existing infrastructure.

Strategy	Action Level	Action	Project	Description	Proposed Budget FY 10/11 (Footnote 1)	Actual/ Estimated Costs FY 09/10 (Footnote 2)	Funding Source		Potential Benefits
							Water Transmission (Footnote 3)	Other (Footnote 4)	
Eight	Immediate	Three	B	Support Local Jurisdiction Low Impact Development Manual	$60,000	$-	√		Comply with stormwater permit requirements, and improve water use efficiency and management for new development projects to increase the reliability of Russian River and groundwater supplies. This program will reduce impacts of development and make existing supplies go further. Successful local management can avoid State regulation.
Nine	Immediate	One	A	Collaboration Platform (IBM) Demonstration Project	$125,000		√		May achieve water, energy, and cost savings. Transparent information sharing to improve regional coordination of water supply operations and increased water, energy and cost efficiencies. This platform can also be expanded for use in emergencies as a support tool to facilitate operations and aid support (manpower and equipment) between various systems.
	Immediate	One	A	Collaboration Platform (IBM) Demonstration Project	$100,000	$450,000		√	
	Immediate	One	B	Automated Meter Reading (AMR) Program	$100,000	$80,000	√		May achieve water, energy, and cost savings. In combination with Collaboration Platform, AMR will provide real-time information regarding actual water demands, allowing for improved system operations, regional coordination, and planning.
	Immediate	One	C	Integrated Weather Forecasting	Same as Strategy Two 4.A				See Strategy 2, Immediate Action 4, Project A.

FOOTNOTES	
1	Cost information from the Agency's Budget for FY10/11
2	Actual/Estimated Cost figures for FY09/10 are approximate and represent the combination of actual cost to date and estimates.
3	Water Transmission Fund includes: Water Transmission, Watershed Planning/Rest., Water Management, Water Conservation, Recycled Water/ Local Supply, Common, Storage and Pipeline Funds
4	Other Funds include: Warm Springs Dam, Russian River Projects, Sanitation Districts, Flood Control Zones, IFS Power Fund, and Efficiency and Sustainability Fund
5	Project Costs are net offsetting revenues
6	This budget estimate includes OES/FEMA Funding, Agency is obligated to a 25% match of the project costs ($500,000).
7	The Agency has several energy projects planned. However, the costs of these projects are not included in the FY10/11 budget. Projects will be paid from a PWRPA fund through the purchase of electrical power.

MEMORANDUM

To: Water Advisory Committee October 28, 2009

From: Chris DeGabriele, Chair, Technical Advisory Committee

Subject: Water Contractor Comments on SCWA New Water Supply Strategies and TAC Recommendations
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Attached is a summary of the Water Contractor Comments on SCWA New Water Supply Strategies. The summary re-states each Water Contractor's comment as taken from their respective resolution, memo, email or letter. Each comment has been reviewed by the TAC and is assigned a category to identify common themes denoted A through F in the margin of the attached summary.

The TAC representatives appreciate the presentations made by SCWA staff to each of our respective councils and boards; yet the specificity of each strategy and its impact on water demand or water supply has not yet beenfully developed. Therefore, the comments prepared by the Water Contractors have focused on priorities and not the specific 12 strategies proposed by SCWA. The TAC looks forward to working with SCWA to commence and continue the development of new water supply projects, plans, and strategies to meet the reasonable expectedfuture water demands of the Water Contractors pursuant to the prioritiesbelow recommended for adoption by the WAC.

The below table identifies comments within each category for each contractor and sums the total of comments among all contractors. Comments from Cotati have not yetbeen received.

	Contractor								
Category	SR	VOM	Sonoma	Petaluma	RP	NMWD	MMWD	Windsor	Total
A	1	1	1	1	1	1	1	1	8
B		1	1	1	1	1	1	1	7
C	1	1	1	1		1	1		6
D	1	1	1		1			1	5
E	1		1	1	1			1	5
F		1				1	1	1	4

The TAC's recommendation to the WAC pursuant to the above ranking follows:

A. Restore reliability of current water supply and current transmission system capacity (75,000 acre-feet per year and 92 mgd respectively).

B. Address impacts on listed salmonid species through compliance with the Biological Opinion.

C. Fulfill contractual requirements to achieve a reliable future water supply and develop future transmission system capacity pursuant to a water supply master plan approved by the Water Contractors. Current SCWA contractual requirements total 101,000 acre-feet per year and delivery entitlements per the Restructured Agreement total 148.9 mgd

D. Prioritize SCWA's and water ratepayers' resources to achieve current and future water supply reliability.

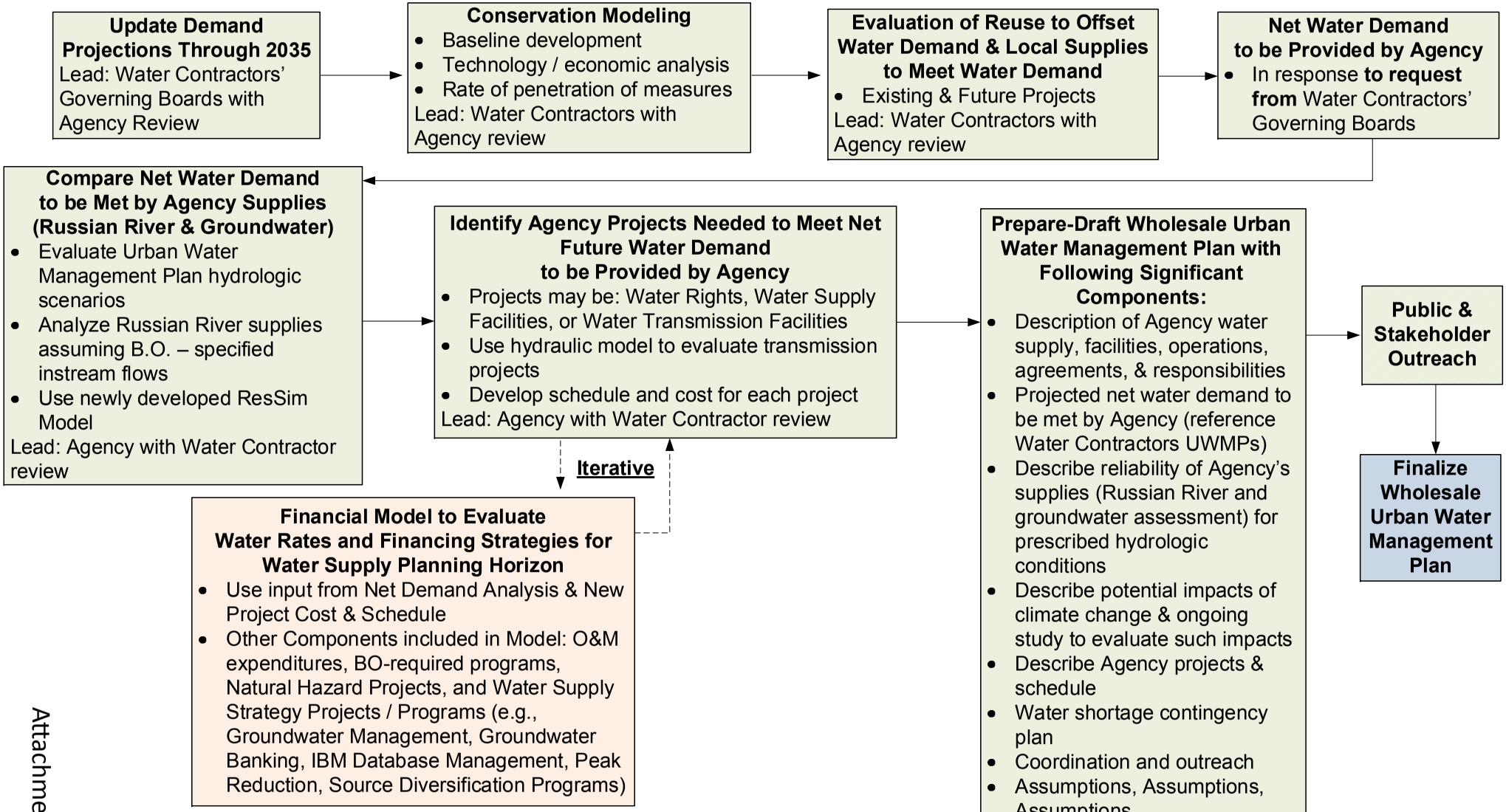
E. Provide transparency and collaboration with the water contractors in water supply planning decisions.

F. Protect water quality.

RECOMMENDATION

WAC adopt the above priorities for SCWA implementation of New Water Supply Strategies.

Urban Water Management and Financial Planning Process



❖ *Water Contractors' & Agency will coordinate with other appropriate entities as required by the Urban Water Management Planning statute.*

Sonoma County Water Coalition
55 Ridgway Avenue, Santa Rosa CA 95401
707-494-5769

Sonoma County Water Agency
404 Aviation Boulevard
Santa Rosa, CA 95403 August 15, 2010

attn: Board of Directors, interim General Manager & interim Chief Engineer

SCWA Draft Water Supply Strategy Action Plan – May 2010

The Sonoma County Water Coalition (SCWC) includes 30 organizations representing more than 24,000 concerned citizens. SCWC strongly supports a safe, economical and reliable water supply for all living beings including the people of Sonoma County. SCWC also supports watershed restoration and protection, careful oversight of surface and groundwater quality and quantity, and all public trust resources.

SCWC greatly appreciated the opportunity to spend the evening of Wednesday, June 23, discussing water supply issues with Grant Davis, Interim General Manager of the Sonoma County Water Agency (SCWA). That conversation welcomed a new era of transparency and mutual respect.

Furthermore, SCWC views the May 2010 draft Water Supply Strategy Action Plan (WSSAP) as an indication that water management in Sonoma County is becoming more sensitive to the constraints of natural systems.

Central to the WSSAP is the implementation of the Biological Opinion which is intended to reduce the impact of Sonoma County Water Agency (SCWA) operations on Russian River and Dry Creek salmonid fish populations. Additionally, efforts to mitigate peak summer demand will sustain local water supply without constructing large-scale additions to infrastructure.

A broader and more comprehensive policy needs to be developed to consider various water issues not yet addressed in the WSSAP including:

Comprehensive Water Plan Needed: Without a comprehensive water plan to include all watershed management issues, the WSSAP will be no more than a slightly broader, but still partial solution to local challenges. These issues include water quality impairments, in-stream flows, groundwater/surface water interaction, legal and illegal withdrawals, gravel mining, water reuse, water conservation and efficiency, riparian protection, flooding, and the impact of agriculture and timber operations on water resources, to name but a few;

Members: * Atascadero/Green Valley Watershed Council * Russian River Watershed Protection Committee * Community Clean Water Institute * O.W.L. Foundation * Sonoma County Conservation Action * SWiG (Sebastopol Water information Group) * Valley of the Moon Alliance * **Supporting Organizations:** Bellevue Township * Blucher Creek Watershed Council * Coalition for a Better Sonoma County * Coast Action Group * Forest Unlimited * Forestville Citizens for Sensible Growth * Friends of the Eel River * Friends of the Gualala River * Graton Community Projects * Laguna Lovers * Mark West Watershed Alliance * Occidental Arts and Ecology Center Water Institute * Petaluma River Council * Russian River Chamber of Commerce * Sierra Club (Sonoma County Group) * Town Hall Coalition * Western Sonoma County Rural Alliance *

Land Use Changes: Without a full commitment by County government, under the leadership of the Board of Supervisors, to change land use policies that allow uncontrolled withdrawals from all streams and groundwater in the Russian River watershed for wine production and other rural development, County-permitted land uses will continue to deprive the river's main stem and tributaries of needed cold-water inflows during periods of peak demand. Without better land use controls, water quality will continue to be unacceptable at low-flow levels and thus frustrate objectives of returning the Russian River to a more natural hydrograph. Implementation of AB2121 alone will not remedy this;

Groundwater Management: Also required to sustain flow in tributaries is a County-wide groundwater management plan which can and should be prioritized by the Board of Supervisors. In the absence of groundwater management to ensure sustained yield, groundwater in tributary sub-basins will continue to be overdrafted, and impacts on tributary stream flow will increase, particularly during droughts;

Gravel Mining: The Board of Supervisors must also make decisions to enhance water quality and water supply, and ameliorate the impact of water supply operations on the water-dependent environment, by eliminating in-stream and terrace gravel mining. Continuing to remove gravels that both purify and store water harms water supply, water quality and habitat;

303(d) Listing and TMDL Process: Another aspect of water management not addressed by the WSSAP is the need to accelerate and fund the long-awaited Total Maximum Daily Load (TMDL) process for the Russian River and for its main tributaries. Contaminants, including nutrient sources, must be identified, quantified and reduced before long-term changes to in-stream flow regimes are set in place. Without a TMDL process to lower contaminants in the Russian River, algae blooms, ludwigia growth, high bacterial levels, and other impacts documented by citizen groups during the summer of 2009, will continue to increase at low flow levels;

Eel River Diversion: Among water supply models for new in-stream flow regimes, a model with no water diversion from the Eel River through the Potter Valley Project (PVP) needs to be included. This component of our water supply planning could very easily be removed by regulatory change, by litigation, by natural disaster or by tunnel collapse. We should, at the very least, quantify the degree to which we are dependent upon this diversion, and have water-supply contingency plans in place. When this topic is discussed, it would be prudent to include stakeholders such as Friends of the Eel River (FOER), the Russian River Watershed Protection Committee (RRWPC), Russian Riverkeeper, Round Valley Tribes, Humboldt County, and others as interested parties.

SCWC has the following comments to make concerning strategies enumerated in the WSSAP, recognizing that all strategies are interrelated:

Climate Change (Strategy 8): The WSSAP reaffirms SCWA's commitment to 'carbon-free' water. This objective is to be applauded. However, a commitment to the reduction of greenhouse gas emissions needs to be extended throughout the water distribution chain to the end-user, and, subsequently, to the wastewater treatment end of the water supply, use, and treatment process. SCWA's water management is already considered to be reasonably efficient in terms of energy use and greenhouse gas emission reductions. There are now, however, greater greenhouse gas emission impacts from water use after the water is delivered to SCWA's Contractors, to end-users, and thence to water treatment systems. Greater commitment to this 'downstream' greenhouse gas emission impact is needed. The Sonoma County Energy Independence Program (SCEIP) is set up to address water efficiency at the end-user stage. However, to date, fewer than 2% of SCEIP approved projects have had any water efficiency component. Most SCEIP projects to date have involved insulation and photovoltaic installations. A program that relates water efficiency investment to utility billing (such as P.A.Y.S.) is urgently needed to supplement SCEIP;

Rate Resistance Jeopardizing Hazard Reliability Projects (Strategy 7): Hazard reliability projects, particularly those designed to reduce the impact of earthquakes on the SCWA transmission system, lack funding. This is in part due to resistance from SCWA Contractors to recent rate increases. State and Federal funding may be available for some components of some projects. However, without sufficient rate base, SCWA infrastructure will continue to be at risk. It is important for SCWA and the Contractors to present a unified message to water users that water rates, water quality and water reliability in jurisdictions supplied by SCWA are as favorable as anywhere else in California. It should be noted that water rates in the past have not included many water supply costs that were externalized to the environment and to other watersheds. The Biological Opinion and other mandates now have the effect of requiring past, present and future water supply costs to be included in water rates that reflect true costs.

Water Banking Must Not Lower Groundwater Quality (Strategies 1 and 4): The WSSAP proposes feasibility studies of groundwater banking. It is wise to store water underground by natural infiltration processes when it is available in the winter for use during dry months. However, it is of utmost importance that groundwater quality not be adversely affected by water injection banking projects, or by retrieval pumping without complete identification and characterization of all potential contaminant plumes. Under no circumstances should water be chlorinated before banking to avoid the creation of trihalomethanes in groundwater. As has been found in many other places, it is a lot less expensive to maintain groundwater quality than it is to clean up polluted groundwater. Meanwhile, every effort should be made to enhance natural recharge of groundwater. Groundwater recharge areas should be protected by appropriate land-use designations, and, where appropriate, by easements and/or acquisitions as specified in the current acquisition plan of the Sonoma County Agricultural and Open Space District.

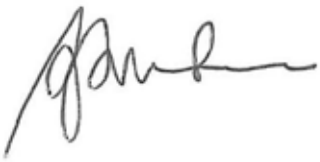
Renegotiation of the Existing Restructured Agreement for Water Supply will be Challenging but Necessary (Strategy 9): Water supply commitments in the previous Restructured Agreement are now built into the General Plans of SCWA Contractors. For example, Santa Rosa's Updated 2035 General Plan is built upon a Water Supply Agreement (WSA) that depended on Santa Rosa's 2005 Urban Water Management Plan (UWMP) that assumed that 29,100 acre feet of water would be supplied annually by SCWA during the planning period. This was Santa Rosa's allocation of the 101,000 acre feet for all SCWA water users that required completion of the now cancelled Water Project. SCWA's current annual allotment of 75,000 acre feet of water is highly unlikely to be increased for quite some time, if ever, and allocations need to be based on that amount.

SCWA Governance Changes (Strategy 10): The Board of Supervisors sits as Board of the Sonoma County Water Agency and as the board of several wastewater districts, while also being responsible for authorizing and implementing the Sonoma County General Plan, General Plan amendments, zoning requirements and other land use ordinances. Since land use designations are often authorized based on the availability of water resources and wastewater treatment infrastructure, there is an inherent conflict of interest where the same five people have the authority to implement all such decisions. SCWC recommends a different governance structure for the Sonoma County Water Agency. SCWC also suggests that any new SCWA governance structure may be inadequate unless all stakeholders in the five counties affected by SCWA water supply are involved in a collaborative process that is fair, open, transparent, responsive, and effective. This process must include public trust values. Only in this way will our water supply decision-making bodies regain public confidence and be seen to be free of conflict of interest.

The WSSAP needs a Glossary of Acronyms and Terms (All Strategies): Participation in development of the WSSAP will be broadened if more people are able to understand the language used. This would be greatly enhanced by a glossary of terms and acronyms used in the WSSAP.

SCWC looks forward to participating in the refinement of the WSSAP, and would welcome every invitation to contribute to this transition to a new paradigm of watershed management in our region.

Sincerely,



Stephen Fuller-Rowell
Sonoma County Water Coalition