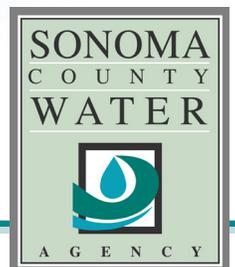
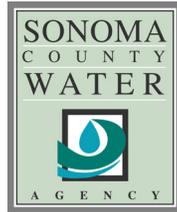


**Sonoma County Water Agency**  
**Water Supply Strategy**  
**Action Plan**

**DRAFT**  
**May 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

May 5, 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 in order to increase the reliability of water deliveries.
- A federal mandate to change the way we do business in order 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 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 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 recently identified by the Water Contractors (compiled by Technical Advisory Committee Chairman Chris DeGabriele, the general manager of North Marin Water District). 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 last spring's workshop, the Board of Directors directed Agency staff to seek input from Water Contractors and the community at 14 public presentations held during the summer and fall of 2009. On April 5, 2010, Agency staff presented the revised strategies and a draft action plan to the TAC. Based on additional comments from TAC members, strategies were clarified, revised and combined, dropping the number of strategies from 12 to 10.

## Action Plan

The following document, the **DRAFT Water Supply Strategy Action Plan**, lays out the 10 strategies and associated actions . A more detailed analysis with links to source documents and studies will be created and posted on the 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 Agency and its customers.
- Partnerships with the Agency’s Water 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 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 involvement is critical.
- 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](mailto: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 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.**

## Technical Advisory Committee (TAC) Priorities

- 1. 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 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.**

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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.

# 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

### Immediate Action Two:

**Reduce peak demand on transmission system.**

**A. Project: New Reuse**

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

STATUS: Windsor and 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 (VMWD); 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 VMWD

**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 BMPs
- 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 VMWD. 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**

BO 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 BO, 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

### Near Term Action One:

**Construct second and third miles of Dry Creek habitat enhancement, per BO.**

**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

### Long-Term Action One:

**Construct fourth, fifth and sixth miles of Dry Creek habitat enhancement, per BO.**

**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 D1610 minimum instream flow requirements as required by BO and make technical adjustments to existing water rights.**

**A. Project: D1610 Changes**

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

STATUS: Petition filed October 2009 for BO-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 9).

**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-Pillsbury hydrologic index, and BO-specified summer flows.

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

**Involved Parties:**

- Internal Agency activity

**D. Project: Environmental Impact Report**

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

STATUS: Certified EIR must be completed by 2013 per BO.

**Involved Parties:**

- Water Contractors, SWRCB, USACE, NMFS, CDFG

**E. Project: Submit Interim Change Petition for Summer 2010 and complete State Board Requirements**

STATUS: As per BO, Agency has submitted petition to SWRCB.

**Involved Parties:**

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

### Immediate Action Two:

**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 Three:

#### **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 anticipated to be submitted by agriculture representatives Spring/Summer 2010. Progress will require additional resources from Agency, growers and State and Federal agencies.

##### **Involved Parties:**

- Grape growers, SWRCB, NMFS

### Immediate Action Four:

#### **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 Agency operations and agriculture water management (linked to Strategy 10, Collaborative Platform).

STATUS: Agreement approved March 30, 2010.

##### **Involved Parties:**

- Grape growers and Sonoma County Winegrape Commission, Water Contractors

### Immediate Action Five:

#### **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 Six:

#### **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:**

**Agency Water Rights Reporting.**

**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:**

Grape growers, Water Contractors, SWRCB, NOAA, other 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 BO.**

**A. Project: Work Plan**

Implement technical work plan developed as part of framework document described above.

STATUS: Depends on framework developed in Immediate Action 3 (see above).

**Involved Parties:**

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

**Long-Term Action One:**

**Address Potter Valley Diversion Issues**

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

**Involved Parties:**

- Water Contractors, Federal Energy Regulatory Commission (FERC), PG&E, NMFS, Round Valley tribes, Russian River water users

**B. Project: Modify Storage Curve**

Modify curve for Lake Pillsbury, currently incorrect, to ensure hydrologically correct storage curve used for water management operations.

**Involved Parties:**

- Water Contractors, FERC, PG&E, NMFS, Round Valley tribes, 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 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.

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 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 1, 2, and 3.

STATUS: Request For Proposals to be issued Spring 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 1, 2, and 3

**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 to be completed Spring 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 green infrastructure grant as part of SF Bay Integrated Regional Water Management Plan (IRWMP).

STATUS: Project included in IRWMP. Schedule pending State's availability of funds.

**Involved Parties:**

- North Bay Watershed Association, SF Bay Bay 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

## DEVELOP WATER SMART DEVELOPMENT (WSD) STANDARDS\*

### Immediate Action One:

**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 the 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

*\* East Bay Municipal Utility District has trademarked the "Water Smart Development Standards." SCWA is discussing use of the name with East Bay MUD.*

# Water Supply Strategy Six

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. Board approved staff plan for next steps including formation of steering committee scheduled to begin meeting in April 2010.

#### 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 Integrated Regional Water Management Plans

## Immediate Action Three:

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

### A. Project:

See Strategies 2 through 3.

#### 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 5)

#### **Near Term Action One:**

**Assist Sonoma County in responding to recent legislation requiring groundwater level monitoring in Bulletin 118 identified basins. Monitoring plans need to be developed by 2012.**

**A. Project: To Be Determined**

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

**Involved Parties:**

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

# Water Supply Strategy Seven

## 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: LHM 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: RDS 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 SBS Pipeline
- I. Project: Upgrade Sonoma Booster Pump Station
- J. Project: Upgrade Ely Booster Pump Station
- K. Project: Bennett Valley Fault Crossing (Sonoma Aq)
- L. Project: Petaluma River Crossing (Petaluma Aq)
- 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.

#### 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, 5, 6, 9 and 10.

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

STATUS: To be conducted as part of 2010 UWMP. (Strategy 9)

**Involved Parties:**

- Water Contractors

**Near Term Action One:**

**Develop emergency response capabilities for collaboration platform (Strategy 10).**

**Near Term Action Two:**

**Evaluate condition of 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 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).**

# Water Supply Strategy Eight

## TAKE ADVANTAGE OF ENERGY & WATER SYNERGIES

### Immediate Action One:

**Promote programs emphasizing water and energy efficiency of Agency’s transmission system operations.**

**A. Project: ISO 9000 and 14000**

Use Maximo to optimize maintenance activities, also develop plan to monitor power use for water delivery.

STATUS: Ongoing.

**Involved Parties:**

- Internal activity

**B. Project: Sonoma County Energy Independence Program**

Continue providing financial, logistical and staff support for water and energy conservation projects.

STATUS: Ongoing.

**Involved Parties:**

- Internal activity

**C. Project: Reporting**

Voluntarily report carbon emissions.

STATUS: Ongoing.

**Involved Parties:**

- Internal Activity

### Immediate Action Two:

**Develop and implement programs to increase 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 Agency fuel cell projects, including chicken manure project and fuel cells at major Agency energy loads.

STATUS: In development.

**Involved Parties:**

- PG&E, PWRPA, Water Contractors

**C. Project: Solar**

Develop Sonoma County Airport project and Agency facility projects.

STATUS: Airport in development. Solar completed at Agency administration building, Sonoma Valley CSD and Airport-Larkfield-Wikiup Sanitation Zone. Sonoma-Marin site 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 (REC) with Western Renewable Energy Generation Information System (WREGIS)**

STATUS: Ongoing

**Involved Parties:**

- SCWA, WREGIS

**B. Project: Develop possible revenue strategy for SCEIP and other county/city programs**

STATUS: Ongoing

**Involved Parties:**

- County, all cities, RCPA, PG&E

### Long-Term Action One:

**Coordinate and size reliability, Natural Hazard and Expansion Projects to eliminate pumping wherever possible.**

**Involved Parties:**

- Water contractors and RCPA

# Water Supply Strategy Nine

## 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 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 Agency will provide through 2035 is established, identify projects, costs, and financing mechanisms. Results will inform renegotiation of Restructured Agreement for Water Supply.

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

#### **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 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

### Near Term Action One:

**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 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 Two).

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

#### **Involved Parties:**

- Water Contractors

### Near Term Action Two:

**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 Three:

**Develop ongoing process with Water Contractors to monitor impacts of land use decisions on water supply. Include assessment of existing water demand and new development for each respective retail level UWMP.**

**A. Project: To Be Determined**

Should be initiated after development of UWMP's by Agency and Water Contractors

**Involved Parties:**

Water Contractors, land use planning entities

### Near Term Action Four:

**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

### Long-Term Action One:

**Conduct periodic updating of demand projections by Water Contractors in advance of UWMP updates.**

**A. Project: To Be Determined**

Based on outcome of Near Term Action 3

**Involved Parties:**

- Water Contractors, land use planning entities

# Water Supply Strategy Ten

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 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 Agency in order to improve communications, increase water and power efficiency.  
STATUS: Will be operational in April 2010.

**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

## Near Term Action One:

**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 Two:

**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. Agency and IBM are pursuing funding opportunities.

**Involved Parties:**

- Water Contractors

## Near Term Action Three:

**Study possible Agency governance structures.**

**A. Project: 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. Not yet initiated.

**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

**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  
T:\GM\SCWA\IBF 2009-2010\Contractor comments WAC memo.doc

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 been fully 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 expected future water demands of the Water Contractors pursuant to the priorities below 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 yet been received.

Category	Contractor								Total
	SR	VOM	Sonoma	Petaluma	RP	NMWD	MMWD	Windsor	
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.

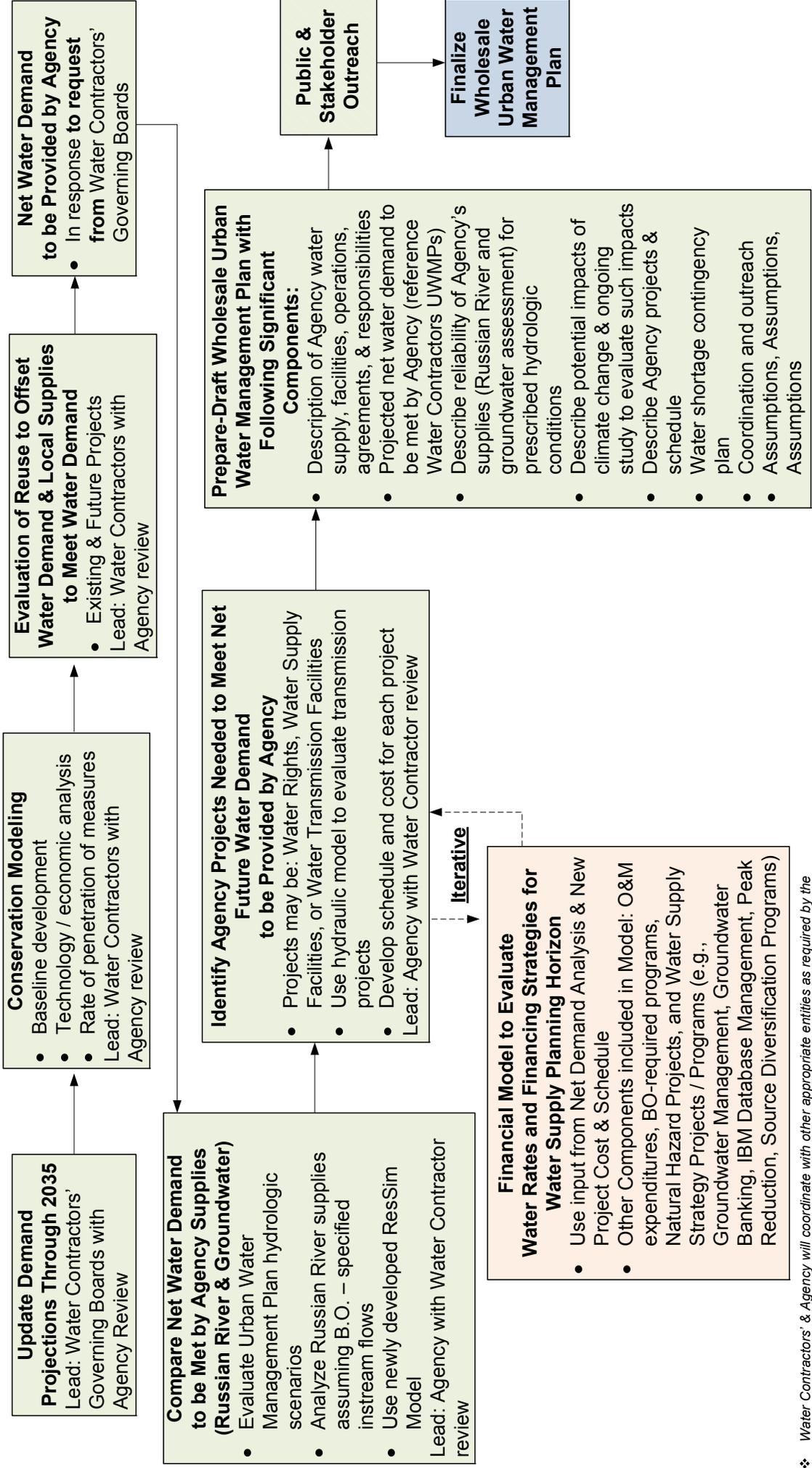
E. Provide transparency and collaboration with the water contractors in water supply planning decisions.

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.