

Progress toward Implementation of Update 2005 Recommendations

California Water Plan Update 2005 included an implementation plan with recommendations and related near- and long-term actions. Since Update 2005, State government has initiated and completed many of the recommendations and continues to make progress as we develop more interagency communication and collaboration, as science begins to understand climate change, and as new analytical approaches and tools like scenario-building promise to help us manage our resources into the future.

Following is a comprehensive list of progress toward implementing Update 2005 recommendations. More actions, reports, policies, and coordination are planned and will be monitored as a part of future Water Plan updates.

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Recommendation 1 – Diversify Regional Water Portfolios

California must invest in reliable, high quality, sustainable, and affordable water conservation, efficient water management, and development of water supplies to protect public health, and improve California’s economy, environment, and standard of living.

To provide for the future, California must rely on a diverse set of water management strategies to (1) use and manage its existing water supplies efficiently; (2) implement new technologies to further water conservation and recycling, augment supplies, and improve water quality; (3) increase water storage and improve conveyance to gain flexibility and complement the benefits of other water management tools; (4) reduce and eliminate groundwater overdraft; and (5) improve watershed management, restore ecosystems and promote stewardship of resources. To realize the full potential outlined in this water plan update, California needs significant and continuous investments for integrated regional water management, more public and private partnerships, project implementation, and better data and analytical tools.

Recommend 1 Action Plan	Status
<p>Regions invest in water conservation, efficient water management, and development of reliable, high quality, sustainable and affordable water supplies. The State should provide public funding for implementing local strategies that have broad public benefits.</p>	<p>Development of Regional Outreach Proposition 50 The Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 grants. Proposition 1E bond funds for rebuilding Delta levees and system-wide flood control. Proposition 84 Water Quality, Safety and Supply. Flood Control. Natural Resource Protection (2006) grants Prop 1E Disaster Preparedness and Flood Prevention (2006) SBX2 1 Water Bill (2008) authorized grant funding for Integrated Regional Water Management—Propositions 84 and Prop 1E As part of 2009 Comprehensive Water Package: SB 7 requires development of agricultural water management plans and requires urban water agencies to reduce statewide per capita water consumption 20% by 2020 SB 8 appropriates existing bond funds for various activities to benefit the Delta ecosystem and secure the reliability of the state’s water supply, and including appropriating funds for IRWM grants and flood protection.</p>
<p>Local and regional planners diversify and increase the resource management strategies in their integrated regional water management plans.</p>	<p>Creation and expansion of existing and proposed Integrated Regional Water Management plans Update 2009 guiding principles numbers 3 and 4 Update 2009 objectives 2 and 3 and related actions</p>
<p>DWR will use its technical and financial assistance programs (including Proposition 50 funded programs) to effectively and equitably support planning and implementation of local and regional water use efficiency, water recycling, groundwater storage and management, ecosystem restoration, urban streams, flood management, and related planning efforts.</p>	<p>DWR Proposition 50 funding program State’s Drought Water Bank reactivated New Resource Management Strategy: Flood Risk Management Model Water Efficient Landscape Ordinance (modified 2009)</p>
<p>DWR will continue to promote implementation of recommendations from California’s Groundwater Update 2003 (DWR Bulletin 118-03) to improve groundwater management and work with local agencies to develop guidelines to reduce overdraft.</p>	<p>DWR sponsors programs, provides information and technical assistance to agencies. AB303 Groundwater management assistance and studies to public agencies. CPUC has a proceeding to determine best policies for encouraging water conservation by water IOUs DWR conjunctive management workshops with local agency Partners DWR Conjunctive Water Management Program: Budget for local agency partnership activities (\$6.8 million in 2005-2006 and also in current fiscal year) Part of 2009 Comprehensive Water Package: SB 6 requires local agencies to monitor elevation of groundwater basins to help better manage the resource during both normal water years and drought conditions.</p>
<p>DWR will work with local agencies and private utilities to overcome constraints to implement recycling and desalination projects.</p>	<p>Initiated discussions with State and Regional Water Boards State Water Board developing statewide water recycling policy. State Water Board developing a once through cooling policy to address intakes’ environmental effects of power plants and desal plants. DWR/CCP: "California Desalination Planning Handbook" (2008) 2005 and 2006. Proposition 50 grant for desalination Several seawater desalting pilot plants have begun operation or are being designed as part of desalting feasibility studies Climate Action Team: requirement for the development and implementation of wastewater recycling plans Water Boards’ Strategic Plan Update: 2008-2012: priorities to provide consistency and uniform direction for water recycling The Water Recycling Act of 2006</p>

Recommendation 2 – Promote and Practice Integrated Regional Water Management

State government must provide incentives and assist regional and local agencies and governments and private utilities to prepare integrated resource and drought contingency plans on a watershed basis; to diversify their regional resource management strategies; and to empower them to implement their plans.

State government recognizes the critical role regional efforts must play in California water planning and management, the need for integrated resources planning across jurisdictional boundaries as regionally-based efforts, and the need for more closely coordinated water planning with land use planning and urban development. State government should assist cities, counties, local water agencies and private utilities to prepare urban and agricultural water management plans, watershed and groundwater management plans, a Water Element for local General Plans, and to implement existing legislation and State policies to improve coordination between water and land use planning.

Recommend 2 Action Plan	Status
Regional efforts should incorporate integrated resource planning to meet multiple water management objectives consistent with the principles advanced in this water plan.	SBX2 1 Water Bill (2008) authorized grant funding for Integrated Regional Water Management—Propositions 84 and Prop 1E SB1 (Sep 2008; effective 1 Mar 2009) contains “Integrated Regional Water Management Planning Act”
The degree and nature of the need for more groundwater and surface water storage varies from region to region; therefore, DWR will work with regional entities to evaluate the best ways to meet their groundwater and surface storage needs and the possible means of sharing storage capacity among regions.	State’s Drought Water Bank reactivated www.groundwater.ca.gov/technical_assistance/gw_management Part of 2009 Comprehensive Water Package: SB 6 requires local agencies to monitor elevation of groundwater basins to help better manage the resource during both normal water years and drought conditions
Local governments and agencies should improve coordination between land use planning and water planning and management to ensure that new infrastructure has adequate water supply and that land uses are protective of water quality.	Bay Delta Conservation Plan process (started 2007) Prop 84 gives preference for effective integration water management with land use planning Discussions with OPR regarding General Plan Guidelines CA Supreme Court “Vineyards” Decision strengthened linkage between land and water use.
State government should give preference to applicants of Proposition 50, Chapter 8 ¹ grants who have plans that apply DWR and State Water Resource Control Board (SWRCB) grant program guidelines ² .	Mandated for IRWM funding and Prop 1E Storm water funding, preference for WUE funding. Program guidelines to be updated to address requirements of Prop 84
DWR will adapt its expertise, resources, and existing programs and develop new ones to give incentives and technical assistance to regional and local agencies and governments to prepare comprehensive, integrated water management plans that include actions to protect public trust resources and promote efficient, beneficial water use.	Change in Gov Code to require local, regional flood management plans (2007)
DWR will develop guidelines for technical and financial assistance and templates for integrated regional water management plans, urban and agricultural water management plans, and drought contingency plans.	SB1 (Sep 2008; effective 1 Mar 2009) contains “Integrated Regional Water Management Planning Act” State Drought Contingency Plan (draft due Nov 2009) 2010 UWMP Guidebook (available late 2009 or early 2010)
DWR will continue to provide technical, administrative, and financial assistance to implement actions under the California Urban Water Conservation Council, “Memorandum of Understanding Regarding Urban Water Conservation in California” and the Agricultural Water Management Council, “Memorandum of Understanding” to improve water use efficiency in California.	Upgrading CIMIS CUWCC amended MOU to include 3 options to report water savings (2 approved 2008/gallons per capita daily-compliance option vote in June 2009) Model Water Efficient Landscape Ordinance (modified 2009) Urban Water Management Plan Guidebook 2005; next update to be printed late 2009 or early 2010 Agriculture Water Management Plans worksheets

¹ Proposition 50: Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002, Chapter 8 “Integrated Regional Water Management.”

² DWR and State Water Board. 2004. Integrated Regional Water Management Grant Program Guidelines: Proposition 50, Chapter 8. www.grantsloans.water.ca.gov/grants/integregio.cfm

Recommend 2 Action Plan	Status
<p>The Resources Agency should continue to support development and use of statewide natural resource databases, analytical tools, and evaluation criteria to identify priorities for ecosystem restoration and provide information to planners and decision-makers.</p>	<p>USACE Shared Vision Planning: integration of hydrologic simulations with economic, environmental, and other considerations relevant to understanding the system The California Water and Environmental Modeling Forum (CWEMF 2005): developed a Strategic Analysis Framework of data and models to manage water in California 2010 Bay-Delta Conservation Plan (BDCP): Delta Ecosystem Restoration 2008 Delta Native Fish and Central Valley Salmonids Plans: recovery plans The Delta Vision Task Force: strategies to reverse the changes in Delta ecology The Southern California Wetlands Recovery Project: restoring wetlands, watersheds, and streams in coastal Southern California Santa Ana River watershed program: integration of habitat restoration and endangered species recovery with flood control, groundwater recharge, and water quality improvement The California Bay-Delta Authority's Ecosystem Restoration Program (ERP): recovering threatened and endangered species and other species of Concern</p>
<p>DWR will develop the necessary tools to assist local and regional agencies be successful with the integrated regional water management and planning and will monitor the development and implementation of these plans to ensure an equitable distribution of technical and financial assistance in planning efforts. Data from these plans can be integrated into future California water plan updates</p>	<p>Update 2009 Objective 10 Improve Data and Analysis for Decision-making; Related action 1, By 2013 a technical task force should develop a strategic plan describing specific information needs to support IRWM plans and institutional arrangement for collecting and maintaining the information.</p>

Recommendation 3 – Remediate Surface Water and Groundwater Contaminants

State government must lead an effort with local agencies and governments to remediate the causes and effects of contaminants on surface water and groundwater quality.

The evaluation should inventory, evaluate, and examine the effect of contaminants on public health, long-term sustainability of water resources and treatment costs, and should identify cost-effective ways and propose management strategies to improve water quality. To safeguard water quality for all beneficial uses, State government should also adopt preventive programs that integrate source water protection, pollution prevention, matching water quality to use, and water treatment and distribution.

Recommend 3 Action Plan	Status
<p>DWR will help resolve long-standing water quality issues in the state, such as Delta salinity, dissolved oxygen in San Joaquin River (SJR) near Stockton, salinity at Vernalis, and ecosystem restoration flow needs, extending from the Klamath River in the north to Salton Sea in the south.</p>	<p>Revised Water Quality Control Plan (Nov 29, 2006 by SWRCB) Salinity Workshop (SWRCB Jan 16 & 19 2007) Salton Sea – Secretary of Resources Mike Chrisman expected to release recommendation soon. Senate's natural resources and water committee discussing bill recognizing the importance of saving the dying lake and creating a fund for the project. Dissolved Oxygen on the SJR near Stockton – San Joaquin River Dissolved Oxygen Technical Working Group has outlined actions to address the issues and continues to monitor and assess the conditions. See http://www.sjrdotmdl.org/background.html Klamath River -Interior Department and NOAA issued decision January 30, 2006 that as a necessary condition for obtaining a new federal license, PacifiCorp must build fish ladders and other fish-passage devices at each of the dams on the Klamath. PacifiCorp is evaluating options and the associated costs and risks. Water Boards Instream Flow Policy – Public Scoping meeting held August 16, 2006. Final Draft Substitute Environmental Document and Final Draft Policy for potential adoption by Water Board in Fall 2007. Water Boards have initiated CEQA analysis of proposed Wetland and Riparian Area Protection Policy (April 2007) this policy could address ecosystem restoration flow needs. DWR Key sponsor in Delta Vision Initiative Pacific Institute Study – Delta Salinity: Higher salinity may be “normal” and may help resolve invasive species. Integrated On-Farm Drainage Management Program at San Joaquin District (Fresno)</p>
<p>DWR will work with the Department of Health Services, State Water Resources Control Board, Regional Water Quality Control Boards, and other State, federal, and local agencies to develop a coordinated process to monitor, evaluate, prevent, mitigate, and treat the effects of contaminants on surface water and groundwater quality. DWR could participate by sharing data, coordinating data collection efforts, identifying problem watersheds and aquifers, and conducting analysis of surface water and groundwater flow and transport of contaminants.</p>	<p>Water Plan Update 2009 Steering Committee Basin Plan updates inform Water Plan regional reports Water Plan Update 2009 includes recommendations of State Water Boards; Strategic Plan Update 2008-2012 Resource Management Strategies development Bay Delta Conservation Plan process (started 2007) State Water Board's Groundwater Ambient Monitoring and Assessment (GAMA) and Surface Water Ambient Monitoring Program (SWAMP) for data sharing DHS-CPUC-DWR-State Water Board quarterly meeting to coordinate on Water Quality Policies CPUC has an order instituting rulemaking (OIR) to determine proper level of CPUC involvement in water quality regulation of water IOUs CPUC considering hiring a water quality consultant to testify in CPUC proceedings for water IOUs</p>
<p>SWP will complete feasibility studies and recommendations for re-operation of the Delta Cross Channel and the Through-Delta Facility in 2005 and feasibility studies for Franks Tract Improvements in 2006.</p>	<p>DWR Delta Conveyance Branch studying reoperation of Delta Cross Channel and construction of a Through-Delta Facility, from modeling reports (various completed in 2007) and pilot study of acoustic-tagged juvenile Chinook salmon (Mar 2008) Scoping Report for Franks Tract Project released May 2009</p>

Recommendation 4 – Improve Aging Water Infrastructure

California must maintain, rehabilitate and improve its aging water infrastructure, especially drinking water and sewage treatment facilities, operated by State, federal, and local entities.

State government should lead an effort, with input from public and private owners of water infrastructure, to identify and prioritize water infrastructure maintenance of key components with regional or statewide significance. Improvements may include refinements in the way water systems are operated, additional conveyance capacity, and new water storage. This effort should also identify and implement financing strategies for continued public investments in the resulting infrastructure maintenance plan.

Recommend 4 Action Plan	Status
DWR will develop and carry out a comprehensive flood management plan. DWR has prepared a White Paper that addresses the need for an aggressive investment in the State's flood management system.	Staff has developed FloodSAFE California program. Requesting proposals for early funding and floodway corridor programs. http://www.water.ca.gov/floodsafe/
State leads an effort with federal, State, regional, and local entities to inventory the current extent of unmet infrastructure and maintenance work, estimate the potential costs, and develop a strategy for funding the needed work, such as loans and grant programs.	Initiation of Central Valley Flood Protection Plan (Jan 2012) California Strategic Growth Plan: Flood Control, Water Supply & Conveyance (Jan 2008) Flood Protection and Clean, Safe, Reliable Water Supply Bond and Financing Acts of 2006 and 2010 DWR mapping of flood risk and areas that receive protection from State and federal levees FY 2007-08 funding for planning and levee evaluations: \$26 million
Develop a plan to replace and/or rehabilitate those portions of the SWP that are reaching the end of their design life in 2006.	A.D.Edmonston Pumping Plant: 1st pump of 4 to be refurbished completed 2008. To be completed in 2011. DWR PR 05-28-08 See Management of the State Water Project Bulletin 132-06 for list of studies, reports, and activities initiated in 2005 or continued from previous reporting period. State is developing the State Plan of Flood Control to evaluate the conditions of State-federal levees. This will include the SWP levees.
State works with regional water planning efforts to identify physical and operational constraints in statewide water management systems, and to find ways to improve operational efficiencies and supply reliability.	Proposition 84 Water Quality, Safety and Supply. Flood Control. Natural Resource Protection (2006) Prop 1E Disaster Preparedness and Flood Prevention (2006) Government Code change to require local, regional flood management plans (2007) Third Draft Interim Levee Design Criteria for Urban and Urbanizing Area State-Federal Project Levees (DWR May 15, 2009) California Water Plan is now coordinated with the State Plan of Flood Control and the California Flood Plan. The Regional Flood Management Plans will be developed in coordination with the Integrated Water Management Plans and Statewide plans DWR's promotion of conjunctive use of groundwater and surface water can in some locations prevent subsidence and consequent damage to water delivery infrastructure. Link with floodplain management for green infrastructure.
To continue operating and maintaining the SWP, DWR will: <ul style="list-style-type: none"> • Establish and maintain a risk-based management process that integrates SWP operations, energy, and maintenance. This program addresses the 16 strategic initiatives identified in the Future Operations Migration Strategy to be completed by 2009. • Improve fiscal information reporting for the State Water Project in 2005. • Obtain a new FERC License for Oroville Facilities by January 31, 2007. 	DWR continues studies/modeling/reports under Future Operations Program Delta Risk Management Strategy report completed CPUC is considering: (a) having water IOUs better use comprehensive asset management, (b) a distribution system improvement change to accelerate new infrastructure investment recovery, (c) alternative financing tools for water IOUs; and (d) lowering the allowance for "unaccounted water" in accordance with new California Urban Water Conservation Council's best management practices. On July 22, 2008, DWR certified the final environmental impact report and adopted findings for FERC licensing of Oroville facilities. Governor's Strategic Growth Plan – Props 1A-1E will improve infrastructure.

Recommendation 5 – Implement the CALFED Program

State government must continue to provide leadership for the CALFED Bay-Delta Program to ensure continued and balanced progress on greater water supply reliability, water quality, ecosystem restoration, and levee system integrity.

The CALFED Bay-Delta Program³ needs greater federal commitment, agency involvement, spending authorization, and funding to ensure continued and balanced implementation. State government should cooperate with the federal government to review and revise the implementation plan for the CALFED Bay-Delta Program to reflect the current fiscal climate, and accordingly adjust the focus, scope, expectations, work plan, and budget for all elements of the Bay-Delta Program to achieve balanced and effective implementation.

Recommend 5 Action Plan	Status
<p>California Bay Delta Authority works with CALFED agencies to develop a comprehensive list of tasks being conducted under the CALFED Bay-Delta Program, to prioritize the tasks in cooperation with the CBDA public advisory committee, to develop a schedule for completing the tasks, and to estimate funding necessary to continue work.</p>	<p>Delta Vision Blue Ribbon Task Force Vision Plan (2007) DV Blue Ribbon Task Force Strategic Plan (2008) DV Implementation Report (2008) Inventory of tasks being conducted under the CALFED Bay-Delta Program and receive copies of CALFED's Program Plans that include a schedule and budget for completing the tasks. These are due each July 1.</p>
<p>DWR, in cooperation with the California Bay-Delta Authority (DA) and CALFED implementing agencies, will implement actions in the CALFED Record of Decision, namely the Delta Improvements Package and other CALFED programs, including the Ecosystem Restoration, Water Quality, Levees, and Water Use Efficiency programs, its Science Program and the Interagency Ecological Program.</p>	<p>Delta Risk Management Strategy Phase I final (2009) Phase II (developing) California Water Plan Update 2009 CWP Objective 7 Manage a Sustainable California Delta and related actions Update 2009 Objective 3 Expand Conjunctive Management of Multiple Supplies and related actions As part of 2009 Comprehensive Water Package, SB1 Delta Governance / Delta Plan establishes the framework to achieve the co-equal goals of providing a more reliable water supply to California and restoring and enhancing the Delta ecosystem. Specifically, SB1 creates the Delta Stewardship Council; ensures that the Department of Fish and Game and the State Water Resources Control Board identify the water supply needs of the Delta estuary for use in determining the appropriate water diversion amounts associated with BDCP; establishes the Sacramento-San Joaquin Delta Conservancy to implement ecosystem restoration activities within the Delta; appropriates funding from Proposition 84 to fund the Two-Gates Fish Protection Demonstration Program. SB 8 Water Diversion and Use / Funding improves accounting of the location and amounts of water being diverted by recasting and revising exemptions from the water diversion reporting requirements under current law. Additionally, this bill appropriates existing bond funds for various activities to benefit the Delta ecosystem and secure the reliability of the state's water supply, and to increase staffing at the State Water Resources Control Board to manage the duties of this statute. Delta Vision. Go to http://deltavision.ca.gov/</p>
<p>DWR and the US Army Corps of Engineers, in conjunction with the California Department of Fish and Game, will prepare the Delta Risk Management Strategy to evaluate the probability of Delta levee failures in the next 50 years, estimate the impacts and economic consequences from levee failures, propose actions to reduce the probability of levee failures and their consequences, and develop a strategic action plan with alternative strategies to reduce risk for the Delta.</p>	<p>Delta Risk Management Strategy report Phase I final (2009) Phase II (developing) Delta Vision. Go to http://deltavision.ca.gov/</p>
<p>DWR, in cooperation with the regional partners, will complete feasibility studies of additional surface storage in the CALFED Record of Decision. California should pursue projects that have regional support and viable financing plans.</p>	<p>DWR and US Bureau of Reclamation are working in partnership with local, regional, State, and federal agencies, and stakeholders to study North-of-the-Delta Offstream Storage opportunities: five projects t various stages of study. See http://www.water.ca.gov/storage/index.cfm Review CALFED annual program plans for details on schedule, budget, etc. In Delta Storage Feasibility Report was completed in 2006. No additional work will be done by DWR on this project.</p>

Recommend 5 Action Plan	Status
DWR, in cooperation with the CBDA and other State and federal agencies, will continue to evaluate and, if feasible, implement a long-term Environmental Water Account.	The Bay Delta Conservation Plan EIR/EIS (2009-2010) (http://www.water.ca.gov/deltainit/bdcp.cfm) The Delta Regional Ecosystem Restoration Implementation Plan The Delta Vision Task Force in 2007 The final DV implementation plan (2009)
DWR, in cooperation with the CBDA and other state and federal agencies, should implement the Delta Smelt Action Plan recommendations.	Building on Delta Smelt Action Plan, the Pelagic Fish Action Plan was released in March 2007. The plan was developed in coordination with Reclamation, NOAA Fisheries, and USFWS, and will be managed in close coordination with these agencies and the CALFED Science Program. US Fish and Wildlife Service opened a new office in Sacramento devoted to issues surrounding restoration of the Delta. US Fish and Wildlife Service in March 2009 initiates five-year status review of delta smelt Implement FWS Biological Opinion
DWR works with the CBDA, CALFED agencies, the Governor, and the Legislature to develop acceptable mechanisms for funding the work.	Long-term finance plan with funding solutions for implementation of the different program elements of the CALFED By-Delta Program.
DWR promotes communication, cooperation, and collaboration among State and federal agencies involved in the CALFED Bay-Delta Program.	Convened State Agency Steering Committee as central part of California Water Plan process (see process guide article in Update 2009 Vol 4 Reference Guide) California Water Plan Update 2009 Objective 6 Practice Integrated Flood Management and objective 7 Manage a Sustainable California Delta. Delta Vision Blue Ribbon Task Force As part of 2009 Comprehensive Water Package, SB 1 establishes the framework to achieve the co-equal goals of providing a more reliable water supply to California and restoring and enhancing the Delta ecosystem.

Recommendation 6 – Provide Effective State Government Leadership, Assistance, and Oversight

State government must lead water planning and management activities that: (a) regions cannot accomplish on their own, (b) the State can do more efficiently, (c) involve interregional, interstate, or international issues, or (d) have broad public benefits.

These activities include, but are not limited to: (1) preparing California Water Plan updates as a public forum to integrate State, federal, regional, and local plans to meet the state’s future agricultural, urban, and environmental water demands and water management objectives; (2) operating and maintaining the State Water Project; (3) providing regulatory oversight to protect public health and safety and public trust values, including water quality, environmental protection, flood management, and dam safety; (4) participating in major regional initiatives, such as the CALFED Bay-Delta Program, and (5) forming public-private partnerships to implement regional programs like the Colorado River Quantification Settlement Agreement. Other State activities are included in the recommendations that follow.

Recommendation 6 Action Plan	Status
<p>State government should continue to provide a leadership role in the protection of public health and safety, especially with regard to drinking water quality, dam safety, and flood management.</p>	<p>Adopting the arsenic maximum contaminant level for California (July 2008) Long Term 2 (2006) Enhanced Surface Water Treatment Rule Stage 2 Disinfection Byproducts Rule (2006) Proposition 1E funding Proposition 84 funded Delta, San Joaquin and Sacramento Rivers Water Quality Grant program Began work to update State Strategic Flood Plan Began update of Central Valley Flood Plan and Regional Flood Improvement System The Disaster Preparedness and Flood Protection Bond Act of 2006 (Proposition 1E) authorizes \$4.09 billion in general obligation bonds to rebuild and repair the most vulnerable flood control structures and to protect California’s drinking water supply system by rebuilding delta levees that are vulnerable to earthquakes and storms. Proposition 84 enhances these efforts with an additional \$800 million for flood control projects. Strategic Growth Plan 1 (2006)</p>
<p>State government should provide technical assistance for efforts involving interregional, interstate, and international issues or for efforts creating broad public benefits and for at-risk low-income communities with drinking water and other infrastructure challenges.</p>	<p>Proposition 84 Water Quality, Safety and Supply. Flood Control. Natural Resource Protection (2006) Change in Government Code to require local, regional flood management plans (2007) Truckee River Agreement Klamath Basin Collaboration San Joaquin River Agreement reached Mexico negotiation on New River Hetch Hetchy Study completed Owens Valley River Restoration (MWDSC)</p>
<p>DWR will develop and administer a Dry Year Water Transfer Program when needed to meet critical water needs during shortages while protecting regions with available supplies.</p>	<p>State’s Drought Water Bank reactivated</p>
<p>DWR and State agencies should advance water planning and management that restore and protect watersheds and assess instream flow demands needed to protect and restore aquatic ecosystems.</p>	<p>Governor’s 20x2020 program DFG provided in 2008 to the State Water Board over 20 flow recommendations identifying instream flow demand. The recommendations were developed in the 1980s and 1990s. DFG submitted in 2009 to the Water Board a new flow recommendation for upper Butte Creek that provides instream flow demand. This recommendation was developed pursuant to PRC section 10000. Develop a statewide database of instream flow demands that can be used by regional and State planning efforts to identify and prioritize ecosystem restoration projects for integrated water management plans. See Update 2009 resource management strategies Dept. of Conservation Watershed Initiative SWRCB Wetlands Restoration Initiative</p>
<p>DWR will complete the next phases of this water plan update, use the water plan update process as a forum to identify and resolve conflicts between regional plans, and integrate the water plan into a future State strategic planning process.</p>	<p>Water Plan Update 2009 process draws on interagency State Steering Committee Expanded regional and Tribal outreach and technical forum (SWAN and use of AB 32 WET CAT recommendations) Water Plan weekly e-News See Process Guide to Water Plan Update 2009 Approach as ongoing Strategic Planning Process</p>
<p>State government will provide timely regulatory approvals and prevent conflicting rules or guidelines.</p>	

Recommendation 6 Action Plan	Status
<p>DWR will use a collaborative process to work with local, regional, State, and federal agencies and stakeholders to conduct regular updates of key reports on California’s water resources including the California Water Plan (Bulletin 160), California’s Groundwater (Bulletin 118), California Water Atlas, and California’s Water Resources (Bulletin No. 1).</p>	<p>Water Plan Update 2009 interagency State Steering Committee Water Plan regional and Tribal outreach Basin descriptions updated online using variety of studies www.groundwater.ca.gov/bulletin118/basin_descriptions/index.cfm Process Guide for CWP Update 2009 Proposition 84 resources to update DWR bulletins 1, 118, and 160 Update 2009 Advisory Committee Update 2009 Regional Committees SWAN Update 2009 Plenary meetings</p>
<p>DWR will continue to expand its public education programs to raise public awareness of California’s water system, supplies and uses and various water management strategies.</p>	<p>Water Plan Update 2009 interagency State Steering Committee Update 2009 regional and Tribal outreach Update 2009 weekly e-News Contracts with the Water Education Foundation DWR 50th Anniversary Water Exhibit at State Fair 2006 Brochures on SWP, Water Bond</p>

Recommendation 7 – Clarify State, Federal, and Local Role and Responsibilities

California must define and articulate the respective roles, authorities, and responsibilities of State, federal, and local agencies and governments responsible for water.

In light of the growing role of local agencies and governments in regional water planning and management, State government should redefine how to empower and assist them to implement their regional water plans and programs. State government also needs an internal review of how State resource agencies do business and identify ways to make these agencies more efficient, effective, and responsive to Californians. Establishing an interagency water forum would strengthen coordination among State agencies responsible for water, water quality, and for ocean water desalination and would ensure that State agency strategic plans and activities are consistent with the Governor’s and State water policies.

Recommendation 7 Action Plan	Status
State government should lead an effort to examine where the mandates and jurisdictions of State, federal, and local governments and agencies conflict with or complement each other to streamline and coordinate the roles and jurisdictions governing California water management.	Delta Vision Blue Ribbon Task Force Strategic Plan Water Plan Update 2009 Steering Committee Upgraded “Parking Lot” list
State agencies must integrate their expertise and resources to support integrated regional water management.	Water Plan Update 2009 State Agency Steering Committee Coordinated with other State regional planning (e.g., Caltrans) Water Plan Update 2009 planned regional workshops and forums DWR reorganization to promote integrated water management and integrated regional water management OPR update of General Plan Guidelines to include integrated regional resource planning. Upgraded “Parking Lot” list
DWR will work with the Governor and Legislature to improve DWR’s mission, functions and organization in relation to other State and local agencies and governments with water management responsibilities.	DWR reorganized its Division of Planning and Local Assistance and Office of Water Use Efficiency to more effectively implement integrated water management responsibilities

Recommendation 8 – Develop Funding Strategies and Clarify Role of Public Investments

California must develop broad, realistic, and stable funding strategies that define the role of public investments for water and other water-related resource needs over the next quarter century.

State government needs to lead an effort to identify and prioritize funding strategies to finance regional and statewide water planning, programs, and infrastructure. State government needs to clearly articulate when, and for what actions, to use public investments from State and federal sources. California’s water finance plan must also recognize the critical role of local public and private funding based on the principle of beneficiary pays and the need for user fees.

Recommendation 8 Action Plan	Status
State government should use a benefit-based approach to develop long-term, reliable funding sources for water projects in a way that accurately characterizes benefits, uses public funds responsibly, and follows the principles of equity and environmental justice.	Proposition 84 passed with funding for IRWM Cost/Benefit Analysis Based upon life cycle costing methodology
State leads an effort to develop broad and realistic funding strategies that define the role of public investments for water and other water-related resource needs over the next quarter century.	Update 2009: Recommendation 2 (see Vol 1 Ch2 Imperative to Act) Governor’s Strategic Growth Plan included proposal for water user fees linked to IRWM.
State agencies work with the Governor and the Legislature to develop policy and a work plan for implementing the finance plan of the CBDA, recommendations of the Commission on Building for the 21st Century and other efforts for financing water management and related activities, and develop policy regarding investment of public funds in private water utilities.	Development of a strategy to maintain channel capacity in the Delta and existing floodways as well as financial support for regional, interregional, and Delta conveyance improvements Delta Vision Task Force CALFED Ecosystem Restoration Program (ERP)
State government help implement regional programs by developing funding processes that are clear, consistent, and streamline.	Update 2009: Guiding Principle No. 4: Increase regional self-sufficiency Update 2009 Initiative Implement IRWM Update 2009 Objective No. 1: Expand IRWM, related action No. 1 A mix of resource management strategies plus State and federal incentives Proposition 50 process improvements Proposition 84 guidelines
State agencies ensure consistency and coordination with the Capital Budget Planning Process, a five-year strategic planning process for capital budget planning across State agencies pursuant to AB 1473 and the three planning priorities in AB 857 (Stats. 2002; ch. 1016).	Governor’s Strategic Growth Plan: The SGP proposes \$5.95 billion to ensure reliable water supplies and cope with climate change)

Recommendation 9 – Invest in New Water Technology

State government must invest in research and development to help local agencies and governments implement promising water technologies more cost effectively.

State government should work with California research and academic institutions, like the California Academy of Science, California Council on Science and Technology, the University of California, and other universities and colleges, to identify and prioritize applied research projects leading to the commercialization of new water technologies and better scientific understanding of California's water-related systems.

Recommendation 9 Action Plan	Status
<p>DWR will work with California research and academic institutions to identify and prioritize applied research projects. State government should also encourage pilot projects and focused research incorporating knowledge and experience specific to each region.</p>	<p>Water Plan Update 2009, Objective 11 Invest in New Technology, related action 1 (see Vol 1 Ch7 Implementation Plan) DWR is in process of identifying and fraternizing research needs for new water use efficiency technologies /management, etc. in cooperation with USBR, State Water Boards, Natural Resources Conservation Services, and stakeholders. SWAN (State Water Analysis Network) Prop 50 water use efficiency funds incorporate research type of projects into the proposed scoping plan process CPUC Water and Energy proceeding allocating \$10 million for pilot projects by CA IOUs and water (public and private) utilities to find ways to save energy through water efficiency SFPUC is investing in technology using wave power near Golden Gate Bridge for San Francisco's total power needs CPUC encouraging water IOUs to deploy advanced meter reading technology</p>
<p>DWR will work with other State agencies and in coordination with the Interagency Ecological Program and CALFED Science Program to invest in a broad and diverse scientific agenda that will fill the gaps of knowledge about California's water resources.</p>	<p>Compile information regarding scientific merits/validity of assumptions made in estimation of water savings</p>
<p>DWR will work with State agencies to help in the collection of data and analysis of instream flows.</p>	<p>Started initial review of additional instream flow requirements identified by Department of Fish and Game in 2008 report, flow recommendations to the State Water Board Update 2009 Steering Committee Update 2009 work teams include interagency staff members</p>

Recommendation 10 – Adapt for Global Climate Change Impacts

State government must help predict and prepare for the effects of global climate change on our water resources and water management systems.

State government should work with and assist researchers to monitor, predict and prepare for the effects of global climate change on California’s water systems and the environment. DWR should develop alternative flow data to help State, federal, and regional planners test the potential effects of global climate change on different resource management strategies; and to help water facility operators test alternative reoperation strategies, including the State Water Project.

Recommendation 10 Action Plan	Status
DWR will work with other State agencies to develop biannual reports on the impacts of global climate change, including impacts to water supply and will prepare and report on mitigation and adaptation plans in accordance with Executive Order S-3-05 signed by the Governor of California June 1, 2005.	California Climate Change Center biennial science reports http://www.climatechange.ca.gov/publications/cat/ State Water Board studying ocean level rise effects on coastal wetlands
DWR will work with other State agencies to develop and help implement strategies to reduce greenhouse gas emissions in the State in accordance with the goals established by Executive Order S-03-05. DWR will provide expertise to help identify means of energy savings for the storage, conveyance, distribution, and use of water. DWR will describe the energy use characteristics of various resource management strategies in the next California Water Plan.	Governor’s Climate Summit Global Warming Solutions Act of 2006 (AB 32): California Air Resources Board Scoping Plan to achieve reductions in greenhouse gas emissions DWR’s Managing An Uncertain Future: Climate Change Adaptation Strategies for California’s Water (Oct 2008) California Climate Change Web portal: http://www.climatechange.ca.gov/ California Energy Commission Public Interest Energy Research (PIER) Program Climate Change in California (fact sheet by DWR June 2007) 2009 California Climate Adaptation Strategy Discussion Draft (Tom Filler Proposed it) DWR is part of the Governor’s Climate Action Team, which is implementing strategies, including various “early actions,” to reduce GHG emissions. DWR will consider energy use in Integrated Regional Water Management plans as well as Water Plan updates
DWR will evaluate management responses to potential impacts of global climate change on the State Water Project and California’s hydrology.	DWR joined California Climate Action Registry to track and report DWR emissions Using Future Climate Projections to Support Water Resources Decision Making in California CEC 500-2009-052F (May 2009) Managing an Uncertain Future: Climate Change Adaptation Strategies for California’s Water (Oct 2008) Climate change science overview (article in Update 2009 Vol 4 Reference Guide)
DWR will work with climate change experts to develop alternative flow data to help State and regional planners test potential effects of global climate change on different management strategies.	Establish climate change technical advisory group Climate change information (12 climate sequences) integrated into scenarios & analytical tools (Update 2009)
DWR will seek funding to establish a position to participate with ongoing global climate change studies and manage staff work related to global climate change research. Alternatively, existing resources may be redirected from other programs to establish the position.	Established new DWR position: assistant deputy director—climate change DWR has requested both positions and funding from Proposition 84 to implement a broad range of climate change related activities, including research

Recommendation 11 – Improve Water Data Management and Scientific Understanding

DWR and other State agencies must improve data, analytical tools, and information management and exchange needed to prepare, evaluate, and implement regional integrated resource plans and programs in cooperation with other federal, tribal, local, and research entities.

California needs better data and analytical tools to produce useful and more integrated information on water quality, environmental objectives, economic and equity issues, and surface water and groundwater interaction. A consortium of public and private entities, with State leadership and stakeholder input, should prepare a long-term plan to improve and peer review data and analytical tools, as well as to develop presentation and decision-support tools to make complex technical information more accessible to decision-makers and resource managers. DWR should build and maintain the Water Plan Information Exchange (Water PIE), an online information management system to assist regional and local agencies and governments, which would include information from locally-developed urban and agricultural water management plans and local general plans.

Recommendation 11 Action Plan	Status
DWR with regional input will develop a general checklist of issues, resources, data, and analytical tools as well as guidelines to aid regional integrated resource planning.	DWR held several SWAN workshops since Update 2005 to further improve data and analytical tools Partial list of analytical tools on Water Plan Web site Partial list of data web sites on Water Plan Web site
DWR will select and/or develop the analytical tools and data in support of the next water plan update.	Establish Statewide Water Analysis Network (SWAN) Develop WEAP model/scenarios: Update 2009 Vol 1 Ch 5 and Ch 6 and Vol 4 Reference Guide articles Developing contracts to apply Shared Vision Planning approaches to work with stakeholders Developing contracts to support improvement of analytical tools and data Conducting inflow-outflow and regional planning pilot studies for water portfolios Dept. of Pesticide Regulation and UCD have GIS of state's agricultural cropland that is updated annually using pesticide use permit data by field
DWR will develop the Water Plan Information Exchange (Water PIE) for collecting and sharing data, and networking existing databases and Web sites, among State, federal, regional, and local agencies and governments and citizen monitoring efforts, to improve analytical capabilities and developing timely surveys of statewide land use, water use, and estimates of future implementation of resource management strategies.	DWR rolled out Water PIE pilot project called IWRIS to the public http://www.water.ca.gov/iwris/ http://www.waterplan.water.ca.gov/waterpie/index.cfm Developing strategic plan for data management Drafting FSR and BCP to implement Water PIE Publishing surface water, groundwater, and water quality data through Water Data Library Continuing work on Web portals, climate data web portal, and well completion reports; show links to CDEN, SWAMP and GAMA Continuing development of standards and metadata to facilitate data exchange between databases and sources.
DWR will participate in efforts by the California Water and Environmental Model Forum to develop and carry out a plan for long-term improvement of analytical tools and data for statewide planning.	SWAN/DWR participate in CWEMF annual meetings

Recommendation 12 – Protect Public Trust Resources

DWR and other State agencies must explicitly consider public trust values in the planning and allocation of water resources and protect public trust uses whenever feasible.

State government should exercise continuous supervision over its navigable waters, the lands beneath them, and the flows of their tributary streams and protect the public's rights to commerce, navigation, fisheries, recreation, ecological preservation, and related beneficial uses.

Recommendation 12 Action Plan	Status
DWR will protect the public trust when carrying out its role in water planning, including the preparation of this water plan.	Update 2009 Guiding Principle No. 9 Apply California's water rights laws, including the longstanding constitutional principles of reasonable use and public trust (see Vol 1 Ch 2, Box 2-3) Update 2009 Recommendation No. 3 (see Vol 1 Ch 2) Update 2009 Objective 5 Expand Environmental Stewardship, related action no. 6 (see Vol 1 Ch 7 Implementation Plan)
DWR will protect the public trust in connection with the planning, design, construction, and operation of SWP facilities and other projects in which DWR is a participant.	Oroville FERC relicensing DWR will prepare review process per AB 857 (Wiggins) for PT and other agencies and develop performance measurements that PT resources are maintained or restored.
Where DWR is the owner of a dam, it will make releases in compliance with Fish and Game Code section 5937. The State will assist all dam owners in meeting this code.	
DWR will take the public trust into account when acting as a party to a transfer, or when approving use of SWP facilities by others. Where approval of the State Water Resources Control Board is not required, as in the case of transfers of pre-1914 rights, DWR will consider all available information and protect public trust uses whenever feasible and reasonable.	DWR District staff field checks land fallowed to make water available for transfer and verify the conservation of "real" water.
DWR will develop consistent, department-wide guidelines and methodology for how it will evaluate its public trust responsibilities.	
DWR will participate in efforts to coordinate implementation of public trust responsibilities with other State agencies.	Identified additional databases on instream flow needs, including three from other State agencies Work with State Water Board on "Fully Appropriated Streams" listing process Work with Water Boards to streamline dedication of instream flow under water code section 1707 Work with Water Boards and DFG to standardize application of IFIM as an assessment tool to assess proposed stream flow changes Develop water acquisition program with DFG to protect areas with high public trust values
DWR will assist the State Water Resources Control Board by conducting and presenting studies and investigations regarding the needs of trust resources.	DWR has done more research on unmet instream flow needs for aquatic life
DWR will protect the public trust when it represents the State on interstate river and lake compacts such as the Klamath River Compact and the Lake Tahoe/Truckee River Compact. Involve public interest groups.	
DWR will protect the public trust in connection with water master duties on adjudicated streams.	

Recommendation 13 – Increase Tribal Participation and Access to Funding

DWR and other State agencies must invite, encourage, and assist tribal government representatives to participate in statewide, regional, and local water planning processes and to access State funding for water projects.

State agencies should include tribal water concerns and water uses in future water plan updates and should engage appropriate local, State, and federal agencies to resolve tribal water issues that are identified.

Recommendation 13 Action Plan	Status
State government engages tribes at all stages of State's water planning processes and provides assistance for meeting participation.	Water Plan Tribal Communications Committee (TCC) TCC Tribal Communications Plan (the 10 communication plan objectives are listed as related actions in Water Plan Update 2009 Obj 12 – Develop Tribal consultation, collaboration, and access to funding for water programs and projects to have more sustainable Tribal water and natural resources. Advisory Committee representation NAHC representation on Steering Committee Tribal Water Summit (2009)
DWR will conduct outreach to tribal associations and California tribes seeking their participation in the California water plan updates, particularly for identifying and evaluating tribal water concerns and water uses. Some of the potential areas of interest identified through tribal outreach conducted in 2003 follow.	DWR created Tribal liaison position, serving under Director
Tribal, State, and federal governments work cooperatively to ensure safe and piped potable water for all Californians, including its tribes.	Water Plan Update 2009 Objective 12 Improve Tribal Water and Natural Resources Objective 13 Ensure Equitable Distribution of Benefits
Tribal, State, and federal governments jointly assess surface water and groundwater quantity and quality needed to support tribal fishing rights and cultural practices.	Water Plan Update 2009 Objective 12 Improve Tribal Water and Natural Resources
California Water Plan Update 2005 addresses tribal water rights in California and considers needed changes.	Water Plan Update 2009 Objective 12 Improve Tribal Water and Natural Resources
Tribal, State, and federal governments cooperatively engage in sourcing funds for projects to improve tribal water supplies and quality and ecosystem restoration.	Water Plan Update 2009 Objective 12 Improve Tribal Water and Natural Resources
Reinstate question for "Source of Water" and "Sewage Disposal" in the US Census questionnaire.	

Recommendation 14 – Ensure Environmental Justice across All Communities

DWR and other State agencies must encourage and assist representatives from disadvantaged communities and vulnerable populations, and the local agencies and private utilities serving them, to participate in statewide, regional, and local water planning processes and to get equal access to State funding for water projects.

Recent State policy establishes social equity and environmental justice as a State planning priority to ensure the fair treatment of people of all races, cultures, and income, in particular those having experienced significant disproportionate adverse health and environmental impacts.

Recommendation 14 Related Actions	Status
DWR will incorporate environmental justice issues of precautionary applications, cumulative health impact reductions, public participation, community capacity building and communication, and meaningful participation into current and future California Water Plan Update processes and other DWR programs.	Water Plan 2009 Objective 13 Ensure Equitable Distribution of Benefits and related actions to increase participation of small and disadvantaged community in State process and programs. Update 2009 Objective 13's five related actions
DWR will conduct outreach to disadvantaged communities and vulnerable populations and their advocates seeking their participation in the California Water Plan Update, particularly for evaluating how they might be affected by different water management strategies.	Water Plan Update 2009 Goal 4 and Guiding Principle 9 promote environmental justice—the fair treatment of people of all races, cultures, and incomes
DWR will monitor or participate in activities of other federal, State, regional, and local governmental programs and processes which may have environmental justice interests relevant to the California Water Plan update.	Water Plan Update 2009, Volume 1, Chapter 3 Companion State Plan Tribal Communication Plan
DWR, in coordination with the appropriate State and federal agencies, will review its current monitoring and regulatory programs to identify and address gaps in available data and monitoring programs that impact disadvantaged communities and vulnerable populations.	Water Plan Update 2009 Objective 13 – Increase the participation of small and disadvantaged communities in State processes and programs to achieve fair and equitable distribution of benefits, to consider mitigation of impacts from the implementation of State government programs and policies, and to ensure that these programs and policies address the most critical public health threats in disadvantaged communities.