

# California Department of Water Resources

## *Summary of Major DWR Programs and Activities Related to Land-Use, Water Planning, and Climate Change*

**DWR Mission Statement:** *To manage the water resources of California in cooperation with other agencies, to benefit the State's people, and to protect, restore, and enhance the natural and human environments.*

The following Department of Water Resources (DWR) programs have a water management/land-use/climate change nexus and may provide opportunities for coordination and collaboration with other agencies and efforts.

### California Water Plan Updates 2009 and 2013

The California Water Plan is updated every five years and presents basic data and information on California's water resources including water supply evaluations and assessments of agricultural, urban, and environmental water uses to quantify the gap between water supplies and uses. A markedly increased emphasis on climate change and integrated resource management is evident in the latest 2009 Update, building upon the Update 2005 discussions which highlighted the need for adopting strategies for sustainable water use. Integrated regional water management is promoted as the key to ensuring reliable water supplies in the future.

Planning activities for the next Water Plan Update, due in 2013, are underway. As part of the collaboration process for the Update 2013, a regional forum approach has been proposed to create a platform for interaction with regional partners on the various programs and issues involved in water management. Forum agendas and dialogue will involve water management programs and planning needs relevant for each hydrologic region. Interest-based caucuses will also be formed to identify and frame ideas and review content regarding specific topics. The Climate Change Technical Advisory Group (CCTAG) will be re-established for Update 2013, and will act as the topic caucus for climate change issues. The CCTAG is comprised of external experts who will be providing guidance and review of climate change policies across DWR.

The Center for Collaborative Policy is helping the Water Plan 2013 Facilitation Team compile an inventory of water-related planning efforts to identify opportunities for leveraging resources, reducing duplication of effort, and preventing stakeholder fatigue. The inventory will provide a list of meetings where agencies and stakeholders are working on issues linked to the Water Plan. The goals of the inventory process are to advance the exchange of information and

**January 27, 2011**

coordination between State and Federal government planning and management efforts, make better use of existing resources by avoiding duplicative efforts, and encouraging the use of existing meeting venues for distributing information.

**Land Use Planning and Management Chapter in the 2009 CA Water Plan Update -**

[http://www.waterplan.water.ca.gov/docs/cwpu2009/0310final/v2c24\\_landuse\\_plan\\_cwp2009.pdf](http://www.waterplan.water.ca.gov/docs/cwpu2009/0310final/v2c24_landuse_plan_cwp2009.pdf)

**Agricultural Lands Stewardship Chapter in the 2009 CA Water Plan Update:**

[http://www.waterplan.water.ca.gov/docs/cwpu2009/0310final/v2c20\\_aglands\\_cwp2009.pdf](http://www.waterplan.water.ca.gov/docs/cwpu2009/0310final/v2c20_aglands_cwp2009.pdf)

**Contact person for the draft Water Plan Update 2013 Inventory:** Dorian Fougères, Center for Collaborative Policy, [fougeres@gmail.com](mailto:fougeres@gmail.com)

## Integrated Regional Water Management (IRWM)

From the CA Water Plan Update 2009: “IRWM provides a critical framework for actions to address the uncertainties presented by climate change as well as other risks to California’s future”.

IRWM is a collaborative effort to manage all aspects of water resources in a region. IRWM crosses jurisdictional, watershed, and political boundaries; involves multiple agencies, stakeholders, individuals and groups; and attempts to address the issues and differing perspectives of all the entities involved through mutually beneficial solutions. In the past, water management entities tended to work with a narrow focus on their service area and primary function, rather than with a regional view involving many varied partners. IRWM encourages communication and collaboration among those who know their regional issues the best, leading to solutions that have local buy-in.

IRWM planning regions now cover approximately 82% of the state and 98% of the population in California. The largest is 12.5 million acres and the smallest about 170,000 acres. The methods used in IRWM include a range of water resource management strategies, which relate to water supply, water quality, water use efficiency, operational flexibility, and stewardship of land and natural resources. DWR offers multiple IRWM grant funding opportunities, including grants for planning, implementation, and storm water flood management.

To be eligible for grant funds, IRWM groups must incorporate climate change into their plans including consideration of greenhouse gas emissions of identified programs and projects, and evaluation of the adaptability to climate change of water management systems in the region. The IRWM Guidelines and PSPs (proposal solicitation packages) prepared by DWR and the State Water Resources Control Board (SWRCB) include general instructions on how to incorporate climate change. The DWR Climate Team has prepared a clearinghouse of climate change

**January 27, 2011**

documents relevant for IRWM planning and is also working with EPA to develop a climate change support handbook with specific guidelines and tools for IRWM planners.

**DWR IRWM Grants** - <http://www.water.ca.gov/irwm/index.cfm>; Contact: [DWR\\_IRWM@water.ca.gov](mailto:DWR_IRWM@water.ca.gov)

**DWR Climate Change Document Clearinghouse:** <http://www.water.ca.gov/climatechange/docs/IRWM-ClimateChangeClearinghouse.pdf>

**DWR IRWM Grant Climate Change FAQs – will be posted soon at:**  
<http://www.water.ca.gov/climatechange/>

## Urban Water Management Plans and Water Conservation

Urban Water Management Plans (UWMP) are prepared by California's urban water suppliers to support their long-term resource planning and ensure adequate water supplies are available to meet existing and future water demands. UWMPs are prepared every 5 years and are submitted to DWR for review to be sure they have completed requirements identified in the Urban Water Management Planning Act.

The Water Conservation Act of 2009 (SBx7-7), enacted in November 2009, requires all water suppliers to increase water use efficiency. The legislation sets an overall goal of reducing per capita urban water use by 20% by December 31, 2020. The state shall make incremental progress towards this goal by reducing per capita water use by at least 10% by December 31, 2015. Effective 2016, urban water retailers who do not meet the water conservation requirements established by the bill are not eligible for state water grants or loans. Agricultural water suppliers need to meet the requirements by 2013.

Mandatory reductions in water use impact land-use practices by discouraging large lots and unchecked urban sprawl and encouraging conjunctive and sustainable use of water. The amount of energy required to supply water to users is also reduced, mitigating production of greenhouse gases involved with energy generation.

DWR has an urban planning assistance program to assist urban water suppliers with preparing comprehensive and useful plans, implementing water conservation programs, and understanding the requirements of the Water Conservation Act. DWR is also conducting workshops and has prepared a draft UWMP Guidebook to support water suppliers in UWMP preparation. The Guidebook will include, for the first time, guidance on conducting a climate change vulnerability assessment for urban water providers.

**DWR Urban Water Management Website:** <http://www.water.ca.gov/urbanwatermanagement>

**(Draft) Guidebook to Assist Urban Water Suppliers with 2010 Urban Water Management Plans:**  
[http://www.water.ca.gov/urbanwatermanagement/docs/UWMP\\_ReviewDraft.pdf](http://www.water.ca.gov/urbanwatermanagement/docs/UWMP_ReviewDraft.pdf)

January 27, 2011

# FloodSAFE and the Central Valley Flood Management Planning (CVFMP) Program

DWR recognizes the interconnection between flood management planning, restoration and stewardship efforts, regional blueprint efforts, and hazard mitigation planning. Due to a recognition that many Californians face an unacceptable risk of harm and damage from flooding due to outdated flood management systems and the likelihood that climate change will further stress these systems, the **FloodSAFE California** initiative was launched in 2006. DWR provides leadership for the program while working closely with local, regional, state, tribal and federal officials.

**The FloodSAFE vision** : *A sustainable integrated flood management and emergency response system throughout California that improves public safety, protects and enhances environmental and cultural resources, and supports economic growth by reducing the probability of destructive floods, promoting beneficial floodplain processes, and lowering the damages caused by flooding.*

Local agencies and governments play a significant role in flood management, and some of their expected roles in FloodSAFE program include: leading collaborative efforts between urban, rural and environmental interests to develop integrated regional plans, and promoting appropriate land use planning to meet FloodSAFE goals and objectives.

Per the requirements of Proposition 1E (Disaster Preparedness and Flood Protection Act of 2006), the State Plan of Flood Control and the Central Valley Flood Protection Plan are being developed by the Central Valley Flood Management Planning Program.

**State Plan of Flood Control (SPFC) Descriptive Document** - The SPFC provides the first complete inventory and description of flood management facilities, land, programs, conditions, and mode of operations and maintenance for the State-federal flood protection system in the Central Valley. The existing State-federal flood management system in the SPFC Planning Area encompasses flooding and flood management on more than 2.2 million acres (3,400 square miles) of land within the Central Valley.

**Central Valley Flood Protection Plan (CVFPP)** - Due January 1, 2012 (and every 5 years after), it will be an integrated flood management plan for the Sacramento-San Joaquin River Flood Management System. The CVFPP will include a description of the probable impacts of climate change, projected land use patterns, and other potential flood management challenges on the ability of the system to provide adequate levels of flood protection.

Integrated flood management is an approach to dealing with flood risk that recognizes the:

- Interconnection of flood management actions within broader water resources management and land use planning
- Value of coordinating across geographic and agency boundaries

**January 27, 2011**

- Need to evaluate opportunities and potential impacts from a system perspective
- Importance of environmental stewardship and sustainability

The CVFPP has developed a proposed “Threshold Analysis Approach” which is a new method of evaluating the impacts of climate change on a system. This method or a very similar approach will be used to evaluate the potential changes in the climate that could overwhelm the flood control system, and to plan for the requisite systemic and operational modifications that would best address those changes.

**Flood Protection Corridor Program (FPCP)** – The FPCP was originally established through Proposition 13 funding and is being continued with renewed funding through Propositions 84 and 1E. In implementation of the program, DWR seeks to avoid future flood damage and correct existing problems while preserving sustainable agriculture and enhancing wildlife habitat in and near flood corridors throughout the state.

FPCP Mission statement: *The mission of the Flood Protection Corridor Program is to fund primarily nonstructural flood management solutions through direct expenditures and grants to local public agencies and nonprofit organizations. Funding under this Program is intended to be used for acquisition, restoration, enhancement and protection of real property while preserving sustainable agriculture and enhancing wildlife habitat in and near flood corridors throughout the state.”*

**FloodSAFE California Overview -**

[http://www.water.ca.gov/floodsafe/docs/FloodSAFE\\_Overview.pdf](http://www.water.ca.gov/floodsafe/docs/FloodSAFE_Overview.pdf)

**October 2010 Issue of FloodSAFE Focus -**

<http://www.water.ca.gov/floodsafe/docs/FloodSAFEFocus201010.pdf>

**Handbook for Implementing California Flood Legislation into Local Land Use Planning: A Handbook for Local Communities -**

[http://www.water.ca.gov/floodmgmt/lrafmo/fmb/docs/Oct2010\\_DWR\\_Handbook\\_web.pdf](http://www.water.ca.gov/floodmgmt/lrafmo/fmb/docs/Oct2010_DWR_Handbook_web.pdf)

**State Plan of Flood Control Descriptive Document:**

[http://www.water.ca.gov/cvfmp/docs/DRAFT\\_SPFC\\_Descriptive\\_Doc\\_20100115.pdf](http://www.water.ca.gov/cvfmp/docs/DRAFT_SPFC_Descriptive_Doc_20100115.pdf)

**Central Valley Flood Management Program -**<http://www.water.ca.gov/cvfmp/program.cfm>

**Central Valley Flood Protection Plan Threshold Analysis Approach:**

<http://www.water.ca.gov/cvfmp/docs/ThresholdAnalysisWorkPlan-DRAFT-20100930.pdf>

**Flood Protection Corridor Program:** <http://www.water.ca.gov/floodmgmt/fpo/sgb/fpcp/>

## DWR Environmental Stewardship Policy

DWR's Water Plan Update 2009 strongly reinforces the need to follow the principles of integrated water management – statewide and regionally – including integrating environmental stewardship into all aspects of how DWR manages water. As part of DWR's overall Sustainability Policy, an Environmental Stewardship Policy was formally adopted on October 29, 2010 to support a "Total Resource Management" approach to planning activities and projects Department-wide.

An excerpt from the Environmental Stewardship Policy: "DWR managers will embrace environmental stewardship as part of their responsibilities. As managers develop and deliver reliable water supplies and provide for flood protection for the State's residents, they can incorporate environmental stewardship in several ways:

- Integrate ecosystem protection and restoration into water storage and conveyance and flood control/land management planning
- Include environmental stewardship and ecosystem protection and restoration as a criterion in project funding decisions for all DWR programs
- Plan for conservation, restoration and maintenance of the biological diversity and natural physical processes of aquatic and related terrestrial ecosystems
- Plan and implement projects that contribute to the recovery of aquatic and riparian species listed under the federal and state Endangered Species Acts and other laws, as well as other at-risk species"

### **DWR Environmental Stewardship Policy -**

<http://www.waterplan.water.ca.gov/docs/news/EnvironmentalStewardshipPolicy2010.pdf>

**California Natural Resource Agency white paper "The Future of Natural Resource Management":** [http://www.resources.ca.gov/docs/IRM\\_Action\\_Plan12-10.pdf](http://www.resources.ca.gov/docs/IRM_Action_Plan12-10.pdf)

## DWR Climate Change Team

DWR has staff devoted to working full-time on climate change related-issues and assisting with implementing the programs discussed above. The Climate Change Team includes **four regional climate change specialists (Adam Henderson – Northern Regional Office; Erin Chappell – North Central Regional Office; Michelle Selmon – South Central Regional Office; Lauma Jurkevics - Southern Regional Office)**, two engineers, a program manager, and additional support staff. The DWR 'Matrix Team' includes the Climate Change Team staff and managers

**January 27, 2011**

from all Divisions of DWR who meet quarterly to coordinate and share information about climate change and water management issues.

Primary duties for the regional climate staff include assisting IRWM groups with incorporating climate change considerations into their plans and projects; conducting analysis of climate change impacts for use in the California Water Plan updates, FloodSAFE studies, and other reports; responding to public requests for climate information; and giving presentations on the link between climate change and water management to water agencies and federal, State or local officials.

***Outreach to Local Governments and Communities*** – One of the duties of Climate Change Team members will be to conduct outreach to educate local governments and citizens about the need to address anticipated climate change impacts through multiple adaptation and mitigation actions. DWR's focus will be to encourage actions that can be taken with regards to water, such as conservation and reducing reliance on unsustainable water supplies, and on assisting with compliance on related legislation such as AB 32 and SB 375.

At a recent workshop on climate adaptation sponsored by the Local Government Commission and GEOS (formerly the National Center for Science and Conservation Policy), the City of Fresno connected with the DWR regional climate change specialist to enlist assistance in incorporating sustainability and integrated water planning into the next General Plan Update and a Specific Plan for the southeast part of town. Workshops such as this one that bring together diverse stakeholders with a mutual concern about climate change adaptation and mitigation can be an important means of promoting cross-sector collaboration.

***DWR Environmental Coordination Team/Ag and Land-Use Subcommittee*** - DWR has an internal environmental coordination team that meets quarterly to discuss environmental issues and coordinate activities within the Department. The purpose is to assure consistency and compliance with the law and DWR directives. A number of subcommittees have been formed, including: CEQA and Climate Change, Environmental Stewardship, and Land Use Issues.

The goal of the Land Use Issues subcommittee (formerly called Agricultural Issues) is to encourage staff to consider all uses of land when considering obtaining new interests in lands or when considering changes in land use on lands currently controlled by DWR. This broad view also entails examining the impact on nearby lands, local government, and other interests. The Ag and Land-Use subcommittee discusses issues related to the Williamson Act, Regional Advance Mitigation Planning (RAMP), DWR flood management programs, and other related topics.

**DWR Climate Change Public Webpage:** <http://www.water.ca.gov/climatechange/>

**January 27, 2011**

## Other Activities/Programs (DWR as a Partner or Participant in a Larger Process)

### Bay Delta Conservation Plan

The Bay Delta Conservation Plan (BDCP) is a long-term conservation strategy that sets forth actions needed for a healthy Sacramento-San Joaquin Delta ecosystem. The BDCP is being prepared by a Steering Committee of local water agencies, environmental and conservation organizations, state and federal agencies, and other interested groups. When complete, the BDCP will provide the basis for the issuance of endangered species permits for the operation of the state and federal water projects. The plan would be implemented over the next 50 years. The heart of the BDCP is a long-term conservation strategy that sets forth actions needed to sustain a healthy Delta, including adapting to changes expected to occur as a result of climate change such as a rising sea level. Steering Committee meetings, working groups and technical team meetings are open to the public.

Draft conservation strategy measures include restoring 5,000 acres of riparian forest and scrub in restoration opportunity areas, restoring 10,000 acres of seasonally inundated floodplain, preserve and enhance approximately 45,000 acres of terrestrial habitat (above and beyond the 75,000 acres of tidal marsh and riparian restoration in support of aquatic and terrestrial species).

**BDCP Home Page:** <http://baydeltaconservationplan.com/Home.aspx>

**Highlights of the BDCP:** [http://www.resources.ca.gov/docs/Highlights-of-the-BDCP\\_12-15-10\\_FINAL.pdf](http://www.resources.ca.gov/docs/Highlights-of-the-BDCP_12-15-10_FINAL.pdf)

### Landscape Conservation Cooperatives

Landscape Conservation Cooperatives (LCCs) are self-directed conservation partnerships among the U.S. Fish and Wildlife Service, the United States Geological Survey, other federal agencies, States, Tribes, nongovernmental organizations, and other entities to address the challenges of climate change in an integrated fashion. LCCs provide scientific and technical support for landscape-scale conservation in an adaptive management framework that emphasizes science-based biological planning, conservation design, research, inventory and monitoring. Located within the geographic scope of the California LCC are numerous Habitat Conservation Plans (HCPs) and state Natural Community Conservation Plans (NCCPs) that identify key habitats, corridors, and refugia needed to maintain populations of priority species in the face of ongoing urban and agricultural development. DWR has a seat on the Interim Steering Committee for the California LCC, and is helping draft the goals and priorities for the program.

**California Landscape Conservation Cooperative:** <http://californialcc.org/>

January 27, 2011

## California Climate Action Team – Land Use and Infrastructure Subgroup (CCLU-In)

The Land Use and Infrastructure subgroup of the California Climate Action Team (CAT), known as the 'CCLU-In' (formerly LUSCAT), is one of eleven multiagency subgroups of the CAT that was initially formed to provide recommendations to the California Air Resources Board (CARB) for consideration as the board developed a plan to reduce greenhouse gas (GHG) emissions in California. The CARB Scoping Plan was approved in December 2008 by the Air Resources Board. The Scoping Plan lays out state policies and actions to meet the GHG reduction targets in AB 32, the Global Warming Solutions Act of 2006.

Land use planning plays a role in all of the CAT subgroups, particularly the CCLU-In. The majority of California's GHG emissions are the result of infrastructure and development choices. Decisions about road and transit systems, water supply, building design, commercial and residential building location, natural resources, open space, agriculture, and energy infrastructure are all part of land-use planning. Together activities within these sectors determine the level of state GHG emissions. To effectively reduce GHG emissions, existing and potential planning strategies and processes need to be identified at all levels of government. The current role of the CCLU-In is to provide guidance and tools to local planners on policies that will influence community sustainability, public health, greenhouse gas emissions and resilience to climate change and to highlight incentive programs that encourage sustainable land use decisions. DWR is one of nearly 20 state agencies that comprise the CCLU-In.

### **Climate Action Team and Climate Action Initiative Webpage:**

[http://www.climatechange.ca.gov/climate\\_action\\_team/index.html](http://www.climatechange.ca.gov/climate_action_team/index.html)

### **Land Use Subgroup of the Climate Action Team Webpage:**

<http://www.climatechange.ca.gov/luscat/>