CLIMATE CHANGE RESOURCES
AT THE DEPARTMENT OF WATER RESOURCES
DWR Climate Program

Team of managers, scientists, engineers, administrators, and interns from headquarters and the regional offices.

- Develop guidance on addressing CC & GHGs
- Provide outreach & technical assistance

www.water.ca.gov/climatechange
Climate Change

Climate change is having a profound impact on California water resources, as evidenced by changes in snowpack, sea level, and river flows. These changes are expected to continue in the future and more of our precipitation will likely fall as rain instead of snow. This potential change in weather patterns will exacerbate flood risks and add additional challenges for water supply reliability.

The Sierra snowpack provides as much as 65 percent of California's water supply by accumulating snow during our wet winters and releasing it slowly when we need it during our dry springs and summers. Warmer temperatures will cause what snow we do get to melt faster and earlier, making it more difficult to store and use. By 2050, scientists project a loss of at least 25 percent of the Sierra snowpack. This loss of snowpack means less water will be available for Californians to use.

Climate change is also expected to result in more variable weather patterns throughout California. More variability can lead to longer and more severe droughts. In addition, the sea level will continue to rise threatening the sustainability of the Sacramento-San Joaquin Delta, the heart of the California water supply system and the source of water for 25 million Californians and millions of acres of prime farmland.

The Department of Water Resources (DWR) is addressing these impacts through mitigation and adaptation measures to ensure that Californians have an adequate water supply, reliable flood control, and healthy ecosystems now and in the future. Below are some of DWR's climate change activities:

- DWR released summaries of its climate change achievements as a [Poster](#) and [Brochure](#) (2010)
- DWR adopted its own [Sustainability Policy](#) to promote a departmental change in the way DWR does business (2009), and established clear and measurable [Goals](#) for sustainability implementation (2010).
- DWR is a member of the California Climate Action Registry and has made the list as a [Climate Action Leader](#) for three straight years by reporting its GHG emissions and having the data verified through a third-party audit. (2007, 2008, 2009)
- DWR adopted a [Climate Change Adaptation Strategy](#) (2008)
- DWR announced plans to use lower carbon fuel sources for State Water Project energy supplies instead of a coal-fired power plant, currently being used (2007)

Other Climate Change Activities

Adapting to the current and future effects of climate change is essential for DWR and California's water managers. DWR addresses climate change in its California Water Plan, which is updated every five years. The California Water Plan provides a framework for water managers, legislators, and the public to consider options and make decisions regarding California's water future. DWR continues to improve and expand the analysis of climate change in the California Water Plan. The 2009 California Water Plan Update includes multiple scenarios of future climate conditions and stresses the inclusion of uncertainty, risk, and sustainability.

**Climate Change Technical Advisory Group**

- [DWR Proposal for Climate Change Technical Advisory Group](#) (October 2011)
- [DWR Invites Statements of Qualifications for Climate Change Technical Advisory Group](#) (November 2011)
Using the Climate Change Handbook for Water Planning

Climate Change Handbook for Regional Water Planning

Prepared for:
US Environmental Protection Agency Region 9
and
California Department of Water Resources

November 2011
Handbook’s Purpose

• Outline the general process for accounting for climate change in water planning
• Synthesize available literature in a way that is useful for regional water planning
• Support IRWM planning in California
What the Handbook is NOT

• A cookbook
• A one-size-fits-all methodology or approach
• An extension of or an addition to the IRWM Guidelines
• A requirement
Climate Change Analysis

- Assess Vulnerability
- Measure Impacts
- Greenhouse Gas Emissions Inventory
- Evaluate Strategies (including adaptation and mitigation)
- Implement Under Uncertainty
How to Get the Handbook

www.water.ca.gov/climatechange/CCHandbook.cfm