

Department of Water Resources Climate Change Program January 2016



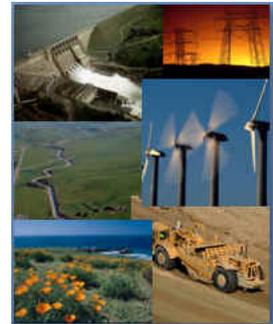
The California Department of Water Resources (DWR) has 10 full time staff in its Climate Change Program to support climate change activities across the State. Specialists in both adaptation and mitigation are located in Sacramento and four regional offices. The goal of the program is to provide regionally-specific climate change information to local water managers and to support all DWR programs, projects, and documents by providing access to the latest research, data, tools, and guidance for California's unique water management issues related to a warming climate.

DWR CLIMATE ACTION PLAN

Phase I: DWR Greenhouse Gas Emissions Reduction Plan

Phase I of DWR's Climate Action Plan covers mitigation of greenhouse gases (GHG's). This plan lays out steps to cut the Department's GHG emissions by 50 percent below 1990 levels by 2020, and 80 percent below 1990 levels by 2050.

In 2015, DWR received the Climate Leadership Award for "Excellence in Greenhouse Gas Management: Goal Setting" for its work on the Greenhouse Gas Emissions Reduction Plan. The award, presented by the U.S. EPA, the Association of Climate Change Officers, The Climate Registry, and The Center for Climate and Energy Solutions, is the highest national award given for greenhouse gas management. DWR is one of only two public agencies to be honored with this award. The Department's Climate Action Plan also garnered a Sacramento Area Sustainable Business Award in 2012.



<http://www.water.ca.gov/climatechange/CAP.cfm>

Phase II: Climate Change Analysis Scenario Selection and Guidance

Phase II of DWR's Climate Action Plan will be a framework and data toolbox to guide analysis of the effects of climate change on DWR projects and activities. The project will ensure that all DWR projects meet standards for consistency, quality, and adequacy in climate change analysis for planning activities. This guidance may provide assistance to local water managers, as well.



Climate Change Technical Advisory Group

As part of DWR's Climate Action Plan Phase II, DWR empaneled the Climate Change Technical Advisory Group (CCTAG) in order to engage the academic and research community for the best climate science available. Comprised of 14 experts in the disciplines of atmospheric science, hydrology, civil engineering, environmental science, climate data, social science, resource economics, land use planning and climate modeling, the group explored DWR's needs for technical analysis, global climate model selection, scenario development for extremes analyses and downscaling. In August 2015, the CCTAG provided its recommendations to DWR on how best to use available climate information, which are described in the report "*Perspectives and Guidance for Climate Change*

Analysis". http://www.water.ca.gov/climatechange/docs/2015/Perspectives_Guidance_Climate_Change_Analysis.pdf

Phase III: Climate Change Vulnerability Assessment and Adaption Plan

Phase III will evaluate the vulnerability of DWR facilities, operations, and people to key climate change impacts, and develop adaptation strategies to improve DWR's resiliency to climate change. The Vulnerability Assessment will be released in 2016.

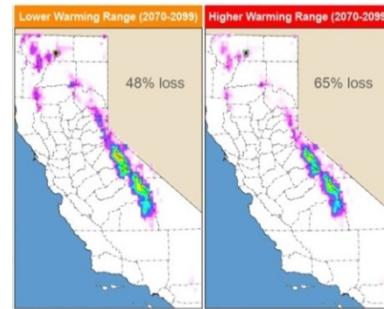


CLIMATE CHANGE PROGRAM ACTIVITIES

California Climate Science and Data for Water Resources Management

Released in June, 2015, this 28-page brochure is comprised of the most up-to-date observations, projections, impacts and strategies regarding climate change utilized in California Water Plan Update 2013.

- ◆ Statewide impacts and strategies for adaptation
- ◆ Energy intensity of raw water extraction and conveyance
- ◆ Regional-level climate change trends and vulnerabilities
- ◆ Decision support for future climate scenarios
- ◆ Rain/snow trend analysis for major watersheds



http://www.water.ca.gov/climatechange/docs/CA_Climate_Science_and_Data_Final_Release_June_2015.pdf

Tribal Ecological Knowledge Workshop

In partnership with the California Landscape Conservation Cooperative, the DWR Climate Change Program sponsored a workshop on Traditional Ecological Knowledge (TEK) at California State University, Sacramento in September 2014. The workshop provided training to natural resources managers seeking to work with tribes on climate change challenges. Learned and passed down by indigenous people over hundreds or thousands of years, TEK can provide unique insights about species and ecosystems and has become recognized for its value in helping respond to future climate changes.



Safeguarding California Implementation Plan

DWR is leading the Water Sector Chapter of the forthcoming Safeguarding California Implementation Plan. The vulnerability of the water sector to climate change stems from a modified hydrology that affects the frequency, magnitude, and duration of extreme events, which, in turn, affect water quantity, quality, and infrastructure. This plan will outline the specific vulnerabilities associated with ongoing and inevitable climate impacts, the current actions that California State government is undertaking to reduce those vulnerabilities, and a set of next steps that are needed to continue progress in adapting to threats from climate change.

ProjectWET

Recognizing the importance of educating children about climate change and the associated impacts to water resources, DWR partnered with the Water Education Foundation's Water Education for Teachers Project (ProjectWET) Program to design a climate change training class for California teachers. Innovative water and climate change activities are presented to Kindergarten through 12th grade teachers to use in their classrooms. A series of workshops were held in 2014 and 2015 to share the general science behind climate change, potential impacts of climate change on California's water resources, and mitigation and adaptation strategies, at a level that can be understood by students. It is expected that up to 9,000 students across various regions of California will use ProjectWET activities.

Drought and Climate Research

DWR is funding climate research to improve sub-seasonal to seasonal climate forecasting to enable more efficient water management. The Department is also funding research to develop a better understanding of long range climate oscillations and whether these signals have any predictive capacity for drought.

For more information or questions about the program, please email climatechange@water.ca.gov or go to: <http://www.water.ca.gov/climatechange/>