

**Legend:**  
■ DWR Events  
■ State Events  
■ Nat'l/Int'l Events

# The Past, Present, and Future of the DWR Climate Program

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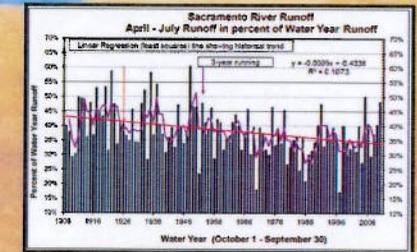
**CO<sub>2</sub> - 400+ PPM**  
 In 2013, atmospheric concentrations of CO<sub>2</sub> surpassed 400 PPM - climate scientists believe we must get below 350 PPM or risk more than 2°C warming

**Factoid:**  
 If you were born in or after April 1985, you have never lived through a month that was colder than the global average



**1980s**  
 '87 - DWR Hydrologist Maury Roos presents *Possible Changes in California Snowmelt Runoff Patterns* report at Pacific Climate Workshop  
 '88 - DWR Deputy Director Potter testifies at Legislative hearing on global warming effects on CA water resources  
 '88 - AB 4420 - 1<sup>st</sup> Climate Change (CC) legislation in CA

**CO<sub>2</sub> : 348.93 PPM**  
 1987 was the last year when the annual CO<sub>2</sub> level was less than 350 PPM



**1990s**  
 '91 - DWR releases study showing decline in spring and summer runoff since the early 1900s  
 '93 - CWP identifies CC as a potential threat to CA's water resources  
 '97 Twitchell Island Wetland Research Facility established  
 '90 - IPCC releases 1<sup>st</sup> Assessment Report  
 '95 IPCC releases 2<sup>nd</sup> Assessment Report  
 '96 Kyoto Conference

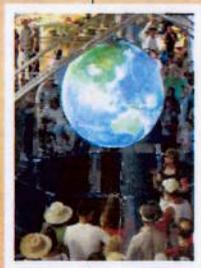


**2000 - 2005**  
 '05 - CWP includes qualitative discussion on the potential effects of CC on CA's water  
 '00 - SB 1771 creates the CA Climate Action Registry  
 '05 - EO 5-3-05 sets CA GHG emission reduction targets  
 '00 - USGCRP publishes 1<sup>st</sup> National Assessment Report  
 '01 IPCC releases 3<sup>rd</sup> Assessment Report

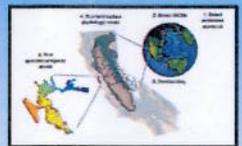
**CO<sub>2</sub> : 381.83 PPM**  
 2006 CO<sub>2</sub> atmospheric concentrations continue to rise at the highest rate in history

**2006**  
 DWR releases report analyzing effect of CC on CA water supply  
 AB 32 requires CA's GHG emissions be reduced to 1990 levels by 2020  
 Climate Action Team forms - DWR participating agency  
 State releases 1<sup>st</sup> CC Assessment

**2007**  
 DWR's 1<sup>st</sup> submittal to CA Climate Registry - awarded Climate Action Leader status  
 DWR produces "Science On a Sphere" for State Fair and wins communications award  
 SB 97 requires OPR to develop CEQA Guidelines for CC  
 US Supreme Court rules CO<sub>2</sub> is a pollutant  
 IPCC releases 4<sup>th</sup> Assessment Report



**2008**  
 DWR releases CC adaptation strategy for water - *Managing an Uncertain Future*  
 DWR forms 1<sup>st</sup> CCTAG  
 EO 5-13-08 authorizes SLR studies



**2009**  
 CWP includes analysis of CC in projections of future demand  
 DWR Sustainability Policy  
 DWR CEQA CC Committee (C4) forms  
 DWR produces mini-documentary "A Climate of Change"  
 DWR Climate Change Program now official!  
 SB 1 - IRWM plans to include CC adaptation & mitigation  
 CA Climate Adaptation Strategy released by CNRA  
 State releases 2<sup>nd</sup> CC Assessment

**2010**  
 CA releases staff guidance on CEQA CC & GHG emissions analysis  
 Prop 84/Prop 1E Grant Guidelines add CC Standard  
 DWR Environmental Stewardship Policy and Sustainability Targets adopted  
 CO-CAT releases Interim SLR Guidance for State Agencies

**2011**  
 DWR Climate News launched  
*Climate Change Handbook for Water Planning* released  
 1<sup>st</sup> DWR Climate Literacy class held

**2012**  
 DWR Climate Action Plan Phase 1 GGERP adopted  
 DWR contracts w/ Lodi Energy Center for high efficiency power  
 DWR awarded Sustainable Business of the Year Award  
 DWR forms 2<sup>nd</sup> CCTAG  
 NRC SLR Report released  
 State releases 3<sup>rd</sup> Assessment



**2013**  
 DWR stops receiving power from Reid-Gardner Power Plant (plant = 37-57% of total annual CO<sub>2</sub> emissions)  
 CO-CAT finalizes SLR Guidance  
 US Climate Action Plan issued



**Future Program Initiatives**  
 CWP Update 2013 to include analysis of CC projections of both future demand & supplies, plus content on adaptation, mitigation, & water-energy nexus  
 Completion of tree-ring study  
 Tribal Coordination and TEK Initiatives for Climate Change  
 Climate Action Plan: Phase 2 - CC Framework  
 Climate Action Plan: Phase 3 - Vulnerability Assessment & Adaptation Plan  
 Climate Resiliency Policy  
 Outreach and Climate Education  
 Bolster our citizen science climate monitoring networks

Coming Soon:  
 IPCC 5<sup>th</sup> Assessment Report

