

# RECLAMATION

## *Managing Water in the West*

Change in Mean Annual Precipitation (%)

Change in Mean Annual Temperature (°C)

from 1971-2000 to 2011-2040

from 1971-2000 to 2011-2040

### Addressing Severe Drought and Climate Change in the West



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U.S. Department of the Interior  
Bureau of Reclamation

# Reclamation's Drought Program

- **Historically, Reclamation's Drought Program has been focused on providing emergency response funding**
- **Very little program funding has been used for Drought Contingency Planning**
- **Limitations in the program authority have provided incentives to drill wells as an emergency response action**

# Building Resiliency to Drought and Climate Change

- The President's Climate Action Plan highlights the need to help communities develop long term resilience strategies
- The National Drought Mitigation Center emphasizes the importance of Drought Contingency Planning to decrease the cost of responding to emergency drought situations
- Emergency response actions, e.g., drilling wells, hauling water and using temporary pipes and pumps, can ease the immediate impacts of drought. However, mitigation actions, e.g., water conservation and efficiency projects, use of water treatment technologies, and small-scale water management improvement projects, can build resiliency to drought over the longer term

# Reclamation's Drought Response Program – new in FY 2015

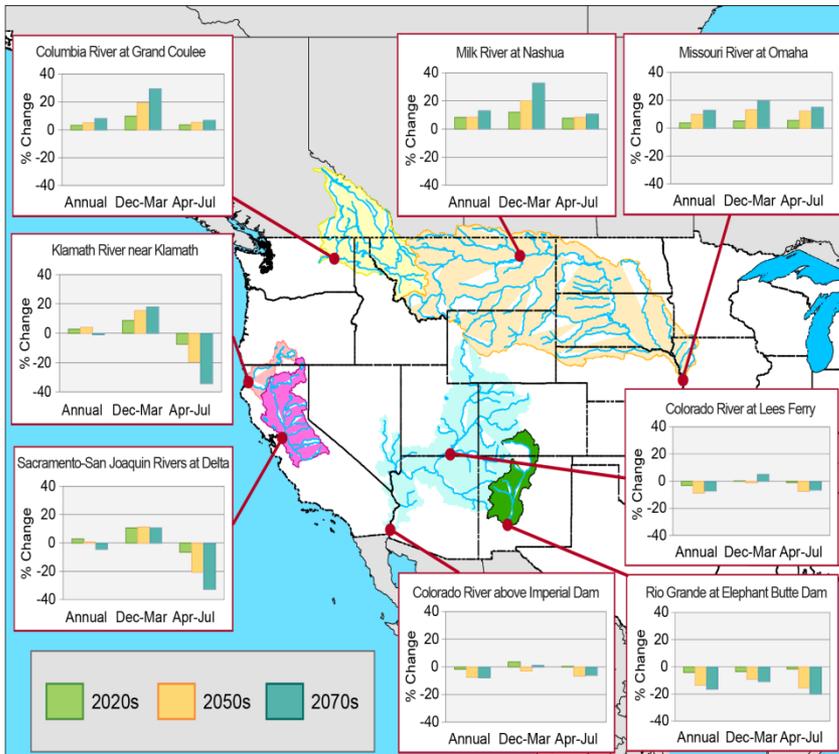
- In FY 2015, the President's Budget requests \$1.5 million to implement the new Drought Response and Comprehensive Drought Plans (Drought Response Program)
- The Drought Response Program will do more to incentivize drought contingency planning, and funding for the program will be allocated using:
  - A competitive process
  - Emphasizing involvement from multiple stakeholders, and
  - Incorporating climate change information.

# Timeline for Implementing the Drought Response Program

- A Reclamation team is currently developing a draft program framework
- Prioritization Criteria will be posted on the Federal Register for 30 day Public Comment Period (Winter 2014)
- Program Implementation (early CY 2015)
- Directives and Standards will be developed in 2016

# Reclamation Climate Change Strategy

Streamflow Projections for River Basins in the Western U.S.



## Strategy Goals

**Goal 1 – Enhance Climate Adaptation Planning**

**Goal 2 – Increase Water Management Flexibility**

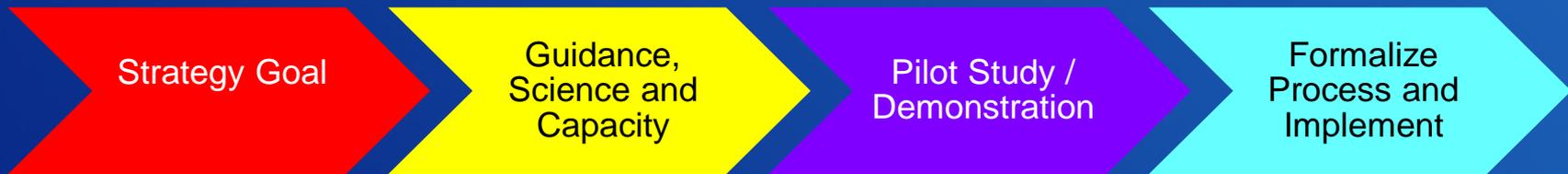
**Goal 3 – Improve Infrastructure Resilience**

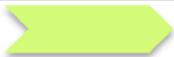
**Goal 4 – Expand Information Sharing**

**RECLAMATION**

# Strategy Foundation

- Recognize uncertainty in but recognize that there is enough evidence in some areas to manage risk.
- Utilize Pilot activities to determine where and how to incorporate science within decision processes



	Strategy Goal: A programmatic activity addressing Goals 1-4 identified in this Strategy
	Guidance, Science and Capacity: Develop the technical and personnel capabilities that will allow for achieving strategic goals.
	Pilot Study / Demonstration: Test implementation and resolve any remaining questions through place based actions.
	Formalize Process and Implement: Integrate climate adaptation in formal Reclamation requirements (Directives and Standards).

# Goal 1 – Enhance Climate Adaptation Planning

- **Purpose:** Incorporate climate into planning activities to develop adaptation strategies across mission areas.
- **Actions:**
  - **Priority Action:** Enhanced Basin Studies and WWCRAAs
  - Drought Response Program: New in FY 2015 budget
  - Expand General Planning
  - Climate Change Training

## Goal 2 – Increase Water Management Flexibility

- **Purpose:** Stretch water supplies through conservation, reuse and reservoir operations to adapt to increased variability of water supplies.
- **Actions:**
  - **Priority Action:** WaterSMART Grants
  - Title XVI Program
  - Improved canal lining and water treatment technologies
  - Reservoir Operations Pilot
  - Optimization of Hydropower Production

## Goal 3 – Improve Infrastructure Resiliency

- **Purpose:** Ensure the safety of our infrastructure and support climate resilient infrastructure investments
- **Actions:**
  - **Priority Action:** Dam Safety Climate Change Assessment Pilots
  - Western Watershed Enhancement Partnership
  - Criteria for infrastructure repair, replacement and renovation investments

## Goal 4 – Expand Information Sharing

- **Purpose:** Improve stakeholder access to water and hydropower data to support climate adaptation
- **Actions:**
  - **Priority Action:** Make water and hydropower data and information accessible through web-based portals
  - Participate in WSWC Water Data Exchange Program promoting the standardization and sharing of water availability and use data, and continue participation in USGS water census.

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