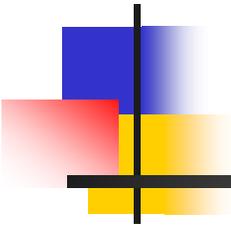


# Climate Change Adaptation, Mitigation, and AB 32 at the San Diego County Water Authority



September 4, 2008



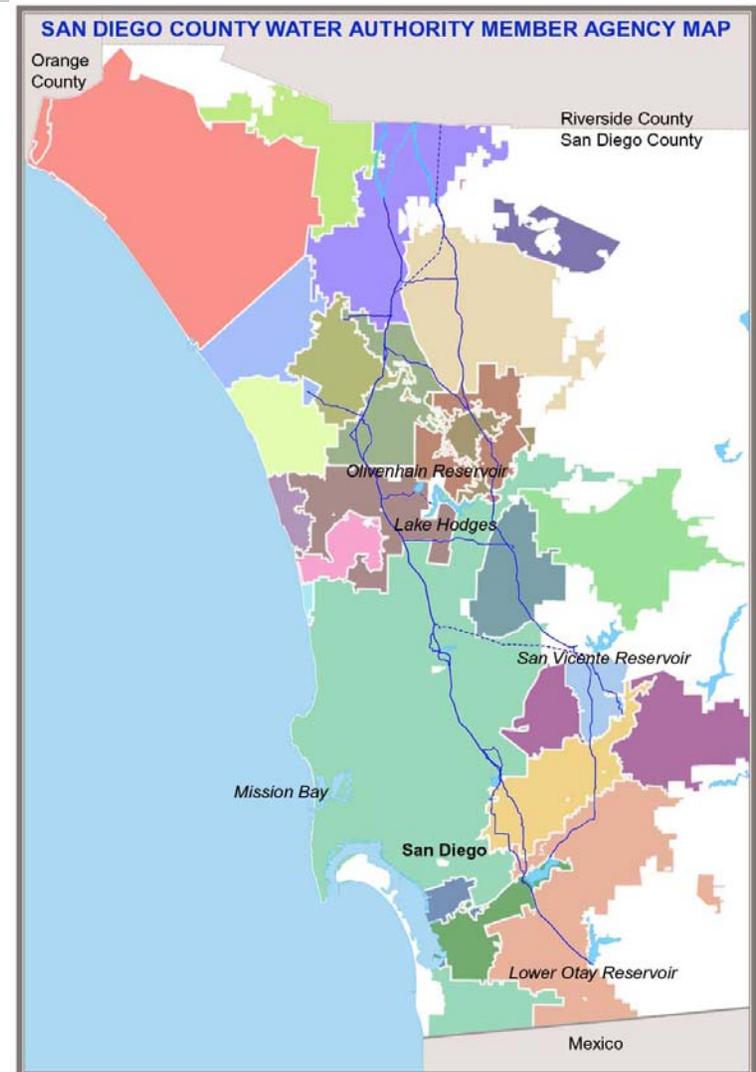
# Agenda

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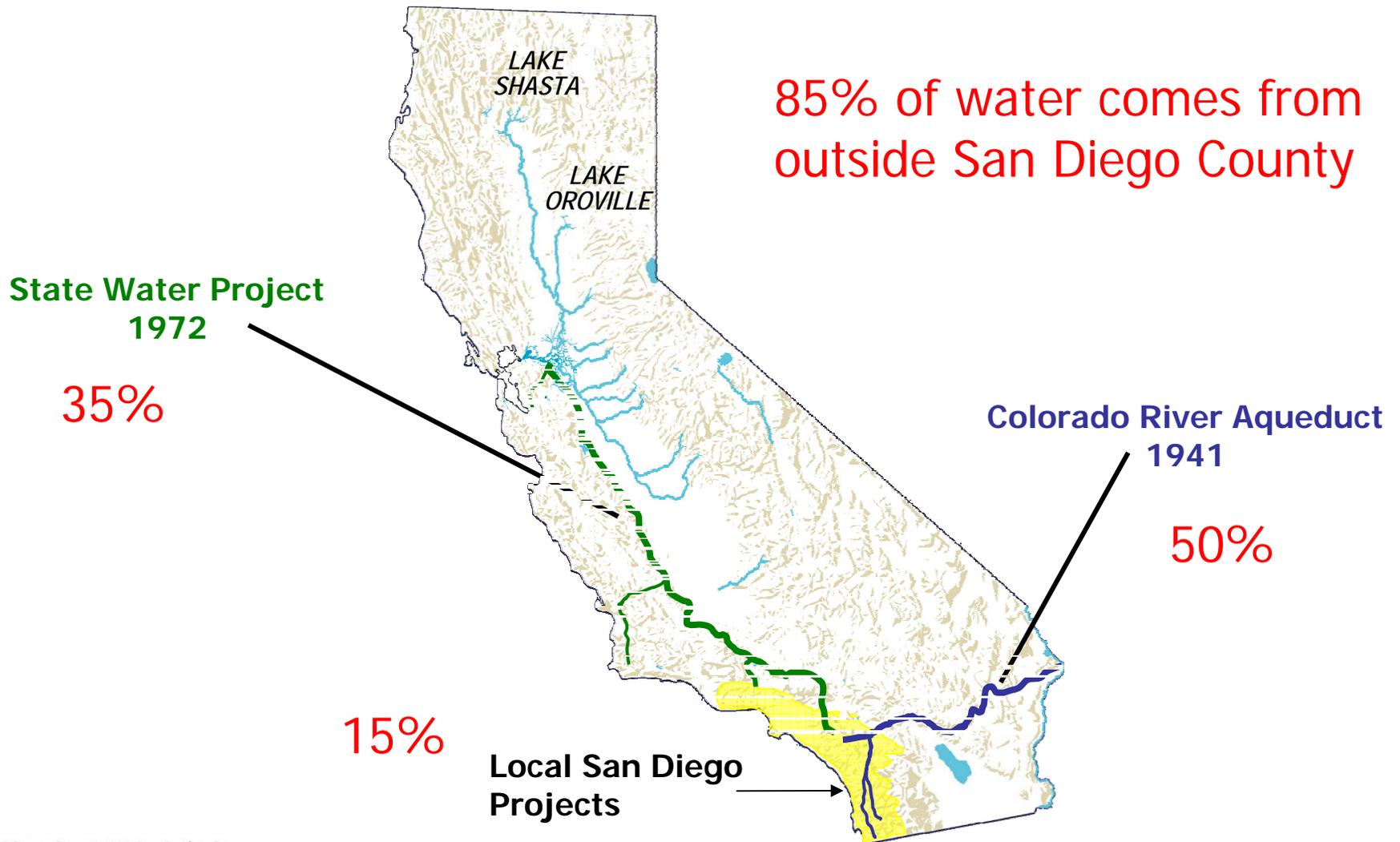
- Water Authority overview
  - Water Supply Sources
- Climate Change Adaptation Activities
  - Water Supply Diversification
  - Water Utility Climate Alliance (WUCA)
  - AWWARF Projects
- Mitigation Activities
  - Climate Change & Sustainability Program
  - AB32 Scoping Plan – Water Measures
  - Local Government Protocol
  - 20 Gallon Challenge

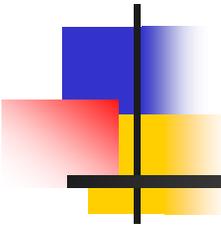
# What is the Water Authority?

- Wholesale water agency created by State Legislature in 1944
  - 24 member agencies
  - 35-member board of directors
  - Serves 3 million people and supports region's \$163 billion economy
- Service area
  - 920,000 acres
  - 97% of county's population



# Major Water Conveyance Facilities





# Climate Change Adaptation Activities

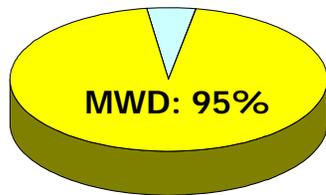
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What are we doing?

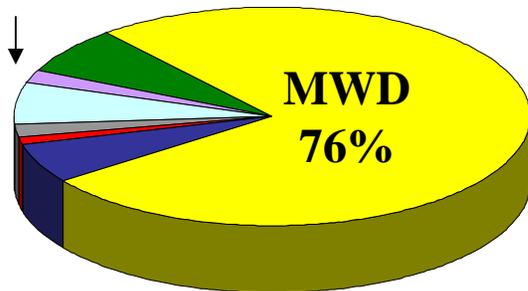
# Diversifying San Diego County's Water Supply Portfolio

**1991**

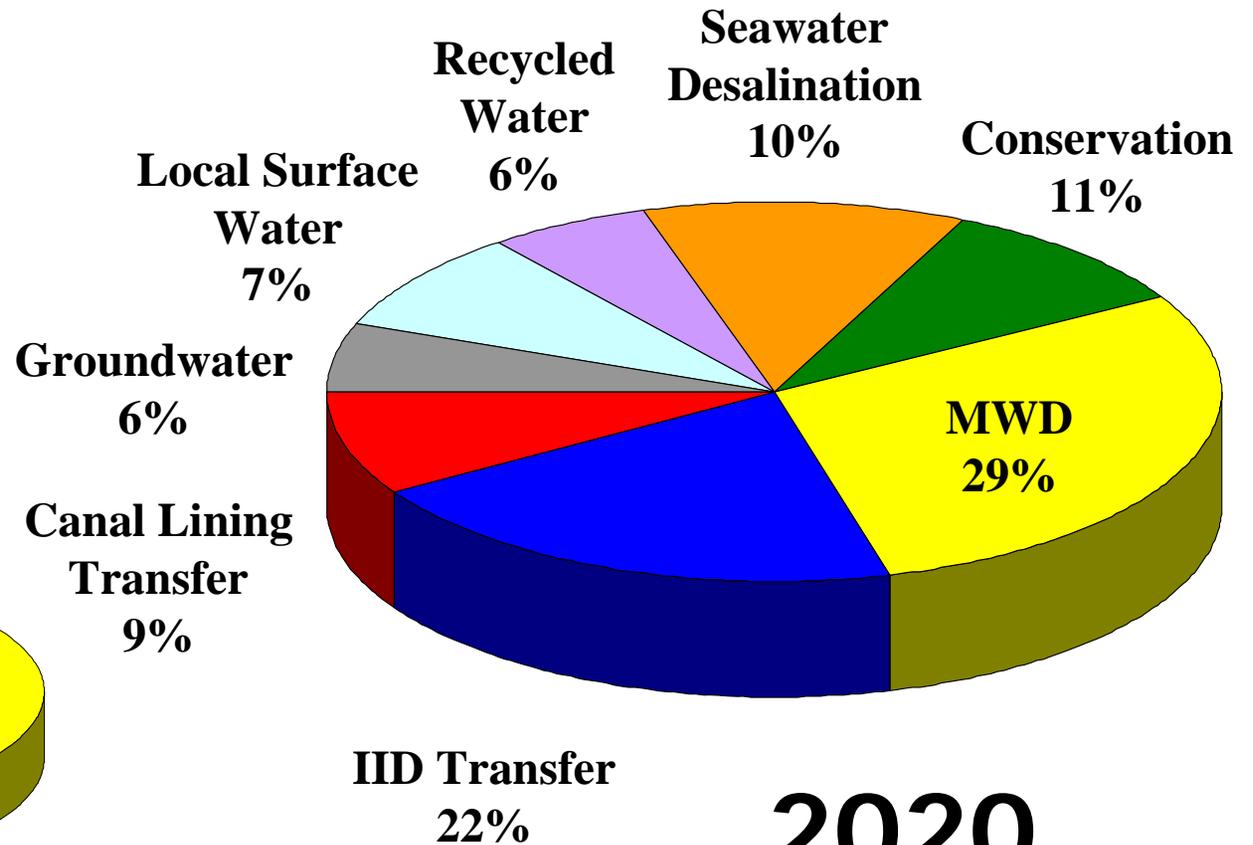
Local Supplies: 5%



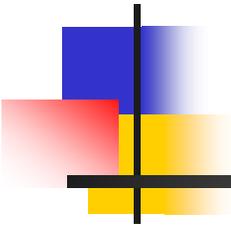
Local Supplies  
24%



**2007**



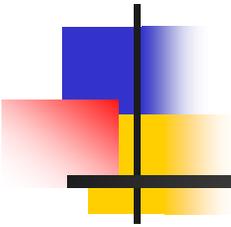
**2020**



# Collaboration with water utilities & professional organizations

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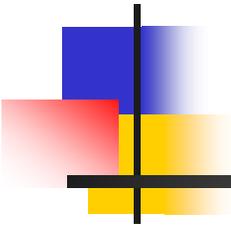
- Water Utility Climate Alliance (WUCA)
  - Coalition formed in February 2008
  - Eight large water providers, serving 36 million people
    - Seattle Utilities
    - Portland Water
    - San Francisco PUD
    - MWD
    - Denver Water
    - Southern Nevada Water Authority
    - City of New York Dept. of Environmental Services
    - San Diego County Water Authority



# Collaboration continued

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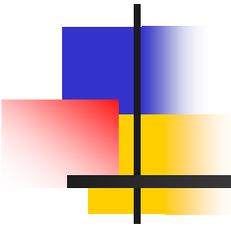
- WUCA Objectives:
  - Provide leadership on climate change issues affecting drinking water utilities by
    - Improving and expanding climate research
    - Promoting and collaborating in the development of adaptation strategies and tools
    - Identifying and minimizing greenhouse gas emissions that result from the operations of each member.



## Collaboration continued

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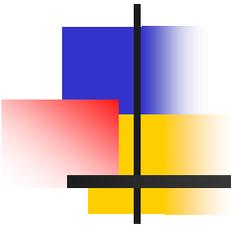
- Provided comment or input on:
  - US Climate Change Science Program Research Plan
  - National Water Program Strategy , Office of Water, USEPA
- American Water Works Research Foundation
  - Identification of research needs
  - Study of effects on water supply planning and design standards



# Mitigation Activities

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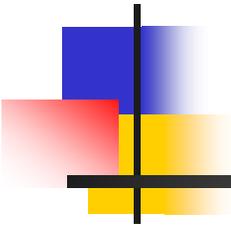
- Climate Change and Sustainability Program, 2012 Business Plan:
  - Key Issues
    - Enhanced Data for water supply planning and decision support
    - Climate Change as an area of legislative focus
    - Sustainable and costs effective business practices



# Sustainability Program

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- Goals
  - Reduce GHG emission from fleet
  - Reduce impacts from energy consumption
  - Reduce impacts from water generation
  - Develop photovoltaic projects at Authority facilities
  - Pursue energy efficiency opportunities
  - Participate with local agencies and organizations to promote intergovernmental coordination and share information

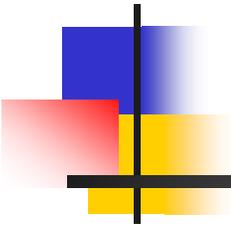


# AB32 Scoping Plan

## Water Sector Measures

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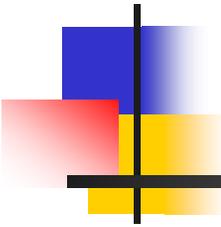
- Reduce GHG by 4.8MMT
  - Water Use Efficiency
  - Recycling
  - Water System Energy efficiency
  - Reuse urban runoff
  - Increase renewable energy production
  - Includes public goods charge Collect \$100 to \$500 million modeled after electricity program



# Scoping Plan Response

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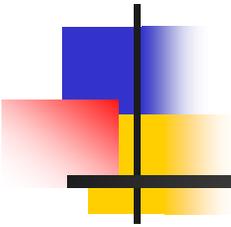
- California Urban Water Agencies (CUWA)
  - Eleven agencies including Water Authority
  - Remove public goods charge from consideration – coordinate with existing activities underway – 20% per capita reduction
  - Increase water sector implementation of renewable energy projects by removing barriers



# Scoping Plan Response continued

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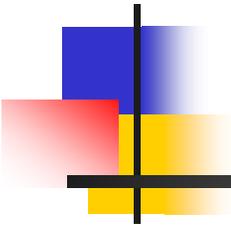
- Request for Clarification
  - End User related emissions
  - Potential overlap of water sector and local government measures
  - Overlap green building and water sector efficiency measures
  - Applicability of cap and trade to water sector
  - Water sector emissions and reductions currently combined with electricity – how will they be separated



# Local Government Protocol

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- Provide a standardized approach to voluntary reporting
- Special districts encouraged to use
- Water Authority is using to identify sources and quantify emissions



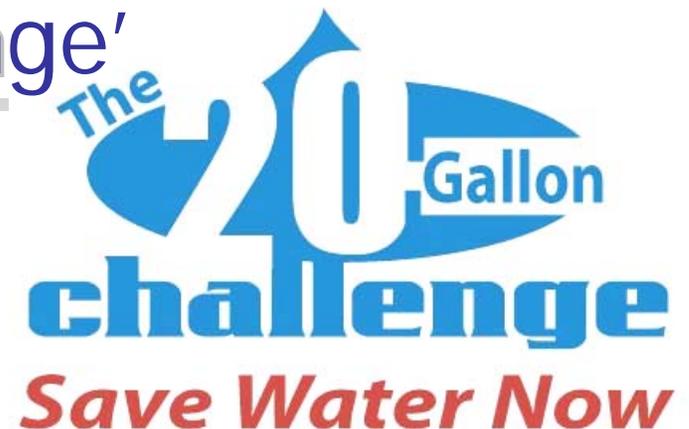
# Water Authority GHG Inventory

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- Preliminary inventory 2006
- Business Plan goal for 2010
  - Identify sources of data
  - Quantify Scope 1 – Direct Emissions
  - Quantify Scope 2 – Indirect Emissions
  - Preliminary review of Scope 3 requirements

# The '20-Gallon Challenge'

- Challenges each individual to save 20 gallons of water per day
- Emphasizes specific tips and amounts saved at [www.20gallonchallenge.com](http://www.20gallonchallenge.com)
- Supported by member agencies, businesses, community partners
- 2008 target: 56,000 acre-feet





Lake Oroville – February 2008  
719.86 Feet Elevation – 1,412,524 Acre Feet