



# Increasing Efficiency & Effectiveness Through Collaboration

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# Everyone Needs Data

- 211,000 miles of rivers & streams
- 1.6 million acres lakes
- 1,100 miles of coastline
- 1.3 million acres of bays and estuaries
- 15 million acre-feet of groundwater extracted per year



# The Response – CA Senate Bill 1070



- Became California law – 2006
- Required formation of the California Water Quality Monitoring Council
- Initial recommendations – December 2008
- *Comprehensive Monitoring Program Strategy for California* – December 2010

# Monitoring Council Members



**Truckee River Watershed Council**  
Collaborative solutions to protect, enhance and restore the Truckee River Watershed



**California Division  
of Drinking Water**



**CALIFORNIA STORMWATER  
QUALITY ASSOCIATION**

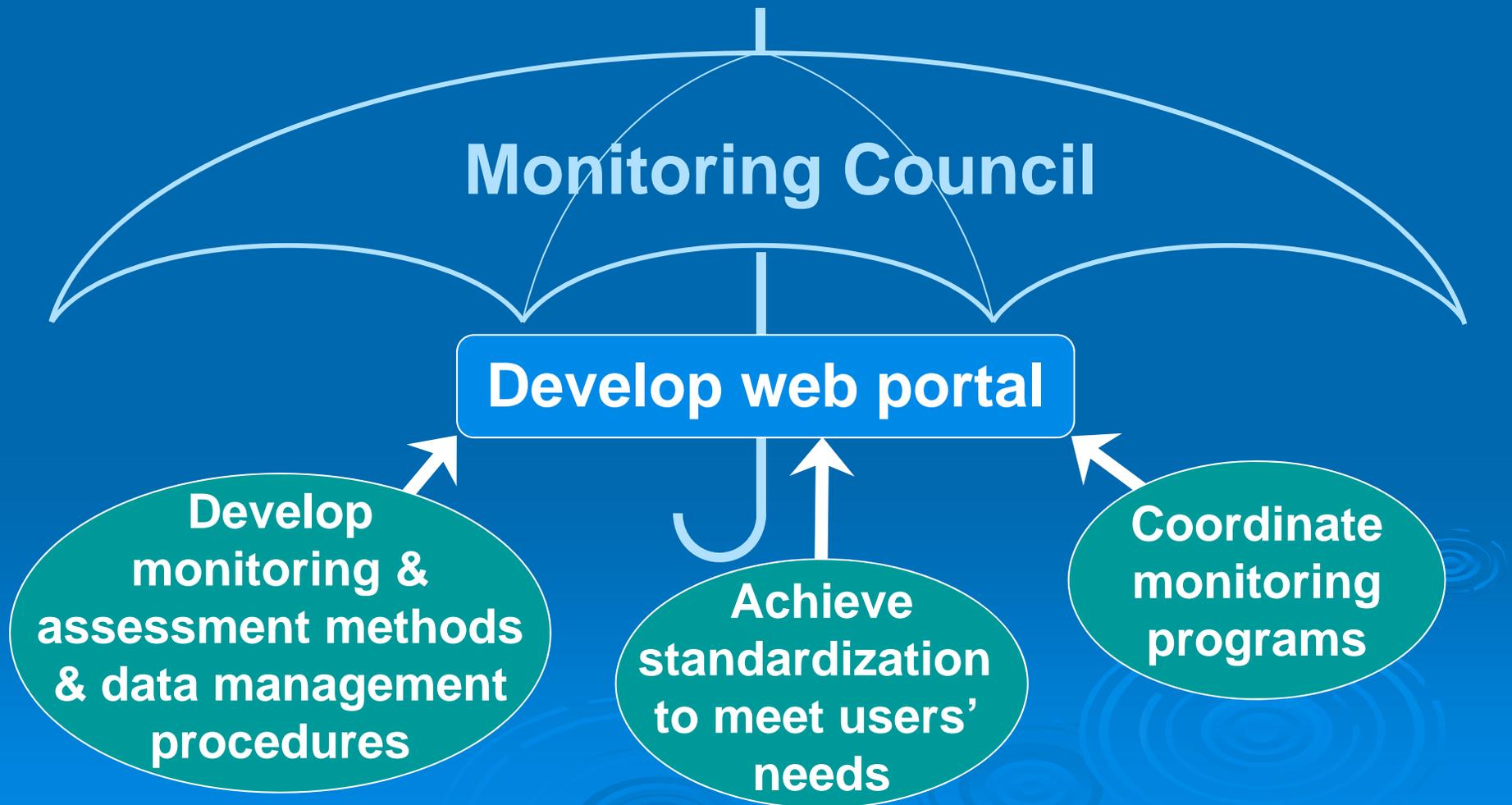


**Association  
of California  
Water Agencies**  
*Since 1910*  
Leadership  
Advocacy  
Information



# Theme-Specific Workgroups

Issue-experts represent key stakeholders



# CA SB 1070 – Triennial Audit

- ◆ The Secretary of the Cal/EPA shall conduct a triennial audit of the effectiveness of the monitoring program strategy
- ◆ The audit shall include an assessment of:
  - ◆ Extent to which the strategy has been implemented
  - ◆ Effectiveness of the monitoring and assessment program and the Monitoring Council
- ◆ The Secretary of the Cal/EPA shall consult with the Secretary of the Natural Resources Agency in preparing the audit, consistent with the MOU

# Performance Measures

- 💧 Program strategy, objectives, and designs
- 💧 Indicators and methods
- 💧 Data management
- 💧 Consistency of assessment endpoints
- 💧 Reporting
- 💧 Program sustainability

# First Triennial Audit

- 💧 What are our goals?
- 💧 What have we achieved toward each of these goals?
- 💧 What are our challenges?
- 💧 Where do we go from here?
- 💧 Recommendations



# Goal #1

## Collaboration



Monitoring is more efficient and effective through coordination

- 💧 Data gaps identified and filled and redundant monitoring minimized
- 💧 Quality control measures ensure data are useable
- 💧 Data can be combined to enable broader assessments

# Monitoring Is More Efficient and Effective Through Coordination



- Formed six theme-specific interagency workgroups to help coordinate monitoring, assessment and reporting

- Safe Drinking Water Workgroup
- Safe-to-Swim Workgroup
- Bioaccumulation Oversight Group
- Wetland Monitoring Workgroup
- Healthy Streams Partnership
- Estuary Monitoring Workgroup
- (Ocean and Coastal Workgroup – forming)



# Monitoring Is More Efficient and Effective Through Coordination



- ◆ Formed Water Quality Monitoring Collaboration Network
  - ◆ Provide regular web-based seminars for agency personnel, citizen monitors and others
  - ◆ Foster information exchange
  - ◆ Encourage broader use sound methods and tools for monitoring, assessment, reporting, and data management
- ◆ Formed Data Management Workgroup
  - ◆ Provide recommendations on data access, data management, GIS and web development

# Monitoring Is More Efficient and Effective Through Coordination



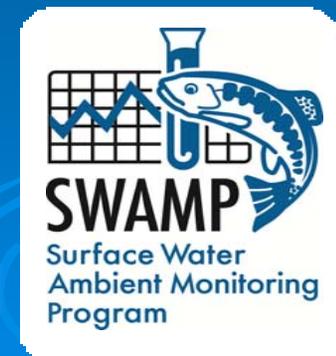
- ◆ Developed consistent monitoring, assessment, reporting, and data management tools
  - ◆ Wetland and Riparian Area Monitoring Plan
    - ◆ State and federal partnership for wetland monitoring/assessment
  - ◆ Rapid wetland assessment method (CRAM)



# Monitoring Is More Efficient and Effective Through Coordination



- Developed consistent monitoring, assessment, reporting, and data management tools
  - Data management and visualization tools
    - CEDEN, EcoAtlas, Estuary Monitoring Workgroup tools
  - Partner with Surface Water Ambient Monitoring Program (SWAMP) for scientifically validated
    - Monitoring and assessment protocols
    - Quality assurance procedures
    - Data quality documentation procedures





# Goal #2

## Access to Information

Resulting data and information  
are made available  
to decision makers and the public

- 💧 Monitoring designed to address management questions
- 💧 Monitoring data are turned into meaningful assessment information
- 💧 Data and information readily accessible

# Data and Information Available to Decision Makers and Public



- ◆ Public release of six question-based, easy to use My Water Quality portals
  - ◆ Is it safe to swim in our waters?
  - ◆ Is it safe to eat fish and shellfish from our waters?
  - ◆ Are our aquatic ecosystems healthy?
    - ◆ Wetlands
    - ◆ Streams and rivers
    - ◆ Estuaries
    - ◆ Rocky intertidal habitats (tide pools)
  - ◆ (Is our water safe to drink? – mockup approved)



[www.MyWaterQuality.ca.gov](http://www.MyWaterQuality.ca.gov)



Search    
 This Site  California

- Home
- Safe to Drink
- Safe to Swim
- Safe to Eat Fish
- Ecosystem Health
- Stressors & Processes
- Contact Us

My Water Quality | Monitoring Council | This site is hosted by the Surface Water Ambient Monitoring Program (SWAMP) |



Home

## Welcome to My Water Quality

- Cal/EPA
- Natural Resources Agency
- About the California Water Quality Monitoring Council
- Web Portal Partners
- Monitoring & Assessment Programs, Data Sources & Reports
- Water Quality Standards, Plans and Policies
- Regulatory Activities
- Enforcement Actions
- Research
- State & Regional Water Boards
  - Performance Report
  - About SWAMP
  - SWAMP Tools

This web portal, supported by a wide variety of public and private organizations, presents California water quality monitoring data and assessment information that may be viewed across space and time. Initial web portal development concentrates on four theme areas, with web portals to be released one at a time. Click the [Contact Us](#) tab for more information.

The Monitoring Council seeks to provide multiple perspectives on water quality information and to highlight existing data gaps and inconsistencies in data collection and interpretation, thereby identifying areas for needed improvement in order to better address the public's questions. Questions and comments should be addressed through the [Contact Us](#) tab.



### IS OUR WATER SAFE TO DRINK?

Safe drinking water depends on a variety of chemical and biological factors regulated by a number of local, state, and federal agencies. [\[Future Portal\]](#)



### IS IT SAFE TO SWIM IN OUR WATERS?

Swimming safety of our waters is linked to the levels of pathogens that have the potential to cause disease. [More >>](#)



### IS IT SAFE TO EAT FISH AND SHELLFISH FROM OUR WATERS?

Aquatic organisms are able to accumulate certain pollutants from the water in which they live, sometimes reaching levels that could harm consumers. [More>>](#)



### ARE OUR AQUATIC ECOSYSTEMS HEALTHY?

The health of fish and other aquatic organisms and communities depends on the chemical, physical, and biological quality of the waters in which they live. [More>>](#)



### WHAT STRESSORS AND PROCESSES AFFECT OUR WATER QUALITY?

Beneficial uses of our waters are affected by emerging contaminants, invasive species, trash, global warming, acidification, pollutant loads, and flow. [\[Future Portal\]](#)





Office of Governor  
**Edmund G. Brown Jr.**

[Visit his Website](#)

- Cal/EPA
- Natural Resources Agency
- About the California Water Quality Monitoring Council

**AQUATIC HEALTH LINKS**

- Stressors
- Laws, Regulations & Standards
- Regulatory Activities
- Enforcement Actions
- Research
- Monitoring Programs, Data Sources & Reports

Home → Eco Health



## Are Our Aquatic Ecosystems Healthy?

California has many types of aquatic habitats. Follow the links below to learn more ...



### WETLANDS

Wetlands form along the shallow margins of deepwater ecosystems such as lakes, estuaries, and rivers. They also form in upland settings where groundwater or runoff makes the ground too wet for upland vegetation. [More »»](#)



### ESTUARIES

Estuaries are unique habitats found where rivers and the ocean mix. They feature a diverse array of plants and animals adapted to life along the mixing zone. [More »»](#)



### STREAMS, RIVERS & LAKES

California's streams and rivers flow through diverse habitats, from mountain canyons, valleys, deserts, estuaries and urban areas. Riparian woodlands develop along stream banks and floodplains, linking forest, chaparral, scrubland, grassland, and wetlands. California lakes, supporting deep water, wetlands, riparian woodlands, offer a quiet refuge for plants, animals and humans alike. [More »»](#)



### OCEAN & COASTAL

California has 1,100 miles of shoreline and 220,000 square miles of state and federal oceanic habitat, featuring one of the world's most diverse marine ecosystems. [More »»](#)

( Updated 11/19/13 )

# Data and Information Available to Decision Makers and Public



- Are our wetlands healthy?
  - Wetland Monitoring Workgroup assists developing State Water Board's Wetland and Riparian Area Protection Policy



- How healthy are our watersheds?
  - First statewide integrated multi-metric assessment of watershed health
  - Will be integrated into Healthy Streams Portal



## Goal #3

# Projects Track Effectiveness



Water quality projects financed by the state track effectiveness in achieving clean water and healthy ecosystems

- 💧 Still to be addressed by the Monitoring Council

# What Are Our Challenges?



- 💧 Lack of dedicated funding for the program
  - 💧 Resources needed to initiate and sustain collaboration
    - 💧 Staff time for workgroup meetings and coordination of monitoring, assessment, and reporting
    - 💧 Improving data management and access infrastructure
    - 💧 Portal development and maintenance
  - 💧 Business plans developed by each workgroup could begin to address this need

# What Are Our Challenges?



- 💧 Lack of formal support from Agency Secretaries and departmental managers
  - 💧 No direct Strategy endorsement → uneven use
  - 💧 Inconsistent workgroup leadership
  - 💧 Restricted participation in workgroups and portal development
  - 💧 Workgroup-developed tools have no agency home
  - 💧 Uneven awareness and use of workgroup-developed tools by state agencies and others

# Where Do We Go From Here?



- 💧 Increase outreach to agency and program managers to build support
- 💧 Identify monitoring, assessment and reporting mandates of governmental agencies and others that could be addressed more effectively through collaborative workgroup processes, tools, and web portals
  - 💧 Use to attract participation and funding

# Where Do We Go From Here?



- 💧 Develop business plans
  - 💧 Workgroups identify key actions, necessary resources and potential funding sources to ensure sustainability
- 💧 Develop recommendations to ensure that water resource data are effectively shared between agencies and with other data providers and users – Data Summit vision
  - 💧 Standard data formats and transfer protocols
  - 💧 Open data policies

# Recommendations

For current efforts to be sustained and grow:

- Need high-level management support
  - Endorse Monitoring Council's Strategy
  - Encourage workgroup participation by staff
  - Utilize workgroup-developed tools
- Need dedicated funding
  - Workgroup participation
  - Portal development
  - Streamlined access to departmental data



# Thank you

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