Maximizing the Effectiveness of Water Quality Data Collection & Dissemination

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   with the California Sate Water Resources Control Board.

And I am staff to the California Water Quality Monitoring Council.

Many local, state, and federal **agencies**, regulated **dischargers**, and
hundreds of **water bond grant recipients**
spend millions of dollars each year
collecting water quality data in California.

These data must be turned into **useable information**
to help decision makers and stakeholders understand

- The **status** of our waters and aquatic ecosystems,

- **Public health and welfare issues** related to water quality, and

- The **effectiveness of agency programs**
to manage our water resources.
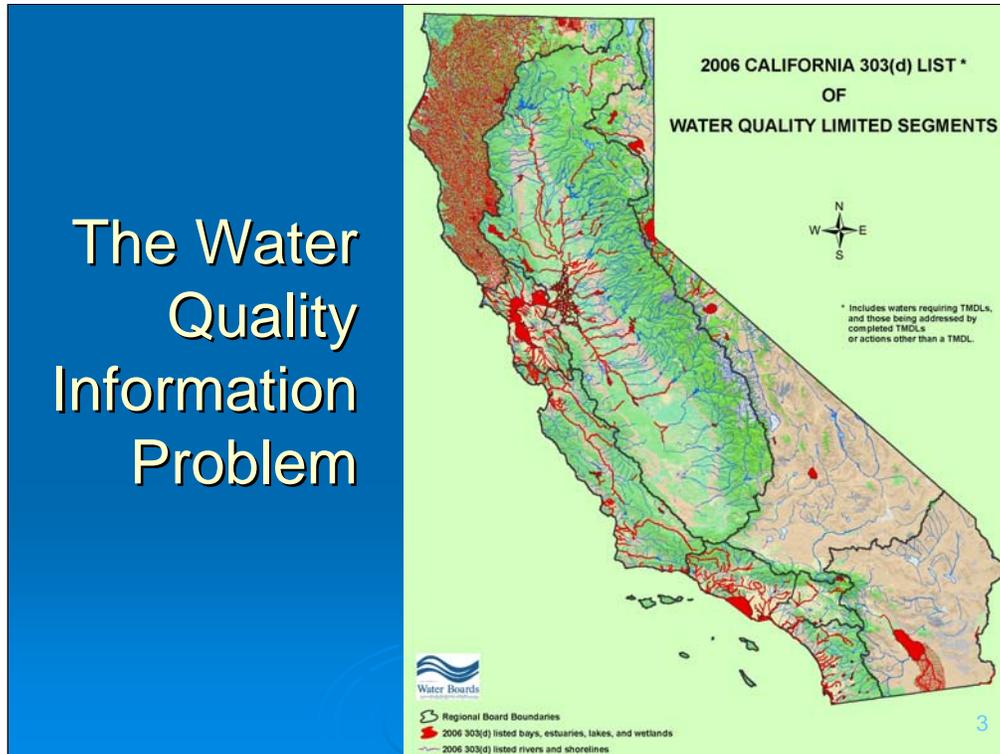
But California's water quality information **system is defective**

- There are **inconsistent monitoring objectives**
  and **methods to collect and assess the data**,
  as shown in this map of 2006 impaired waters listings.

  In this example, **differences in assessment strategies** makes it appear that North Coast Region waters are the most impaired, when they are actually some of the state's cleanest waters.

- Often it is not possible to **integrate data** from different studies.

- And there is **no single user-friendly place** to access the data.

The Response – Senate Bill 1070

- Became state law in 2006
- Required formation of
  California Water Quality Monitoring Council
- Memorandum of Understanding between
  - California Environmental Protection Agency
  - California Natural Resources Agency
- By December 1, 2008:
  Monitoring Council recommendations
  - Maximize efficiency and effectiveness of existing
    water quality data collection and dissemination
  - Ensure collected data available to decision makers
   and public

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In response, **State Senate Bill 1070** was signed into law in 2006,
requiring the **California Environmental Protection Agency** and the
California Natural Resources Agency to establish the **California
Water Quality Monitoring Council**.

The legislation required that by December 1, 2008
the Monitoring Council report its **recommendations**

- For **maximizing the efficiency and effectiveness**
  of existing water quality data collection and dissemination,

- And for ensuring that collected data are available
  for use by decision makers and the public.
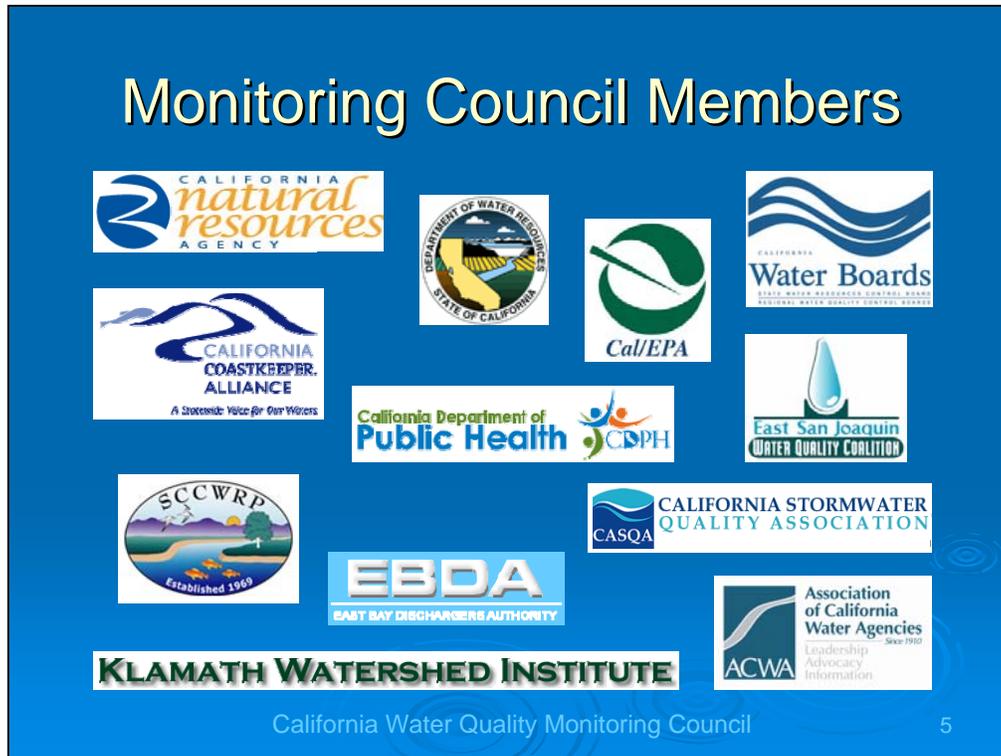
Members of the Monitoring Council represent:

- State regulatory and resource management agencies
- The regulated community
- Water supply interests
- Citizen monitoring groups
- The scientific community and
- The public

The breadth of representation on this council is unique.

The Monitoring Council's Solution

Don't get mired in technical details!

- Focus first on streamlined data access
  - Theme-based web portals
  - Directly address users' questions
  - Single global point of entry

- Theme-specific workgroups

- Overarching Monitoring Council guidance

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Rather than focusing on technical details,
   such as methods consistency and standard data formats,
   the recommendations presented a **new solution**.

The Monitoring Council believes that
   the best way to coordinate and enhance California's monitoring,
   assessment and reporting efforts is **first**
   to provide a platform for **intuitive, streamlined access**
   to water quality information
   that directly addresses users' questions.

Theme-specific workgroups,
   under the overarching guidance of the Monitoring Council,

- **Evaluate existing** monitoring, assessment and
  reporting **efforts**

- And work to **enhance** those efforts so as
  to improve the **delivery** of water quality information to the user,
  in the form of **theme-based internet portals**.

Theme-Specific Workgroups
Issue-experts represent key stakeholders

Monitoring Council

Develop web portal

Develop monitoring & assessment methods & data management procedures

Achieve standardization

Coordinate monitoring programs

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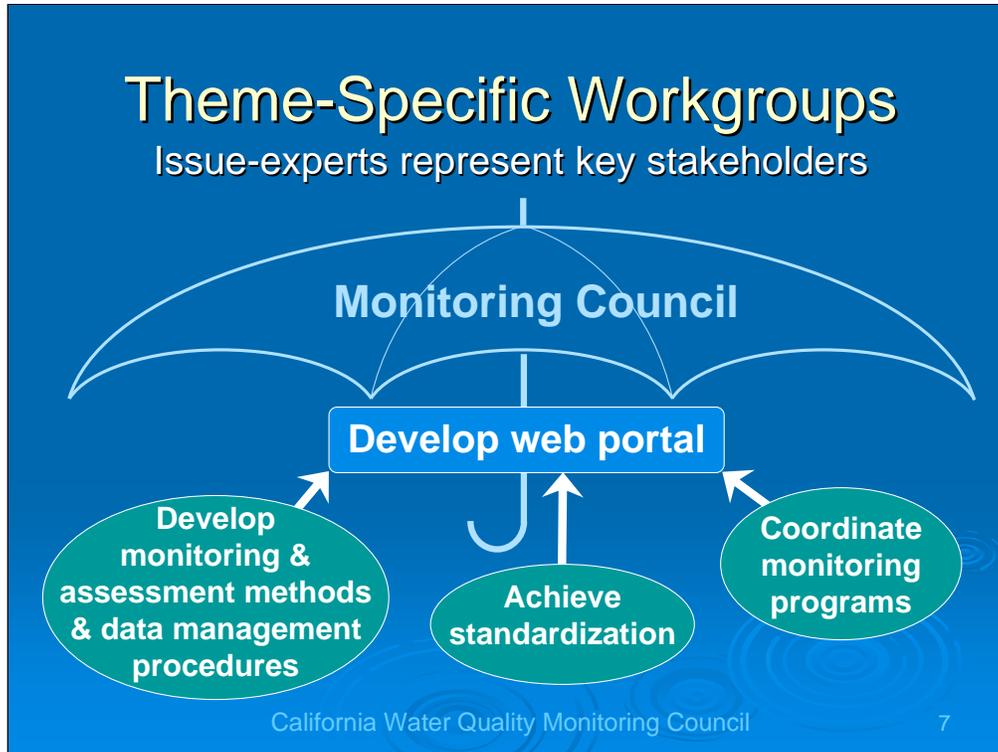
Each portal is developed and maintained by
a **theme-specific workgroup**.

The green ovals at the bottom together represent
the efforts of such a workgroup.

The workgroups are

- **staffed by issue experts** representing key stakeholders
- that develop a **web portal** devoted to their specific theme.

Each workgroup **coordinates** existing monitoring programs
within their theme,

Developing monitoring and assessment methods
and data management procedures according to
performance measures defined by Monitoring Council.

The goal is to achieve a level of **standardization**
necessary to meet **users' needs**.

Role of the Monitoring Council

- Establish policies and guidelines

- Clearinghouse for
  - Standards
  - Guidelines
  - Collaboration

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The Monitoring Council

- Establishes **common policies and guidelines** for the workgroups and the monitoring programs they represent; and

- Acts as a **clearinghouse** for standards, guidelines, and collaboration.

To illustrate its vision, the Monitoring Council and its workgroups are developing the **My Water Quality** website
to provide a **single, global access point** to a set of **theme-based internet portals** for water quality monitoring data and assessment information.

The website is designed around **intuitively clear questions** that are readily understood by managers, the public, and scientists.

- Is our water safe to drink?

- Is it safe to swim in our waters?

- Is it safe to eat fish and shellfish from our waters?

- Are our aquatic ecosystems healthy?

- What stressors and processes affect our water quality?

Each question leads to a series of web pages that provide
map-based access to **summary assessment products**
and more detailed monitoring data
that address **more detailed questions**.

Links along the left-hand side of each page
enable users to access
technical information specific to each theme.
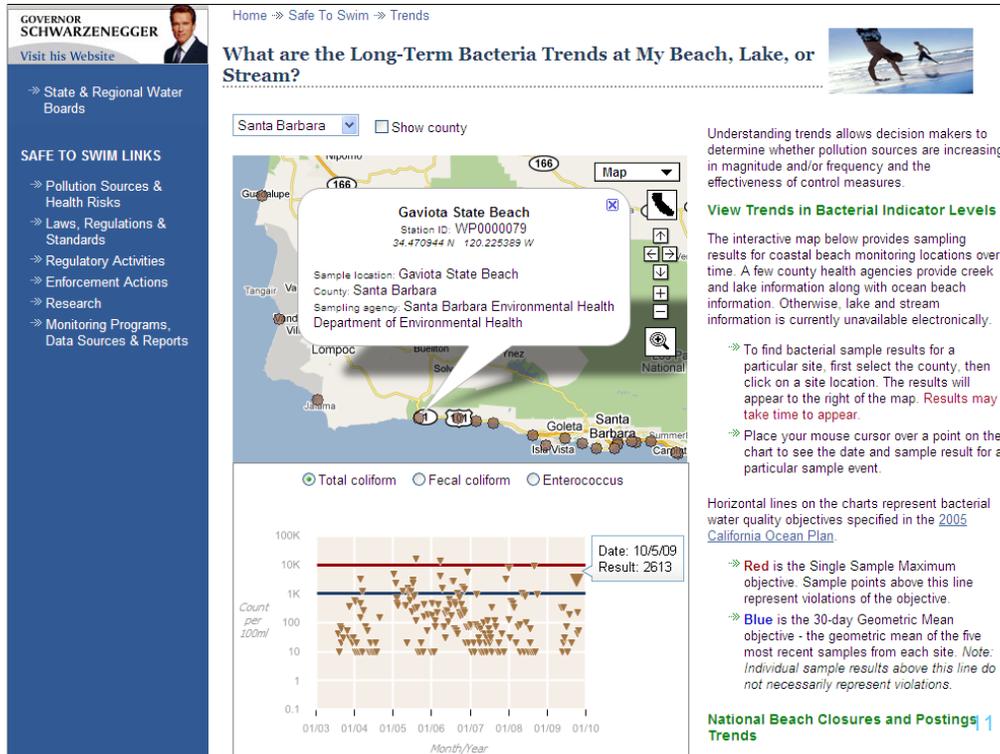
The **Safe-to-Swim portal** initially focuses on **Coastal Beaches, Bays & Estuaries**

- The **Beach Water Quality Workgroup** coordinates
  the monitoring efforts of state and local agencies
  and coastal dischargers,
  and the assessment efforts of regional environmental interests.

- These data and a variety of assessment tools
  are included in this web portal,
  released to the public in **July 2009**

This page of the Safe-to-Swim portal compares
  bacterial indicator data for specific coastal monitoring locations with
  water quality standards
  established to protect **recreational water use**.
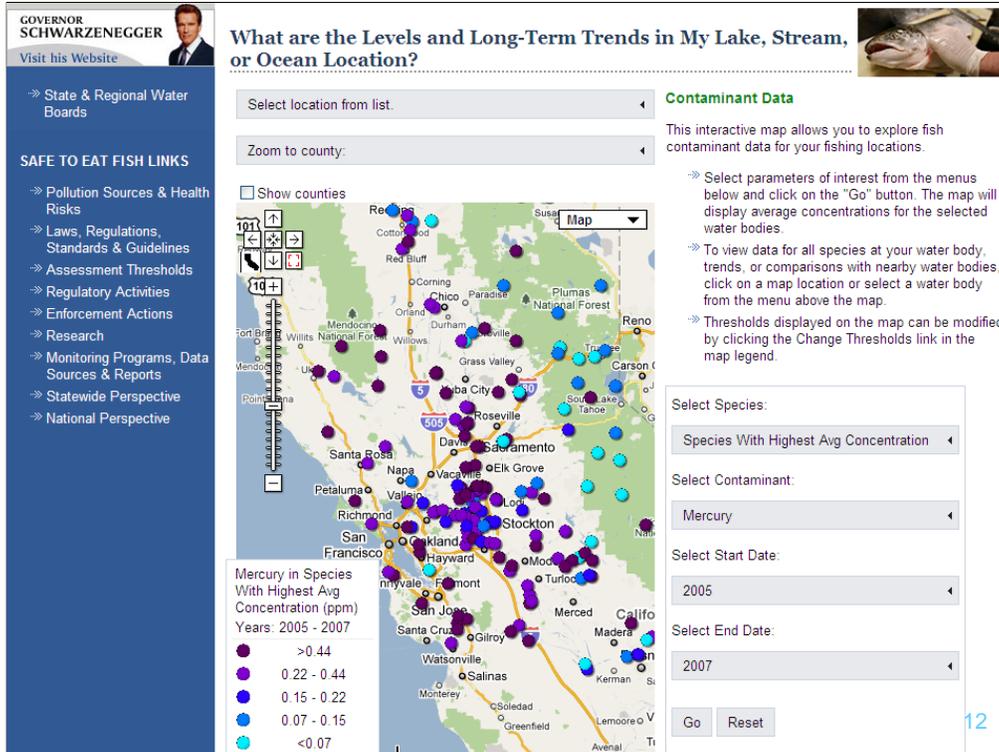
The **Safe-to-Eat Fish and Shellfish portal**
initially focuses on sport fish

- The **Bioaccumulation Oversight Group** is
a collaborative effort of a number of state agencies and others
to assess the accumulation of pollutants,
such as mercury and legacy pesticides,
in fish that people eat.

- A portal based on their work was released in **December 2009**

This page from the Safe-to-Eat Fish and Shellfish portal compares
concentrations of bioaccumulated pollutants in fish from
water bodies throughout the state
using color coded ranges.

Fish consumption advisories and safe eating guidelines
by water body are presented on other portal pages.

This page from the Safe-to-Eat portal shows which **water bodies are listed as impaired for the fishing beneficial use**, based on bioaccumulated pollutants in fish and shellfish samples.

Links to **TMDL information** for each water body show how each impairment is being addressed.

Aquatic ecosystem health information is presented in separate portals for each **water body type**.
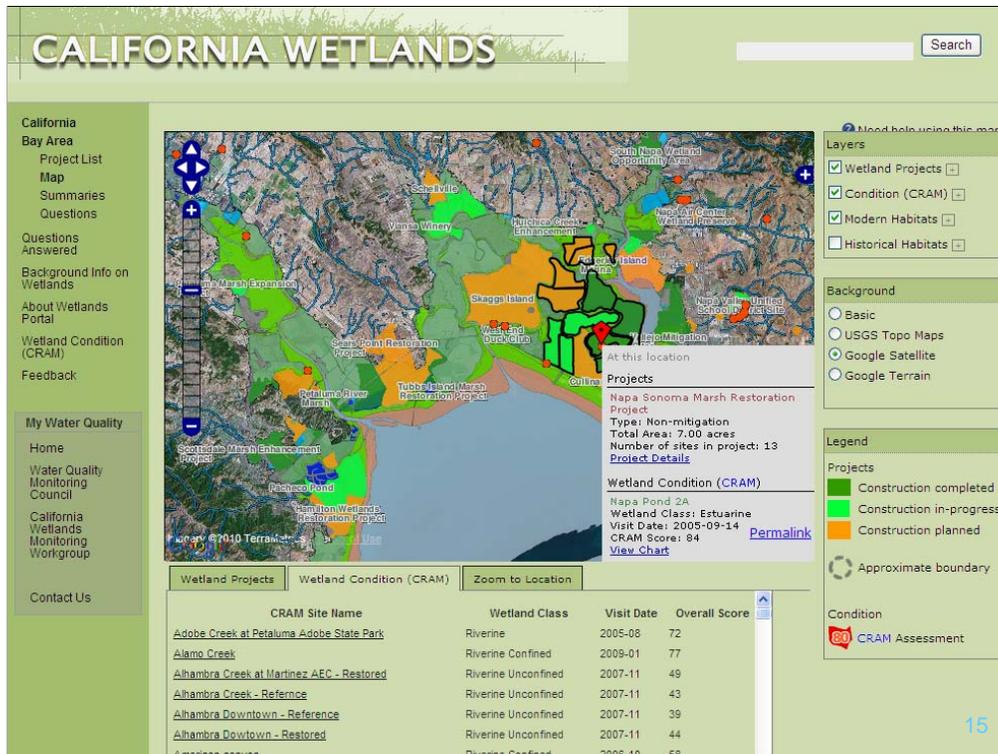
The first Aquatic Ecosystem Health portal focuses on **Wetlands**

- The **California Wetland Monitoring Workgroup** coordinates
  the efforts of 23 state, federal, and local organizations
  to assess the **extent** and **health** of California's wetlands

- Their **California Wetlands portal**
  was released in **March of this year**

This page from the California Wetlands portal
  provides map-based access to

- the historic and modern **extent** of wetland habitat,

- wetland **condition scores**
  using the California Rapid Assessment Method, and

- the status of wetland **restoration projects**.

These initial themes were chosen for action, based on existing efforts that had already made substantial progress.

Other workgroups are organizing to develop additional portals on

- **healthy streams**,
- **marine rocky intertidal ecosystems**, and
- the safety of California's **groundwater resources for human consumption**.

California's Comprehensive
Water Quality Monitoring
Program Strategy

www.waterboards.ca.gov/water_issues/
programs/monitoring_council

My Water Quality Portals

www.CaWaterQuality.net

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As called for by the enabling legislation,
the Monitoring Council is poised to propose
a **comprehensive water quality
monitoring program strategy** for California,
based on its recommendations
and the success of initial workgroup and web portal efforts.

Information on the California Water Quality Monitoring Council,
including the draft strategy,
and the **My Water Quality web portals**
are on the internet at the addresses shown here.

I would be happy to answer your questions.