



Planning the Monitoring Council's Future

Jon Marshack
Council Director

Kris Jones
Assistant Director

Setting the Stage

- 💧 Where have we been?
- 💧 What were the goals of our legislation?
- 💧 How have we addressed these goals?
- 💧 What has worked well and what has not?
- 💧 What challenges do we face?
- 💧 How have we changed to address these challenges?
- 💧 Questions for our guests and the Council

The Problem

- 💧 Each study generates single-purpose data
 - 💧 Inconsistent
 - 💧 Monitoring objectives
 - 💧 Sampling protocols and analytical techniques
 - 💧 Quality assurance/quality control methods
 - 💧 Data management and documentation protocols
 - 💧 Assessment strategies
 - 💧 Can not integrate data from multiple studies
- 💧 No common place to find and access data
- 💧 Address current management questions?

The Response – Senate Bill 1070 (2006)



- Form the California Water Quality Monitoring Council
 - Through MOU between
 - California Environmental Protection Agency
 - California Natural Resources Agency
- Make initial recommendations – December 2008
 - Maximize the efficiency and effectiveness of existing water quality data collection and dissemination
 - Ensure data available to decision makers and public
- Develop *A Comprehensive Monitoring Program Strategy for California* – December 2010

SB 1070 Goals



- 1) Monitoring and assessment are more efficient and effective through collaboration
- 2) Resulting data and information are made available to decision makers and the public via the internet
- 3) Water quality projects financed by the state track effectiveness in achieving clean water and healthy ecosystems

Government Organizations Listed in SB 1070

- Initially focus on the...efforts of state agencies, including, but not limited to
 - State and Regional Water Boards
 - Department of Water Resources
 - Department of Fish and Wildlife
 - California Coastal Commission
 - State Lands Commission
 - Department of Parks and Recreation
 - Department of Forestry and Fire Protection
 - Department of Pesticide Regulation
 - Department of Public Health



Where we have been

- 💧 SB 1070 became law 2006
- 💧 MOU signed by Secretaries of Cal/EPA and Natural Resources Agency 2007
 - 💧 Monitoring Council formed 2008
- 💧 Initial Recommendations delivered 2008
- 💧 Monitoring Program Strategy delivered 2010
- 💧 First Triennial Audit (self-evaluation) 2014

Monitoring Council Members

- Cal/EPA (Co-Chair)
- CNRA (Co-Chair)
- Drinking Water Program
- Regulated Community
 - Publicly Owned Treatment Works
 - Storm Water
 - Agriculture
- Citizen Monitoring
- Public
- Scientific Community
- Water Supply



California Division
of Drinking Water



Strategy: Five-part Solution



- 1) Decentralized organizational structure
 - ◆ Issue-specific workgroups of technical experts
 - ◆ Common Monitoring Council policies and guidance
- 2) Set of performance measures
 - ◆ To evaluate and enhance efforts
- 3) Single global point of entry to data and information
 - ◆ Leads to set of theme-based Internet portals
- 4) Standardize only as needed to bring data together
- 5) Data management standards for more efficient data access and integration

More Than Just Data on the Web

- 💧 Forming and maintaining lasting relationships
 - 💧 Through theme-specific workgroups
- 💧 Implementing a portal design that requires and motivates parties to solve issues related to
 - 💧 Monitoring and assessment coordination
 - 💧 Data access and integration
- 💧 Focus directly on management questions
- 💧 Provides structure that initiates dialogues
 - 💧 Induces broader-based thinking
 - 💧 Enables broader-based assessments



Theme-Specific Workgroups

PORTAL THEMES					
WATER BODY TYPES	Drinking	Swimming / Contact Recreation	Fishing	Aquatic Life Protection	Stressors Affecting Multiple Uses
Streams & Rivers	Safe Drinking Water Workgroup (DDW Human Right to Water)	Inland Beaches Workgroup	Bioaccumulation Oversight Group (SWAMP)	Healthy Watersheds Partnership (SWAMP)	Cyanobacteria and Harmful Algal Bloom Network (SWAMP Freshwater HABs Program)
Lakes		Coastal Beach Water Quality Workgroups		Estuary Monitoring Workgroup	
Estuaries				Ocean & Coastal Workgroup	
Ocean Waters	N/A	N/A		Wetland Monitoring Workgroup	
Wetlands	N/A	N/A	N/A	N/A	
Tap Water	Safe Drinking Water Workgroup	N/A	N/A	N/A	
Groundwater	(DDW Human Right to Water)	N/A	N/A	N/A	N/A

Support Workgroups



- 💧 Data Management Workgroup
 - 💧 Data management
 - 💧 Data quality and documentation
 - 💧 Data access and sharing
 - 💧 Web development
 - 💧 GIS
- 💧 Water Quality Monitoring Collaboration Network
 - 💧 Support local and regional monitoring efforts
 - 💧 Web-based seminars to share experiences and foster use of appropriate methods

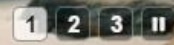


Website and Portals

Improved Access to Data and Information

- Safe to Swim July 2009
- Safe to Eat Fish & Shellfish Dec 2009
- Wetland Eco Health June 2010
- Stream Eco Health June 2012
- Ocean/Coastal Eco Health
 - Rocky Intertidal Habitats Oct 2013
- Estuary Eco Health Oct 2013
- Harmful Algal Blooms Aug 2016
- Safe to Drink page May 2017
- Regional data connection May 2017

These web portals, supported by a wide variety of public and private organizations, present California water quality and aquatic ecosystem monitoring data and assessment information that may be viewed across space and time.



Welcome to My Water Quality

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. [Learn 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. [Learn more >>](#)

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. [Learn more >>](#)

Are harmful algal blooms affecting our waters?



Harmful algal blooms can make water unsafe for swimming and other recreational activities. The toxins they produce can harm pets, livestock, and people. [Learn more >>](#)

Is it Safe to Eat Fish 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. [Learn more >>](#)

Is There Monitoring Data Near Me?



A number of regional monitoring programs throughout California collect and display water quality and aquatic ecosystem health data. [Learn more >>](#)



Portals

About Us

Work Groups

These web portals, supported by a wide variety of public and private organizations, present California water quality and aquatic ecosystem monitoring data and assessment information that may be viewed across space and time.



Are Our Aquatic Ecosystems Healthy?

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



Wetlands Portal

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.



Streams & Rivers Portal

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.



Estuaries Portal

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.



Ocean & Coastal Portal

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.

(Updated 4/20/16)

Role of the Monitoring Council

- 💧 Develop monitoring program strategy
 - 💧 Establish policies and guidelines for workgroups and portals
- 💧 Oversee strategy implementation
 - 💧 Resolve key issues
 - e.g., between workgroups
 - 💧 Support workgroup initiatives
 - 💧 Improve workgroup and portal visibility



Monitoring Council Workgroups



- 💧 Overview
- 💧 2016 Accomplishments
- 💧 2017 Aspirations

Bioaccumulation Oversight Group

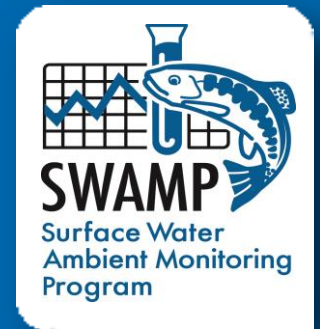
- Partnership of state and federal agencies and non-governmental organizations



- Focused on accumulation of pollutants in fish tissue and threats to human health and wildlife
- Core monitoring program of SWAMP

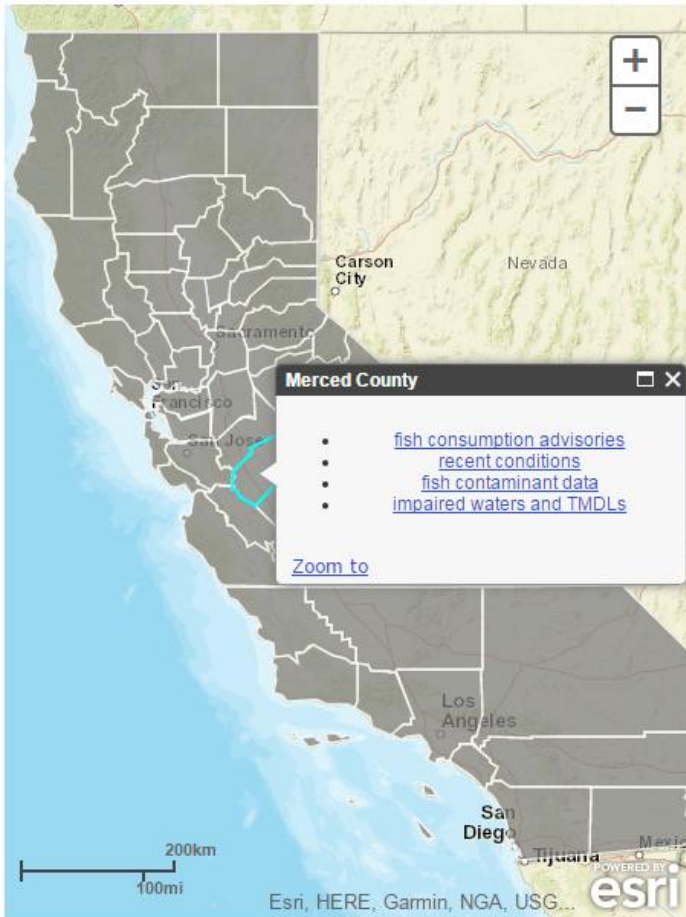
Bioaccumulation Oversight Group

- Second portal released to public – December 2009
- Initial focus – threats to human consumers from sport fish
 - Expanding – threats to aquatic life and wildlife
- Workgroup strategy in place to coordinate monitoring, assessment and reporting
- SWAMP standard methods & QA
- First comprehensive statewide survey of contaminants in sport fish from California waters
- Data lead to the first statewide advisory on eating fish from lakes and reservoirs (OEHHA)
- Data managed through CEDEN
- Funding from Water Boards & USEPA through SWAMP



Bioaccumulation of Pollutants in Fish Tissue

Show County Info:



Fish and shellfish are nutritious and good for you to eat. But some fish and shellfish may take in toxic chemicals from the water they live in and the food they eat. Some of these chemicals build up in the fish and shellfish - and in the humans that eat fish and shellfish - over time. Although the chemical levels are usually low, it is a good idea to learn about advisories and monitoring in water bodies where you fish, and for fish or shellfish you eat.

Questions Answered

- Can I eat fish or shellfish caught in my lake, stream, or ocean? [↗](#)
- Does my lake, stream, or ocean location have fish or shellfish with contaminants at levels of concern?
- What are the levels and long-term trends in my lake, stream, or ocean location?
- Which lakes, streams, or ocean locations are listed by the State as impaired?
- What is being done to reduce these problems?

Water Quality information addressing these questions is currently available for the counties that are shaded on this map. This portal is a work in progress, initially showing readily available data and assessment information. More will be added as it becomes available.

- Click on a question to view water quality information specific to that topic.
- Click on a county or select the county from the drop-down menu to view information on these questions from a county perspective.
- Links in the green bar below the tabs at the top of the page provide an additional way to navigate through these topics.
- Did this portal answer your question? Provide 20

Healthy Watersheds Partnership



- Partnership of state and federal agencies and non-governmental organizations



- Focused on the health of watersheds and their aquatic ecosystems

Workgroup's Mission



- 💧 Improve monitoring and assessment of streams and rivers through collaboration
- 💧 Promote protection of California's healthy streams and the restoration of threatened and impaired waters by informing and encouraging changes in perspectives and resource management decisions and actions

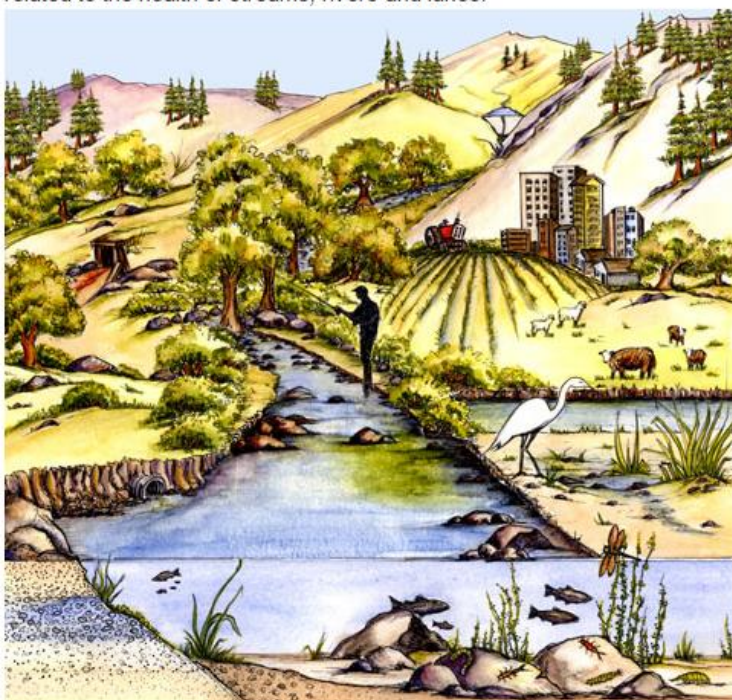
Healthy Watersheds Partnership



- 💧 Fourth portal released to public – June 2012
- 💧 Initial focus – BMI bioassessment and toxicity
- 💧 Future
 - 💧 USEPA Healthy Watersheds Initiative scores
 - 💧 Chemistry
 - 💧 Physical habitat
 - 💧 Algae bioassessment
 - 💧 Score cards – initial development in Central Coast and San Diego Regions
- 💧 SWAMP funding from Water Boards & USEPA

California Streams, Rivers and Lakes

Click on the map or text links below for more information about key factors related to the health of streams, rivers and lakes.



Environmental Characteristics: [Buffer](#) | [Riparian Cover](#) | [Algae](#) | [Bugs](#) | [Fish](#) | [Fines & Sands](#) | [Gravels](#) | [Cobbles & Boulders](#) | [Riffles & Rapids](#) | [Pools](#) | [Groundwater](#) | [Water Quality](#) | [Sediment Quality](#) | [Stream Gradient](#) | [Channel Stability](#) | [Channel Characteristics](#) | [Hydrologic Connectivity](#) | [Hydrologic Sufficiency](#) | [Sediment Balance](#)

QUESTIONS ANSWERED

- What is the extent of our stream and river resources?
- What is the condition of our streams and rivers?
- What is being done to make our waters healthier?

Why are they important?

Healthy streams, rivers, and lakes provide safe drinking water, recreational opportunities, and important habitat for species ranging from the red-shouldered hawk to steelhead to crayfish and dragonflies. Maintaining healthy streams, rivers, and lakes can reduce the need for water treatment and water supply costs and make landscapes more resilient to climate change.

How do we measure health?

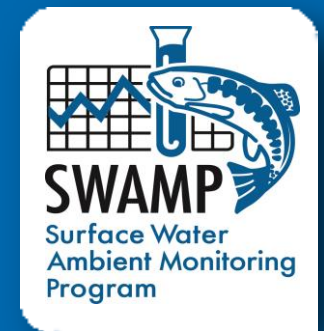
To determine the health of a waterway, investigators can use a combination of chemical, biological, and physical assessments. Among the characteristics that may be considered are habitat quality, aquatic life diversity, water chemistry, stream hydrology (water flow processes), the physical channel form, and sediment transport processes of the stream.

Related Links:

• [Mercury: Risks To Wildlife In California Lakes](#)

Methods Standardization

- 💧 Bioaccumulation Oversight Group and Healthy Watersheds Partnership
- 💧 Rely on SWAMP Strategy and tools for consistent monitoring and assessment
 - 💧 Documented monitoring and assessment Standard Operating Procedures (SOPs)
 - 💧 Quality assurance procedures
 - 💧 Data management and documentation procedures
- 💧 California Environmental Data Exchange Network (CEDEN)



Wetland Monitoring Workgroup



- 💧 Partnership of 24 state and federal agencies and non-governmental organizations



- 💧 Focused on the health of wetland ecosystems



Workgroup's Mission

- 💧 Improve monitoring and assessment of wetland and riparian resources
 - 💧 Develop and implement a comprehensive wetland monitoring plan for California
 - 💧 Increase coordination and cooperation among local, state, and federal agencies, tribes, and non-governmental organizations
- 💧 Review technical and policy aspects of wetland monitoring tool development, implementation and use of data to improve wetland management in California



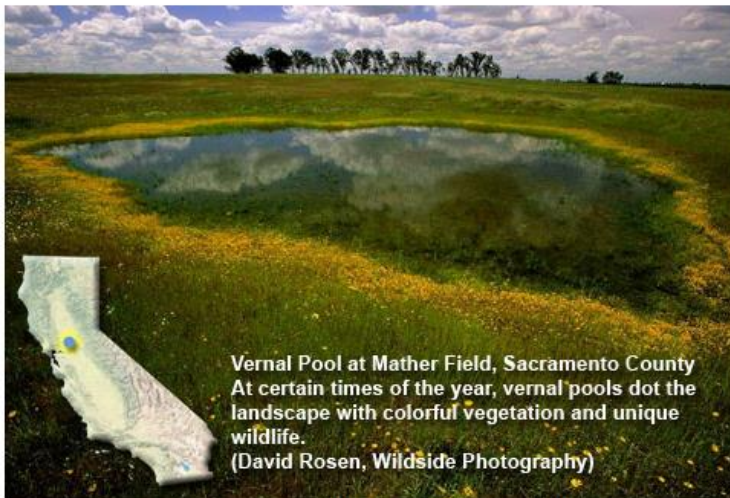
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Wetland Links

California Wetlands



Click on an image above for more information



1/9



Wetlands have both aquatic and terrestrial characteristics. Wetlands form along the shallow margins of lakes, estuaries, and rivers, and in areas with high groundwater or shallow surface water, such as springs, wet meadows, ponds, and freshwater and tidal marshes. They often go through wet and dry cycles, and therefore support a unique array of life specially adapted to these conditions. Wetlands provide important habitat for birds, fish, and other wildlife. They support local food webs, contribute to flood protection, groundwater recharge, shoreline protection, and water filtration: all important [ecosystem services](#).

California has lost more than 90% of its [historical wetlands](#) and today, many remaining wetlands are threatened. Wetlands continue to be drained for agriculture, filled for development, or disturbed by modifications to the watershed such as dams or water diversions. Climate change poses a significant threat, as many wetlands today are dependent on artificial water delivery systems or high groundwater levels, and may be impacted by changing climatic conditions. Further, wetlands along the coast face

Welcome Prop 1 Applicants!

Guidance on the WRAMP framework for monitoring and assessment.

Questions Answered

- [What is the extent of our wetlands?](#)
- [Where did our numbers come from?](#)
 - How much have we lost?
 - What types are there?
 - How do we classify them?
 - What services do they provide?
 - What is the status of mapping?
- [How healthy are our wetlands?](#)
 - How do we know how they're doing?
 - How do we assess wetland health?
 - What studies have documented wetland condition?
- [How are our wetlands protected?](#)
 - What regulations protect them?
 - Where are wetlands being restored near me?

Informational Links

- [California Wetlands Portal Fact Sheet](#)
- [KCBS Radio Spot from July 14, 2013](#)

Methods Standardization



- Wetland and Riparian Area Monitoring Plan
 - Framework for monitoring, assessment, and reporting
 - Based on Level 1-2-3 Framework of U.S. EPA
- California Rapid Assessment Method (CRAM)

- Cost-effective and defensible methods for monitoring wetland condition
- Modules by wetland type
- Training



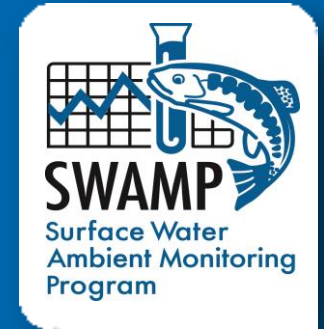
- EcoAtlas data visualization

- Landscape context to aquatic resource extent, condition, and project information
- Integrates maps, restoration project information, and monitoring results
- California Aquatic Resources Inventory (CARI) base map



Grant Program Effectiveness

- Water Boards and Dept. of Water Resources
 - Standard grant and contract agreements
 - SWAMP “comparability” monitoring & QA
 - Data management in State systems
- Proposition 1 grant agreements
 - Use Wetland and Riparian Area Monitoring Plan tools
 - Monitoring methods and QA
 - Data management



Estuary Monitoring Workgroup

💧 Collaborative workgroup



- 💧 Focused on the health of estuarine ecosystems
- 💧 Initial emphasis is San Francisco Bay-Delta Estuary

Estuary Monitoring Workgroup

- Initial leadership and funding
 - State & Federal Contractors Water Agency
- Coordination through Interagency Ecological Program
 - Monitoring, assessment and reporting
- Data visualization through 34 North
 - Workgroup website and tools
 - Portal development and hosting
- Use of EcoAtlas for Delta habitat restoration project tracking
 - Endorsement from Sac-SJ Delta Conservancy





Portals

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Estuary Links

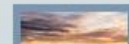
California Estuaries



Sacramento - San Joaquin Delta

Description: The Delta, the most upstream section of the Estuary, is a thousand-square-mile triangle of diked and drained swampland. Only the barest shreds of once-extensive tule marshes remain, now narrowly fringing sloughs and channels that wind between flat, levee-rimmed farmlands, the Delta "islands." In its natural state, the Delta pointed its hydraulic arrowhead westward from the Central Valley, gathering in waters from the Sacramento River, the San Joaquin River, and the smaller Mokelumne and Cosumnes rivers and shooting them downstream into San Francisco Bay. From "An Introduction to the San Francisco Estuary" by Andrew Cohen. **Photo Credit:** 34 North

SELECT A PICTURE HERE:



QUESTIONS ANSWERED

- What are estuaries, and why are they important?
- Where are California's estuaries?
- How healthy are California's estuaries?
- What's being done to protect California's estuaries?
- How can I be part of the solution?

Ocean & Coastal Ecosystem Health

- Initial effort
 - Multi-Agency Rocky Intertidal Network (MARINe)
 - Tide Pool Portal released – October 2013
 - Build on MARINe data website
 - Add public interest focus





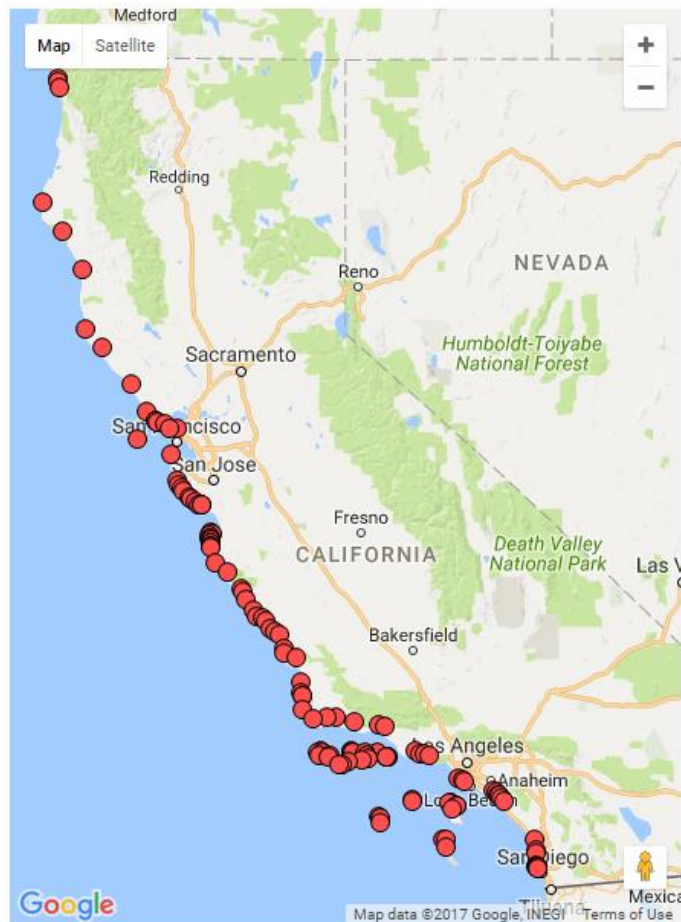
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Tide Pool Links

Rocky Intertidal Coastal Habitats (Tide Pools)



Rocky intertidal zones, sometimes referred to as tide pools, are a diverse ecosystem. Organisms living in tide pools have to deal with naturally harsh conditions such as spending time out of water and dealing with strong wave action. In addition, tide pools are impacted by human activities, such as overexploitation and trampling and are vulnerable to climate change.

Long term monitoring of these habitats helps us understand how tide pool plant and animal populations change over time and gives us information to help determine the condition of these ecosystems.

Questions Answered

- What is a tide pool (or Rocky Intertidal Habitat)?
- Why are tide pools important?
- Where are the tide pools?
- Who monitors tide pools?
- What lives there and what species are monitored?
- How healthy are our tide pools?
- Who protects the tide pools?
- Are there rules that I should follow when I explore tide pools?
- What laws and regulations protect them?

[View videos of California tide pools](#)



Ocean & Coastal Ecosystem Health

- 💧 Roadmap developed by
Ocean Science Trust



- 💧 Funded by Resources Legacy Fund Foundation
- 💧 Priority issues
 - 💧 Marine Protected Areas & water quality (ASBSs)
 - 💧 Harmful algal blooms
 - 💧 Ocean acidification
 - 💧 Marine debris & trash control

Cyanobacteria and Harmful Algal Bloom Network

- Partnership of state, federal, and local agencies, tribes, and non-governmental organizations



- Focused on developing coordinated warning and response program to harmful algal blooms

Cyanobacteria and Harmful Algal Bloom Network

- 💧 Mission: Develop statewide framework to address cyanoHABs in CA freshwater and marine waters
- 💧 Developed Voluntary Guidance response in Recreational Waters
 - 💧 Trigger levels for human health and animal exposure
 - 💧 Decision tree for water body posting
 - 💧 Signage
- 💧 Coordinated with SWAMP Freshwater HABs
- 💧 Portal launched August 2016
 - 💧 Data on HAB events
 - 💧 Tools for HAB response



Portals

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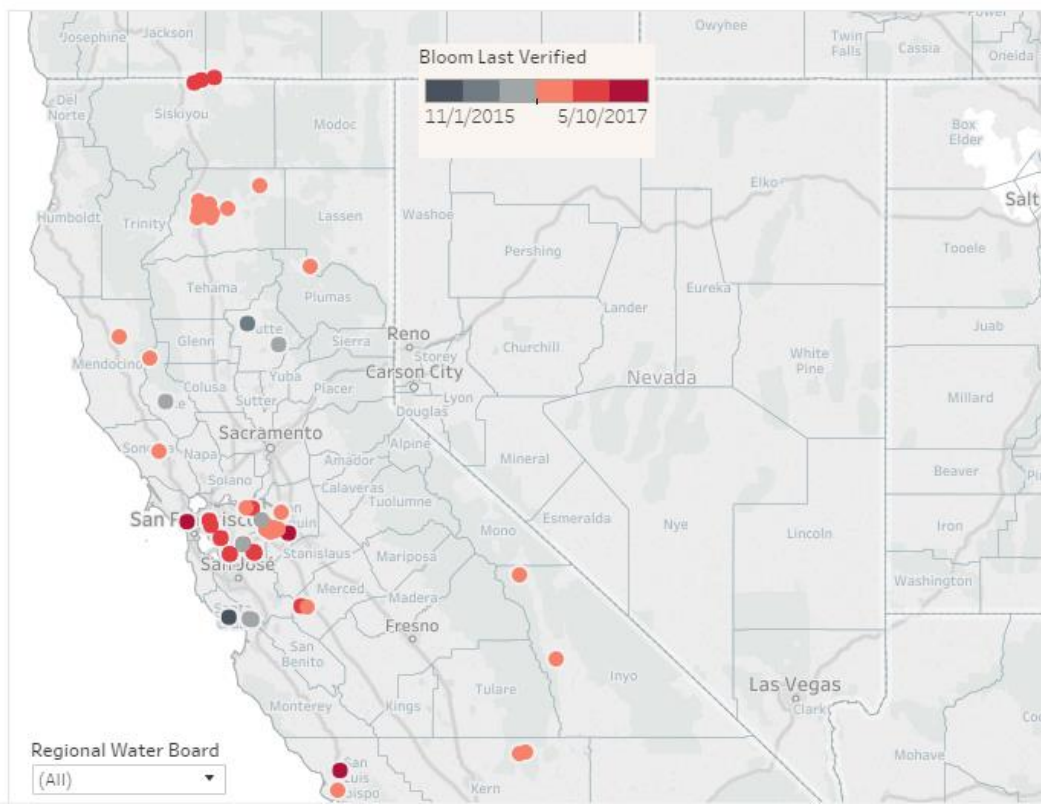
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HABs Links

California Harmful Algal Blooms (HABs)

HAB events represented below are [voluntarily reported](#) to the State Water Board's Surface Water Ambient Monitoring Program. Data provided are for general information purposes only and may contain errors. The exact location, extent and toxicity of the reported bloom may not be accurate and may not be affecting the entire waterbody. The data are subject to change as new information is received. Please check back for updates.

- [More detailed information on freshwater HAB events](#)



Toolbox

- [Report a Bloom](#)
- [Signs and Guidance for Posting](#)
- [Field Guide and Forms](#)
- [Resources for Labs](#)

News and Announcements

- [Training and Collaboration](#)
- [Current Advisories](#)
- [Bulletins & Newsletters](#)
- [California CyanoHAB Network](#)

Questions Answered

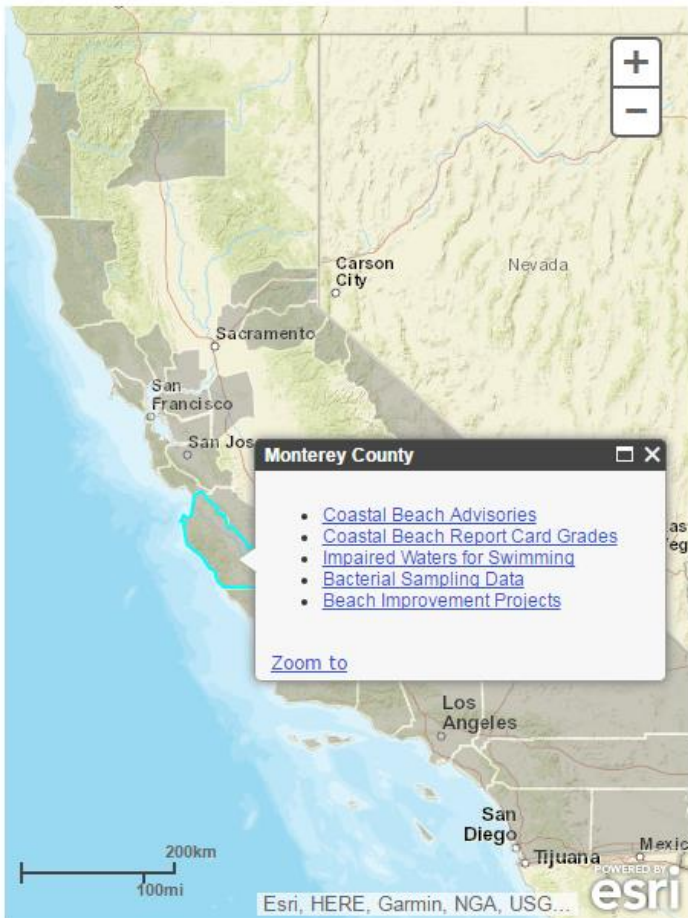
- [What are harmful algal blooms?](#)
 - What are harmful algae?
 - Why are they important?
 - Where do they come from?
 - Why should I be concerned?
 - What are the impacts?
 - Swimming & recreation
 - Drinking water
 - Fish & shellfish harvesting
 - Domestic animals
 - Wildlife
- [Where are harmful algal blooms occurring?](#)
 - HABs event maps
 - Freshwaters
 - Marine waters

Safe to Swim Workgroups

- First portal released to public – July 2009
- Initial focus – Beach Water Quality Workgroups
 - Coastal beaches bacterial indicators & beach closures
- New Inland Beaches Workgroup
 - Add inland waters bacteria & standardize methods
- Improved data management system developing
 - New Beach Watch database collects coastal data
 - Data feed to CEDEN (in the works) and USEPA
 - Combine with inland waters bacterial indicator data on portal
- Portal and workgroup funding through State Water Board

Swimming Safety Information

Show County Info:



Beach water quality monitoring and strong pollution prevention measures are critical for protecting beach goers from waterborne diseases. Monitoring is performed by city and county health agencies, publicly owned sewage treatment plants, other dischargers, environmental groups and numerous citizen-monitoring groups.

View Monitoring and Assessment Information

- Click on a **county** or;
- Select from the **Show County** info menu.

Questions Answered

- Can I swim at my coastal beach?
- What are the current swimming advisories for my coastal beach?
- How do harmful algal blooms affect swimming safety?
- What are the long-term trends of bacteria at my coastal beach?
- Which beaches, lakes, and streams are listed by the State as impaired for swimming?
- How are we improving swimming safety?

Safe Drinking Water Workgroup

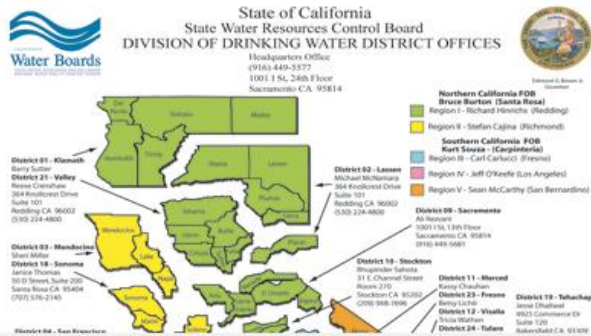
- 💧 Leadership – CA Division of Drinking Water
- 💧 Portal mockup approved by Monitoring Council in late 2013
 - 💧 Entire story of water quality
 - 💧 From the source to the tap
 - 💧 Telling each agency's role
- 💧 Move of Drinking Water Program
 - 💧 From CA Dept. of Public Health to Water Boards
 - 💧 Human Right to Water – current focus

Find Out About Your Water

Most Californians receive their drinking water from public water systems. These systems are subject to many state and federal regulations intended to ensure that the water the systems provide to their customers is safe. On this page you can find links to information about the quality of your drinking water, as well as information about the regulating agencies that oversee public water systems. There's also information for private well owners.

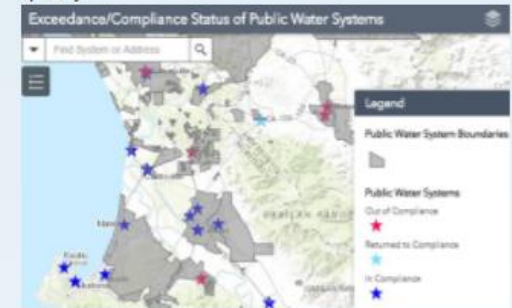
Regulating Agencies

- The [U.S. Environmental Protection Agency \(U.S. EPA\)](#) administers the federal Safe Drinking Water Act and adopts regulations to implement the Act. However, the U.S. EPA grants primary enforcement responsibility for the federal act and regulations to those states that meet certain criteria.
- [Division of Drinking Water \(DDW\)](#) has been granted primary enforcement responsibility by U.S. EPA for public water systems in California and is also responsible for regulating public water systems, under the state Safe Drinking Water Act. DDW also is responsible for developing regulations for the use of recycled water to supplement drinking water supplies.
- Click on the [map](#) below to find your Division of Drinking Water district office.



Human Right to Water Portal

- At the [Human Right to Water Portal](#), you can find information about your drinking water system's water quality.



- There are also maps, links to compliance data, frequently asked questions, and access to the [Drinking Water Watch website](#).

Consumer Confidence Reports

If you receive your water from a public water system, the water system is required to provide to you an annual Consumer Confidence Report (CCR), which contains information about the system's water quality. Contact your water supplier for questions about the CCR. A number of CCRs are available at the [Drinking Water Watch website](#).

Contact the Division of Drinking Water

Phone: (916) 440-5577

Data Management Workgroup

- 💧 Partnership of governmental, non-governmental and technology organizations and academics
- 💧 Focused on providing recommendations on issues common to all theme-specific workgroups
 - 💧 Data management
 - 💧 Data access
 - 💧 GIS
 - 💧 Web development

Water Quality Monitoring Collaboration Network

- 💧 Provides 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

Original Concept

- 💧 SB 1070 was the first step
 - 💧 Form the Monitoring Council
 - 💧 Develop the comprehensive monitoring program strategy
 - 💧 Develop initial products as proof of concept
 - 💧 Collaborative efforts
 - 💧 Data and information access
- 💧 Go back to the legislature for funding and dedicated staff
 - 💧 The Great Recession got in the way

Triennial Audit - Challenges

- 💧 No dedicated funding and personnel for the program
 - 💧 Resources are needed to initiate and sustain collaboration
 - 💧 Staff time for workgroup meetings and coordination of monitoring, assessment, and reporting
 - 💧 Improving data management and data access infrastructure
 - 💧 Portal development and maintenance
- 💧 No current Council champion in Legislature

Triennial Audit - Funding to Date

- 💧 Monitoring Council staff
 - 💧 SWRCB (0.8) 💧 DWR (0.5)
- 💧 Regular monitoring program funds
 - 💧 SWRCB 💧 DWR 💧 USEPA 💧 CIAP
- 💧 One-time grants
 - 💧 USEPA wetland program development
 - 💧 Resources Legacy Fund (ocean roadmap)
- 💧 IT support (web, GIS, data management)
 - 💧 SWRCB (in-house & SFEI) 💧 SFCWA (34 North)



Triennial Audit - Summary



- 💧 Monitoring Council and workgroups have made amazing progress given
 - 💧 No dedicated funding
 - 💧 Largely voluntary efforts
- 💧 Outstanding example of collaboration and improved access to information
 - 💧 As compared with other state/regional Councils
 - 💧 CA's program admired by National Water Quality Monitoring Council



Discussions with Cal/EPA



- 💧 Appreciate progress made to date
- 💧 Grass roots-level efforts are pragmatic
- 💧 Overall mission and approach are sound
- 💧 Monitoring Council not currently a high priority for agency secretaries
- 💧 Is the Monitoring Council organized the right way to implement the Strategy?

Discussions with Cal/EPA



- 💧 To gain support, we must demonstrate relevance to high-profile administration interests
 - 💧 Monitoring Council programs support California Water Action Plan
 - 💧 Bay-Delta Dashboard concept paper
 - 💧 Departments need to see relevance to their programs and be able exercise control
- 💧 Better support management decision making

Tie Efforts to Delta Priorities



- 💧 Delta Stewardship Council
 - 💧 Environmental Data Summit vision paper
 - 💧 Data Mgmt. Workgroup to detail implementation
 - 💧 DPIIC high-impact science actions
 - 💧 Build on Estuary and Wetland workgroup efforts
- 💧 Delta Conservancy and others
 - 💧 Habitat restoration tracking and effectiveness monitoring
 - 💧 Wetland Workgroup tools (e.g. EcoAtlas, CRAM)
- 💧 Delta Dashboard – Estuary Portal + B-D Live

AB 1755

Open and Transparent Water Data Act

- Assigned new consultation tasks to Council
- Monitoring Council Response
 - Steering Committee directs Data Management Workgroup
 - Assist with AB 1755 implementation
 - Interagency consultation through Steering Committee
 - Data sharing protocols development by workgroup
 - Data Management Plan template/guidance
 - Open Data Handbook
 - Data readiness assessments by organization
 - Guidance for data literacy

Current Focus Summary

- 💧 Inform key decision making
 - 💧 Data dashboards for Delta adaptive mgmt.
 - 💧 Harmful algal bloom response actions
 - 💧 AB 1755 implementation and data literacy
 - 💧 Environmental instream flows coordination
 - 💧 Fish tissue data for mercury objectives, safe eating guidelines, and TMDL implementation
 - 💧 Biological indicators for nutrient management
 - 💧 Inland waters swimming safety
 - 💧 Assist regional monitoring efforts

Questions for Today's Guests

- a. Has the Council benefited your organization and how?
- b. What has worked well and what has not?
- c. Who needs the Council and for what purpose?
- d. To whom should we report?
- e. What can be improved?
- f. How should we move forward?

Questions for the Council

1. What has worked well and what has not?
2. Who should the Council serve?
3. Are changes needed in the Monitoring Council's membership?
4. What changes are needed in the Council's mission, focus, goals, and key initiatives?
5. Is new or updated legislation needed?

Questions for the Council

6. What outreach is needed to increase awareness of the value of Council and workgroup tools, products and activities, and to attract greater participation?
7. Should new tasks be assigned to the Council's Director and Assistant Director?
8. What additional actions can Council Members take to further the cause?