

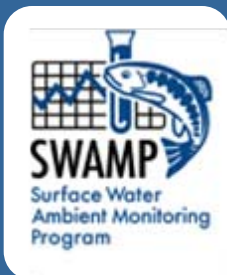
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## Welcome to My Water Quality

This web portal, supported by a wide variety of public and private organizations, presents California water quality monitoring data and assessment information from a variety of perspectives that may be viewed across space and time.



### 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. [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. [More >>](#)



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

Aquatic organisms accumulate certain pollutants from the water in which they live, sometimes reaching levels that could harm consumers. [More >>](#) (links to page 2)



### 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. [More >>](#)

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Home → Safe To Eat

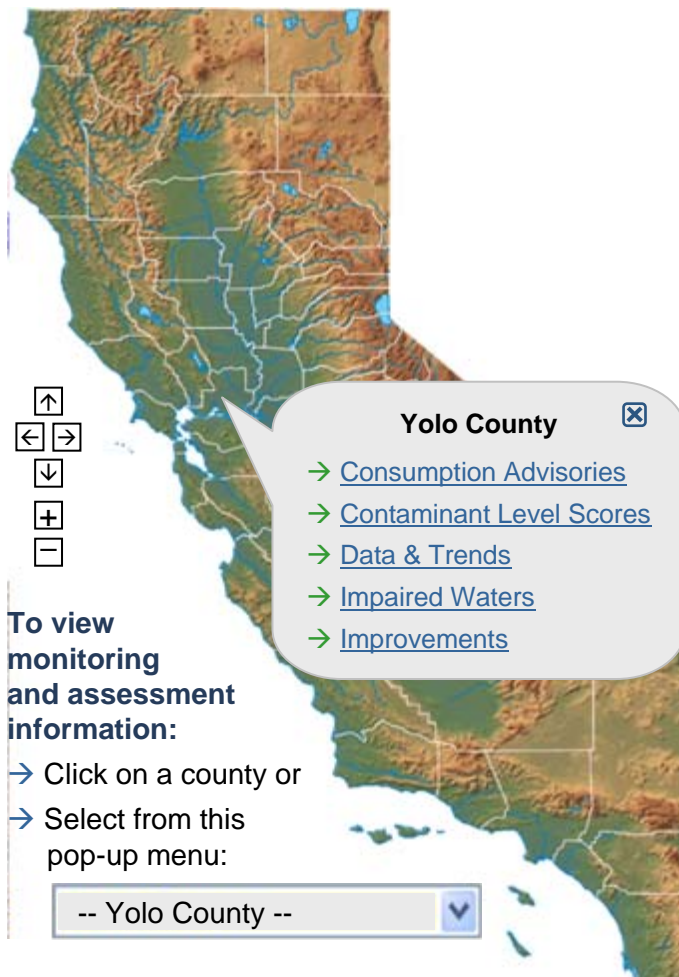


## Is It Safe to Eat Fish & Shellfish from Our Waters?

→ State & Regional  
 Water Boards

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To view monitoring and assessment information:

- Click on a county or
- Select from this pop-up menu:

-- Yolo County --

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's a good idea to follow a few precautions in consuming fish and shellfish, particularly if you eat fish or shellfish often.

### QUESTIONS ANSWERED

- [Can I eat fish or shellfish caught in my lake, stream, or ocean location?](#) [\(links to page 3\)](#)
- [Does my lake, stream, or ocean location have fish or shellfish with contaminants at levels of concern?](#) [\(links to page 4\)](#)
- [What are the levels and long-term trends in my lake, stream, or ocean location?](#) [\(links to page 6\)](#)
- [Which lakes, streams, or ocean locations are listed by the State as impaired?](#) [\(links to page 7\)](#)
- [What is being done to reduce these problems?](#) [\(links to page 8\)](#)

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Home → Safe To Eat → Consumption Advisories

## Can I Eat Fish or Shellfish Caught in My Lake, Stream, or Ocean Location?



→ State & Regional Water Boards

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### Fish and Shellfish Consumption Advisories by Location

There are health benefits from eating fish and shellfish. But some fish and shellfish may contain chemical or biotoxin contaminants that could pose health risks. When contaminant levels are unsafe, consumption advisories may recommend that people limit or avoid eating certain species of fish or shellfish caught in certain places and at certain times.

#### → California Sport Fish Consumption Advisories

For a number of California water bodies, the Cal/EPA Office of Environmental Health Hazard Assessment publish consumption advisories for chemicals in noncommercial fish that you, your family or friends catch. **These advisories are shown on the map to the left.**

- Click on a water body or
- Type the water body name in the box below:



- [More information on OEHHA fish advisories](#)
- [OEHHA Protocol for Updating Fish Advisories](#)
- [California Shellfish Harvesting Warnings & Quarantines](#)  
 Algal blooms can cause marine biotoxins to exist in shellfish at levels that pose health risks to consumers.
- [General Fish and Shellfish Consumption Advisories](#) from other state and federal agencies. [\(links to page 10\)](#)



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Home → Safe To Eat → Contaminant Level Scores

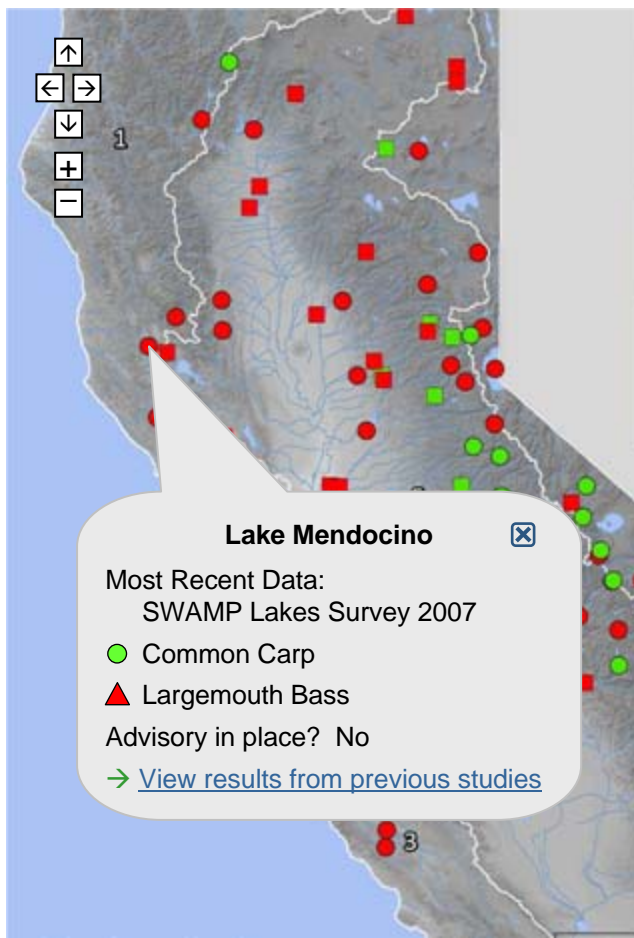
## Does My Lake, Stream, or Ocean Location Have Fish With Contaminants at Levels of Concern?



→ State & Regional Water Boards

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### Fish and Shellfish Tissue Contaminant Level Scores

Some fish and shellfish contain chemicals that accumulate in their tissues from the water they live in and the food they eat. This interactive map shows color codes based on screening study data for fish and shellfish tissue samples and [assessment thresholds developed by the Cal/EPA Office of Environmental Health Hazard Assessment](#).

[\(links to page 11\)](#)

Advisory Tissue Level – 3 servings per week

**Green** indicates that all tissue concentrations were below the selected assessment threshold.

**Red** indicates that one or more tissue contaminant concentrations exceed the selected assessment threshold.

- Click on a colored dot to view more detailed information about tissue contaminant levels, or
- Type the water body name in the box below to view tissue contamination scores for that water body

Lake Mendocino

GO

Fish tissue contaminant monitoring by the Surface Water Ambient Monitoring Program (SWAMP) occurs on a five year cycle, rotating between lakes, coastal waters, and streams. The following reports are currently available:

- [Contaminants in Fish from California Lakes and Reservoirs: Technical Report on Year One \(2007\) of a Two-Year Screening Study](#)

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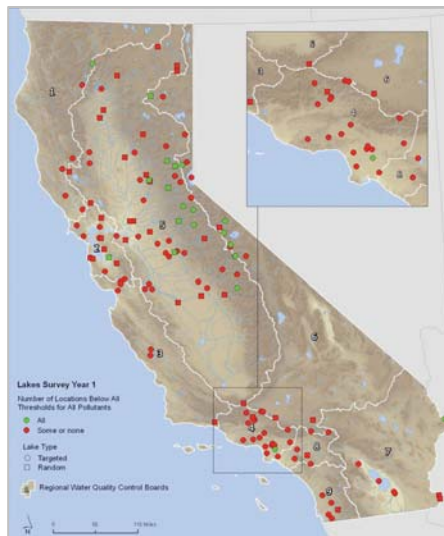
Home → Safe To Eat → Contaminant Level Scores → State

## Do California Lakes, Streams, or Ocean Locations Have Fish With Contaminants at Levels of Concern?

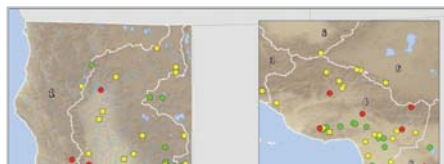


Statewide perspectives on fish and shellfish tissue contaminant level scores

### Sport Fish in Lakes and Reservoirs



**Lakes Below Thresholds**  
 Click map to enlarge



The first map presents results from the first year of a two-year statewide screening level survey conducted by the State Water Resources Control Board's Surface Water Ambient Monitoring Program (SWAMP). Fish tissue concentrations were compared with [thresholds developed by the Cal/EPA Office of Environmental Health Hazard Assessment \(OEHHA\)](#). (links to page 11)

**Green** indicates that all tissue concentrations were below all thresholds for all contaminants.

**Red** indicates that one or more tissue contaminant concentrations exceed one or more thresholds.

Mercury and polychlorinated biphenyls (PCBs) are the two greatest concerns. Mercury contamination is largely a legacy of California mining, and can also reach lakes through the air. It is a persistent problem throughout much of the state. Twenty-six percent of the lakes surveyed had at least one fish species with an average mercury level that exceeds the Office of Environmental Health Hazard Assessment (OEHHA) threshold for considering a consumption limit. Data from this study are insufficient for OEHHA to be able to develop new fish consumption recommendations. Additional information on mercury is presented in the second map to the left.

PCBs were second to methylmercury as a potential health concern to consumers of fish caught from California lakes. Approximately thirty-six percent of the lakes had a fish species that exceeded OEHHA's Fish

(Add SWAMP logo)



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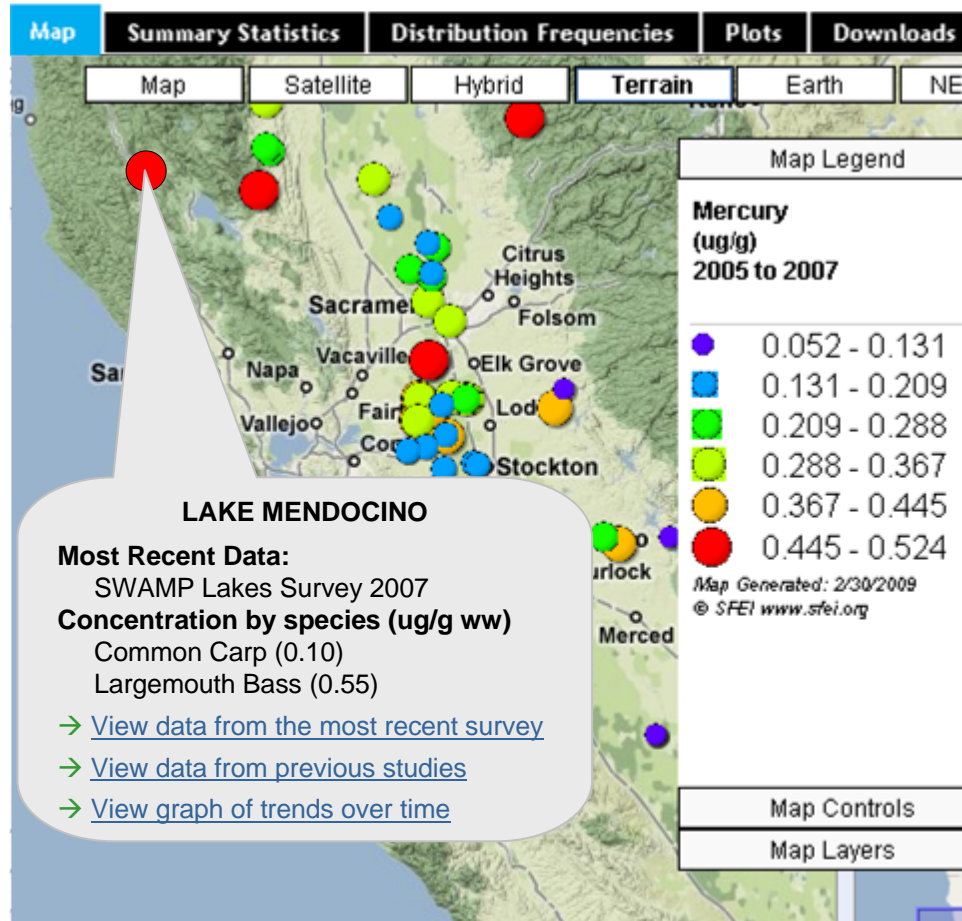
## What Are the Levels and Long-Term Trends in My Lake, Stream, or Ocean Location?



→ State & Regional Water Boards

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### Contaminant Data to Map

Select types of information from the following drop-down lists:

- Fish Species
  - Highest Species (default)
- Contaminant
  - Mercury (default)
- Start Date
  - 2005
- End Date
  - 2007



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Home → Safe To Eat → Impaired Waters

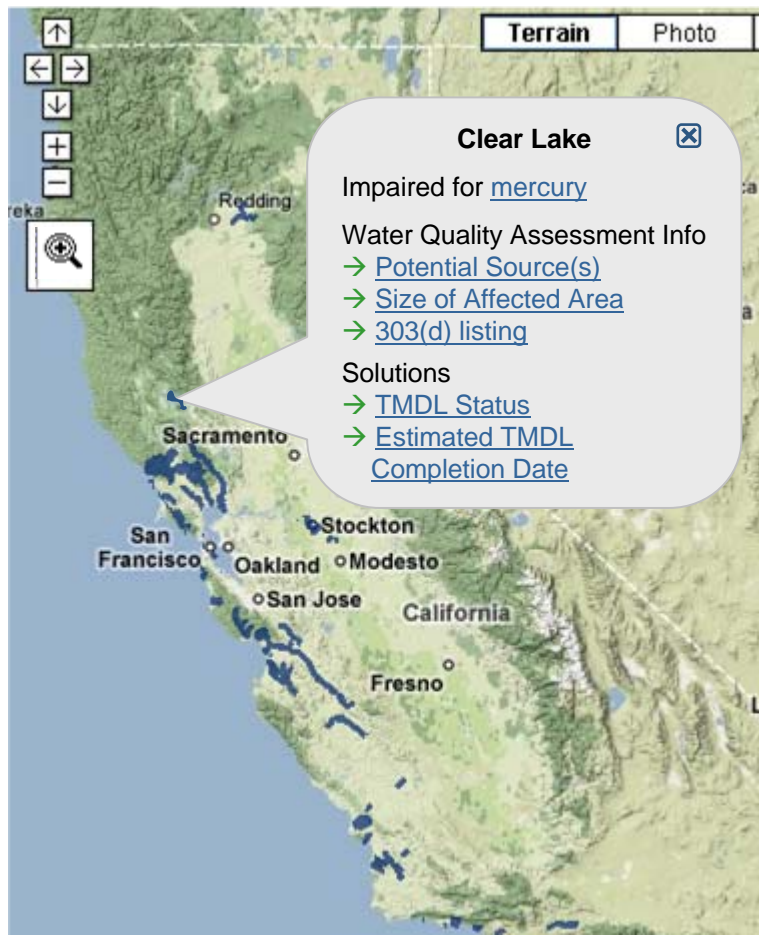
## Which Lakes, Streams, or Ocean Locations Are Listed by the State As Impaired?



→ State & Regional Water Boards

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This interactive map shows which of California's waters are impaired for uses related to the safety of fish or shellfish consumption by humans

### View 303(d) Listing and Impairment Information as of 2006

- Click on a water body or
- Type the water body name in the box below:



[\(links to page 10\)](#)  
 Under [Section 303\(d\) of the federal Clean Water Act](#), states, territories and authorized tribes are required to develop a list of water quality limited segments. Waters on the 303(d) list do not meet water quality standards, even after point sources of pollution have installed minimum required levels of pollution control technology. These are California's impaired waters. Remedies often take many years to complete.

- [What thresholds are used to list a water body as "impaired"?](#) [\(links to page 11\)](#)

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[Home](#) → [Safe To Eat](#) → [Improvements](#)



## What Is Being Done to Reduce These Problems?

Programs address existing water quality problems that affect the safety of eating fish and shellfish.



- [Total Maximum Daily Loads \(TMDLs\)](#)  
 A Total Maximum Daily Load, is a regulation designed to improve water quality by controlling the amount of a pollutant entering a water body. Under the federal Clean Water Act, every impaired water body on the [303\(d\) list](#) is required to have a TMDL, designed to bring the water body back into compliance with water quality standards. The following links provide lists of TMDL projects in each Water Quality Control Region, some of which are related to the safety of eating fish and shellfish.
- [North Coast Region \(1\)](#)
- [San Francisco Bay Region \(2\)](#)
- [Central Coast Region \(3\)](#)
- [Los Angeles Region \(4\)](#)
- [Central Valley Region \(5\)](#)
- [Lahontan Region \(6\)](#)
- [Colorado River Basin Region \(7\)](#)
- [Santa Ana Region \(8\)](#)
- [San Diego Region \(9\)](#)

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Home → Safe To Eat → Pollution Sources

## Safe to Eat Fish & Shellfish Pollution Sources & Health Risks



[introductory text]

### What are the Sources of Fish and Shellfish Contamination?

Most fish consumption advisories involve five primary contaminants: mercury, PCBs, chlordane, dioxins, and DDT. These chemical contaminants persist for long periods in sediments where bottom-dwelling animals accumulate and pass them up the food chain to fish. Levels of these contaminants may increase as they move up the food chain, so top predators in a food chain (such as largemouth bass or sturgeon) may have levels a million times higher than that in the water.



These pollutants originate from a number of municipal, industrial and agricultural sources, such as mercury and gold mining, pesticide use around homes and in agriculture, leaking electrical transformers, and chemical manufacturing.

### What Are the Risks of Eating Contaminated Fish and Shellfish?

The amounts of chemicals found in sport fish in California are not known to cause immediate sickness. But chemicals can collect in the body over time and they may eventually affect your health or that of your children. Some of the adverse health effects that might occur from continued exposure to high levels of toxic chemicals in fish include cancer, slower growth or brain damage in children, and kidney damage.



### How Can I Reduce My Risks from Eating Contaminated Fish and Shellfish?

Each of the following recommendations helps lower your chances of taking in harmful chemicals when you eat fish. Follow as many of them as you can. If you follow this advice and any advisories that apply to places where you fish, you will protect your health and you will benefit from this nutritious source of food. Refer to the

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Home → Safe To Eat → Laws Regulations

## Safe to Eat Fish & Shellfish Laws, Regulations, Standards & Guidelines



Few laws, regulations and standards exist for the safety of eating fish and shellfish. Guidelines and advisories are available from a number of state and federal agencies.

- [Federal Clean Water Act Sections 303\(d\) and 305\(b\)](#)  
 [text]
- [California Department of Fish and Game Hunting and Sport Fishing Regulations](#)  
 [text]
- [Water Quality Standards to Protect Fish and Shellfish Consumption Uses](#)  
 The Water Quality Control Plans of the California Water Boards include standards to protect fish consumption-related beneficial uses, including water contact recreation, commercial and sport fishing, shellfish harvesting, subsistence fishing, aquaculture, and Native American culture. These standards vary from place to place.
- [Advisory Tissue Levels and Fish Contaminant Goals for Common Contaminants in California Sport Fish](#)  
 The California Environmental Protection Agency's Office of Environmental Health Hazard Assessment establishes acceptable toxicity values that balance potential health effects and benefits of eating fish. Fish contaminant goals assist other agencies in their efforts to develop fish tissue-based criteria with a goal toward pollution mitigation or elimination.
- California Department of Public Health
  - [Fish Consumption Guidelines](#) for women, for children, and for the general public
  - [Shellfish Warnings & Quarantines](#) for recreational and commercial shellfish harvesting
- U.S. Food and Drug Administration
  - [Seafood Regulatory Program](#)
  - [Seafood Consumption Advice](#)
- [U.S. Environmental Protection Agency Fish Consumption Advisory Information](#)  
 Links to advisories from other states are included.





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## Fish & Shellfish Tissue Thresholds and Advisories

- [What are OEHHA's assessment thresholds?](#)
- [How does OEHHA develop fish consumption advisories and safe eating guidelines?](#)
- [Why do so few water bodies have fish consumption advisories and safe eating guidelines?](#)
- [What thresholds are used in Water Board SWAMP screening study reports?](#)
- [What thresholds are used to list a water body as "impaired"?](#)

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#### What are OEHHA's assessment thresholds?

The Cal/EPA, Office of Environmental Health Hazard Assessment (OEHHA) developed Advisory Tissue Levels (ATLs) and Fish Contaminant Goals (FCGs) for different purposes. Both benchmarks are expressed as concentrations of a specific chemical in fish tissue to which people could be exposed when eating sport fish. OEHHA developed ATLs and FCGs for seven chemicals: chlordane, DDTs, dieldrin, mercury, PCBs, selenium, and toxaphene. Multiple ATLs were developed for each chemical showing a range of contaminant levels where fish consumption can be recommended at 3, 2, or 1 servings per week, or no consumption. For mercury, separate ATLs were derived for more sensitive sub-populations (women 18 to 45 years of age and children 1 to 17 Years) and others (men over 17 years of age and women over 45 years). ATLs balance the benefits of eating fish with the risks from contaminants they may contain.

OEHHA developed Fish Contaminant Goals (FCGs) for agencies using criteria values for management decisions, but without the same public health mandates as OEHHA. A single FCG was developed for each of the seven chemicals named above. These values are purely risk-based and are intended to be used to develop water quality criteria or cleanup levels. [More >>](#)

#### How does OEHHA develop fish consumption advisories and safe eating guidelines?

OEHHA is responsible for issuing fish consumption advisories and safe eating guidelines. OEHHA staff developed ATLs as a starting point in the process to develop consumption advice. ATLs are not absolute values that always lead to the same fish consumption recommendation. Other factors are considered (for example, levels of beneficial omega-3 fatty acids, the distribution of contaminant levels, and how to simplify communication) before OEHHA issues consumption advice. OEHHA's ATLs, as well as advisories and safe

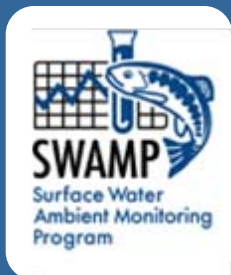


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## About the California Water Quality Monitoring Council (SB 1070)

### Quick Links

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### Background

In November 2007, a Memorandum of Understanding (MOU) was signed by the Secretaries of the California Environmental Protection Agency (Cal/EPA) and the California Resources Agency to establish the California Water Quality Monitoring Council (Monitoring Council). The MOU was mandated by Senate Bill 1070 (Kehoe, 2006) and requires the boards, departments and offices within the California Environmental Protection Agency (Cal/EPA) and the California Resources Agency to integrate and coordinate their water quality and related ecosystem monitoring, assessment, and reporting.

SB 1070 (Water Code Sections 13167 and 13181) and the MOU require that the Monitoring Council develop specific recommendations to improve the coordination and cost-effectiveness of water quality and ecosystem monitoring and assessment, enhance the integration of monitoring data across departments and agencies, and increase public accessibility to monitoring data and assessment information. While the Monitoring Council may recommend new monitoring or management initiatives, it will build on existing effort to the greatest extent possible.

### Membership

The membership of the Monitoring Council is intended to represent a variety of water quality related interests. Monitoring Council members are selected by the Secretaries of the California Environmental Protection Agency (Cal/EPA) and the Resources Agency.