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SWAMP Surface Water Ambient Monitoring Program

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 >>

→ State & Regional Water Boards

SAFE TO EAT FISH LINKS

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→ Laws, Regulations & Standards (links to page 10)
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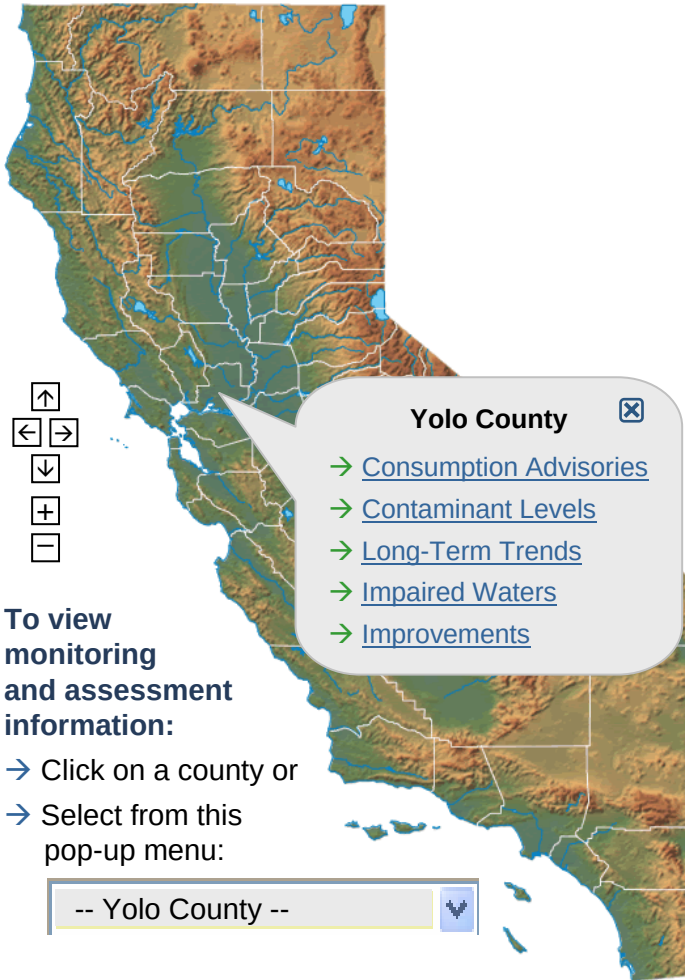
Is It Safe to Eat Fish & Shellfish from Our Waters?



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 in the humans and wildlife 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 above health thresholds? (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)

→ State & Regional Water Boards

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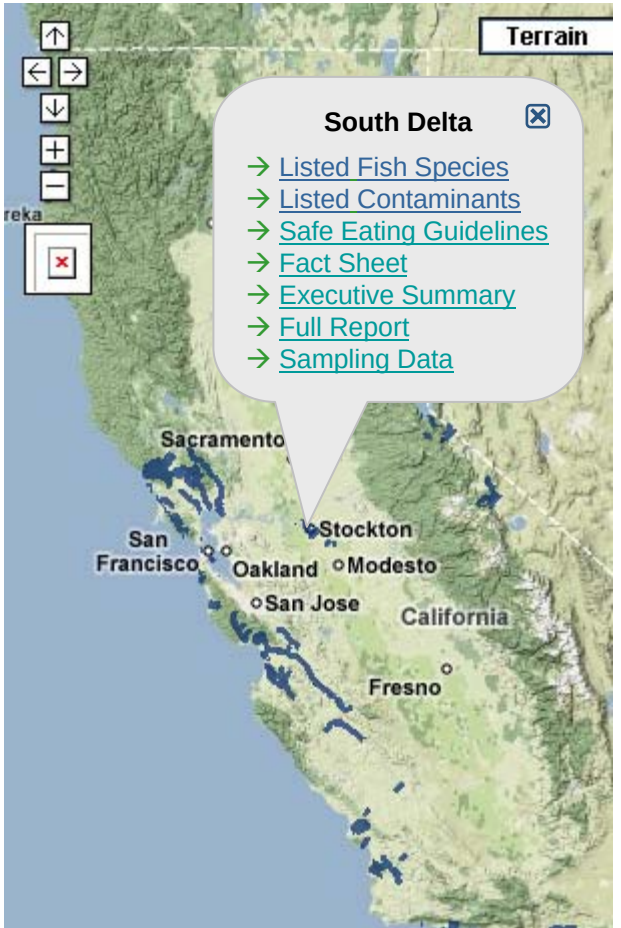
Home → Safe To Eat → Consumption Advisories

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



Fish and Shellfish Consumption Advisories by Location

Some fish and shellfish may contain chemicals that could pose health risks. When contaminant levels are unsafe, consumption advisories may recommend that people limit or avoid eating certain species of fish caught in certain places. Several government agencies publish fish and shellfish consumption advisories.

→ California Office of Environmental Health Hazard Assessment – Advisories for sport fish, noncommercial fish which you and your family or friends catch, are **shown on the map to the left**
  → Click on a water body or
  → Type the water body name in the box below:

Search GO

General Fish and Shellfish Consumption Advisories

→ 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 & Drug Administration – Seafood consumption advice
→ U.S. Environmental Protection Agency – Fish consumption advisories and information on the risks and benefits of eating fish, including advisories from other states

(Add logos for all organizations)

→ State & Regional Water Boards

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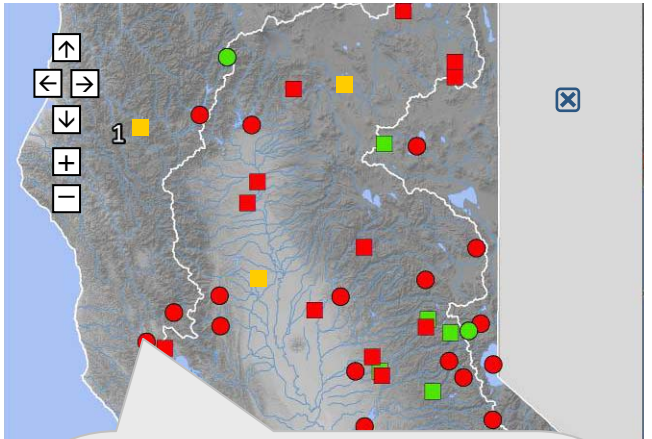
Does My Lake, Stream, or Ocean Location Have Fish With Contaminants Above Health Thresholds?



Lake Mendocino

Most Recent Data: SWAMP Lakes Survey 2007

(enlarged on page 9)

Common Name	Sample Type	Mercury (µg/g ww)	Dieldrin (ng/g ww)	Selenium (µg/g ww)	Sum of Chlordanes (ng/g ww)	Sum of DDTs (ng/g ww)	Sum of PCBs (ng/g ww)
Common Carp	C1	0.07					
Common Carp	C2	0.10					
Common Carp	LC		0.0	0.20	0.0	4.8	0.0
Largemouth Bass	350AVE1	0.55					
Largemouth Bass	350AVE2	0.54					

→ View results from previous studies

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. **Green** indicates that all tissue concentrations were below levels determined to be harmful to consumers. Yellow indicates that one or more tissue contaminant concentrations exceed Fish Contaminant Goals (FCGs). **Red** indicates that one or more tissue contaminant concentrations exceed Advisory Tissue Levels (ATLs).

→ 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 levels for that water body

Lake Tahoe 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:

→ Bioaccumulation of Pollutants in California Waters: A Review Of Historic Data and Assessment of Impacts on Fishing and Aquatic Life (1978 – 2003)
→ Contaminants in Fish from California Lakes and Reservoirs: Technical Report on Year One (2007) of a

(Add SWAMP logo)

Pop-Up Table in Page 4

Common Name	Sample Type	Mercury (µg/g ww)	Dieldrin (ng/g ww)	Selenium (µg/g ww)	Sum of Chlordanes (ng/g ww)	Sum of DDTs (ng/g ww)	Sum of PCBs (ng/g ww)
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Largemouth Bass	350AVE2	0.54					

Colors based on OEHHA thresholds

→ State & Regional Water Boards

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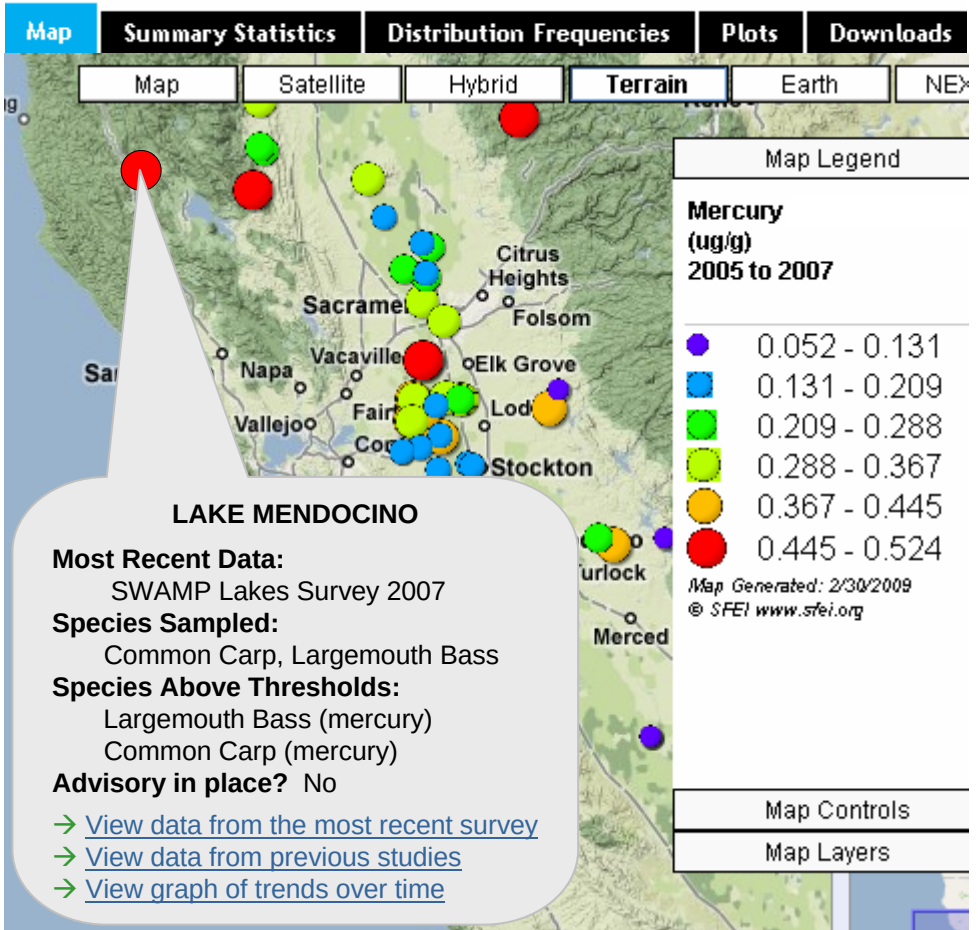
What Are the Levels and Long-Term Trends in My Lake, Stream, or Ocean Location?



LAKE MENDOCINO

Most Recent Data:
SWAMP Lakes Survey 2007
Species Sampled:
Common Carp, Largemouth Bass
Species Above Thresholds:
Largemouth Bass (mercury)
Common Carp (mercury)
Advisory in place? No

→ View data from the most recent survey
→ View data from previous studies
→ View graph of trends over time

Contaminant Data to Map

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

→ Fish Species
Highest Species (default)

Default map shows data for species with highest average concentration.

→ Contaminant
Mercury (default)

→ Start Date
2005

→ End Date
2007

GO

→ State & Regional Water Boards

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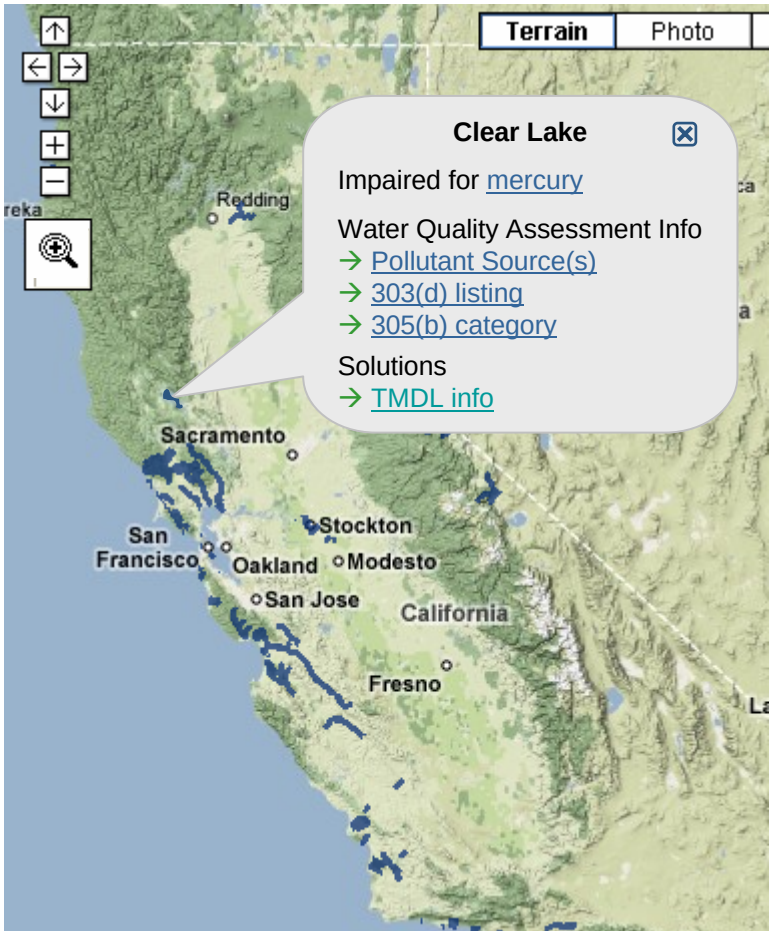
Which Lakes, Streams, or Ocean Locations Are Listed By the State As Impaired?



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

View 303(d) Listing and Impairment Information

→ Click on a water body or

→ Type the water body name in the box below:

Clear Lake GO

(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.

(links to page 10)

Under Section 305(b) of the federal Clean Water Act, water bodies are categorized based on the degree to which beneficial uses are protected and data availability.

→ Statewide 303(d) List

(Add Water Boards logo)

→ State & Regional Water Boards

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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.

→ TMDLs that Address Fish and Shellfish Consumption Safety

Water Boards

→ State & Regional Water Boards

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Pollution Sources & Health Risks for Eating Fish

[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 California Sport Fishing Regulations booklet or call OEHHA for information on specific advisories.

→ State & Regional Water Boards

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Safe to Eat Fish Laws, Regulations, and Standards

[Introductory text]

→ Water Quality Standards to Protect Fish and Shellfish Consumption Uses
The Water Quality Control Plans of the State Water Resources Control Board and the nine Regional Water Quality Control Boards include standards to protect the following fish consumption related beneficial uses: Water Contact Recreation (REC-1), Commercial & Sport Fishing (COMM), Shellfish Harvesting (SHELL), Subsistence Fishing (FISH), Aquaculture (AQUA), and Native American Culture (CUL). These standards vary from place to place.

→ Guidance Tissue Levels and Screening Values for Common Contaminants in California Sport Fish
For a number of tissue contaminants, the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment establishes acceptable toxicity values for potential cancer and non-cancer effects. Fish contaminant goals provide a starting point to assist other agencies in their efforts to develop fish tissue-based criteria with a goal toward pollution mitigation or elimination.

→ Food and Drug Administration's Seafood Regulatory Program
[text]

→ U.S. Environmental Protection Agency Fish Consumption Advisory Information
[text]

→ Clean Water Act Sections 303(d) and 305(b)
[text]

→ California Department of Fish and Game Hunting and Sport Fishing Regulations
[text]

CALIFORNIA WATER QUALITY MONITORING COUNCIL

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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.