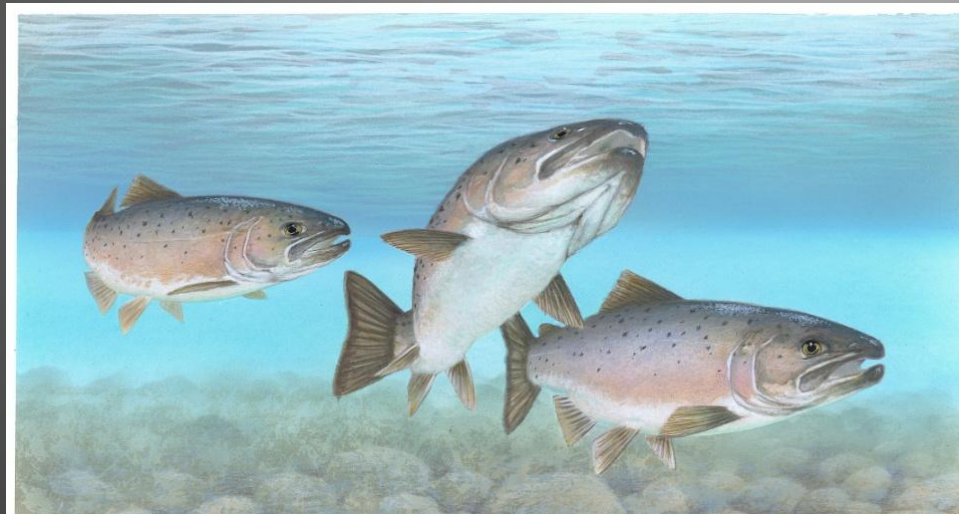


Safe Eating Guidelines in California



Robert K. Brodberg, Ph.D.
Office of Environmental Health Hazard Assessment
California Environmental Protection Agency

Objectives for Today

- ▶ Provide background on OEHHA's fish advisory program
- ▶ Highlight importance of monitoring data
- ▶ Review communication efforts & challenges
 - Gather feedback, ideas, monitoring partners



OEHHA and Fish Advisories

- ▶ OEHHA is responsible for evaluating risks from eating sport California fish and issuing advice to protect health
 - Fish may be contaminated by chemicals
- ▶ Non-regulatory – advisories provide recommendations and information
- ▶ Advisories/SEGs/Consumption Guidelines
 - All provide recommendations on how frequently people can eat fish from a water body

Why Have Fish Advisories

- ◉ Chemicals in fish with possible harmful health effects
 - Mercury and PCBs
- ◉ Long time frame to clean up
 - Legacy chemicals persist in environment
 - Responsibility of Water Board
- ◉ Eating fish offers health benefits

How OEHHA Develops Fish Advisories

- ▶ Based on results of testing fish samples for certain chemicals
- ▶ Need results from enough samples to represent species and water body
- ▶ *No state program to sample for advisories*



Where do data come from if there is no monitoring program?

- ▶ State Water Resources Control Board
 - Surface Water Ambient Monitoring Program
- ▶ Regional Monitoring Program (San Francisco Bay)
- ▶ Department of Water Resources
- ▶ U.S. EPA
- ▶ U.S. Geological Survey (USGS)

How OEHHA Develops Advice

- ▶ OEHHA determines how much fish can be safely eaten using level of contamination and advisory tissue levels (ATLs)
- ▶ ATLs based on studies of health effects
 - Keep exposure at or below a safe exposure level
 - Balance risk and benefits
- ▶ Advice issued for each species in water body with adequate data
 - Advisories are based on a series of servings per week (0, 1, 2, 3 – 7)

OEHHA Advisories

- ▶ 53 water bodies plus advice for 5 anadromous species
 - Lakes: 33
 - Rivers & creeks: 13
 - Bays & coastline
 - San Francisco, Tomales, Santa Monica & San Pedro
 - Delta (3 segments)
 - Shad, Chinook salmon, steelhead, striped bass, sturgeon

Data for more Advisories?

- ▶ More than 9000 lakes:
 - OEHHA compiled data for 273 without advisories
 - 7 have adequate data to develop advice
 - Rest have data gaps: missing species or bad sample size
- ▶ Locating and validating data is time consuming
 - Not centralized or complete
 - CEDEN – Good concept
 - Missing data, missing information, inconsistent
 - Different agencies hold data
 - Lake Oroville area – established good link with DWR
 - Upper Feather River – PG&E no link
 - Analytes, methods & QA/QC vary

More OEHHA Advisories!

- ▶ Just completed
 - Lake Oroville
 - Lake McClure
 - Lake McSwain
- ▶ In review
 - Statewide advice for lakes with no advisory
 - Pyramid Lake
- ▶ Future – more lakes, bays, and coastline
 - Balance of water bodies with lower contamination and those with higher contamination

Communication



- Fish filleting demonstration
- Presentations and trainings on advisories

Communicating Advice

- ⦿ Balance health risks and benefits
- ⦿ Emphasize importance of eating fish
- ⦿ Advisory reports, fact sheets, single page pictorial advisories & kiosk versions
- ⦿ Develop easy-to-read brochures
 - Learn safer and less safe options (fish species and water bodies)
 - Compare your consumption to recommendations

Web Communication

- www.oehha.ca.gov (Click on “Fish”)
- List of advisories with links
- Google map showing advisories
 - Direct link to advice
- How to Follow Advisories
- Information on chemicals
- Information for women and children

Google map showing Advisories

http://www.oehha.ca.gov/fish/so_cal/donner.html

File Edit View Favorites Tools Help

Convert Select

Electronic Journals Google Maps OEHHA - Home page ATT.NET - Email California State Controller... ECHA Website MPSP Outlook Web App RealOne Player Suggested Sites Web Slice Gallery

CA.GOV **OEHHA** Office of Environmental Health Hazard Assessment

Skip to: [Content](#) | [Footer](#) | [Accessibility](#) Search GO

This Site California

Home Air Children's Health Ecotoxicology Emergency Fish Pesticides Proposition 65 Risk Assessment Water

Alternate Languages Chemicals Fish Advisories Women & Children Pescado Reports Links

Home → Fish → [OEHHA Fish Advisories](#) → Donner Lake

FISH RESOURCE LINKS

- » USEPA/FDA Recommendations for Fish Consumption
- » USEPA/FDA Commercial Fish Advice
- » Department of Fish and Game Sport Fish Regulation Books
- » Department of Public Health Fish Information
- » Sacramento-San Joaquin Delta Fish Mercury Project
- » Southern California Fish Contamination Education Collaborative

LISTSERVS





- » OEHHA Listserv
- » Biomonitoring Listserv
- » Fish Listserv
- » Northern California Spill Alert
- » Prop. 65 Listserv
- » Southern California Spill Alerts

CONTACT OEHHA

- » Help
- » Contact OEHHA Staff

FISH



SAFE EATING GUIDELINES FOR DONNER LAKE [UPDATED 06/09/11] BASED ON MERCURY OR PCBs

 rainbow trout ♥	 brown trout ♥	
 kokanee ♥	 lake trout ♥	
Kokanee - 2 servings per week OR Trout - 4 servings per week for women 18-45 and children 1-17 Trout - 7 servings a week for men or women over 45 OR	1 Serving a week from this group	There are no fish with high levels of chemicals

♥ = high in Omega-3s and you can eat them at least once a week
Eating fish with omega-3s can lower heart disease in adults and help babies' brains to develop.

What is a serving?

The recommended serving of fish is about the size and thickness of your hand.
Give children smaller servings.

For Adults For Children

- » [Follow this link to view or download a pictorial version of the advice in English](#)
- » [Follow this link to view or download a pictorial version of the advice in Spanish](#)

OEHHA FISH LINKS

- » [OEHHA's Fish Advisories](#)
 - » [How to Follow Advisories](#)
- » [Advice for Fish You Buy](#)
- » [Women & Children](#)
- » [Alternate Languages](#)
 - » [Pescado](#)
- » [Chemicals in Fish](#)
 - » [DDTs](#)
 - » [Dieldrin](#)
 - » [Mercury](#)
 - » [PCBs](#)
- » [Advisory Map](#)
- » [Reports](#)
 - » [Angler Survey](#)
 - » [Fish Consumption](#)
 - » [Advisory Tissue Levels](#)
- » [Oil Spill Information](#)
- » [Links](#)

4:12 PM 12/13/2012

Language of Communication

- ⦿ Tried to make documents and fact sheets simpler and easier to understand
 - Pictorial advice
- ⦿ Conflict between simple wording and risk assessment language
 - Completely safe does not exist in risk assessment
 - “Safe” and “Safe Eating Guidelines” are not used in recent advisories
- ⦿ Feedback on wording and pictorial advice
 - Informal comments
 - Formal survey or focus group testing



**It is good
for people to eat fish!**

Health benefits outweigh risks *if*
choose fish low in mercury

Advisory Information

- ▶ www.oehha.ca.gov (Click on “Fish”)
- ▶ Bob Brodberg in Sacramento
Robert.Brodberg@oehha.ca.gov
916.323.4763
- ▶ Margy Gassel in Oakland
Margy.Gassel@oehha.ca.gov
510.622.3166