



INFORMATION ABOUT EATING FISH FROM THE SACRAMENTO RIVER AND NORTHERN DELTA

(SHASTA, TEHAMA, BUTTE, GLENN, COLUSA, SUTTER,
YOLO, SACRAMENTO, AND SOLANO COUNTIES)

Office of Environmental Health Hazard Assessment (OEHHA)

California Environmental Protection Agency

November 2022

Why did OEHHA update the advisory for eating fish from the Sacramento River and Northern Delta?

OEHHA updated the advisory for the Sacramento River and Northern Delta because additional information on mercury, PBDE, and PCB levels in fish tissue has become available. This advisory supersedes the previous advisory for eating fish from the Sacramento River and Northern Delta and includes advice for [fish that migrate](#), which was updated in 2022 as part of an ongoing effort by OEHHA to provide safe-eating advice for fish in different California water bodies. This advisory includes the Sacramento River from just below Shasta Lake to where it joins the San Joaquin River in Pittsburg, and for creeks, sloughs, and other water bodies in the Northern Delta that are north of Highway 12. A separate advisory is available for the [Central and South Delta](#) for waters south of Highway 12.

Why should I eat fish?

- Low-contaminant fish are an important part of a healthy, well-balanced diet. The American Heart Association recommends eating at least two servings of fish each week.
- Fish are a good source of protein and vitamins, and are a primary dietary source of heart-healthy omega-3 fatty acids. Eating low-contaminant fish while pregnant may be beneficial to the baby's brain development.

Which contaminants are of concern for people eating these fish from the Sacramento River and Northern Delta?

- Mercury
 - Mercury is a metal that comes from mining, air fallout from burning coal and other fuels, and from natural sources. It is the most commonly found contaminant of concern in fish.
 - Too much methylmercury, the form of mercury found in fish, can harm the brain, especially in fetuses, babies, and children. Mothers can pass methylmercury to their babies during pregnancy.
 - Because fetuses, babies, and children are especially sensitive to mercury, OEHHA has one set of advice for the amount of mercury-containing fish that women age 18-49 years and children should eat, and another set of advice for women 50 years and older and men 18 years and older.

- Polybrominated diphenyl ethers (PBDEs)
 - PBDEs are a class of flame retardants once used in a variety of consumer products such as couches, mattresses, televisions, cell phones, computers, car seats, and automobile dashboards.
 - High levels of PBDEs may interfere with the body's natural hormones, cause harm to the developing fetus or infant, decrease fertility, and increase cancer risk.
 - Mothers can pass PBDEs to their babies during pregnancy and through breast milk.

- Polychlorinated Biphenyls (PCBs)
 - PCBs are industrial chemicals. While banned in the 1970s, they persist for many years in the environment and are still found in fish, sediment, and water as a result of spills, leaks, and improper disposal.
 - PCBs can increase cancer risk. PCBs may also harm the developing fetus, which can include effects on growth and learning. Women can pass PCBs on to their babies during pregnancy and breastfeeding.
 - PCBs can build up to very high levels in the skin, fat, and some internal organs of fish. That is why OEHHA recommends eating only skinless fillet (meat) of fish.

How did OEHHA determine the consumption guidelines for eating these fish species from the Sacramento River and Northern Delta?

- OEHHA compared contaminant levels in fish caught from the Sacramento River and Northern Delta to levels that are considered safe for human consumption.

- OEHHA's consumption guidelines balance the health benefits of fish consumption and the risks from the contaminants.

What does OEHHA recommend for people who want to eat these fish species from the Sacramento River and Northern Delta?

- OEHHA recommends the types and amounts of fish that may be eaten each week as "servings." A serving is about the size and thickness of your hand for fish fillets. Give children smaller servings. For smaller fish species, several individual fish may be required to yield a serving.

- Women 18-49 years and children 1-17 years
 - Should not eat black bass species, catfish species, Sacramento Pikeminnow, Striped Bass, or White Sturgeon
 - May eat:
 - 1 total serving per week of Common Carp, crappie, Goldfish, Hardhead, Sacramento Sucker, or sunfish species, or
 - 2 total servings per week of American Shad, bullhead, Chinook Salmon, or Steelhead Trout, or
 - 3 total servings per week of small baitfish and shrimp (including Bigscale Logperch, Crangon Shrimp, Golden Shiner, Inland Silverside, Mississippi

Silverside, Mosquitofish, Red Shiner, Shimofuri Goby, Threadfin Shad, and Yellowfin Goby), or

- 5 total servings per week of Rainbow Trout
- Women 50 years and older and men 18 years and older
 - May eat:
 - 1 total serving per week of black bass species, Sacramento Pikeminnow, Striped Bass, or White Sturgeon, or
 - 2 total servings per week of catfish species, Common Carp, crappie, Goldfish, Hardhead, or Sacramento Sucker, or
 - 4 total servings per week of bullhead or sunfish species, or
 - 5 total servings per week of Chinook Salmon, Rainbow Trout, or Steelhead Trout, or
 - 7 total servings per week of American Shad or small baitfish and shrimp (as listed above)
- For additional fish species found in the Sacramento River and Northern Delta and not included in this advisory, OEHHA recommends following the [Statewide Advisory for Eating Fish from California's Rivers, Streams, and Creeks without Site-specific Advice](#).

What else can I do to protect my health and the health of my family?

- Eat a variety of fish.
- Eat smaller (younger) fish of legal size.
- Eat only the skinless fillet or meat portion of fish.
- Thoroughly cook the fish, allow the juice to drain away.
- Learn about OEHHA's guidelines for eating sport fish in California:
 - Visit <https://oehha.ca.gov/fish/advisories>, or call OEHHA at (916) 324-7572 or (510) 622-3170
 - Check the Freshwater or Ocean Sport Fishing Regulations booklets from the California Department of Fish and Wildlife, or visit <https://www.wildlife.ca.gov/Regulations>



Women
(18-49 Years)

Children
(1-17 Years)

5 TOTAL SERVINGS A WEEK

OR

3 TOTAL SERVINGS A WEEK

OR

2 TOTAL SERVINGS A WEEK

OR

1 TOTAL SERVING A WEEK

0 DO NOT EAT



California Office of Environmental Health Hazard Assessment

web www.oehha.ca.gov/fish
email fish@oehha.ca.gov
phone (916) 324-7572

A GUIDE TO EATING FISH *from the* SACRAMENTO RIVER AND NORTHERN DELTA*

Includes the Sacramento River and all Water Bodies in the Delta North of Highway 12

(SHASTA, TEHAMA, BUTTE, GLENN, COLUSA, SUTTER, YOLO, SACRAMENTO, AND SOLANO COUNTIES)

WOMEN 18 - 49 YEARS AND CHILDREN 1 - 17 YEARS

Eat the Good Fish

Eating fish that are low in chemicals may provide health benefits to children and adults.



Avoid the Bad Fish

Eating fish with higher levels of chemicals like mercury or PCBs may cause health problems in children and adults.



Choose the Right Fish

Chemicals may be more harmful to unborn babies and children.



Rainbow Trout
♥ high in omega-3s



Small Baitfish and Shrimp
See report for list of species



American Shad
♥ high in omega-3s



Bullhead



Chinook (King) Salmon
♥ high in omega-3s



Steelhead Trout
♥ high in omega-3s



Common Carp



Crappie



Goldfish



Hardhead



Sacramento Sucker



Sunfish Species



Black Bass Species



Catfish Species



Sacramento Pikeminnow



Striped Bass



White Sturgeon*

Serving Size

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

For Adults



For Children



Eat only the skinless fillet



Some chemicals are higher in the skin, fat, and guts.

Eat only the meat



*Only in waters where take is permitted per CDFW regulations at www.wildlife.ca.gov.

Updated 11/2022



Women
(50+ Years)

Men
(18+ Years)

7 TOTAL SERVINGS A WEEK

OR

5 TOTAL SERVINGS A WEEK

OR

4 TOTAL SERVINGS A WEEK

OR

2 TOTAL SERVINGS A WEEK

OR

1 TOTAL SERVING A WEEK



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♥ high in omega-3s



Rainbow Trout
♥ high in omega-3s



Steelhead Trout
♥ high in omega-3s



Bullhead



Sunfish Species



Catfish Species



Common Carp



Crappie



Goldfish



Hardhead



Sacramento Sucker



Black Bass Species
♥ high in omega-3s



Sacramento Pikeminnow



Striped Bass
♥ high in omega-3s



White Sturgeon*

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