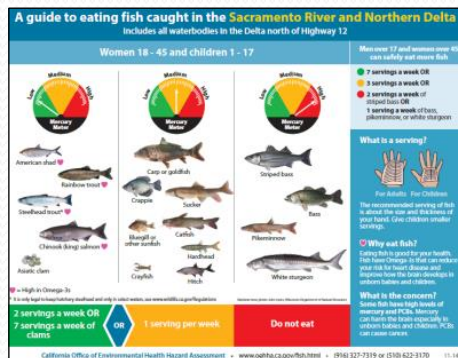


Warning Signs on Fish Contamination: Lessons Learned

Presentation for Delta MERP
Community Stakeholder Group Meeting
February 4, 2015

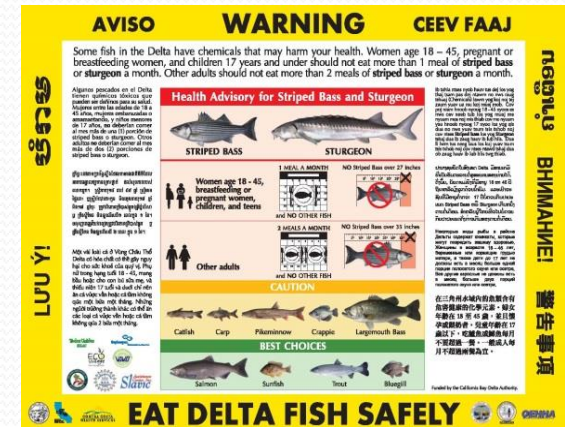
Past Signage Efforts

- San Francisco Bay (2002)
- Delta (2006)
- Updated SF Bay (2011)
- Lake Nacimiento (2014)
- “Kiosk” flyer (2008, 2013-2014)



Delta Sign

- Developed with stakeholder input
- Two versions
- Posted at ~60 sites throughout the Delta in 2006-2008
- Evaluated physical condition and comprehension of sign message



Sacramento River and Northern Delta



Central and South Delta

Why Develop a New Delta Sign?

- Delta advisories updated *after* signs were developed
- New fish/shellfish added to Delta advisories
- Advice for some fish is more restrictive
- No sign for San Joaquin River

AVISO **WARNING** **CEEV FAAJ**

Some fish in the Delta have chemicals that may harm your health. Women age 18 – 45, pregnant or breastfeeding women, and children 17 years and under should not eat more than 1 meal of striped bass or sturgeon a month. Other adults should not eat more than 2 meals of striped bass or sturgeon a month.

Health Advisory for Striped Bass and Sturgeon

STRIPED BASS **STURGEON**

1 MEAL A MONTH **NO Striped Bass over 27 inches**

Women age 18 - 45, breastfeeding or pregnant women, children, and teens

3 MEALS A MONTH **NO Striped Bass over 33 inches**

Other adults **and NO OTHER FISH**

CAUTION

BEST CHOICES

Catfish, Carp, Pikeminnow, Crappie, Largemouth Bass, Salmon, Sunfish, Trout, Bluegill

EAT DELTA FISH SAFELY

A guide to eating fish caught in the Sacramento River and Northern Delta
Includes all waterbodies in the Delta north of Highway 12

Women 18 - 45 and children 1 - 17	Men over 17 and women over 45 can safely eat more fish
<p>Low (Green)</p> <p>Medium (Yellow)</p> <p>High (Red)</p> <p>Mercury Meter</p> <p>American shad, Rainbow trout, Steelhead trout, Chinook (king) salmon, Asiatic clam</p> <p>2 servings a week OR 7 servings a week of clams</p>	<p>Low (Green)</p> <p>Medium (Yellow)</p> <p>High (Red)</p> <p>Mercury Meter</p> <p>Carp or goldfish, Crappie, Sucker, Bluegill or other sunfish, Catfish, Hardhead, Crayfish, Hiti</p> <p>3 servings a week OR 2 servings a week of striped bass OR 1 serving a week of bass, pikeminnow, or white sturgeon</p>

What is a serving?

For Adults: 1 palm-sized portion (about 3-4 ounces)
For Children: 1 small palm-sized portion (about 1-2 ounces)

Why eat fish?

Eating fish is good for your health. Fish have Omega-3s that can reduce your risk for heart disease and improve how the brain develops in unborn babies and children.

What is the concern?

Some fish have high levels of mercury and PCBs. Mercury can harm the brain especially in unborn babies and children. PCBs can cause cancer.

California Office of Environmental Health Hazard Assessment • www.oehha.ca.gov/fish.html • (916) 327-7319 or (510) 622-3170 11-14

Delta Sign Evaluation: Physical Condition

- Checked condition of 124 signs at 47 sites
- Many sign vandalized or removed
- Signs fared better at active marinas compared to remote locations
- Recommendations:
 - Use more durable materials and post more securely
 - Set posting/maintenance priorities



Sign Condition	No.	%
Good	21	45
Damaged but legible	4	9
Damaged but illegible	3	6
Missing	19	40
Total	47	

Delta Sign Evaluation: Awareness and Comprehension



- Anglers (n=62) were shown 8" x 11" copy of sign
- Comprehension of general message
- Comprehension of advisory for “red” and “green” fish appeared to be poor
- Fish species easily identified from pictures
- Some confusion on geographic area

San Francisco Bay Sign

- Developed with stakeholder input
- Posted at ~100 sites in 2011-2012
- Goals:
 - Simple, positive message
 - But, not include the entire advisory
 - Comprehension of main message without reading
 - Part of a set of educational materials/activities
- Evaluation in design phase and after posting



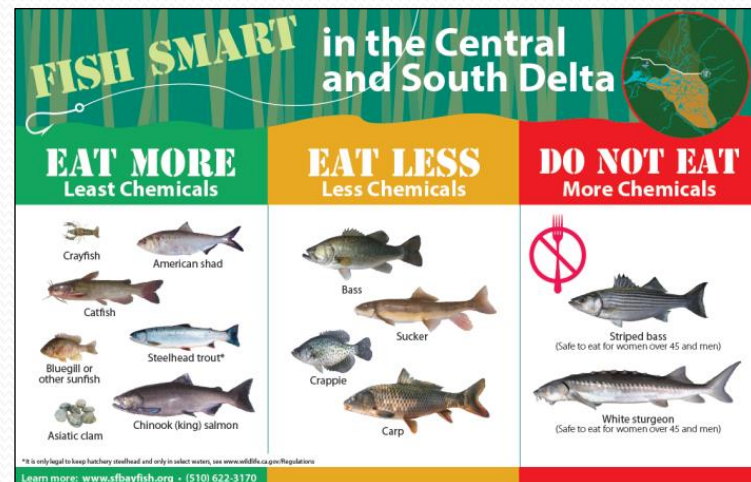
SF Bay Sign Evaluation

- Design phase: anglers (n=34)
 - Tested layout, titles, images
- After Posting (n=37)
 - Asked whether they had seen the sign
 - Asked to recall “eat this” or “not this” fish
 - Asked reason sign said not to eat certain fish



Ideas for new Delta sign

- Simple message with minimal text
- Focus on visual images, i.e., fish pictures and circle-slash fork
- Use red/yellow/green color scheme for 3 advice categories
- Map icon
- Develop 3 signs for 3 Delta advisories
- Use SFB sign materials



Draft Delta sign – version 1

Next Steps

- Form signage workgroup
 - Review sign designs
 - Provide input to field testing plans (which elements to test, how to test, etc.)
 - Develop posting priorities
- Report back to group at next meeting in May
- Need more information:
 - What contact information to put on sign
 - Budget and resources for production and testing
 - Role of counties/others in posting sign