Contra Costa Clean Water Program

Fish Risk Reduction Program for Mercury and PCBs: 2021 Status Report

Submitted to the San Francisco Bay Regional Water Quality Control Board

In Compliance with NPDES Permit Provision C.11.e & C.12.h Municipal Regional Stormwater Permit (Order No. R2-2015-0049)



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- Contra Costa County
- Contra Costa County Flood Control & Water Conservation District

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Acronyms and Abbreviations

Bay Area San Francisco Bay Area

CCCWP Contra Costa Clean Water Program

CDFW California Department of Fish and Wildlife

CVRWQCB Central Valley Regional Water Quality Control Board

Delta Sacramento-San Joaquin River Delta

FY Fiscal Year

MRP Municipal Regional Stormwater Permit

NPDES National Pollutant Discharge Elimination System

OEHHA California Office of Environmental Health Hazard Assessment

PCBs polychlorinated biphenyls

SFBRWQCB San Francisco Bay Regional Water Quality Control Board

1 INTRODUCTION

The Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit (MRP) (SFBRWQCB, 2015) requires Permittees to conduct an ongoing risk reduction program to address public health impacts of mercury and PCBs in fish within the San Francisco Bay and Sacramento-San Joaquin River Delta (Delta). In each fiscal year (July 1-June 30), the Contra Costa Clean Water Program (CCCWP), in conjunction with the California Office of Environmental Health Hazard Assessment (OEHHA), conduct and maintain a public health outreach program designed to reach a minimum of 3,000 individuals annually who are likely consumers of San Francisco Bay or Delta-caught fish.

This status report provides an overview of the Fish Risk Reduction Program and summarizes progress achieved by CCCWP during fiscal year (FY) 2020-2021. The report highlights ongoing activities, suggestions for outreach improvements, and considers options to maximize the program's effectiveness since being implemented under the MRP.

1.1 MRP Provision

Contra Costa County lies within the jurisdictions of both the San Francisco Bay (Region 2) and Central Valley (Region 5) Regional Water Quality Control Boards (SFBRWQCB and CVRWQCB, respectively). Municipal stormwater discharges in Contra Costa County are regulated by the requirements of both the MRP for urban stormwater in Region 2 (Order No. R2-2015-0049), and the East Contra Costa County municipal NPDES permit (Central Valley Permit) in Region 5 (Order No. R5-2010-0102). This progress report is in compliance with reporting requirements specified in provisions C.11.e and C.12.h of the MRP as issued by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB; Order No. R2-2015-0049) and amended by Order No. R2-2019-0004, incorporating the eastern portion of Contra Costa County within the requirements of the MRP.

1.2 Task Description

The Fish Risk Reduction Program was designed to raise awareness and address public health impacts from PCBs and mercury in San Francisco Bay and Central and South Sacramento-San Joaquin River Delta fish by:

- Taking action to reduce actual and potential health risks in people and communities most likely to consume San Francisco Bay/Delta-caught fish, such as subsistence fishers, recreational anglers, and their families.
- Working with local health departments, regional parks, and Permittees to coordinate resources for the program to target at-risk populations.



2 APPROACH

The Fish Risk Reduction Program is designed to provide public awareness of the risks involved with consuming fish caught in the San Francisco Bay and Central and South Sacramento-San Joaquin River Delta Regions. In order to achieve this goal, CCCWP identified a list of locations where individuals who catch fish are likely to frequent. The locations include local harbors and marinas (Table 1); bait, tackle and fishing supply stores (Table 2); and fishing piers and regional park shoreline locations (Table 3). All outreach locations listed in Tables 1 and 2 are contacted twice annually to provide each location with the appropriate type and quantity of brochures or posters (Attachment 1). Brochures and posters are then kept on display at marina informational kiosks and storefront countertops.

The following locations (Tables 1 and 2) were contacted twice during FY 2020-2021, once during the fall, and again the following spring.

Table 1. Outreach Locations at Harbors an	nd Marinas
Location	Address
Antioch Marina	1 Marina Plaza, Antioch
New Bridge Marina	6325 Bridgehead Road, Antioch
Piper Point Marina	3861 Willow Road, Bethel Island
Bethel Harbor	3405 Harbor Road, Bethel Island
Bethel Island Marina	6050 Bethel Island Road, Bethel Island
New Anchor Marina	1970 Taylor Road, Bethel Island
New Life Marina	1200 Taylor Road, Bethel Island
Sugar Barge Resort and Marina	1440 Sugar Barge Road, Bethel Island
Russo's Marina	3995 Willow Road, Bethel Island
Emerald Point Marina	4262 Windsweep Road, Bethel Island
Cruiser Haven Yacht Club	7000 Orwood Road, Brentwood
Holland Riverside Marina	7000 Holland Tract Road, Brentwood
Lazy M Marina	5050 Clifton Court Road #C, Discovery Bay
Discovery Bay Yacht Harbor	5901 Marina Road #1, Discovery Bay
Martinez Marina	7 North Court Street, Martinez
Big Break Marina	100 Big Break Road, Oakley
Hennis Marina	3255 Wells Road, Oakley
Pittsburg Marina	51 Marina Boulevard, Pittsburg
Marina Bay Yacht Harbor	1340 Marina Way S, Richmond
Brickyard Cove Marina	1160 Brickyard Cove Road Suite 110, Richmond

Store Name	Address 3500 E 18 th Street, Antioch	
Gotcha Bait and Tackle		
Lost Anchor Bait & Tackle	1001 McAvoy Road, Bay Point	
Gateway Gas and Mart	3615 Gateway Road, Bethel Island	
Orwood Resort and Bait Shop	4451 Orwood Road, Brentwood	
Bay Tackle	5815 Cutting Boulevard, El Cerrito	
Gas 'n Save	1541 East Cypress Road, Oakley	
Hook, Line & Sinker	3100 Main Street #260, Oakley	
Marina Emporium	5993 Bethel Island Road, Oakley	
Fisherman's Catch	27 Marina Boulevard, Pittsburg	
City Arms East	60 Golf Club Road #B, Pleasant Hill	
Creative Sports	1712 Linda Drive, Pleasant Hill	
odeo Bait & Tackle	205 Pacific Avenue, Rodeo	
Rodeo Sport & Liquor	133 Parker Avenue, Rodeo	

In addition to outreach locations at harbors, marinas, and local fishing supply stores, CCCWP Permittees, in coordination with Contra Costa Health Services and the East Bay Regional Parks District, collectively implemented fish risk reduction activities by posting, maintaining, and inspecting fish consumption warning signs on an annual basis at the fishing piers and regional shoreline locations listed in Table 3. During the previous fiscal year (2019-2020), CCCWP coordinated with OEHHA on receiving updated outreach material for hard signs and brochures/flyers for both the San Francisco Bay and Sacramento-San Joaquin River Delta. With the updated material, CCCWP field staff worked with East Bay Regional Parks District shoreline managers, beginning in FY 2019-2020 and continuing efforts into FY 2020-2021, to install updated hard signs at fishing piers throughout the county (Figures 1 through 4).

Currently, new hard signs are either installed or in the process of being installed at 10 San Francisco Bay fishing piers/regional shorelines and five Delta fishing piers/regional shorelines (Table 3). Field staff reconnaissance of locations in Table 3 determined that some locations at fishing piers or along regional shorelines contained out-of-date material (Figures 5 and 6), as confirmed by OEHHA in December of 2019 (personal communication between Karin Graves of CCCWP and Tran Pham of OEHHA). To mitigate out-of-date material, CCCWP is replacing old signs no longer containing OEHHA's official advisory (Figure 5), or by physically amending out-of-date contact information and age limits to reflect the official OEHHA advisory (Figure 6). Amending out-of-date material is a temporary, quick, and cost-effective way to provide the public with the most up-to-date information as possible. Amending signs with weather proof labels was approved by OEHHA in FY 2020-2021 (personal communication between Kevin Lewis of ADH Environmental and Susan Klasing and Tran Pham of OEHHA, March 17, 2021).

Sign Location	Sign Address	Sign Status	
Antioch/Oakley Regional Shoreline Fishing Pier	Bridgehead Road at Wilbur Avenue, Antioch	New sign complete	
Antioch Marina Fishing Pier	1 Marina Plaza, Antioch	Sign amendment (in progress)	
Antioch Fishing Pier	9 I Street, Antioch	Sign replacement (in progress)	
Carquinez Strait Regional Shoreline and Eckley Fishing Pier	5700 Eckley Road, Crockett	New sign complete	
Clifton Court Forebay	5072 Clifton Court Road, Discovery Bay	Sign amendment (in progress)	
Radke Martinez Regional Shoreline and Martinez Fishing Pier	7 North Court Street, Martinez	New sign delivered to City of Martine	
Pittsburg Fishing Pier	22 Cutter Avenue, Pittsburg	Sign amendment complete	
John J. Sheridan Fishing Pier	1499 Harbor Way South, Richmond	Sign replacement (in progress)	
Big Break Regional Shoreline	69 Big Break Road, Oakley	Sign amendment complete	
Point Pinole Regional Shoreline and Fishing Pier	5551 Giant Highway, Richmond	New sign complete	
Point Isabel Regional Shoreline	2701 Isabel Street, Richmond	New poster installed in kiosks	
Point Molate Fishing Pier	1721 Stenmark Drive, Richmond	Sign replacement (in progress)	
Miller/Knox Regional Shoreline and Ferry Point Fishing Pier	1545 Dornan Drive, Richmond	New sign complete	
Lucretia Edwards Shoreline Park and Richmond Launch Ramp	1500 Marina Way South, Richmond	New poster installed in kiosk	
San Pablo Bay Regional Shoreline at Lone Tree Point	413 San Pablo Avenue, Rodeo	Sign replacement (in progress)	



Figure 1. New sign installation at Eckley Fishing Pier – overview



Figure 2. New sign installation at Eckley Fishing Pier – closeup



Figure 3. New sign installation on Ferry Point Pier at Miller/Knox Regional Shoreline – overview



Figure 4. New sign installation on Ferry Point Pier at Miller/Knox Regional Shoreline – closeup

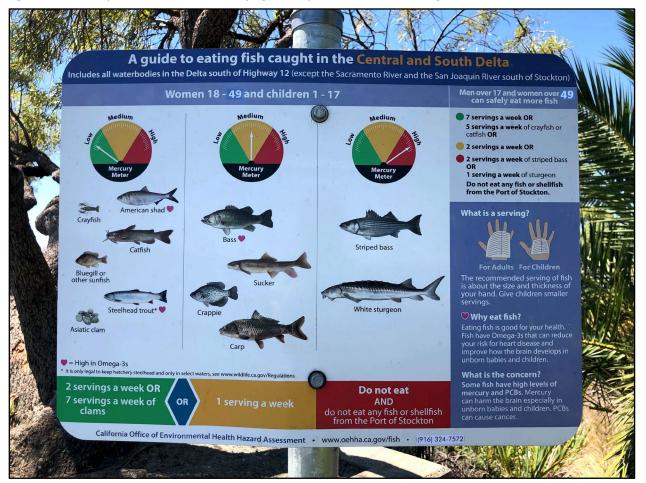


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Figure 5. Example of outdated fish advisory sign to be replaced in Contra Costa County

Figure 6. Example of amended fish advisory sign with updated contact info and age limits for women



3 PROGRESS TO DATE

Business operators and local harbors were individually contacted via telephone to establish the languages which would best reach their specific clientele. Brochures, flyers, and posters were subsequently provided to each of the 20 harbors and marinas listed in Table 1, and the 13 bait, tackle and fishing supply stores listed in Table 2. Fishing piers and regional shorelines listed in Table 3 have existing hard signs or posters located in high visibility areas. Figure 7 provides an overview map of the fish risk reduction program outreach locations.

3.1 Number of People Reached

CCCWP estimates the Fish Risk Reduction Program has the potential to reach well over the program's minimum target of 3,000 individuals annually. In FY 2020-2021, CCCWP delivered 30 to 100 brochures to each of the locations listed in Tables 1 and 2. If each location listed in Tables 1 and 2 (33 total locations) delivers just 30 brochures or flyers annually, this effort can reach about 1,000 individuals throughout the county. In FY 2020-2021, discussions with bait shop owners, harbor masters, and marina staff confirm that 30 brochures annually per location is both accurate and a conservative estimate, as the majority of locations listed in Tables 1 and 2 requested brochures to be restocked during every spring and fall outreach effort.

In addition to Tables 1 and 2, the estimate to reach 3,000 individuals annually can be achieved at the locations in Table 3 alone. If just one individual views the fish risk reduction signage per day at each of the 15 fishing piers or shoreline kiosks, multiplied by 200 views per pier annually, it is estimated that 3,000 individuals will view the signage alone. Two hundred views per pier or shoreline annually is a conservative estimate, to account for periods of inclement weather or poor fishing conditions. In FY 2020-2021, CCCWP field staff spoke with shoreline supervisors from the East Bay Regional Parks District, who estimated hard signs each have the potential to receive as many as 100 views on a busy weekend at the more popular fishing piers. This figure supports the program's conservative estimate of 200 views per pier annually to obtain the minimum outreach goal.

3.2 Additional Measures Adopted in 2020-2021

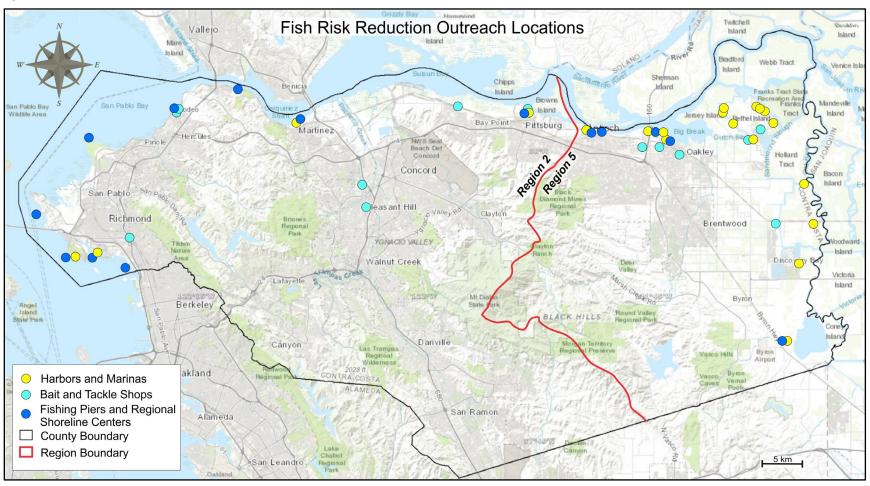
In an effort to effectively reach the maximum number of people likely to consume fish from the San Francisco Bay and Sacramento-San Joaquin Delta, CCCWP compiled a list of all locations approved by the California Department of Fish and Wildlife (CDFW) to sell recreational fishing licenses. Via the CDFW website, CCCWP identified an additional 17 locations that could be contacted to improve the outreach program (Table 4). In FY 2019-2020, CCCWP made efforts to reach out to the locations in Table 4; however, many big box retailers could not confirm participation in the program due to corporate policy or legal obligations stating material that is displayed on countertops must first be reviewed by corporate offices. Outreach to local big box retailers was again attempted in FY 2020-2021, where store managers confirmed they are still willing to participate; however, efforts to coordinate approval for the distribution through corporate offices was not completed as field staff waited for corporate personnel



to return calls. Assuming prolonged response times at the time due to ongoing adjustments and implementation of COVID-19 policies, CCCWP field staff placed updating and installing fishing pier hard signs as a priority under the current project budget and will attempt this task once more in FY 2021-2022.

Store Name	Address
Big 5 – Store #303	4859 Lone Tree Way, Antioch
Big 5 – Store #378	2689 Clayton Road, Concord
Big 5 – Store #178	11060 San Pablo Ave, El Cerrito
Big 5 – Store #062	1572 Fitzgerald Drive, Pinole
Big 5 – Store #113	4701 Century Boulevard, Pittsburg
Big 5 – Store #437	510 Contra Costa Blvd, Pleasant Hill
Big 5 – Store #071	3209 Crow Canyon Place, San Ramon
Big 5 – Store #132	1630 Mt Diablo Boulevard, Walnut Creek
CVS – Store #09511	1175 2 nd Street, Brentwood
CVS – Store #09565	14830 Highway 4, Discovery Bay
Dick's Sporting Goods	2314 Monument Boulevard, Pleasant Hill
REI	1975 Diamond Blvd Ste B100, Concord
Walmart – Store #2697	4893 Lone Tree Way, Antioch
Walmart – Store #5610	9100 Alcosta Boulevard, San Ramon
Walmart – Store #1615	2203 Loveridge Road, Pittsburg
Walmart – Store #3493	1021 Arnold Drive, Martinez
Walmart – Store #3455	1400 Hilltop Mall Road, San Pablo

Figure 7. Fish Risk Reduction Outreach Locations



4 REFERENCES

- SFBRWQCB. 2015. California Regional Water Quality Control Board, San Francisco Bay Region. Municipal Regional Stormwater NPDES Permit, Order No. R2-2015-0049, Permit No. CAS612008.

 November 19, 2015.
- oehha.ca.gov. Office of Environmental Health Hazard Assessment. A Guide To Eating Fish Caught from the Central and South Delta. September 21, 2018.

https://oehha.ca.gov/media/downloads/advisories/deltacentralsouthposter082418.pdf

oehha.ca.gov. Office of Environmental Health Hazard Assessment. A Guide to Eating Fish from San Francisco Bay. March 12, 2018.

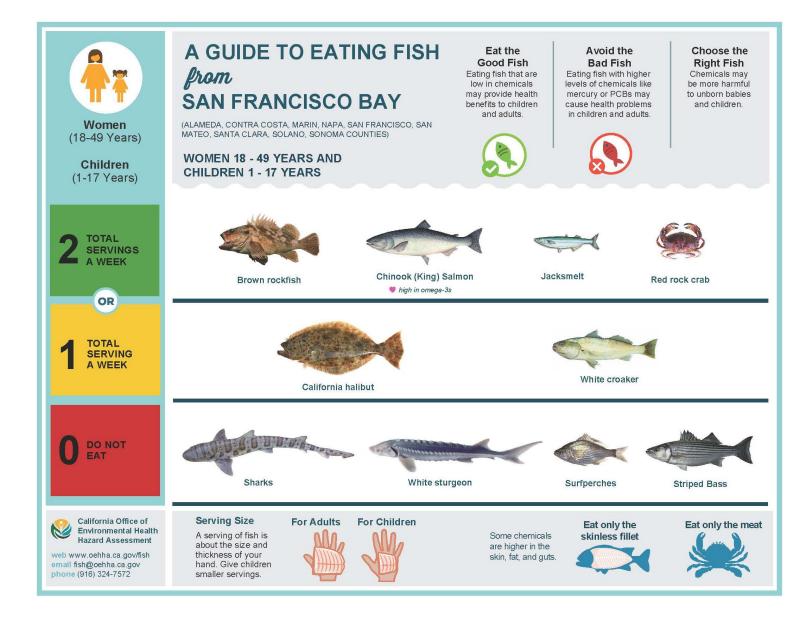
https://oehha.ca.gov/media/downloads/advisories/sfbayposter031218.pdf

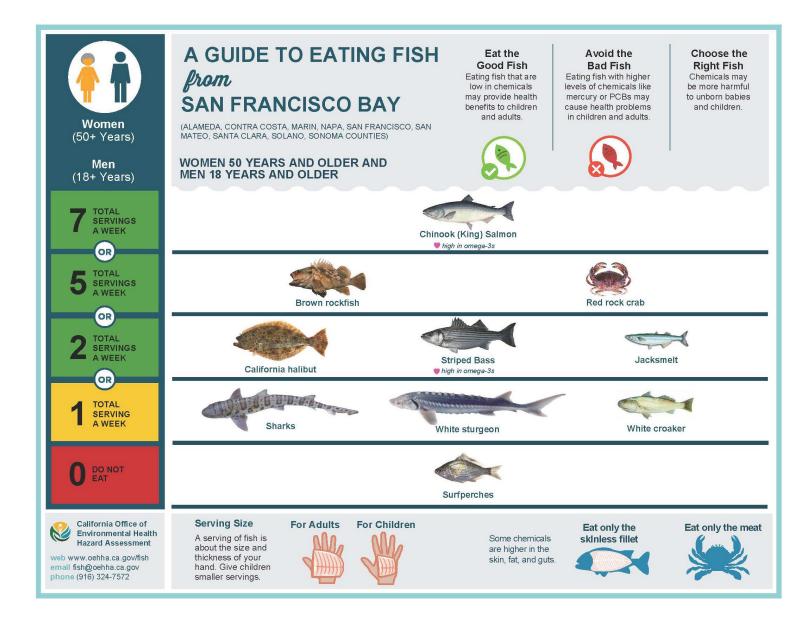
ATTACHMENT 1: FISH RISK FLYERS

Images of the fish risk flyers appear on Pages A-3 through A-6, and can be found at the following links:

https://oehha.ca.gov/media/downloads/advisories/sfbayposter031218.pdf

https://oehha.ca.gov/media/downloads/advisories/deltacentralsouthposter082418.pdf









(18-49 Years)

Children (1-17 Years)

TOTAL SERVINGS A WEEK

OR

TOTAL **SERVINGS** A WEEK

> OR TOTAL SERVINGS

A WEEK OR

TOTAL SERVING A WEEK

DO NOT EAT



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

A GUIDE TO EATING FISH from the **CENTRAL AND SOUTH DELTA**

Includes all waterbodies in the Delta south of Highway 12, except the Sacramento River and San Joaquin River south of Stockton

(CONTRA COSTA, SAN JOAQUIN AND SACRAMENTO COUNTIES)

WOMEN 18 - 49 YEARS AND CHILDREN 1 - 17 YEARS



Asian Clam (Corbicula)



American Shad mail high in omega-3s



Crayfish



high in omega-3s



Sunfish Species

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.





Black Bass Species high in omega-3s



Common Carp



Crappie



Sacramento Sucker



Striped Bass



Any fish or shellfish from the Port of Stockton

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



* Chinook (King) Salmon: No take permitted in these

water bodies per CDFW regulations. Refer to CDFW for regulations on other

Updated 09/2018



