A Second Alternative Analysis of the 2017 San Diego Bay Fish Consumption Study

Environmental Justice
A notably high proportion of pier anglers come from lower income categories.
## 2005 Pier Angler Survey & 2017 Fish Consumption Study

<table>
<thead>
<tr>
<th></th>
<th>SD Bay 2005 Pier Angler Survey - EHC</th>
<th>SD Bay 2017 Fish Consumption Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pier Anglers</td>
<td>109</td>
<td>706</td>
</tr>
<tr>
<td>(74% of Surveyed Anglers)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Pier Anglers</td>
<td>66 (61%)</td>
<td>311 (44%)</td>
</tr>
<tr>
<td>Consuming SD Bay Fish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pier Anglers of Color</td>
<td>63 (96%)</td>
<td>251 (35%)</td>
</tr>
<tr>
<td>Consuming SD Bay Fish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children of Pier</td>
<td>85</td>
<td>229</td>
</tr>
<tr>
<td>Anglers Consuming SD</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 1. Top ten fish reported caught in general and reported as kept in the week prior to being surveyed. Blue text indicates fish in common between the two lists and an asterisk (*) indicates inclusion on the fish consumption advisory guidelines for San Diego Bay.

<table>
<thead>
<tr>
<th>Fish Name</th>
<th>Percent</th>
<th>Fish Name</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spotted Sand Bass</td>
<td>80</td>
<td>Pacific Chub Mackerel</td>
<td>48</td>
</tr>
<tr>
<td>Pacific Chub Mackerel</td>
<td>79</td>
<td>California Halibut</td>
<td>18</td>
</tr>
<tr>
<td>Round Stingray</td>
<td>49</td>
<td>Spotted Sand Bass</td>
<td>16</td>
</tr>
<tr>
<td>California Halibut</td>
<td>48</td>
<td>Bonito</td>
<td>12</td>
</tr>
<tr>
<td>Topsmelt</td>
<td>33</td>
<td>Shortfin Corvina</td>
<td>8</td>
</tr>
<tr>
<td>Bat Ray</td>
<td>33</td>
<td>Topsmelt</td>
<td>6</td>
</tr>
<tr>
<td>Kelp Bass</td>
<td>30</td>
<td>Shovelnose Guitarfish</td>
<td>6</td>
</tr>
<tr>
<td>Barred Sand Bass</td>
<td>28</td>
<td>Yellowfin Croaker</td>
<td>6</td>
</tr>
<tr>
<td>California Lizardfish</td>
<td>26</td>
<td>Gray Smoothhound Shark</td>
<td>5</td>
</tr>
<tr>
<td>California Scorpionfish</td>
<td>26</td>
<td>Bat Ray</td>
<td>5</td>
</tr>
</tbody>
</table>
Figure 1. Consumption rate (grams/day) by how often an angler fishes per week. Less Than 1 Time a Week was significantly different (p<0.001) from the rest (red asterisk). The box boundaries indicate the 25th and 75th percentiles, the blue line within the box the median and the green line the mean. Whiskers (error bars) above and below the box indicate the 90th and 10th percentiles. N = 468
Evidence of Subsistence Fishing

In California, the 95th percentile rate of consumption from regional studies have been used by both the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB 2006) and the Central Valley Water Quality Control Board (CVRWQCB 2010) to protect fish consumers. This rate was established at 32 grams/day.

- 21 of 170 Pier Anglers reported fish consumption exceeding 32 grams/day
- 35 to 212 grams/day was the range of consumption for the 21 anglers
- 7 anglers reported consumption levels 2 X the 32 grams/day rate
- Consumption rates for children and women of child bearing age?
• Contaminated fish in San Diego Bay remain an Environmental Justice issue for our low-income communities of color.

• We are in full support of approaches to limiting risk to anglers and their children, particularly item 1 highlighted below.

• “there are two approaches which may help to limit risk to anglers consuming fish from the bay: 1) take action to reduce the contamination levels in the fish by thorough clean-up of contamination sources; or 2) use targeted education programs directed to the most at-risk anglers, primarily in the Asian community, through direct interaction at the community level to ensure they are aware of the risk and can make informed decisions about their consumption.” San Diego Bay Fish Consumption Study, 2017
STATE WATER RESOURCES CONTROL BOARD RESOLUTION NO. 2017-0027

Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions (Provisions) contains three new beneficial uses: Tribal Tradition and Culture (CUL), Tribal Subsistence Fishing (T-SUB), and Subsistence Fishing (SUB).

1) **Tribal Tradition and Culture (CUL):** Uses of water that support the cultural, spiritual, ceremonial, or traditional rights or LIFESTYLES of CALIFORNIA NATIVE AMERICAN TRIBES, including, but not limited to: navigation, ceremonies, or fishing, gathering, or consumption of natural aquatic resources, including fish, shellfish, vegetation, and materials.

2) **Tribal Subsistence Fishing (T-SUB):** Uses of water involving the non-commercial catching or gathering of natural aquatic resources, including fish and shellfish, for consumption by individuals, households, or communities of California Native American Tribes to meet needs for sustenance.

3) **Subsistence Fishing (SUB):** Uses of water involving the non-commercial catching or gathering of natural aquatic resources, including fish and shellfish, for consumption by individuals, households, or communities, to meet needs for sustenance.
A GUIDE TO EATING FISH from SAN DIEGO BAY (SAN DIEGO COUNTY)

Women (18-45 Years) / Men (18+ Years)

Women (1-17 Years)

2 TOTAL SERVINGS A WEEK

2 TOTAL SERVINGS A WEEK

1 TOTAL SERVING A WEEK

0 DO NOT EAT

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

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.

List of Fish:
- Pile Perch
- Rainbow Surfperch
- Diamond Turbot
- Spotted Turbot
- Black Perch
- Round Stingray
- Shorleneos Guitardish
- (California) Spiny Lobster
- Sharks
- Barred Sand Bass
- Spotted Sand Eels
- Pacific Club Mackerel
- Yellowfin Croaker
- Shiner Perch
- Topsmelt

California Office of Environmental Health Hazard Assessment
web: www.oehha.ca.gov/fish
email: fish@oehha.ca.gov
phone: (916) 324-7572

Eat only the skinless fillet
Eat only the meat
Some chemicals are higher in the skin, fat, and gills.

Updated 07/2018
DANGER
STAY INSIDE HANDRAILS
STAY OFF DRAGS

PELIGRO!
QUEDARSE DENTRO
DEL BARRANDAL
QUEDARSE FUERA
DE LOS PILOTOS

NO SWIMMING OR DIVING
IN THIS AREA

NO OVERHEAD CASTING