FCEC Partners Meeting
Palos Verdes Shelf Superfund Site

3 May 2023
9 AM – 1 PM
Hybrid Meeting
Agenda

• Welcome, Introductions, and Agenda Review (25 min)
• EPA Update (10 min)
• Pier Angler Outreach Updates (45 min)
• Break (20 min)
• Enforcement Outreach Update (15 min)
• Community Outreach Update (30 min)
• Break (20 min)
• EA Updates (15 min)
• FCEC Outreach Material Redesign (45 min)
• Open Forum (until 1:00pm)
Introductions

• Current and New Partners
EPA Update

- EPA Update
  - Renee Jordan Ward
Pier Angler Outreach Summary

- **Pier Angler Outreach – Heal the Bay and Cabrillo**
  - October 2022 – March 2023
  - Angler outreach contacted ~3,342 people
  - ~1,308 were new (~39%)
  - ~2,284 were aware of contamination (~68%)
  - ~650 tip cards were handed out in English (540), Spanish (105), Chinese (5)
  - Awareness sources
    - DNC Pier Signage (48.6%)
    - Tip-cards (23.1%)
    - Angler Outreach (23.2%)
    - Internet, Media, Friend/Family, and Other (5.1%)
    - Community Events (0%)
Pier Angler Outreach Locations

Legend

Pier Locations
- SANTA MONICA
- VENICE
- HERMOSA BEACH
- REDONDO BEACH
- RAINBOW HARBOR
- PIER J
- BELMONT PIER
- SEAL BEACH
- CABRILLO PIER
Pier Angler Outreach

Total Pier Anglers Reached
October 2022 - March 2023
(Cabrillo and Heal the Bay Day/Night)

- Total Contacts
- New Contact
- Aware of Contamination
Pier Angler Outreach

Total Awareness Source
October 2022 - March 2023
(Heal the Bay and Cabrillo)
DNC Pier Sign Monitoring

- Total of 47 signs, 12 piers
- Heal the Bay (8 Piers), March 2023
- Cabrillo (Cabrillo Pier), March 2023
- Heal the Bay for LACDPh/ City of Long Beach (10 piers), March 2023. Now included in Heal the Bay scope under new contract.
- Sign Inventory and Maintenance – discuss locations, replacement, relocation if necessary, and new construction areas.
### 2023 DNC Pier Sign Condition

- **July 2020**
  - 69 total signs, 18 Piers

- **July 2022**
  - 50 total signs, 12 Piers

- **March 2023**
  - 47 total signs, 12 Piers
    - 34 in Good/OK condition
    - 13 damaged
    - 5 missing

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Santa Monica</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2  Venice</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3  Marina Del Rey/Burton Chase Park</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4  Ballona North Creek/Play del Rey Jet</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5  Ballona South</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6  Dockweiler Beach</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7  El Porto/El Segundo</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8  Manhattan Beach</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9  Rocky Point</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10 Cabrillo</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>0</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>11 Hermosa Beach</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>12 Redondo Beach</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13 Pier J</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14 Rainbow Harbor</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15 Belmont</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>16 Seal Beach</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>17 Torrance Beach</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>18 Royal Palms/White Point</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total**
- 69 (2020)
- 50 (2022)
- 47 (2023)
- 34 Good/OK
- 13 damaged
- 5 missing
Pier Angler Outreach – Cabrillo

- October 2022 – March 2023
- Angler outreach contacted ~474 people
  - ~186 were new (~39.2%)
  - ~230 were aware of contamination (~48.5%)
  - ~146 tip cards were handed out in English (120) and Spanish (26)
- Awareness sources
  - Angler Outreach (63.9%)
  - DNC Pier Signage (17.4%)
  - Internet (7.3%)
  - Friend/Family (7.3%)
  - Tip-cards (0%)
  - Media, Community Events, and Other (2.5%)
## Cabrillo Beach Pier Sign Monitoring

**March 2023**

<table>
<thead>
<tr>
<th>Signs</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very bent, left bottom appears more bent than last month. Lots of peeling and bubbling, but still mostly readable.</td>
</tr>
<tr>
<td>2</td>
<td>Weather beaten, worn and starting to peel on the top and bottom. Still in fairly decent shape, but paint is starting to bubble across the sign.</td>
</tr>
<tr>
<td>3</td>
<td>Top part of sign is peeled off and unreadable. The rest of the sign is mostly readable. Paint along the edges bubbling.</td>
</tr>
<tr>
<td>4</td>
<td>Very soiled and scratched with some tagging. Some bending and lots of weathering. New tagging in the center. Still mostly readable.</td>
</tr>
<tr>
<td>5</td>
<td>Stickered and tagged, but still readable. Some bubbling of paint along left side.</td>
</tr>
<tr>
<td>6</td>
<td>Some stickers and bending, but still readable.</td>
</tr>
<tr>
<td>7</td>
<td>Heavily tagged and unreadable.</td>
</tr>
<tr>
<td>8</td>
<td>Very weathered, cracked and rusted. Still very readable</td>
</tr>
</tbody>
</table>
The program's primary aim continues to be the education of pier and shoreline anglers on the risks of consuming DDT and PCBs-contaminated white croaker.

Secondary goals are to educate anglers on other locally caught fish with regards to catch limits and consumption guidelines concerning DDT, PCBs, and mercury.
Program Overview

- Outreach on 8 piers: Santa Monica, Venice, Hermosa, Redondo, Pier J, Rainbow Harbor, Belmont & Seal Beach
- Each pier visited by Angler Outreach Team 3x/week
- Evening Outreach: Venice & Redondo pier visited every Saturday
Angler Outreach Team

Current Team:
- Crystal Barajas - Spanish
- Willian Quinteros - Spanish
- Benmin Sun - Chinese
- Frankie Orrala - Spanish
**Angler Outreach Tally Form**

- Tally form includes anglers receiving outreach (new/repeat, awareness source, language spoken)
- Surveys conducted in the daytime 3 days/week
- **2,868 total anglers** approached across 8 piers from October 2022-March 2023; **2,536 total anglers** interviewed
- **472 tipcards** distributed
  - English = 420
  - Spanish = 79
  - Chinese = 5

---

<table>
<thead>
<tr>
<th>Date:</th>
<th>Pier Location:</th>
<th>Outreach worker:</th>
<th>Total # of anglers on pier at beginning/end of shift:</th>
<th>Day Outreach</th>
<th>Night Outreach</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Educational Outreach Tally Sheet**

<table>
<thead>
<tr>
<th>Is the person an adult or a child?</th>
<th>Did they agree to talk to you?</th>
<th>Was person aware of DOT/PCB fish contamination advisories before this time?</th>
<th>Is the person receiving outreach for the 1st time ever, or is s/he a repeat?</th>
<th>Awareness source(s): Signpost, Tipcard, AOP, TV, Internet, Events, Media, Friends/ family, Other</th>
<th>Language spoken during outreach</th>
<th>Bucket Exempt (Y/N)</th>
<th>Species and Number of Fish Caught (make a note if the number is an estimate)</th>
<th>Zip Code</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult or Child</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult or Child</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult or Child</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult or Child</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult or Child</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult or Child</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult or Child</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult or Child</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult or Child</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*DOT/PCB = dichlorodiphenyltrichloroethylene/polychlorinated biphenyls; AOP = Angler Outreach Program;
Angler Outreach Day/ Evening Participant Breakdown

Reporting Period: October 2022 – March 2023 (6 months)

Morning Outreach
- New: 870 (41%)
- Aware: 1,717 (80%)
- Total: 2,144

Evening Outreach
- New: 252 (64%)
- Aware: 337 (86%)
- Total: 392
New & Repeat Anglers from October 2022 – March 2023

Total Anglers surveyed from Santa Monica through Seal Beach

n= 2,536
Total Awareness from October 2022 – March 2023

Total Anglers Aware of Fish Contamination Advisories

- Oct ’22: 527 Yes, 124 No
- Nov ’22: 432 Yes, 127 No
- Dec ’22: 206 Yes, 46 No
- Jan ’23: 242 Yes, 52 No
- Feb ’23: 306 Yes, 69 No
- Mar ’23: 341 Yes, 64 No

n= 2,536
Total Awareness Comparison from previous year

October 2021-February 2022

Total Anglers Aware of Fish Contamination Advisories
- Yes: 82%
- No: 18%

n= 2,085

October 2022-March 2023

Total Anglers Aware of Fish Contamination Advisories
- Yes: 81%
- No: 19%

n= 2,536
Awareness Sources

Awareness Source
(October 2022 - March 2023)

- Signage: 1114
- Tip card: 564
- AOP Team: 314
- Internet: 10
- Events: 0
- Media: 4
- Friend/Family: 5
- Other: 43

n= 2,054
Belmont was the busiest pier during morning outreach.

Redondo pier was the busiest pier during evening outreach.
Angler Outreach Evening
Participant Breakdown

Reporting Period: October 2022 – March 2023
Venice and Redondo Beach Pier

- New: 252 (64%)
- Aware: 337 (86%)
- Total: 392
New and Repeat Anglers from October 2022 – March 2023
Venice and Redondo Beach Pier

Total Anglers surveyed from Venice and Redondo Beach Pier

Outreach activity 4 days per month

n= 392
Total Anglers Aware of Fish Contamination
October 2022 – March 2023
(Venice and Redondo Beach Pier)

Total Anglers Aware of Fish Contamination Advisories during evening hours (4:00-8:00PM)

- Yes: 337 (86%)
- No: 55 (14%)

n= 392
## Pier Sign Condition
March 2023

<table>
<thead>
<tr>
<th>Pier</th>
<th>Total (2022)</th>
<th>Total (2023)</th>
<th>Good/OK 2023</th>
<th>Damaged 2023</th>
<th>Missing 2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santa Monica</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Venice</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Ballona Creek</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>El Porto/El Segundo</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hermosa</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Redondo Beach</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Royal Palm/White Point</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Pier J</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rainbow Harbor</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belmont Pier</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Seal Beach</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>42</strong></td>
<td><strong>44</strong></td>
<td><strong>34</strong></td>
<td><strong>5</strong></td>
<td><strong>5</strong></td>
</tr>
</tbody>
</table>
Santa Monica Pier

<table>
<thead>
<tr>
<th>Signs</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Poor, with scrapes all over, small graffiti on top</td>
</tr>
<tr>
<td>2</td>
<td>Good</td>
</tr>
<tr>
<td>3</td>
<td>Fairly good, few scrapes, peeling, rip on right bottom corner</td>
</tr>
<tr>
<td>4</td>
<td>Missing</td>
</tr>
<tr>
<td>5</td>
<td>Fairly good, graffiti all over, decal on bottom left hand side</td>
</tr>
</tbody>
</table>
### VENICE PIER:

<table>
<thead>
<tr>
<th>Signs</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Missing</td>
</tr>
<tr>
<td>2</td>
<td>Missing</td>
</tr>
<tr>
<td>3</td>
<td>Good</td>
</tr>
<tr>
<td>4</td>
<td>Good</td>
</tr>
<tr>
<td>5</td>
<td>Bad, a lot of graffiti, can’t read the sign at all, bend, need replacement</td>
</tr>
<tr>
<td>6</td>
<td>Good, some light graffiti on half of sign</td>
</tr>
<tr>
<td>Signs</td>
<td>Condition</td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Poor, cracked all over, fading</td>
</tr>
<tr>
<td>2</td>
<td>Good, a bit cracking</td>
</tr>
<tr>
<td>3</td>
<td>Bad, very dirty, torned and chipped at the bottom, needs replacement</td>
</tr>
<tr>
<td>4</td>
<td>Bad, severe fading, chipped and cracked on bottom, needs replacement</td>
</tr>
<tr>
<td>REDONDO BEACH PIER</td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td></td>
</tr>
<tr>
<td>Signs</td>
<td>Condition</td>
</tr>
<tr>
<td>-------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Good</td>
</tr>
<tr>
<td>2</td>
<td>Poor, very weathered, cracked, scrapes all over, chipped on the bottom</td>
</tr>
<tr>
<td>3</td>
<td>Fairly good condition, a bit dirty, info peeling on lower right corner</td>
</tr>
<tr>
<td>4</td>
<td>Fairly good, chipping on top and lower right corner</td>
</tr>
<tr>
<td>5</td>
<td>Poor, weathered, a lot of graffiti, chipping on top and bottom</td>
</tr>
<tr>
<td>6</td>
<td>Poor, graffiti all over, chipping on top and bottom</td>
</tr>
</tbody>
</table>
## Pier J

<table>
<thead>
<tr>
<th>Signs</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Good</td>
</tr>
<tr>
<td>2</td>
<td>Good, decal on middle right hand side</td>
</tr>
<tr>
<td>3</td>
<td>Good</td>
</tr>
</tbody>
</table>

Pier J (north of sign #3)  
Pier J (south of sign #1)
### Rainbow Harbor

#### Rainbow Harbor Pier

![Rainbow Harbor Pier Image]

#### Rainbow Harbor Signs Condition

<table>
<thead>
<tr>
<th>Signs</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Poor, dirty, some graffiti, decal on top, peeling on bottom, yellow spray paint on top</td>
</tr>
<tr>
<td>2</td>
<td>Fairly good, decal on exclamation point, yellow spray paint all over</td>
</tr>
<tr>
<td>3</td>
<td>Good</td>
</tr>
<tr>
<td>4</td>
<td>Good</td>
</tr>
<tr>
<td>5</td>
<td>Good</td>
</tr>
<tr>
<td>Signs</td>
<td>Condition</td>
</tr>
<tr>
<td>-------</td>
<td>-----------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Bad with paint, cracked all over, cracked, some decals</td>
</tr>
<tr>
<td>2</td>
<td>Bad, graffiti all over and some cracks, decal on bottom right hand side</td>
</tr>
<tr>
<td>3</td>
<td>Poor, scrapings all over</td>
</tr>
<tr>
<td>4</td>
<td>Fairly good, scrapings all over, more decals on upper right hand side</td>
</tr>
<tr>
<td>5</td>
<td>Dirty, few scrapes, cracked, decals on bottom right hand side</td>
</tr>
</tbody>
</table>
### SEAL BEACH PIER

<table>
<thead>
<tr>
<th>Signs</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Good</td>
</tr>
<tr>
<td>2</td>
<td>Good</td>
</tr>
<tr>
<td>3</td>
<td>Good</td>
</tr>
<tr>
<td>4</td>
<td>Good, scrapes, knife marks</td>
</tr>
<tr>
<td>5</td>
<td>Missing</td>
</tr>
</tbody>
</table>
Ballona Creek-Play del Rey

**Ballona North Creek/Playa del Rey Jetty**

<table>
<thead>
<tr>
<th>Signs</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fair, a bit dirty</td>
</tr>
<tr>
<td>2</td>
<td>Bad, cracked all over, green paint on lower half, needs replacement</td>
</tr>
</tbody>
</table>
El Porto – El Segundo

<table>
<thead>
<tr>
<th>EL PORTO/EL SEGUNDO (NEAR MANHATTAN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signs</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>
ROYAL PALM/WHITE POINT

<table>
<thead>
<tr>
<th>Signs</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fair, some cracks, still readable</td>
</tr>
<tr>
<td>2</td>
<td>Missing</td>
</tr>
</tbody>
</table>
• Overall, there are still anglers who are unaware of local fish contamination, especially minority groups where English is not their primary language and they are subsistence anglers.

• Signs, tip-cards and our Heal the Bay outreach team continue to be the most effective ways to inform the angler community about local fish contamination.

• During the summer months, the angler community remains large and new, and outreach efforts must continue in order to inform and make better decisions when consuming potentially contaminated fish from piers, including those who fish at night.
Zip Code Analysis
Where Anglers Came From - Daytime

Zip Code Analysis
Where Anglers Came From - Nighttime

Pier Angler Outreach

Questions or Comments?
BREAK FOR 20 MINUTES
Enforcement Outreach Update

- California Department of Fish and Wildlife October 2022 – February 2023
  - 38 Recreational Fishing Patrols
    - 412 total contacts
    - 0 Citation White Croaker over limit
    - 0 White Croakers seized
    - 10 observed possession
  - 1 Commercial Business Inspection: No violations
  - Public Outreach Materials Distributed: Tip cards English (43), Spanish (16)

- Discussion Topics
  - Future FCEC enforcement needs after loss of 2 grants during the pandemic.
  - Incidence of angler intention to keep white croaker despite awareness of contamination may indicate a need for more outreach about the health effects of consuming contaminated fish.
Enforcement Outreach

Questions & Comments?
Community Outreach Summary

Total community events DBS&A, BPOS, CHCC
- 19,700 Total event attendees
- 2,066 Total tip cards English (422), Spanish (150), Chinese (1,457), Vietnamese (37)
- Limited awareness of contamination
- Limited Outreach Print Materials
  - Requested materials in Korean
  - Requested Fish ID poster into Spanish
- Booth in Box Materials
  - Fishing game broken rods, ripped fish
  - Display boards, table runner, carrying case
Community Outreach – DBS&A

- **Completed Events**
  - Aquarium of the Pacific 18th Annual International Children’s Festival, March 18-19, 2023
    - ~1,000 total attendees
    - ~300 attendees stopped by booth
    - Tip cards in English (62), Spanish (5), Chinese (2)
    - Pamphlets in English (112), Spanish (15), Chinese (19)
    - Comic books in English (231), Spanish (34), Chinese (3)
    - Fish identification cards in English (103), Spanish (14), Chinese (6)
    - 2 curriculum guides were provided to a local teacher
    - 5 families spoken to were aware of some sort of contamination in the region but did not know the cause or scope of the contamination
• Observations/Recommendations
  • The comic books and the fish ID cards were again the most popular outreach material at the aquarium. They attracted many families to the booth which initiated a conversation with families while children read the comic books and fish ID cards.
  • Approximately 85% of local anglers spoken to did not consume the fish they caught.
  • Approximately 90% of local anglers were aware of some sort of local contamination.
  • Five individuals mentioned seeing signs posted on piers warning of contamination in the area.
  • Sign-in Sheet is not popular and recommend adding QR code
• **Anticipated Upcoming Events**
  – Researching new events for 2023

• **Partner Outreach Materials Inventory and Distribution**
  – Partner outreach material inventory performed April 2023.

• **Outreach Materials Condition**
  – Booth in Box – Fair condition
  – Fishing game – broken fishing rods (2), ripped, torn, or faded fish (5)
Modified Bait Shop Outreach

- Up to 45 bait shops contacted twice per year
  - As of August 2022, 3 bait shops had gone out of business and need replacing during outreach efforts
- August 2022 distribution of tip cards in English (450), Spanish (450), Chinese (175), and Vietnamese (175)
- Bait shop outreach is more successful with in person outreach visits.
- Bait shop outreach planned for May 2023.
Community Outreach – BPSOS

• Completed Events

  – Abrazar - Thank You For Being A Friend: A Community Event, November 18, 2022
    • 300+ attendees, 77 booth visits, tip cards English (10), Spanish (34) and Vietnamese (33). No awareness.

  – Spring of H.O.P.E Free Community Health Fair, March 17, 2023, 2022
    • ~400 attendees, 120 booth visits, tip cards Spanish (111), Chinese (5), and Vietnamese (4). No awareness.
Community Outreach – BPSOS

- Observations
  - Children love the comic books. Recommend creating coloring books.
  - The booth in box display board about the project information is outdated.
  - The booth in the box and fishing game are in good condition
  - Need “What’s the Catch” comic books since they are popular with children at the community events.

- Upcoming Events
  - Researching new events for 2023
Community Outreach – CHCC

- Completed Events

  - Arcadia Asian Fall Festival, October 8-9, 2022
    - ~10,000 attendees, tip cards in Chinese (900) and English (200), ~5 attendees (~0.05%) aware of contamination. Awareness sources pier signs and friends.

  - 2023 San Gabriel Lunar New Year Festival, February 4th, 2023
    - ~8,000 attendees, tip cards in Chinese (550) and English (150).
Community Outreach – CHCC

Observations

- Most event attendees were unaware of the contamination and interested in learning.
- Not many attendees fish in southern California.
- For those who fish in southern California claimed they had seen the warning signs at various piers, such as Seal Beach.
- Attendees found outreach materials informative, especially the tip-card and fish identification card.

Outreach Material Condition

- Booth in Box display board needs replacement
- Fishing Game fishing rod and fish replacement.

Anticipated Upcoming Event

- Researching events for 2023.
Community Outreach

Questions or Comments?
BREAK FOR 20 MINUTES
EA Updates

• FCEC Website
  – https://pvsfish.org/
  – Annual program reports
  – eNewsletter

• FCEC outreach materials inventory and update
  – What needs printed now and what should wait for updates?

• Booth in box and Fishing game updates
  – What’s to come this year
Outreach Material Redesign

- Prioritize outreach materials
  - Tip-card
  - FCEC sub-committee
Tip-card Draft Ideas

• Messaging goals

• What can we include to make this tip card more useful to anglers?

• Educational opportunity
Tip-card Draft Ideas

Do Not Eat

- White Croaker
- Barred Sand Bass
- Black Croaker
- Topsmeat
- Barracuda

Some fish can be eaten with restrictions (see reverse).

Some fish caught in this area are contaminated with harmful chemicals and should not be eaten (see list on left).

For health advice on fish caught outside the red area, visit: pvsfish.org/health/other-areas

PROTECT THE HEALTH OF YOU AND YOUR CHILDREN
Join with other fishermen and follow the advice in this tip card

www.pvsfish.org

Printed May 2013
Tip-card Draft Ideas

ONLY EAT THE SKINLESS FILLET

1 TIME A WEEK

HERE ARE EXAMPLES OF SAFE FISH YOU CAN EAT

- QUEENFISH
- HALIBUT Minimum Size 22 Inches
- KELP BASS Minimum Size 14 Inches
- SCORPIONFISH Minimum Size 10 Inches
- PACIFIC SARDOINE
- SURFPERCH
- PACIFIC MACKEREL
- OPALEYE
- ROCKFISH
- CORINA
- SHOVELNOSE GUITARFISH

Use this ruler to measure your fish

No minimum size limit for fish unless otherwise indicated

Additional bag or size limits or other restrictions apply to these species. Please see California Department of Fish and Wildlife Sport-Fishing Regulations for more information.
Tip-card Draft Ideas

• Lacks information about DDT and PCB contamination
• Is the information current?
• Redesign the map
  – Not color-blind friendly
  – Lacks pier information
• QR code
Open Forum
Thank you!

- EPA appreciates your education, outreach, and enforcement efforts
- Further suggestions or concerns, please contact:

  Judy Huang
  US EPA Region 9
  Huang.Judy@epa.gov
  (415) 972-3681

  Laura Levine
  EA Engineering (contractor)
  llevine@east.com
  510-545-4441

  Renee Jordan Ward
  US EPA Region 9
  JordanWard.Renee@epa.gov
  (415) 972-3129