



FCEC Partners Meeting

Palos Verdes Shelf Superfund Site

April 17, 2024
12:00 PM – 3:00 PM
Hybrid Meeting



Agenda

- Welcome and introductions
- EPA and Program updates
- Pier Angler Outreach update
- Enforcement Outreach update
- Community Outreach update
- Open forum



Introductions

- Self-introductions
 - Name
 - Organization
 - Years with the FCEC
 - Favorite fish





EPA Updates





Program Updates

- Re-started newsletter distribution!
 - Newsletter now includes Angler Outreach and FCEC Program News Sections
 - QR code for newsletter sign up

United States Environmental Protection Agency

Sign up to receive the
**Fish Contamination Education Collaborative
Semi-Annual Newsletter**

SCAN ME

pvsfish.org/resources/newsletters

Resources

Current Newsletters

Fish Contamination Education Collaborative (FCEC)
The FCEC works to protect the public from the health risks of consuming local contaminated fish from the Palau Verdes Study Superfund Site.

Newsletter—December 2023

www.pvsfish.org
www.facebook.com/epaazores

ANGLER OUTREACH

Final Angler Outreach Activities October 2022 – September 2023

- Approximately 1,097 anglers reached!
- 3,886 anglers were new contacts (35%)
- 8,029 anglers were aware of contamination (72%)

Work for Dis Not Eat Contaminated Fish Signs in 2024!

COMMUNITY OUTREACH RECENT EVENTS

Community Health & Resource Fair July 8, 2023—The Community Health and Resource Fair is a collaborative event hosted by...

Community Health and Resource Fair, August 27, 2023—This Community Health and Resource Fair is hosted by the Vietnamese Alliance Church to connect the surrounding community to medical and community resources. Attendees were able to participate in free screenings for bone density, colorectal cancer, blood pressure, and blood sugar. They were also able to get free flu and COVID-19 vaccinations, free food, and drinks. The event attracted more than 70 attendees with approximately 50 individuals visiting the FCEC booth. The FCEC booth distributed educational outreach materials including the tip card, brochures, comic books, and fish ID cards. The comic books and the fish ID cards are popular and attract families to the booth. Many attendees were excited to see the tip card as a guide and especially favored the images of the fish to act as a guide for fish identification.

Raja Splash Festival, September 23-24, 2023—The Raja Splash Festival is an annual Hispanic Heritage event hosted by The Agrupacion of the People in Long Beach, California. The event features traditional dance, live music, youth cultural educational programming, and presentation showcasing Hispanic culture from around the world. The event attracted approximately 12,000 attendees with approximately 400 individuals visiting the FCEC booth. The FCEC booth distributed educational outreach materials including the tip card, brochures, comic books, and fish ID cards in English, Spanish, and Chinese. The comic books and the fish ID cards were the most popular outreach materials and attract families to the booth. The fishing game also generates a lot of attention to the booth.

FCEC Program News

UPDATE

- FCEC Partner Contact List
- FCEC May will assess fish image distribution outreach materials
- New photos of the fishing game (coming soon)

Completed 2023 Community Events

- 2023 San Gabriel Lunar New Year Festival—February 4, 2023
- Chinese Spring Festival Community Health Fair—March 11, 2023
- Agrupacion of the People Annual International Children's Festival—March 18-19, 2023
- FCEC National Workshop and Council—April 13, 2023
- Ansonia Unity & Celebration Carlos Luna Community Health & Resource Fair—July 8, 2023
- Greater Long Beach Department National Night Out—August 1, 2023
- Holy Spirit Church Community Health Forum—28 August 2023
- Vietnamese Alliance Church Community Health and Resource Fair—August 27, 2023
- Star Line Annual Health Fair—September 23, 2023

REDUCE YOUR RISK

Fish contaminated with PCBs and DDT do not cook, bake, or grill any different fish that are not contaminated.

Follow local fish advisories: Avoid eating fish with variable amounts of PCBs and DDT.

Eat only the whitest fish: PCBs and DDT build up in the fatty parts of the fish.

Boil, broil, steam, or grill

Newsletter Sign Up

First Name

Last Name

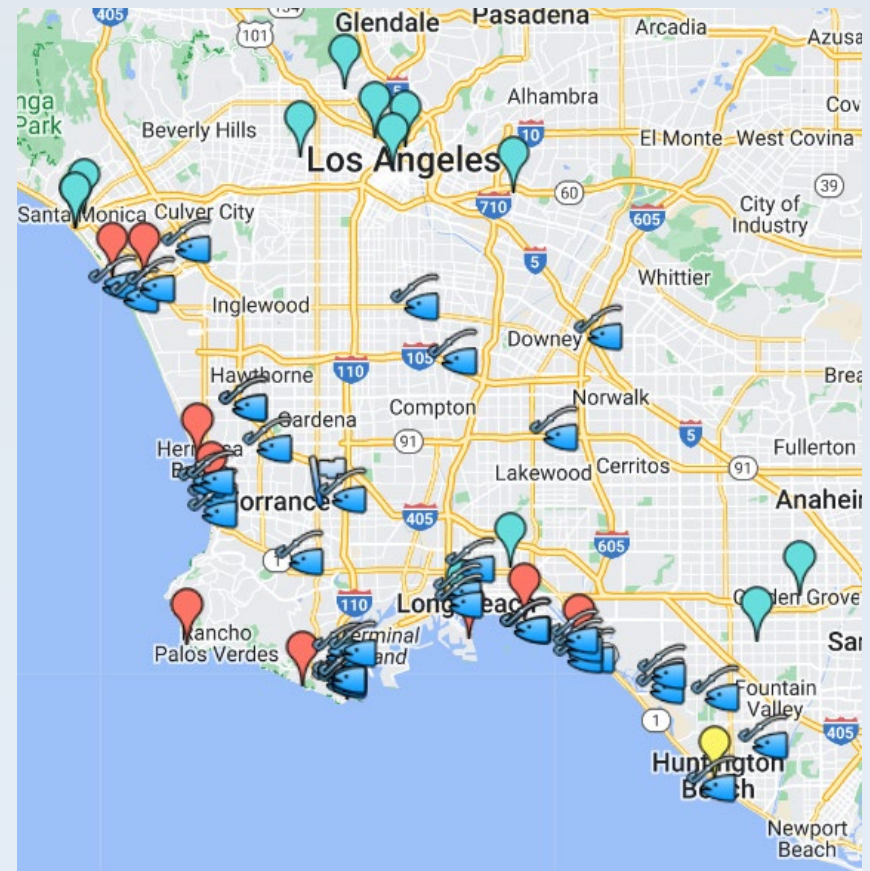
Email Address Required

I'm not a robot



Program Updates

- FCEC website updates
 - Bait shop location map updated on website with 40 current locations
 - Updates to the FAQ page in progress





Program Updates

FCEC Outreach Materials

- Booth in a Box replacement equipment
 - New tablecloths and table runners with FCEC logo in the works for all 4 Booth in a Box setups



- Fishing Game replacement equipment
 - 11 replacement fishing poles (5 existing poles still operational) with new magnets
 - Stronger fishing poles



Outreach Material Redesign Updates

- Final tip-card redesign
- Starting to work on redesigning the pier sign



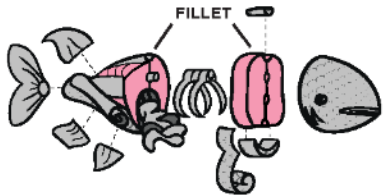
Outreach Material Redesign Updates

! Do not eat ANY parts of the five contaminated fish listed on this card

REDUCE YOUR RISK

Certain parts of the fish are more likely to contain harmful chemicals

- ✓ Eat only the skinless fillet
- ✓ Bake, steam, fry, or grill fish



EAT	DO NOT EAT	
FILLET (MUSCLE)	HEAD SKIN	FAT ORGANS



EATING CONTAMINATED FISH MAY HARM YOUR HEALTH!

Some fish caught from the Palos Verdes Shelf are contaminated with:

• PCBs

(polychlorinated biphenyls)

• DDT

(dichlorodiphenyltrichloroethane)



People that are exposed to PCBs and DDT may have a higher risk of developing serious health problems, including cancer.



Eating contaminated fish does not make people sick right away. PCBs and DDT can build up in your body over time and cause health problems later in life.



PCBs and DDT can be especially harmful to children and developing babies even before they are born (during pregnancy).

DO NOT EAT **!**



White Croaker
(Tomcod, Kingfish)



Barred Sand Bass



Black Croaker



Topsmelt



Barracuda

These fish are contaminated with chemicals that may cause serious health problems, including cancer. Learn more at www.pvsfish.org





Outreach Material Redesign Updates



✓ FISH THAT ARE SAFER TO EAT ✓



DO NOT EAT!

银边 **¡NO COMAS! KHÔNG ĂN**

These fish are contaminated with chemicals known to cause serious health problems, including cancer.

FISH ADVISORY

SANTA MONICA PIER
TO SEAL BEACH PIER



Learn more at
pvsfish.org



White Croaker

Corvineta blanca, Roncador blanco,
白鱼, Cá dù trắng



Barracuda

Barracuda, 梭鱼, cá nhông



Topsmelt

Pejerrey, 银边, Cá Suốt



Barred Sand Bass

Cabrilla de arena, 斑沙鲈, Cá vược cát cấm



Black Croaker

Corvineta negra, Roncador negro,
黑鱼, Cá dù đen





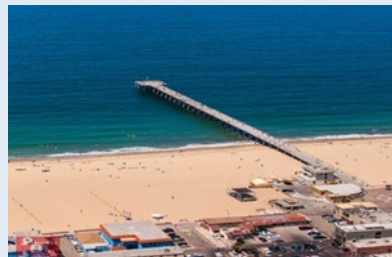
Pier Angler Outreach Summary





Pier Angler Outreach Summary

- Outreach on 9 piers
- Each pier visited by Angler Outreach Team 3x/every other week
- Evening Outreach at Venice and Redondo Piers every Saturday





Pier Angler Outreach Summary



Educational Outreach Tally Sheet

EA USE: Form # _____

Last Modified May 4, 2023

Date: _____ Pier Location: _____ Outreach worker: _____ Day Outreach Night Outreach
 Total # anglers on pier at beginning/end of shift: _____/_____

***** FILL OUT ONE LINE PER PERSON*****

	Is the person an adult or a child	Did they agree to speak to you?	Is the person receiving outreach for the 1 st time ever, or is s/he a repeat?	Was person aware of DDT/PCB* fish contamination advisories before this?	Awareness source: Signage, Tip-card, AOP* Team, Internet, Media, Events, Friend/Family Other	Language spoken during outreach	Tipcards Distr. (English, Spanish, Chinese, Vietnamese)	Zip Code	Species and Number of Fish Caught (make a note if the number is an estimate)	NOTES
1	<input type="checkbox"/> Adult <input type="checkbox"/> Child	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> New <input type="checkbox"/> Repeat	<input type="checkbox"/> No <input type="checkbox"/> Yes						
2	<input type="checkbox"/> Adult <input type="checkbox"/> Child	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> New <input type="checkbox"/> Repeat	<input type="checkbox"/> No <input type="checkbox"/> Yes						
3	<input type="checkbox"/> Adult <input type="checkbox"/> Child	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> New <input type="checkbox"/> Repeat	<input type="checkbox"/> No <input type="checkbox"/> Yes						
4	<input type="checkbox"/> Adult <input type="checkbox"/> Child	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> New <input type="checkbox"/> Repeat	<input type="checkbox"/> No <input type="checkbox"/> Yes						
5	<input type="checkbox"/> Adult <input type="checkbox"/> Child	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> New <input type="checkbox"/> Repeat	<input type="checkbox"/> No <input type="checkbox"/> Yes						
6	<input type="checkbox"/> Adult <input type="checkbox"/> Child	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> New <input type="checkbox"/> Repeat	<input type="checkbox"/> No <input type="checkbox"/> Yes						
7	<input type="checkbox"/> Adult <input type="checkbox"/> Child	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> New <input type="checkbox"/> Repeat	<input type="checkbox"/> No <input type="checkbox"/> Yes						
8	<input type="checkbox"/> Adult <input type="checkbox"/> Child	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> New <input type="checkbox"/> Repeat	<input type="checkbox"/> No <input type="checkbox"/> Yes						
9	<input type="checkbox"/> Adult <input type="checkbox"/> Child	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> New <input type="checkbox"/> Repeat	<input type="checkbox"/> No <input type="checkbox"/> Yes						
10	<input type="checkbox"/> Adult <input type="checkbox"/> Child	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> New <input type="checkbox"/> Repeat	<input type="checkbox"/> No <input type="checkbox"/> Yes						
11	<input type="checkbox"/> Adult <input type="checkbox"/> Child	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> New <input type="checkbox"/> Repeat	<input type="checkbox"/> No <input type="checkbox"/> Yes						
12	<input type="checkbox"/> Adult <input type="checkbox"/> Child	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> New <input type="checkbox"/> Repeat	<input type="checkbox"/> No <input type="checkbox"/> Yes						
13	<input type="checkbox"/> Adult <input type="checkbox"/> Child	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> New <input type="checkbox"/> Repeat	<input type="checkbox"/> No <input type="checkbox"/> Yes						

	Person	Date
Data Sheet Checked in Field		
Data Sheet Entered Electronically		
Electronic Data Checked		

*DDT/PCB = dichlorodiphenyltrichloroethane/polychlorinated biphenyls; AOP = Angler Outreach Program;



Pier Angler Outreach Summary

- Pier Angler Outreach (October 2023 – February 2024)

3,108 anglers interviewed

**1,394 (45%)
new**

**2,002 (64%)
aware of contamination**

878 Tip-cards handed out

- 774 – English
- 90 – Spanish
- 12 – Chinese
- 2 – Vietnamese

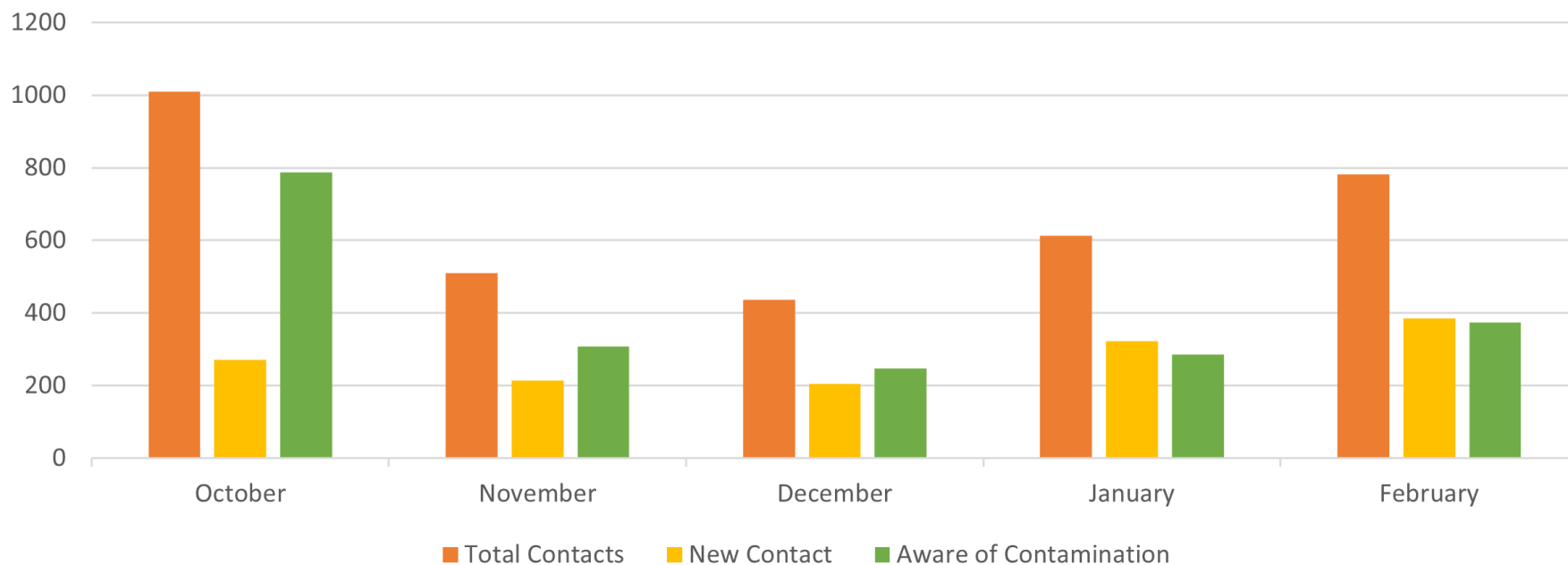
Awareness sources

- DNC pier signage (45.8%)
- Pier angler outreach (32.0%)
- Tip-cards (18.3%)
- Internet, media, friend/family, and other (4.0%)
- Community events (0%)



Pier Angler Outreach Summary

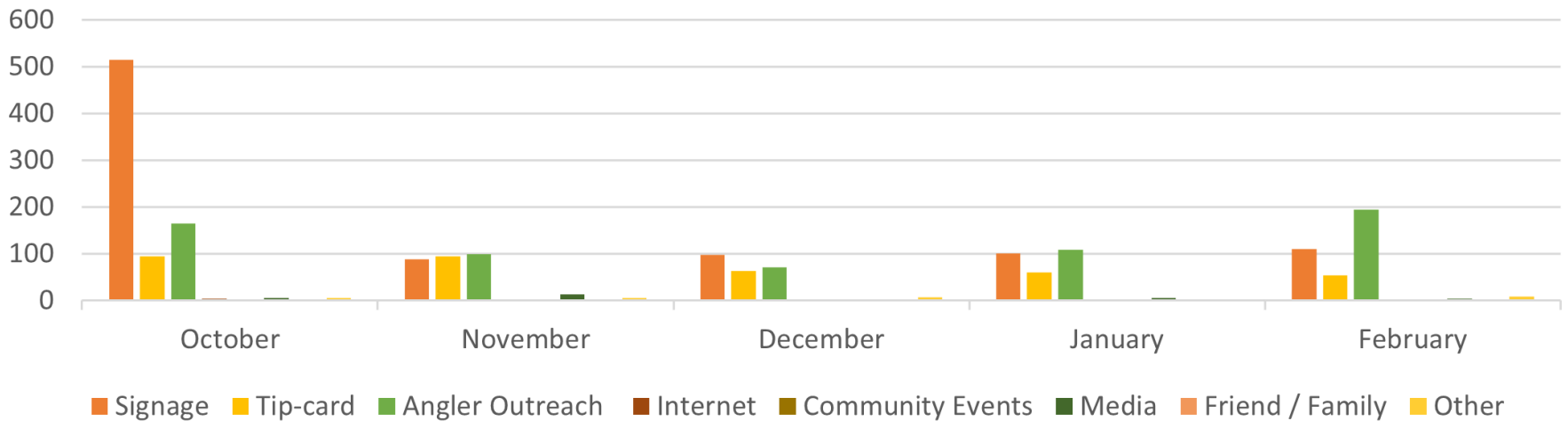
Total Pier Anglers Reached
October 2023 - February 2024
(Cabrillo and Heal the Bay Day/Night)





Pier Angler Outreach Summary

Total Awareness Source
October 2023 - 2024
(Heal the Bay and Cabrillo)





Angler Outreach - Cabrillo

- Pier Angler Outreach – Cabrillo
 - October 2023 – February 2024
 - Angler outreach contacted ~422 people
 - ~186 were new (~44.1%)
 - ~145 were aware of contamination (~34.4%)
 - ~92 tip cards were handed out in English (68), Spanish (20), Vietnamese (2), and Chinese (2)
 - Awareness sources
 - Angler outreach (81.4%)
 - Media (15.0%)
 - Tip-cards (2.1%)
 - DNC pier signage (0.0%)
 - Internet (0.7%)
 - Community Events, Friend/Family, and Other (1.6%)





Angler Outreach - Heal the Bay





Angler Outreach – Heal The Bay

Angler Outreach Day/Evening Participant Breakdown

Reporting Period: October 2023 – February 2024

Daytime Outreach

- ▶ New: 895 (42%)
- ▶ Aware: 1,591 (74%)

- ▶ Total Daytime Anglers Interviewed: 2,141

Evening Outreach

- ▶ New: 313 (57%)
- ▶ Aware: 266 (49%)

- ▶ Total Evening Anglers Interviewed: 545

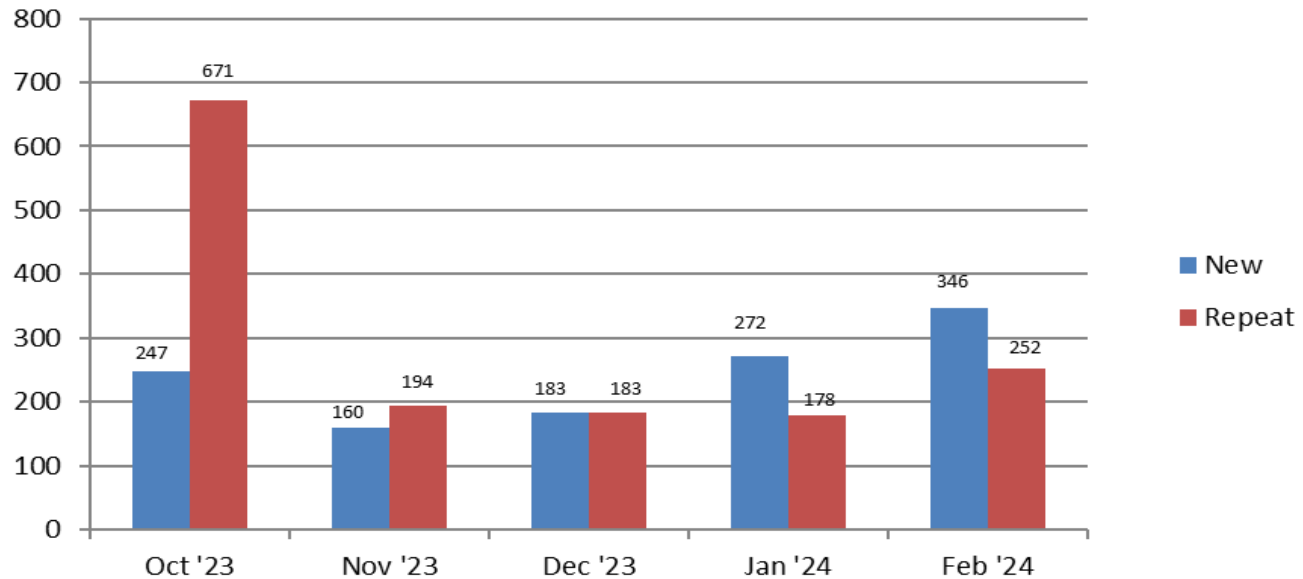
Total Daytime and Evening Anglers Interviewed: 2,686



Angler Outreach – Heal The Bay

New & Repeat Anglers from October 2023 – February 2024

Total Anglers surveyed from Santa Monica through Seal Beach



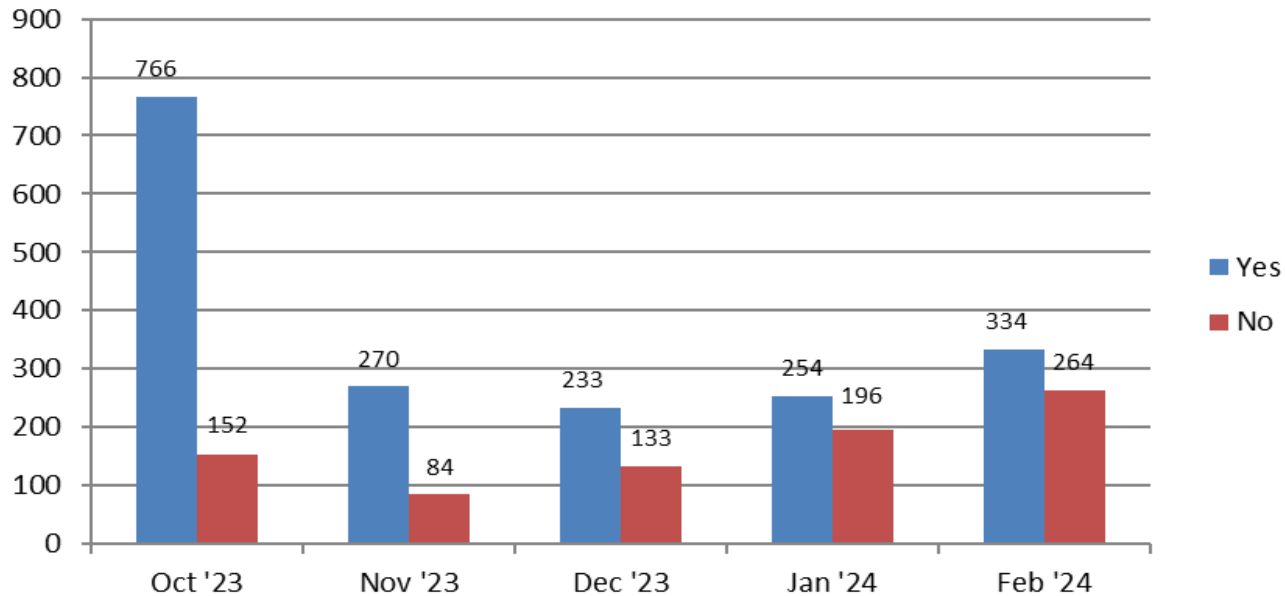
n= 2,686



Angler Outreach – Heal The Bay

Total Awareness from October 2023 – February 2024

Total Anglers Aware of Fish Contamination Advisories



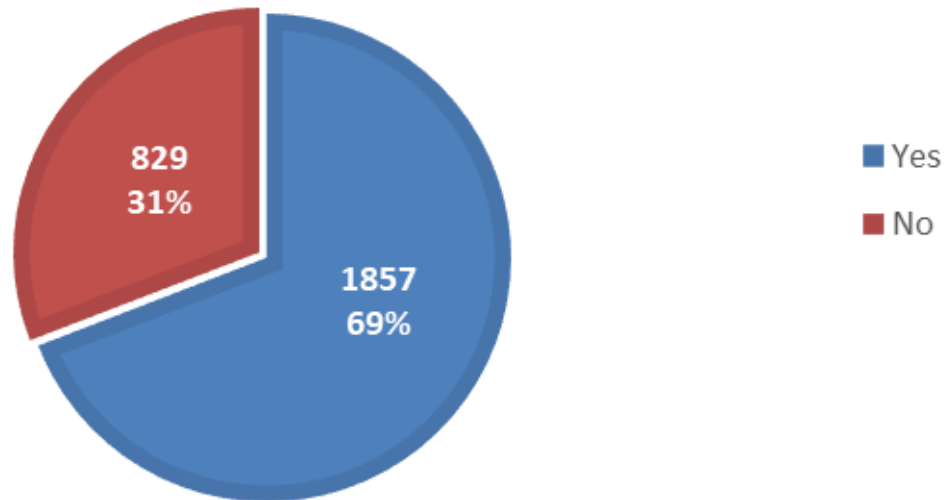
n= 2,686



Angler Outreach – Heal The Bay

Total Awareness from October 2023 – February 2024

Total Anglers Aware of Fish Contamination Advisories



n= 2,686



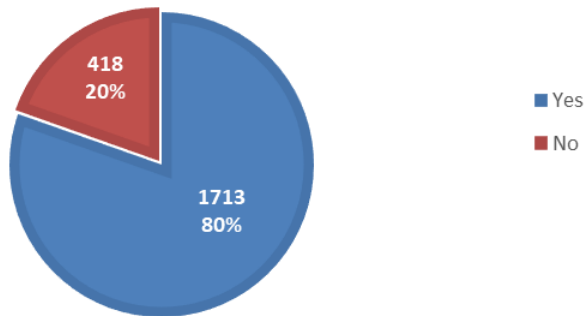
Angler Outreach – Heal The Bay

Total Awareness Comparison from Previous Year

October 2022 - February 2023

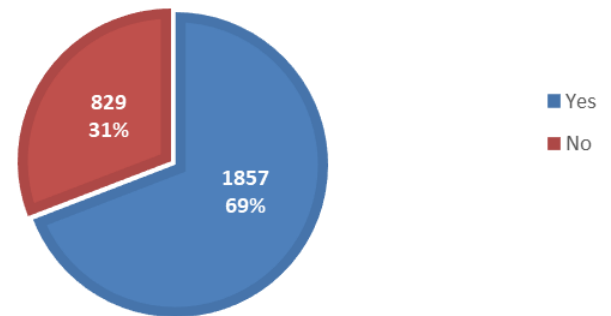
October 2023 - February 2024

Total Anglers Aware of Fish Contamination Advisories



n=2,131

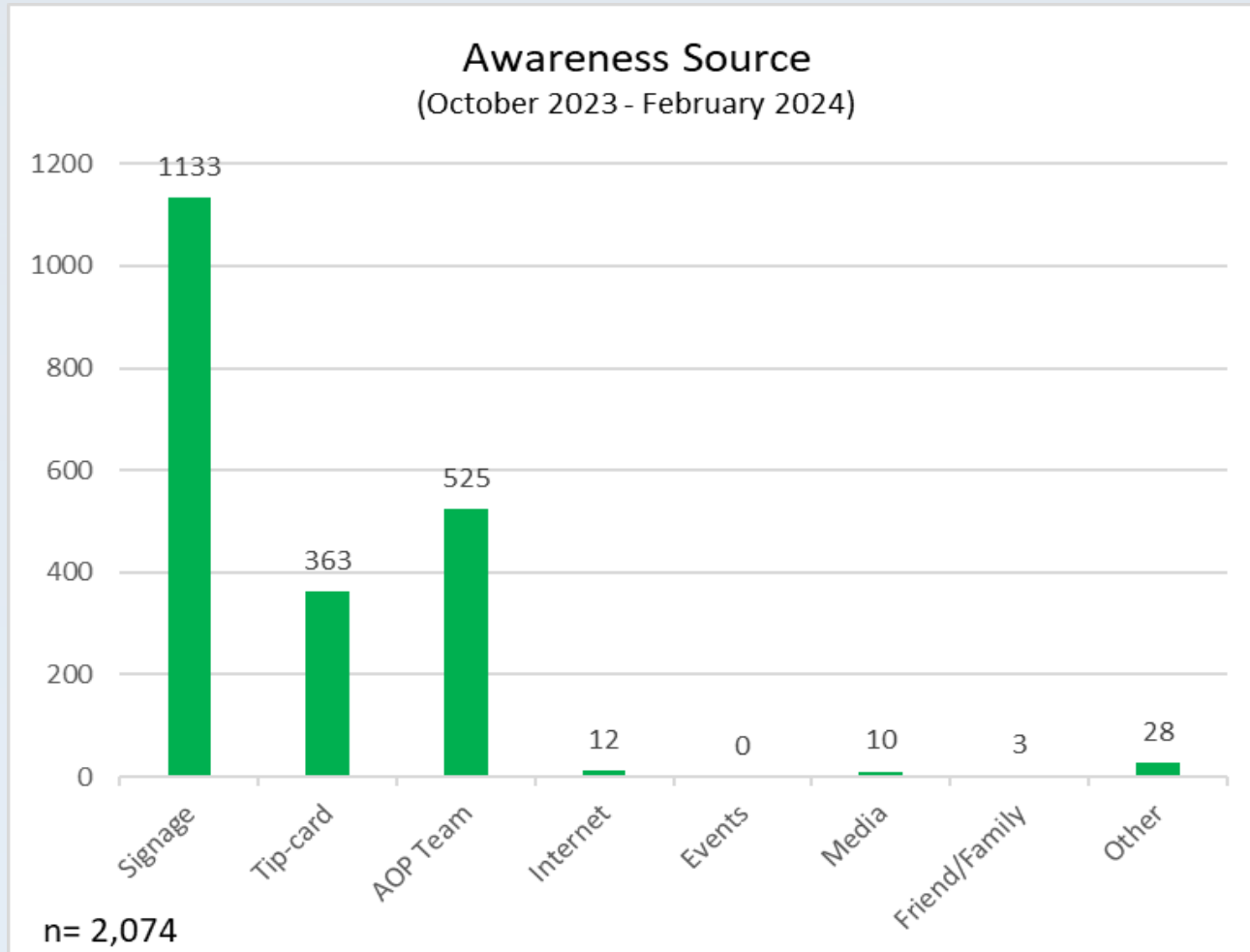
Total Anglers Aware of Fish Contamination Advisories



n= 2,686



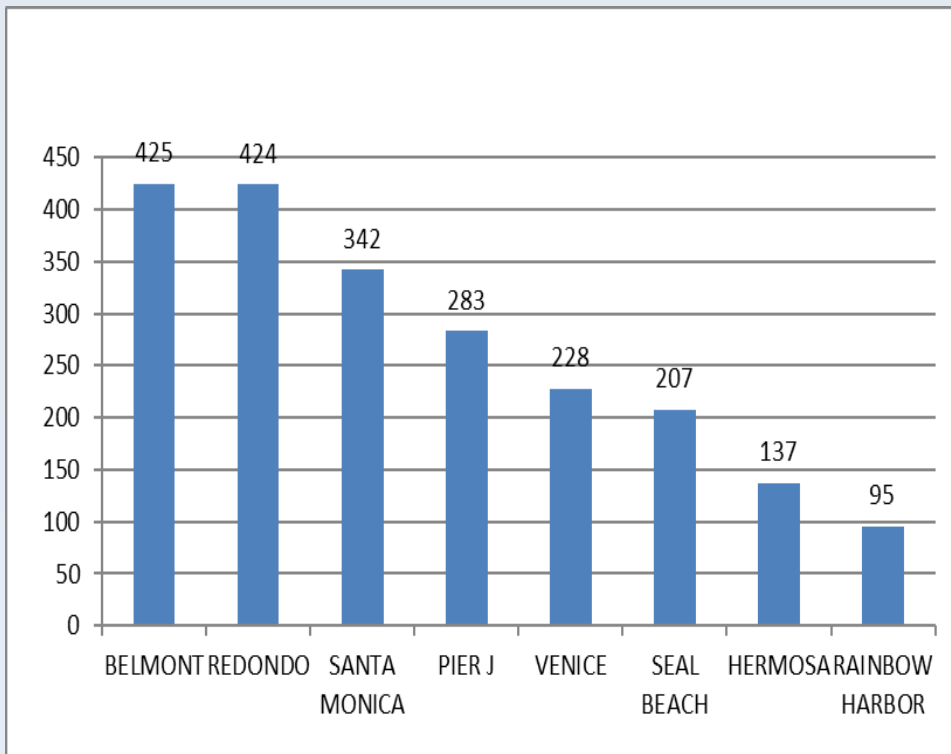
Angler Outreach – Heal The Bay



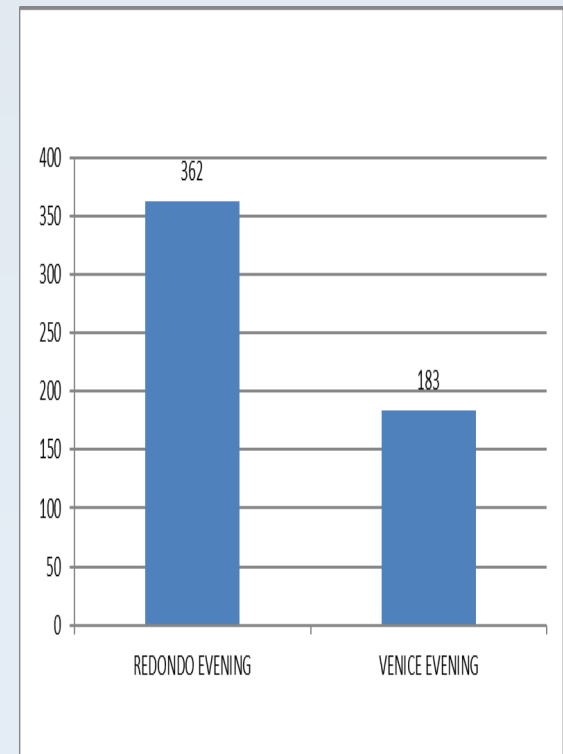


Angler Outreach – Heal The Bay

Belmont Pier was the busiest pier during daytime outreach



Redondo Pier was the busiest pier during evening outreach





Angler Outreach – Heal The Bay

Evening Participant Breakdown

Reporting Period: October 2023 – February 2024
Venice Pier and Redondo Pier

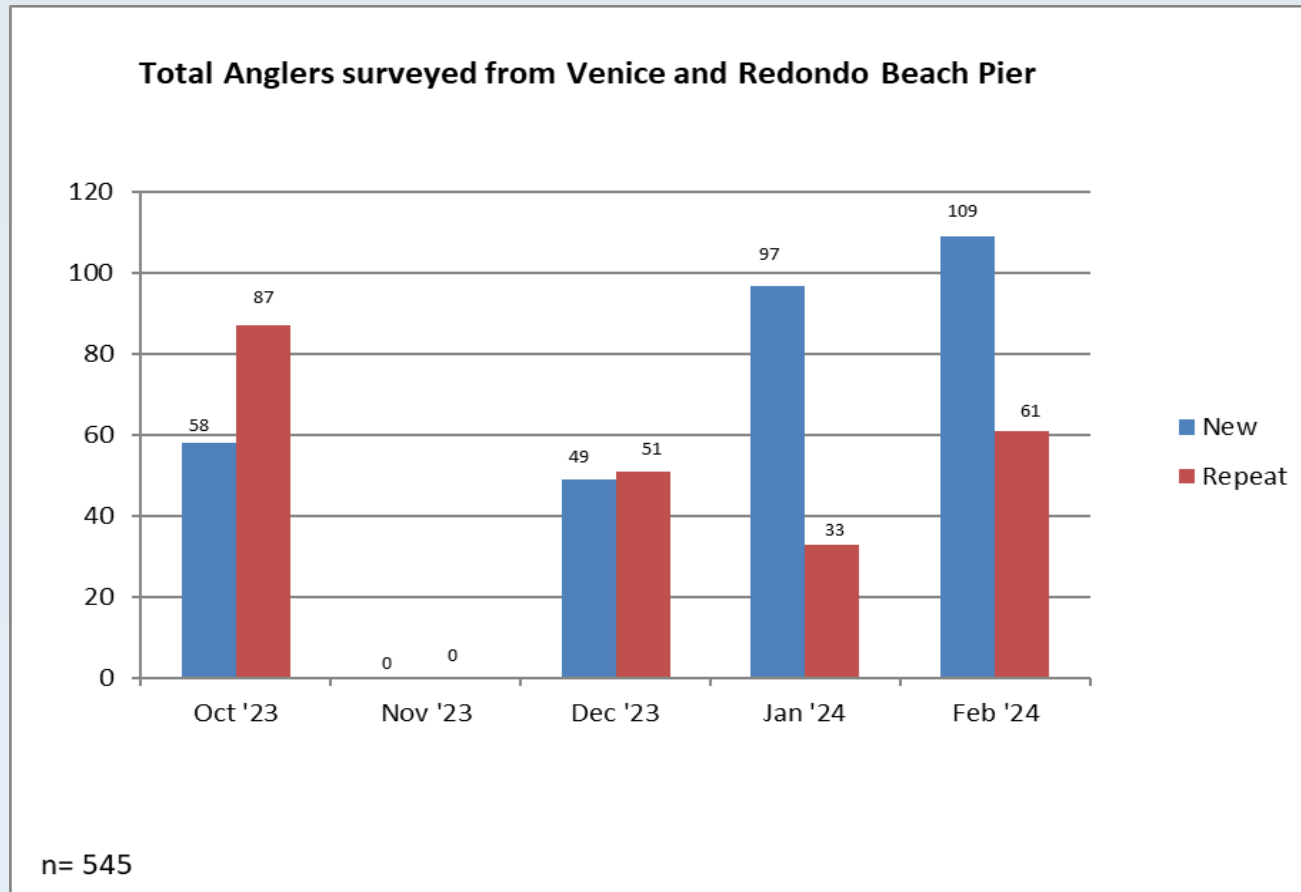
- ▶ New: 313 (57%)
- ▶ Aware: 266 (49%)

- ▶ Total Evening Anglers Interviewed: 545



Angler Outreach – Heal The Bay

Evening Participant Breakdown



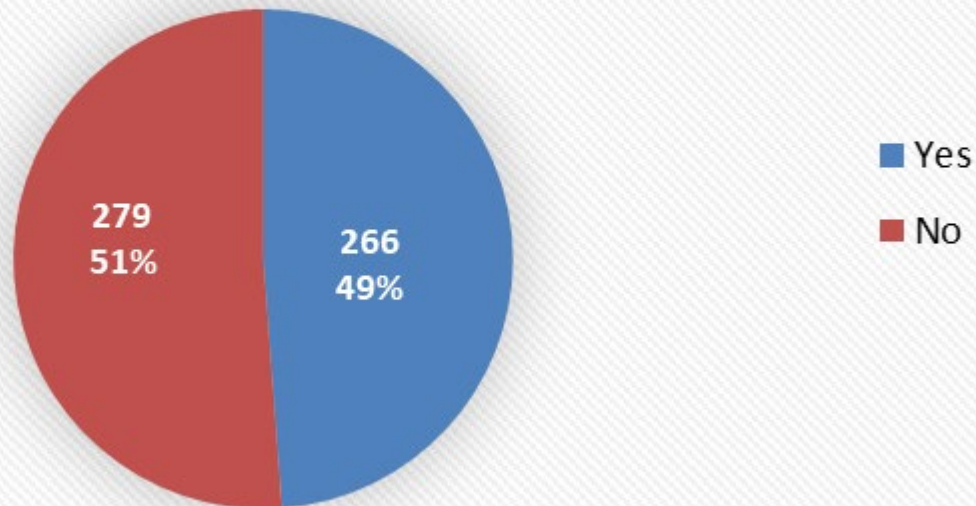
Outreach activity 4 days per month



Angler Outreach - HTB

Evening Participant Breakdown

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



n= 545

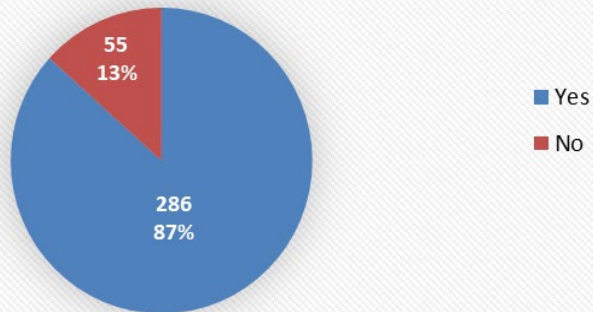


Angler Outreach – Heal The Bay

Evening Participant Breakdown

October 2022 - February 2023

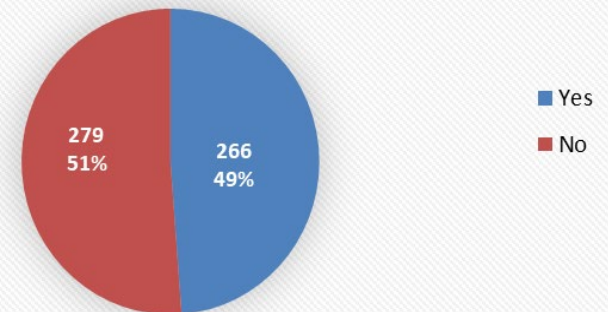
Total Anglers Aware of Fish Contamination Advisories during evening hours (4:00-8:00PM)



n= 330

October 2023 - February 2024

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



n= 545



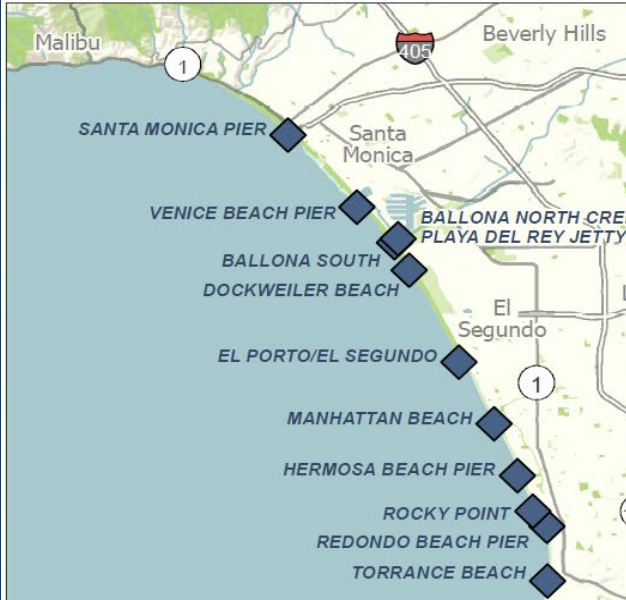
Angler Outreach – Heal The Bay

Observations

- Despite efforts, many anglers, especially minorities and subsistence anglers, lack awareness of local fish contamination. Evening anglers are less aware of contamination advisories compared to morning anglers.
- Effective methods such as signs, tip-cards, and our outreach team have been crucial in educating anglers.



DNC Pier Sign Monitoring



Protect your health
Proteja su salud

Do Not Eat Contaminated Fish
¡No Coma Pescado Contaminado!

-  **White Croaker**
Corvineta blanca, Roncador blanco
白姑魚 | Cá Lu Đu Trắng
-  **Barred Sand Bass**
Cabrilla de arena
星雲海鱸 | Cá hanh sọc
-  **Black Croaker**
Corvineta negra, Roncador negro
黑姑魚 | Cá Lu Đu Đen
-  **Topsmelt**
Pejerrey
鰲鰾漢魚 | Cá Suốt
-  **Barracuda**
Barracuda
梭子魚 | Cá Nhồng

Choose healthy fish; check your local advisory.
Coma pescados saludables; infórmese con su asesor local.

www.pvsfish.org





DNC Pier Sign Inspection

- Angler Outreach Partners perform routine DNC pier sign inspections while performing angler outreach activities at the 9 designated pier locations.
- As of February 2024, 47 pier sign locations were inspected during routine angler outreach:
 - 19 in good/acceptable condition
 - 17 damaged
 - 11 missing

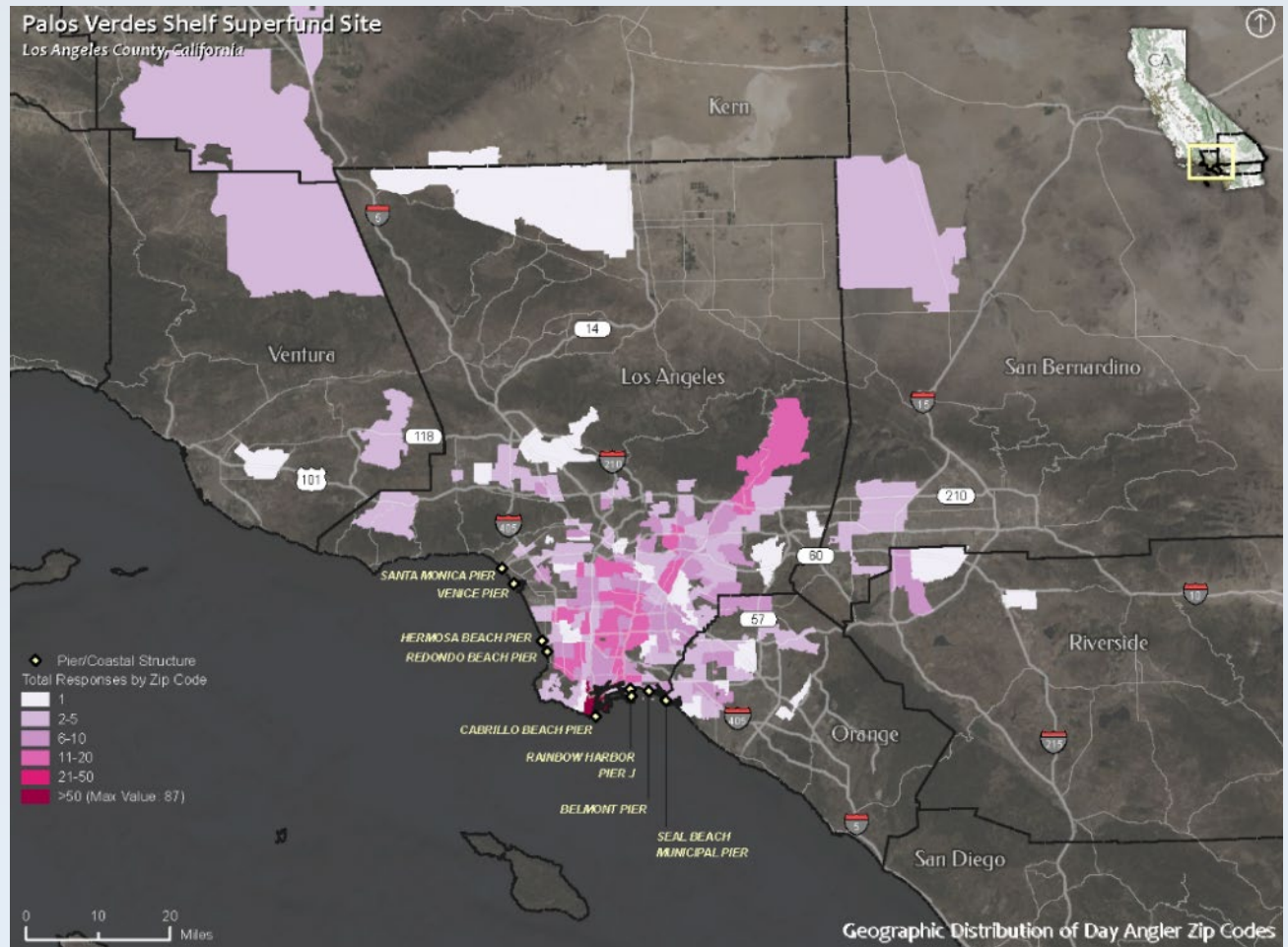
	Pier	Total (2023)	Good/OK (2023)	Damaged (2023)	Missing (2023)
1	Santa Monica	5	4	0	1
2	Venice	6	2	2	2
3	Cabrillo	8	0	8	0
4	Hermosa Beach	4	2	2	0
5	Redondo Beach	6	2	3	1
6	Pier J	3	3	0	0
7	Rainbow Harbor	5	2	1	2
8	Belmont	5	4	1	0
9	Seal Beach	5	0	0	5
	Total	47	19	17	11



Angler Zip Code Analysis – Daytime Outreach

Analysis Period:
October 2023 –
February 2024

Total recorded
zip codes: 953

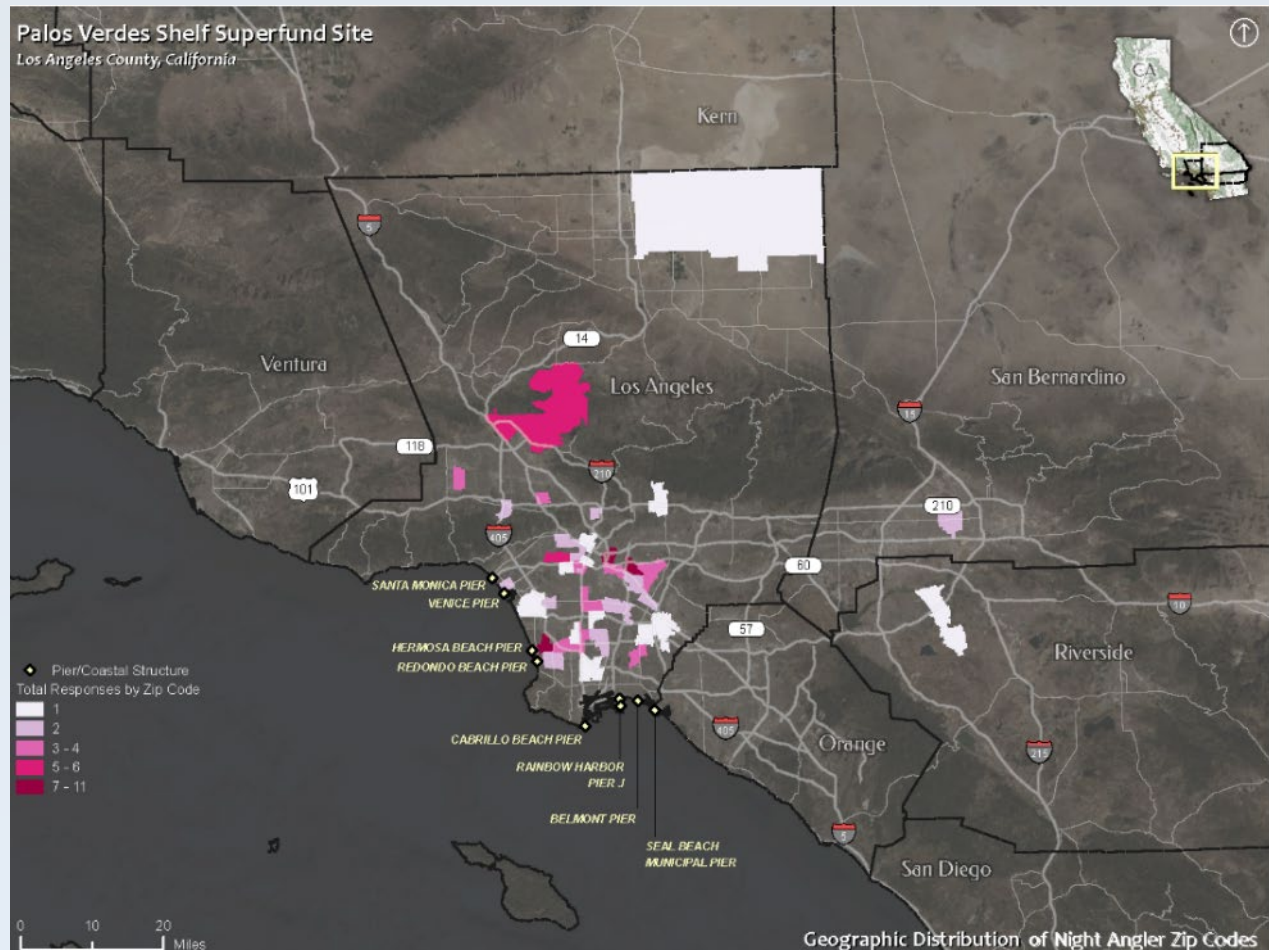




Angler Zip Code Analysis – Evening Outreach

Analysis Period:
October 2023 –
February 2024

Total recorded
zip codes: 136





Pier Angler Outreach

Questions or Comments?





BREAK

Break for 15 minutes





Enforcement Outreach

- California Department of Fish and Wildlife October 2023 – February 2024
 - 18 Recreational Fishing Patrols
 - 315 total contacts
 - 0 Citation White Croaker over limit
 - 0 White Croakers seized
 - 3 White Croakers observed in possession at Belmont Pier
 - Commercial Business Inspections: No violations, no white croaker observed
 - Public Outreach Materials Distributed: Tip-cards in English (143), Spanish (32), Vietnamese (4), and Chinese (10)



Enforcement Outreach

Questions or Comments?





Community Outreach Summary

Community events data during October 2023 - February 2024 for DBS&A, BPSOS, and CCHC:

- Outreach partners attended 5 community events this reporting period.
- Approximately 57,800 event attendees with an estimated 2,550 FCEC Booth visits!

Distributed Outreach Materials				
1,153 Tip Cards	1,116 Brochures	289 Comic Books	1,243 Fish ID Cards	Curriculum Guide
260 – English	242 – English	234 – English	1,201 – English	5
22 – Spanish	8 – Spanish	29 – Spanish	30 – Spanish	
855 – Chinese	855 – Chinese	26 – Chinese	12 – Chinese	
10 – Vietnamese	11 – Vietnamese			



Community Outreach – DBS&A

- Completed Events
 - Cabrillo Aquarium Whale Fiesta, February 4, 2024
 - UVSA Tét Festival, February 9-11, 2024
 - Aquarium of the Pacific African American Festival, February 24-25, 2024
 - Aquarium of the Pacific Noche De Estrellas, March 15, 2024
 - Aquarium of the Pacific Children’s Festival, March 23-24, 2024
 - ~ 37,800+ total attendees
 - ~ 800+ attendees stopped by booth
 - Tip cards in English (83), Spanish (14), Chinese (3), Vietnamese (10)
 - Pamphlets in English (74), Spanish (2), Chinese (2), Vietnamese (11)
 - Comic books in English (193), Spanish (19), Chinese (12)
 - Fish ID in English (133), Spanish (20), Chinese (8)
 - Curriculum Guides (5)
 - Vast majority of individuals are NOT aware of the existing contamination



Community Outreach – DBS&A

- Observations/Recommendations
 - Outreach Materials
 - QR code is being utilized
 - Chinese and Spanish Fish ID cards do not display warning exclamation symbols on “do not consume” fish
 - Request for more virtual outreach materials (online comic)
 - Reports of people catching lobsters and sea urchins at piers for consumption
 - Public concern about contaminated fish migrating to adjacent piers
 - New magnets enhance fishing game experience.



Community Outreach –DBS&A

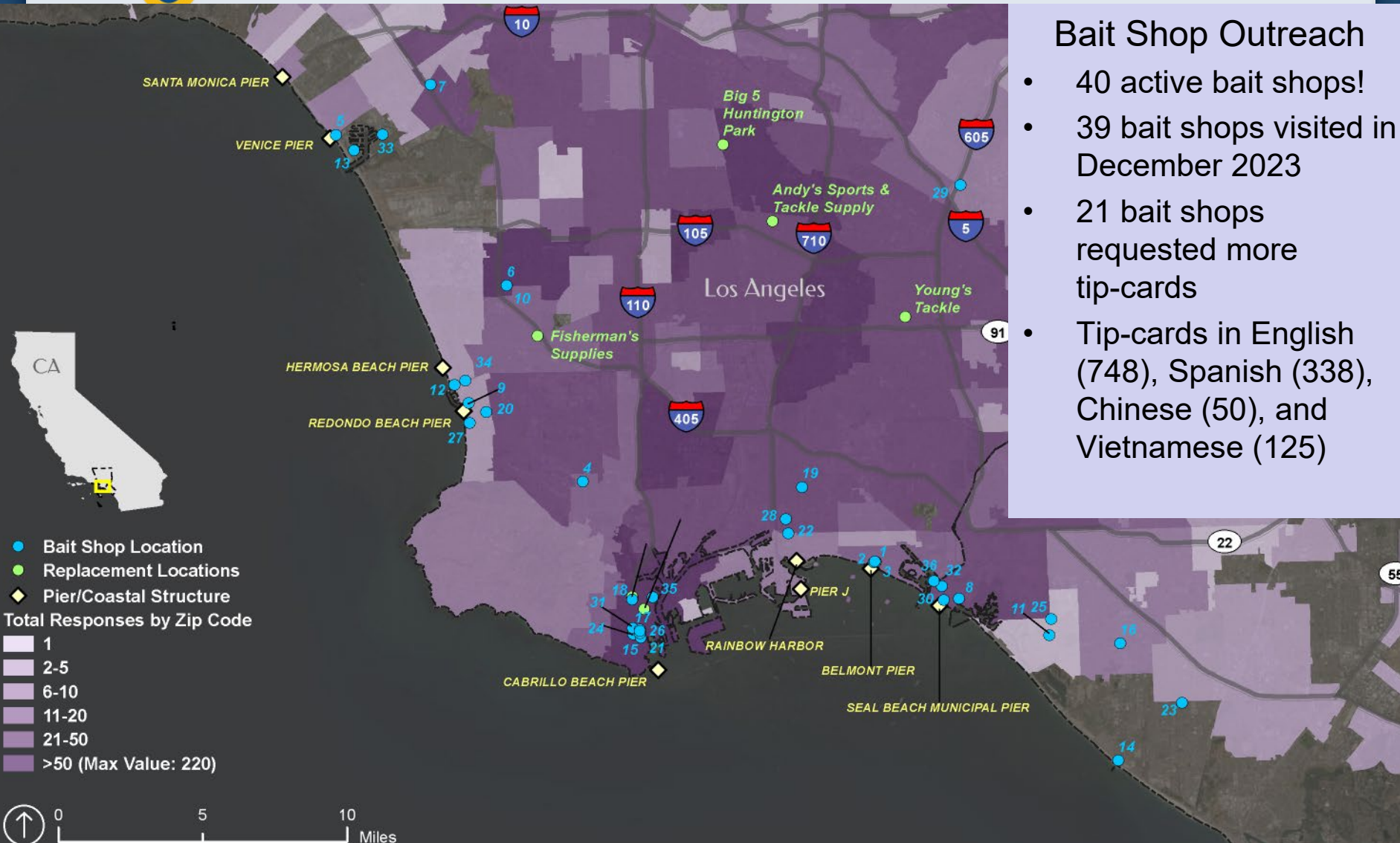
- Upcoming Events
 - Aquarium of the Pacific (Teen Climate Council) Earth Day, April 27-28, 2024
 - American Indian Arts Festival, June 2024 (TBD)
 - Moompetam American Indian Festival, September 2024 (TBD)
 - Aquarium of the Pacific Baja Splash Festival, September 2024 (TBD)
 - Lummis Day, October 2024 (TBD)
- Partner Outreach Materials Inventory and Distribution
 - email taustin@eaest.com for outreach supplies



Community Outreach – DBS&A

Bait Shop Outreach

- 40 active bait shops!
- 39 bait shops visited in December 2023
- 21 bait shops requested more tip-cards
- Tip-cards in English (748), Spanish (338), Chinese (50), and Vietnamese (125)





Community Outreach – BPSOS

- Upcoming events:
 - Congresswoman Michelle Steel (CA-45) Health and Resource Fair
 - Dieu Ngu Temple
14472 Chestnut Street, Westminster, CA 92683
 - 23 March 2024 - 11:30am to 3:00pm
- Previous event observations:
 - Many attendees were surprised to hear about the contaminants found in fish.
 - Many attendees inquired about digital materials to limit the materials they carry from booth to booth. They felt if they could access it on their phones, it would be easier to locate the information and keep the tip-card with them all the time.





Community Outreach – CCHC

- **Events completed since last FCEC Partners meeting November 2023:**
 - 2024 San Gabriel Lunar Lantern Festival, 17 -18 February 2024
 - ~20,000 attendees, tip-cards and brochures in Chinese (850) and English (150), Fish ID cards in English (1000)





Community Outreach – CCHC

Observations

- Most event attendees were Chinese speaking. CCHC hosts leveraged their fluency in Chinese to communicate with event attendees. Although most of the attendees do not go fishing regularly, most were curious about the “contaminated fish.” They are interested in finding out what caused the contamination and how to eat fish in a safe way.
- The fishing game is a good way to attract attention to the booth and help attendees understand which types of fish they should avoid.
- Although most Chinese people are accustomed to eating the entire fish with the skin, the suggested way of eating only the fillet was readily received by younger attendees.
- Older event attendees are less familiar with QR codes. Providing assistance with QR code use impacts the outreach staff’s ability to perform educational outreach with booth materials. The newsletter is provided in only English, and many attendees are unable to read English.



Community Outreach

Questions or Comments?





Open Forum





THANK YOU!

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

Renee Jordan Ward

EPA Region 9

JordanWard.Renee@epa.gov