



FISH CONTAMINATION EDUCATION COLLABORATIVE

PIER SIGN SUMMARY

February 2015 – July 2016

Palos Verdes Shelf Superfund Site

Los Angeles County, California

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ACRONYMS AND ABBREVIATIONS

Cabrillo	Cabrillo Marine Aquarium
DNC	Do Not Consume
EA	EA Engineering, Science, and Technology, Inc.
EPA	United States Environmental Protection Agency
FCEC	Fish Contamination Education Collaborative
HTB	Heal the Bay
LACDPH	Los Angeles County Department of Public Health Environmental Health Division Toxics Epidemiology Program
MPA	Marine Protection Area

1.0 INTRODUCTION

The United States Environmental Protection Agency (EPA) created the Fish Contamination Education Collaborative (FCEC) with representatives of federal, state, and local agencies, and community-based organizations that carry out various outreach and education activities. The goal of the outreach activities are to protect the most vulnerable populations from the health effects of consuming contaminated fish related to the Palos Verdes Shelf Superfund Site. Pier signs containing Do Not Consume (DNC) fish messaging are posted on piers to help anglers identify which fish are on the DNC list and therefore should not be kept.

In February 2015, the EPA contracted EA Engineering, Science, and Technology, Inc. (EA) to coordinate with the angler outreach groups, Heal the Bay (HTB) and Cabrillo Marine Aquarium (Cabrillo), to monitor pier sign conditions while performing angler outreach activities. HTB and Cabrillo performed pier sign condition assessments on a periodic basis and reported the status to EA. Based on the results, EA worked with the Los Angeles County Department of Public Health Environmental Health Division Toxics Epidemiology Program (LACDPH) to replace or repair missing and/or damaged signs, as necessary. The locations of the DNC fish signs on the piers were also evaluated to determine if certain locations were problematic and in need of evaluation for new placement.

2.0 PIER SIGN CONDITIONS (SEPTEMBER 2013 – MAY 2014)

A previous pier sign condition summary was prepared by S. Groner Associates, Inc. for the period between September 2013 and May 2014. The assessments were performed at select piers located between Santa Monica and Seal Beach (Figures 1 and 2). During the assessments, information such as the number of signs posted at each pier and condition (e.g., excellent, good, okay, poor) were recorded. The results of the pier sign condition assessments in September 2013, March 2014, April 2014, and May 2014 are included in Tables A-1 through A-4 in Appendix A. In May 2014, a total of 63 signs were posted and monitored at select piers between Santa Monica and Seal Beach. Of the 63 signs monitored, 17 were in poor condition and recommended for replacement. Table 1 summarizes the previous pier sign conditions as of May 2014.

Table 1. Pier Sign Conditions – May 2014

Location	Total No. of Signs	Sign Condition			
		Excellent	Good	OK	Poor
Santa Monica Pier	7	-	5	-	2
Venice Pier	5	-	-	1	4
Marina Del Rey/ Burton Chase Platform	1	1	-	-	-
Dockweiler Beach	1	1	-	-	-
El Porto/El Segundo	1	-	-	-	1
Cabrillo Pier	7	-	2	2	3
Hermosa Beach Pier	6	1	3	-	2
Redondo Beach Pier	7	1	4	-	2
Pier J	5	4	-	-	1
Rainbow Harbor	3	1	-	1	1
Belmont Pier	5	3	2	-	-
Seal Beach Pier	2	1	-	1	-
Torrance Beach	2	-	2	-	-
Abalone Cove	1	1	-	-	-
Long Point	1	-	1	-	-
Point Vicente	1	1	-	-	-
Royal Palms/ White's Point	2	-	2	-	-
Portuguese Bend	2	1	1	-	-
Point Fermin	0	-	-	-	-
Rocky Point	0	-	-	-	-
Ballona Creek/ Playa del Rey Jetty	0	-	-	-	-
Manhattan Beach	4	1	1	1	1
Total	63	19	21	6	17

3.0 PIER SIGN CONDITIONS (MARCH 2015 – JULY 2016)

In March/April 2015 and June/July 2016, the LACDPH conducted an evaluation of pier signs located at select piers between Santa Monica and Seal Beach (Figures 1 and 2). Based on the evaluation, 59 signs were present in 2015 and 53 in 2016. In 2015, the LACDPH noted that 16 of the 59 signs required cleaning and 25 new signs were needed. In 2016, the LACDPH noted that 24 of the 53 signs required cleaning and 9 new signs were needed. The LACDPH pier sign evaluations are included in Appendix B.

HTB and Cabrillo monitored sign conditions while performing angler outreach activities at nine piers. HTB tracked signs located at Santa Monica Pier, Venice Pier, Hermosa Pier, Redondo Pier, Pier J, Rainbow Harbor, Belmont Pier, and Seal Beach Pier (Figure 1). Cabrillo monitored signs located at Cabrillo Pier. Signs needing replacement were reported to EA. EA then coordinated the replacement with EPA and LACDPH. In January 2016, Cabrillo noted three signs located on Cabrillo Pier that needed replacement. One sign was torn, one was missing, and one had enough graffiti and scratches to make it illegible. LACDPH replaced the three signs in February 2016.

During a FCEC partners meeting in November 2015, HTB pointed out the some of the DNC fish signs are located in Marine Protection Areas (MPAs). The partners agreed that overlap of the DNC fish signs in the MPAs could potentially send mixed messages and should be removed. Figure 3 presents the DNC fish sign locations and MPAs. EA evaluated the overlap and determined that signs at four piers should be removed. EA worked with LACDPH to remove signs from Point Vincent, Long Point, Portuguese Bend, and Abalone Cove. In May 2016, LACDPH removed two signs, one each in Portuguese Bend and Point Vincent. The remaining two were missing from Abalone Cove and Long Point.

Of the 63 signs monitored, approximately 8 were recommended for replacement because they were missing (4) or in poor condition (4). Table 2 summarizes the recent pier sign conditions as of June/July 2016. Appendix C presents photographs of the pier signs as of June/July 2016.

Table 2. Pier Sign Conditions – June/July 2016

Location	Total No. of Signs	Sign Condition				Notes
		Excellent	Good	OK	Poor	
Santa Monica Pier	5	1	2	-	-	2 signs missing, need replacement
Venice Pier	7	-	3	1	3	3 signs broken, need replacement
Marina Del Rey/ Burton Chase Platform	0	-	-	-	-	1 sign removed in 2015. No fishing at this location.
Dockweiler Beach	1	1	-	-	-	
El Porto/El Segundo	2	2	-	-	-	
Cabrillo Pier	7	1	2	4	-	
Hermosa Beach Pier	5	-	4	-	-	1 sign missing, need replacement
Redondo Beach Pier	6	1	4	1	-	1 sign cracked, need replacement.
Pier J	5	-	3	2	-	
Rainbow Harbor	3	-	-	2	1	1 sign vandalized, need replacement
Belmont Pier	5	1	4	-	-	
Seal Beach Pier	2	-	-	2	-	
Torrance Beach	2	-	1	1	-	
Abalone Cove	0	-	-	-	-	No sign due to limited access. DNC/MPA area.
Long Point	0	-	-	-	-	No sign found. DNC/MPA area.
Point Vicente	0	-	-	-	-	1 sign removed in DNC/MPA area.
Royal Palms/ White's Point	2	-	-	2	-	
Portuguese Bend	0	-	-	-	-	1 sign removed in DNC/MPA area. 1 sign missing.
Point Fermin	1	-	-	-	-	1 sign missing, need replacement.
Rocky Point	1	1	-	-	-	
Ballona Creek/ Playa del Rey Jetty	5	-	5	-	-	
Manhattan Beach	4	4	-	-	-	
Total	63	12	28	15	4	4 signs missing

4.0 RECOMMENDATIONS

As part of the monitoring activities, it was noted that placement of some DNC fish signs appeared to be problematic and were recommended for new placement. The DNC pier signs were most frequently replaced at the popular piers (e.g., Santa Monica, Venice, Hermosa Beach, and Redondo Beach) due to vandalism (Table 2). Signs that are located too low are more easily removed or vandalized. Conversely, signs located too high are not easily read by pier anglers. During a FCEC partners meeting in July 2016, HTB pointed out that DNC pier signs located on Pier J at 11 feet should be lowered to a height so that they can be read but not easily removed or vandalized.

Compared to the May 2014 pier sign conditions assessment, the number of signs needing replacement (20) decreased to 8 in June/July 2016. Overall, the amount of DNC pier signs classified as “Excellent” and “Poor” decreased and those that were “Good” and “Okay” increased. Based on the reduction of signs needing replacement, it appears that the DNC pier sign monitoring is managed more effectively. Four of the eight signs needing replacement were missing and the other four were in poor condition. The missing DNC fish signs are located at Santa Monica Pier (2), Hermosa Beach (1), and Point Fermin (1). The remaining DNC fish signs in poor condition are located at Venice Pier (3) and Rainbow Harbor (1).

Coordination between LACDPH, HTB, and Cabrillo is recommended to determine overlap in DNC fish sign monitoring activities. It appears some piers are monitored by LACDPH and HTB or Cabrillo (e.g., Cabrillo Pier). By coordinating monitoring activities duplicate efforts may be split and devoted to another area.

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FIGURES

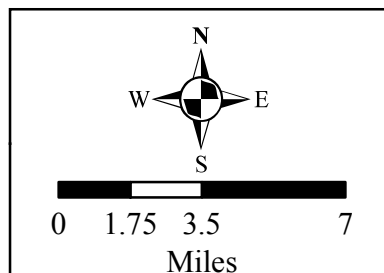
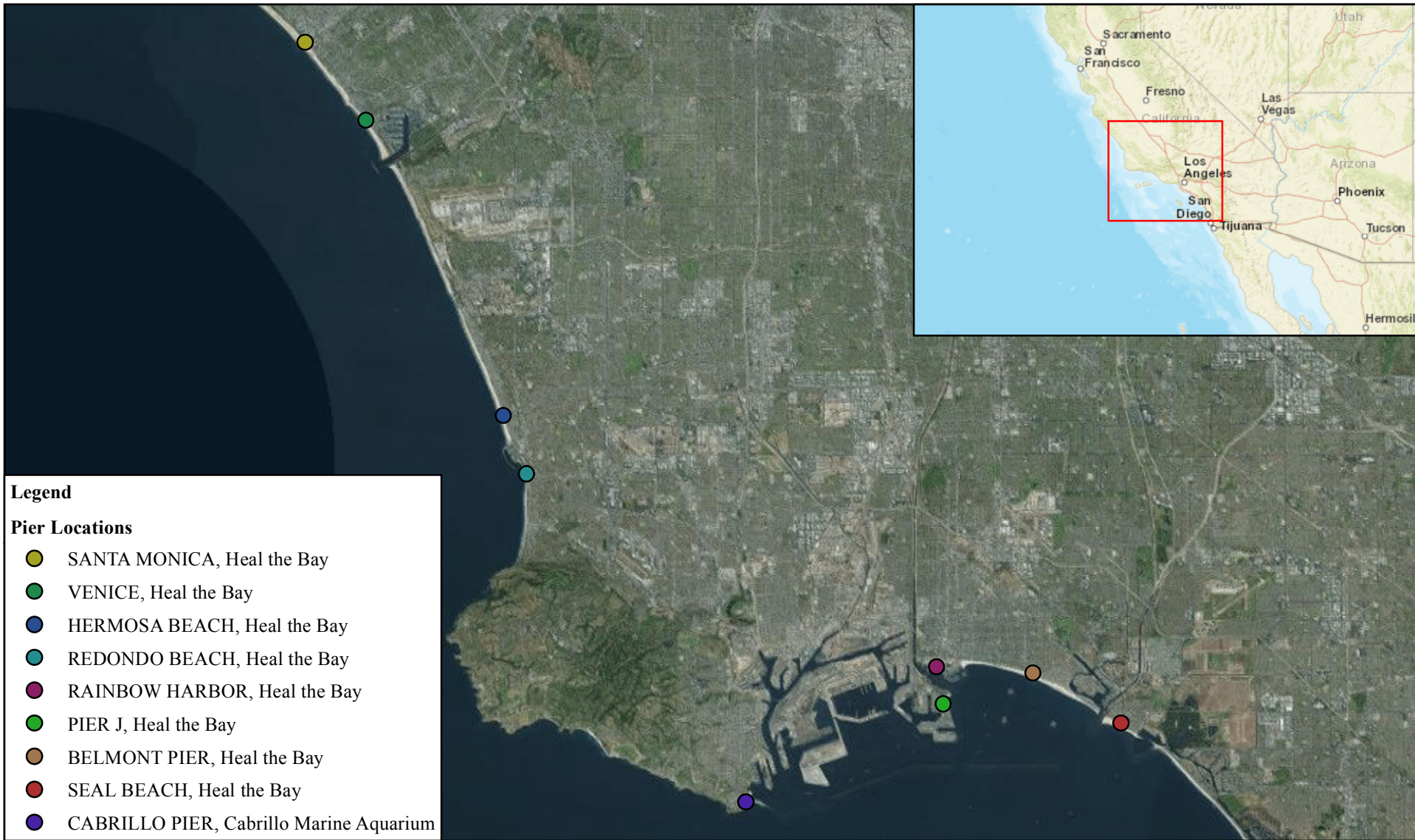


Figure 1. Pier Locations Map

Palos Verdes Shelf Superfund Site
Los Angeles County, California

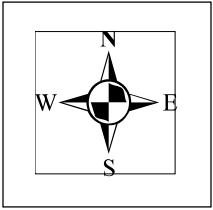
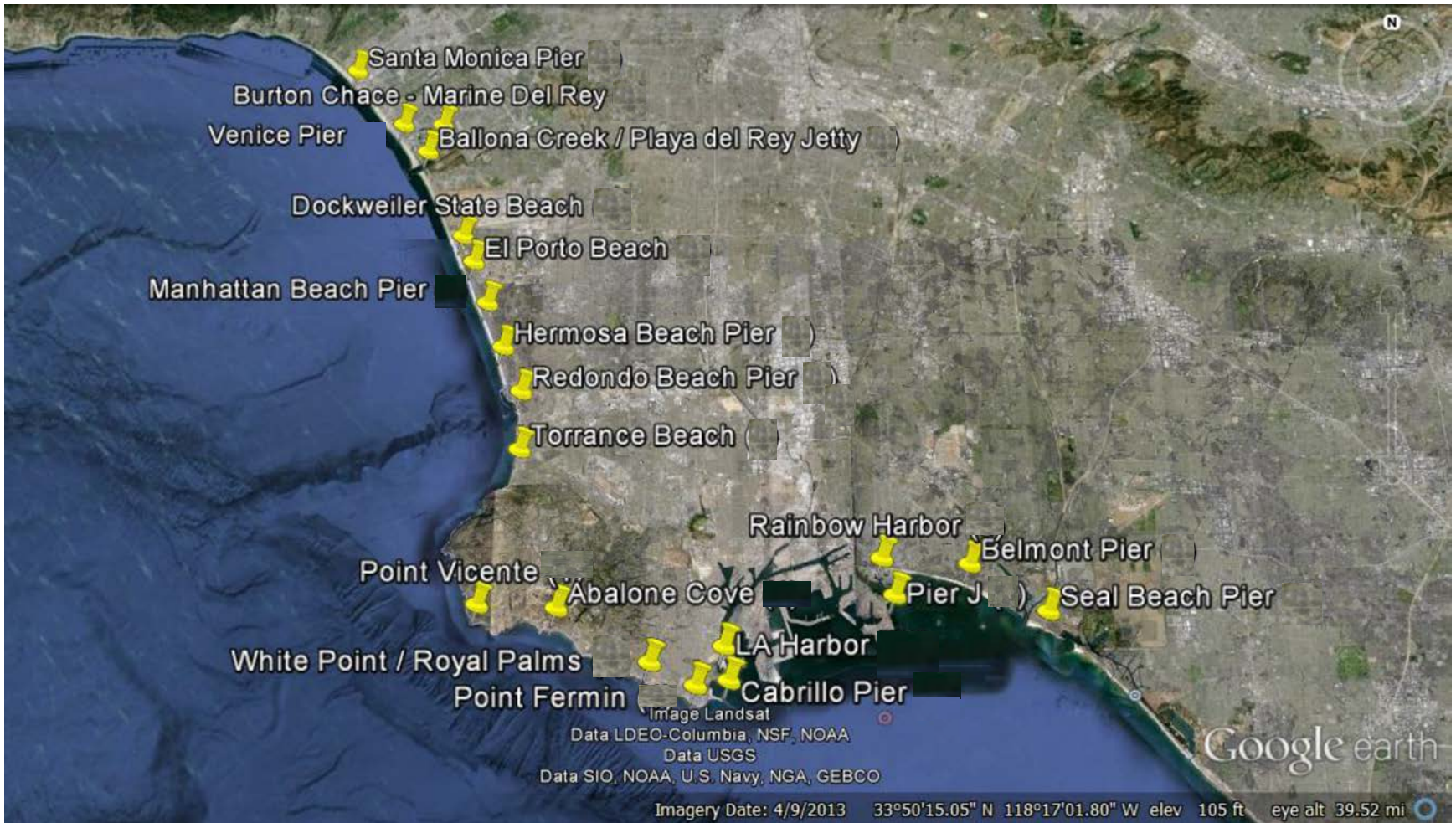
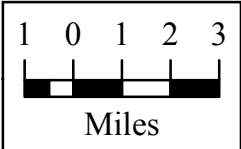


Figure 2. Do Not Consume Pier Sign Locations

Palos Verdes Shelf Superfund Site
Los Angeles County, California



Figure 3. Do Not Consume Fish Signs and Marine Protection Area Locations Map
 Palos Verdes Shelf Superfund Site Los Angeles County, California



APPENDIX A

Pier Sign Condition Assessment Summary, September 2013-May

2014 (S. Groner Associates, Inc.)

TABLE A-1. PIER SIGN CONDITION, SEPTEMBER 2013

Pier Location	County/City	# of Signs Currently Posted at Location	Condition Assessment	Date Inspected
Santa Monica	LA County	7	[1]-Good, some sticker residue, needs slight cleaning [2]-Good, needs slight cleaning [3]-Good, needs slight cleaning [4]-Good, needs slight cleaning [5]-Poor, graffiti. Dirty, edges worn [6]-Poor, needs a lot of cleaning [7]-Poor, graffiti, needs cleaning	9/14/2013
Marina Del Rey (North of Jetty). (Last parking lot)	LA County	1	[1]-Excellent	9/14/2013
Ballona Creek/Playa del Rey Jetty	LA County	0		9/14/2013
Venice (Washington Blvd)	LA County	5	[1]-Poor, graffiti, needs to be cleaned, sticker residue (near mid-end, before circle) [2]-Poor, graffiti, needs to be cleaned, sticker residue [3]-Poor, graffiti, needs to be cleaned, sticker residue [4]-Okay, needs to be cleaned [5]-Poor, graffiti, very dirty	9/14/2013
Burton Chace (Marina Del Rey) {Fisherman's Village}	LA County	0		9/14/2013
Dockweiler Beach	LA County	1	[1]-Excellent	9/14/2013
El Porto/El Segundo (near Manhattan; 45th st & Highland Ave)	LA County	1	[1]-Excellent, needs slight cleaning	9/14/2013
Cabrillo Pier	LA County	7	[1]-Okay, needs some cleaning, sticker residue [2]-Poor, cracked, need cleaning [3]-Poor, cracked/bent, graffiti, sticker residue, dirty [4]-Poor, needs a lot of cleaning [5]-Poor, graffiti, needs cleaning [6]-Good, needs cleaning [7]-Poor, carved graffiti, missing sign sticker on the edge, dirty	9/17/2013
Redondo Beach	LA County	6	[1]-Excellent [2]-Good, needs to be cleaned (on main strip of fishing area) [3]-Good, needs to be cleaned [4]-Okay, top edges broken [5]-Good, needs to be cleaned [6]-Poor, needs to be cleaned, graffiti	9/14/2013

TABLE A-1. PIER SIGN CONDITION, SEPTEMBER 2013

Pier Location	County/City	# of Signs Currently Posted at Location	Condition Assessment	Date Inspected
Rocky Point (King Harbor Marina (100 Marina Drive, Redondo Beach)	LA County	0	N/A	9/14/13 (Redondo), 9/17/13 (Palos Verdes)
Hermosa Beach	LA County	6	[1]-Excellent, needs to be cleaned [2]-Poor, graffiti, sticker residue [3]-Okay, sticker residue [4]-Poor, graffiti, sticker residue [5]-Poor, graffiti, sticker residue [6]-Poor, bent edges, markings, sticker residue (near beginning of pier)	9/14/2013
Manhattan Beach	LA County	4	[1]-Okay, some scuffs, worn edge [2]-Good, needs to be cleaned [3]-Okay needs to be cleaned, some scratches on top [4]-Poor, needs to be cleaned, graffiti, worn edges (not worth replacing however)	9/14/2013
Torrance Beach	LA County	2	[1]-Excellent [2]-Excellent	9/14/2013
Abalone Cove	LA County	1	[1]-Excellent (at Abalone Cove shoreline park)	9/17/2013
Bluff /Malaga Cove	LA County	0	N/A	9/17/2013
Lunada Bay	LA County	0	N/A	9/17/2013
Long Point	LA County	0	N/A	9/17/2013
Point Fermin	LA County	1	[1]-Poor, graffiti, sticker residue, dirty (down the path of the park on Cabrillo & Paseo del Mar)	9/17/2013
Point Vicente	LA County	1	[1]-Excellent, could use slight cleaning (near main entrance)	9/17/2013
Royal Palms/White's Point	LA County	2	[1]-Okay, needs cleaning, some sticker residue, paint on edges; [2]-Okay, needs cleaning	9/17/2013
Portuguese bend	LA County	2	[1]-Excellent; [2]-Excellent (located right before Wayfers Chapel when going north, on left hand side, small driveway)	9/17/2013
Belmont Pier	Long Beach	5	[1]-Excellent [2]-Good, needs some cleaning [3]-Good, needs some cleaning [4]-Good, needs some cleaning [5]-Okay, sticker needs to be removed	9/19/2013
Rainbow Harbor	Long Beach	3	[1]-Excellent, needs slight cleaning [2]-Excellent, needs slight cleaning [3]-Excellent, needs slight cleaning	9/19/2013
Cherry Beach	Long Beach	0		
Pier J (Harbor Scenic Way, public fishing area)	Long Beach	5	[1]-Excellent [2]-Okay, needs some cleaning, slightly noticeable graffiti [3]-Poor, little but noticeable graffiti-try cleaning before deciding to replace [4]-Okay, needs slight cleaning [5]-Excellent, slight cleaning could be useful	9/19/2013
Seal Beach Pier	Seal Beach	2	[1]-Good, slight cleaning needed [2]-Good, slight cleaning needed; * One more viewable past the "No trespassing" sign on the gate at the end of the pier	9/19/2013
TOTAL		62		

Note: Modified from original tables prepared by S. Groner Associates

TABLE A-2. PIER SIGN CONDITION, MARCH 2014

Pier Location	County/City	# of Signs Currently Posted at Location	Condition Assessment	Date Inspected
Santa Monica	LA County	7		3/2/2014
Marina Del Rey (North of Jetty). {Fisherman's Village}	LA County	0		3/2/2014
Ballona Creek/Playa del Rey Jetty	LA County	0		3/2/2014
Venice (Washington Blvd)	LA County	5	[1]-Poor, a lot of graffiti, needs to be cleaned (replace-first sign encountered when walking on pier) [2]-Good; little graffiti, overall clean [3]-Poor, graffiti [4]-Poor; graffiti, part of corner sticker missing [5]-Good; a little graffiti	3/2/2014
Burton Chace (Marina Del Rey) (Last parking lot)	LA County	1	[1]-Excellent	3/2/2014
Dockweiler Beach	LA County	1	[1]-Excellent	3/2/2014
El Porto/El Segundo (near Manhattan; 45th st & Highland Ave)	LA County	1	[1]-Good, a little dirty/graffiti but stil decent appearance	3/2/2014
Cabrillo Pier	LA County	7	[1]-Good, some sticker reside [2]-Okay, a little broken but still readable [3]-Poor, carved in graffiti, some sticker residue (replace) [4]-Poor, carved in graffiti (replace) [5]-Good, a little cracked where it was attached [6]-Poor, graffiti carved in [7]-Good, dirty, few other marks	3/3/2014
Redondo Beach	LA County	6	[1]-Okay, dirty and some graffiti (doesn't block species) [2]-Good, dirty [3]-Good, sticker residue with little graffiti [4]-Okay, dirty and slight edge sticker torn off [5]-Good, some graffiti around edges of sign [6]-Excellent, minimal cleaning needed, edge sticker torn	3/2/2014
Rocky Point (King Harbor Marina (100 Marina Drive, Redondo Beach)	LA County	0		3/2/2014

TABLE A-2. PIER SIGN CONDITION, MARCH 2014

Pier Location	County/City	# of Signs Currently Posted at Location	Condition Assessment	Date Inspected
			[1]-Good, just dirty [2]-Good, just a little bent but presentable [3,4]-Excellent [5]-Poor, sticker residue on majority of the sign [6]-Poor, sticker residue and graffiti marks (at end of the pier, right side)	
Hermosa Beach	LA County	6		3/2/2014
Manhattan Beach	LA County	4	[1-4] Good, just a little dirty	3/2/2014
			[1]-Excellent	
Torrance Beach	LA County	2	[2]-Excellent	3/2/2014
Abalone Cove	LA County	1	[1]-Excellent (at Abalone Cove shoreline park)	3/2/2014
Bluff /Malaga Cove	LA County	0		3/2/2014
Lunada Bay	LA County	0		3/2/2014
Long Point/Pelican Cove Park	LA County	1	1-Excellent (along walkway in parking lot)	3/2/2014
Point Fermin	LA County	0		3/2/2014
Point Vicente	LA County	1	[1]-Excellent	3/2/2014
			[1]-Good, little dirty	
Royal Palms/White's Point	LA County	2	[2]-Good, some sticker and residue and paint	3/2/2014
			[1]-Excellent;	
Portuguese bend	LA County	2	[2]-Excellent (located along PV Drive South)	3/2/2014
			[1]-Good, has one fish sticker on it	
Belmont Pier	Long Beach	5	[2-5]-Excellent	3/3/2014
			[1]-Good, needs some cleaning	
Rainbow Harbor	Long Beach	3	[2]-Good, needs some cleaning	
Cherry Beach	Long Beach	0	[3]-Good, some graffiti but overall good	3/3/2014
			[1]-Excellent	
			[2]-Poor, painted graffiti	
			[3]-Good, some graffiti on the bottom but good otherwise	
Pier J (Harbor Scenic Way, public fishing area)	Long Beach	5	[4]-Excellent [5]-Excellent	3/3/2014
			[1]-Excellent	
Seal Beach Pier	Seal Beach	2	[2]-Good, little dirty	3/2/2014
	TOTAL	62		

Note: Modified from original tables prepared by S. Groner Associates

TABLE A-3. PIER SIGN CONDITION, APRIL 2014

Pier Location	County/City	# of Signs Currently Posted at Location	Condition Assessment	Date Inspected
Santa Monica	LA County	7	[1]- Good, some sticker residue [2]- Excellent [3]- Good, some carvings on the fish [4]- Excellent [5]- Poor, many carvings, corner fading [6]- Good, could use cleaning, some carvings but okay [7]- Poor, very dirty and carved graffiti	4/28/2014
Marina Del Rey (North of Jetty). {Fisherman's Village}	LA County	0		4/28/2014
Ballona Creek/Playa del Rey Jetty	LA County	0		4/28/2014
Venice (Washington Blvd)	LA County	5	[1]-Poor, a lot of graffiti [2]-Poor, dirty and writing, can be cleaned possibly without replacing [3]-Poor, graffiti and stickers on sign [4]- Poor; graffiti and signs [5]- Poor, sticker coming off, graffiti	4/28/2014
Burton Chace (Marina Del Rey) (Last parking lot)	LA County	1	[1]- Excellent	4/28/2014
Dockweiler Beach	LA County	1	[1]- Excellent	4/28/2014
El Porto/El Segundo (near Manhattan; 45th st & Highland Ave)	LA County	1	[1]-Okay, a little dirty/graffiti, can be cleaned	4/28/2014
Cabrillo Pier	LA County	7	[1]-Good, some sticker residue top right corner [2]-Okay, a little cracked [3]-Poor, some carvings [4]-Poor, carved in graffiti, dirty [5]-Poor [6]-Okay, cracked [7]-Poor graffiti, sticker residue	4/29/2014
Redondo Beach	LA County	7	[1]- Poor graffiti on top left corner [2]-Good, use some cleaning [3]-Poor, dirty with sticker residue, clean before determining if needs replacing [4]-Good, just needs cleaning [5]-Good [6]-Good, sticker coming off the corner a little [7]-Good, a little dirty	4/28/2014

TABLE A-3. PIER SIGN CONDITION, APRIL 2014

Pier Location	County/City	# of Signs Currently Posted at Location	Condition Assessment	Date Inspected
Rocky Point (King Harbor Marina (100 Marina Drive, Redondo Beach)	LA County	0		4/28/2014
Hermosa Beach	LA County	6	[1]-Excellent [2]-Good, sign a little bent but presentable [3,4]-Excellent [5]-Poor, lots of sticker residual [6]-Poor, graffiti carvings	4/28/2014
Manhattan Beach	LA County	4	[1, 2]- Excellent [3]-Good some carving on top part of sign [4]- Good, just a little dirty and some graffiti carvings on top part of sign but should be good with cleaning	4/28/2014
Torrance Beach	LA County	2	[1]-Excellent [2]-Excellent	4/28/2014
Abalone Cove	LA County	1	[1]- Excellent	4/29/2014
Bluff /Malaga Cove	LA County	0		4/28/2014
Lunada Bay	LA County	0		4/28/2014
Long Point/Pelican Cove Park	LA County	1	[1]-Excellent	4/29/2014
Point Fermin	LA County	0		4/29/2014
Point Vicente	LA County	1	[1]-Excellent	4/29/2014
Royal Palms/White's Point	LA County	2	[1]- Good, blue paint along the sign edges and some sticker residue [2]-Good, needs cleaning	4/29/2014
Portuguese bend	LA County	2	[1]-Excellent [2]-Okay, some graffiti	4/29/2014
Belmont Pier	Long Beach	5	[1]-Okay, graffiti and sticker on top [2]-Good, has sticker to be removed bottom right [3]-Excellent [4]-Excellent [5]-Excellent	4/29/2014
Rainbow Harbor	Long Beach	3	[1]-Good, some carving and dirty [2]-Good, some carvings and dirty [3]-Poor, big graffiti on top of sign	4/29/2014
Cherry Beach	Long Beach			
Pier J (Harbor Scenic Way, public fishing area)	Long Beach	5	[1]-Excellent [2]-Poor, graffiti [3]-Good, some graffiti on the bottom right corner [4]-Excellent [5]- Excellent	4/29/2014
Seal Beach Pier	Seal Beach	2	[1]- Excellent [2]- Okay, carvings on the top right corner	4/29/2014
TOTAL		63		

Note: Modified from original tables prepared by S. Groner Associates

TABLE A-4. PIER SIGN CONDITION, MAY 2014

Pier Location	County/City	# of Signs Currently Posted at Location	Condition Assessment	Date Inspected
Santa Monica	LA County	7	[1]- Good, some sticker residue on top of sign [2]- Good, some sticker residue on right side [3]- Good, slightly dirty [4]- Good, some carvings on the fish and dirty [5]- Poor, carved graffiti all over and peeled edges [6]- Good, dirty [7]- Poor, dirty and carved graffiti	5/27/2014
Marina Del Rey (North of Jetty). {Fisherman's Village}	LA County	0		5/27/2014
Ballona Creek/Playa del Rey Jetty	LA County	0		5/27/2014
Venice (Washington Blvd)	LA County	5	[1]-Poor, graffiti and stickers covering entire sign [2]- Poor, graffiti [3]- Poor, graffiti [4]- Poor; graffiti [5]- Poor, graffiti	5/27/2014
Burton Chace (Marina Del Rey)	LA County	1	[1]- Excellent	5/27/2014
Dockweiler Beach	LA County	1	[1]-Excellent, slightly dirty	5/27/2014
El Porto/El Segundo (near Manhattan; 45th st & Highland Ave)	LA County	1	[1]-Poor, graffiti covering sign	5/27/2014
Cabrillo Pier	LA County	7	[1]- Good, a little dirty [2]- Poor, cracked where the bolts are, and stained from weather [3]- Poor, carved graffiti and cracks on sign [4]- Okay, dirty and some graffiti carved on right top of sign [5]- Okay, carved graffiti [6]- Good, a little cracked [7]- Poor, cracked, sticker on top of sign and carved graffiti	5/28/2014
Redondo Beach	LA County	7	[1]-Poor graffiti on top of sign and dirty but not necessary to replace yet [2]-Excellent [3]-Good, some sticker residue [4]-Good, starting to have peeled edges [5]-Good, some carvings on top of sign [6]-Poor, sign a little dirty but a lot of right corner sticker coming off [7]-Good, carved minimal graffiti little dirty	5/27/2014
Rocky Point	LA County	0		5/28/2014
Hermosa Beach	LA County	6	[1]- Good, just a little dirty [2]- Good, edges bent from weather sp,e sticker residue [3]- Excellent [4]- Good, some sticker residue [5]- Poor, lots of sticker residue, needs to be cleaned [6]- Poor, carved graffiti and sticker residue all over sign	5/27/2014

TABLE A-4. PIER SIGN CONDITION, MAY 2014

Pier Location	County/City	# of Signs Currently Posted at Location	Condition Assessment	Date Inspected
Manhattan Beach	LA County	4	[1]- Excellent [2]- Good, some sticker residue on top of sign [3]- Okay, some carved lines on top of sign [4]- Poor, small graffiti on top and sticker on sign. Try to clean first before judging to replace.	5/27/2014
Torrance Beach	LA County	2	[1]- Excellent [2]- Excellent	5/27/2014
Abalone Cove	LA County	1	[1]-Excellent	5/28/2014
Bluff /Malaga Cove	LA County	0		5/28/2014
Lunada Bay	LA County	0		5/28/2014
Long Point/Pelican Cove Park	LA County	1	[1]-Good, a little graffiti on top right of sign and slightly dirty	5/28/2014
Point Fermin	LA County	0		5/28/2014
Point Vicente	LA County	1	[1]-Excellent	5/28/2014
Royal Palms/White's Point	LA County	2	[1]-Good, blue on border of sign [2]-Good, but dirty	5/28/2014
Portuguese bend	LA County	2	[1]-Excellent [2]-Good, some graffiti on top right corner	5/28/2014
Belmont Pier	Long Beach	5	[1]-Good, sticker on top needs to be removed [2]-Good, has sticker to be removed bottom right [3]-Excellent [4]-Excellent [5]-Excellent	5/23/2014
Rainbow Harbor	Long Beach	3	[1]-Good, dirty needs to be cleaned [2]-Okay, dirty with some carvings on top [3]-Poor, big graffiti on top of sign	5/23/2014
Cherry Beach	Long Beach	0		
Pier J (Harbor Scenic Way, public fishing area)	Long Beach	5	[1]-Excellent [2]-Poor, graffiti on bottom of sign [3]-Excellent [4]-Excellent [5]-Excellent	5/23/2014
Seal Beach Pier	Seal Beach	2	[1]- Excellent [2]- Okay, carvings on the top right corner	5/23/2014
TOTAL		63		

Note: Modified from original tables prepared by S. Groner Associates

APPENDIX B

Pier Sign Evaluations 2015-2016

(LACDPH, Cabrillo, and Heal the Bay)

Los Angeles County Department of Public Health
Environmental Health Division
Toxics Epidemiology Program
Pier Signage Update March /April 2015

Pier Location	Date Inspected	Total No. of Signs	No. Signs Need Cleaning	No. New Signs Needed	NOTES
Santa Monica	3/18/15	7	2	5	6 signs are in place. 4 signs were posted by the City of Santa Monica, Pier Management Division
Ballona North Creek/ Playa del Rey Jetty	3/18/15	6	2	4	6 signs are in place. 4 signs were replaced. 2 signs were cleaned..
Ballona South	3/18/15	5	2	3	3 new signs were placed. 2 signs were cleaned.
Venice (Washington Blvd)	3/19/15	5	-	5	5 signs were replaced.
Manhattan Beach	6/24/15	3	-	-	No comments.
Burton Chafe Park (Marina Del Rey)	3/18/15	1	-	-	Only one sign on site. Fishing bays are no longer there, due to expansion of marine vessels bays.
Hermosa Beach	4/29/15	6	6		4 signs were replaced. 2 signs were cleaned.
Dockweiler Beach	3/23/15	*	-	1	1 sign was replaced. *Sign was removed with post that was taken down.
El Portillo/El Segundo (near Manhattan)	3/23/15	2	2	-	2 signs were cleaned.
Cabrillo Pier	4/29/15	8	-	5	5 signs were replaced. 3 signs were cleaned.

Pier Location	Date Inspected	Total No. of Signs	No. Signs Need Cleaning	No. New Signs Needed	NOTES
Redondo Beach	4/29/15	6	2	1	Two signs were cleaned. One sign was replaced.
Rocky Point (King Harbor Marina (100 Marina Drive, Redondo Beach)	4/29/15	1	-	-	Sign in good shape.
Torrance Beach	4/29/15	1	-	-	Sign in good shape.
Abalone Cove	4/29/15	-	-	-	Access to beach closed until further notice due to unstable ground.
Bluff /Malaga Cove	4/29/15	-	-	-	Access to beach closed until further notice due to unstable ground.
Lunada Bay	4/29/15	-	-	-	Unable to attach sign at beach access. No utilities posts or other surfaces to attach signs.
Long Point	4/29/15	1	-	-	Sign in good shape.
Point Fermin	4/29/15	1	-	1	One sign replaced.
Point Vicente	4/29/15	1	-	-	Sign in good shape.
Royal Palms/White's Point	4/29/15	2	-	-	Signs in good shape.
Portuguese Bend	4/25/15	2	-	-	Signs in good shape.

Note: Tables prepared by LACDPH

Los Angeles County Department of Public Health
Environmental Health Division
Toxics Epidemiology Program
Pier Signage Update June/July 2016

Pier Location (North to South)	Date Inspected	Total No. of Signs	No. Signs Need Cleaning	No. New Signs Needed	NOTES
Santa Monica	7/7/16	7	-	-	
Venice (Washington Blvd)	7/7/16	5	-	3	
Burton Chafe Park (Marina Del Rey)	7/7/16	-	-	-	In 2015, there was one sign, but it was taken down. No more fishing due to expansion of the boating bay.
Ballona North Creek/ Playa del Rey Jetty	7/7/16	5	-	-	
Ballona South	7/7/16	4	-	2	5 th sign was taken down due to construction, and fishing at the specific location is no longer permitted.
Dockweiler Beach	6/2/16	1	1	-	
El Porto/El Segundo (near Manhattan)	6/2/16	2	2	-	
Manhattan Beach	6/2/16	4	4	-	Ask pier management staff to replace signs for next year. Evenor stated that we gave them about 8 signs to use as replacements.
Hermosa Beach	6/2/16	5	5	-	1 sign was likely taken off, but 5 signs is sufficient
Rocky Point (King Harbor Marina (100 Marina Drive, Redondo Beach)	6/2/16	1	1	-	
Redondo Beach	6/2/16	6	6	-	2 signs will soon need to be replaced. Will inform Redondo beach Pier Management staff

Pier Location	Date Inspected	Total No. of Signs	No. Signs Need Cleaning	No. New Signs Needed	NOTES
Torrance Beach	6/2/16	2	1	-	
Bluff /Malaga Cove	6/2/16	N/A			Limited beach and parking access. Not a likely place for people to fish. No sign needed.
Lunada Bay	6/2/16	N/A			Unable to attach sign at beach access. No Utilities posts on site or other surfaces where one can attach signs.
Point Vicente	5/3/16	Removed 1			FCEC Partners decided to remove DNC signs in Marine Conservation Area
Long Point	5/3/16	One was not found			FCEC Partners decided to remove DNC signs in Marine Conservation Area
Abalone Cove	5/3/16	N/A			Limited Access. No signs were placed in previous year due to unstable ground. FCEC Partners decided to remove DNC signs in Marine Conservation Area
Portuguese Bend	5/3/16	Removed 1, one was not found			FCEC Partners decided to remove DNC signs in Marine Conservation Area
Royal Palms/White's Point	6/1/16	2	2	-	
Point Fermin	6/1/16	1	-	1	Original sign disappeared. Limited access to location. Will replace after getting clearance to post DNC onto restroom wall from Julio Hernandez (213) 257-0110.
Cabrillo Pier	2/5/16 & 6/1/16	8	2	3	Replaced three signs. One was kicked in. One was missing. One had graffiti and scratches on it.

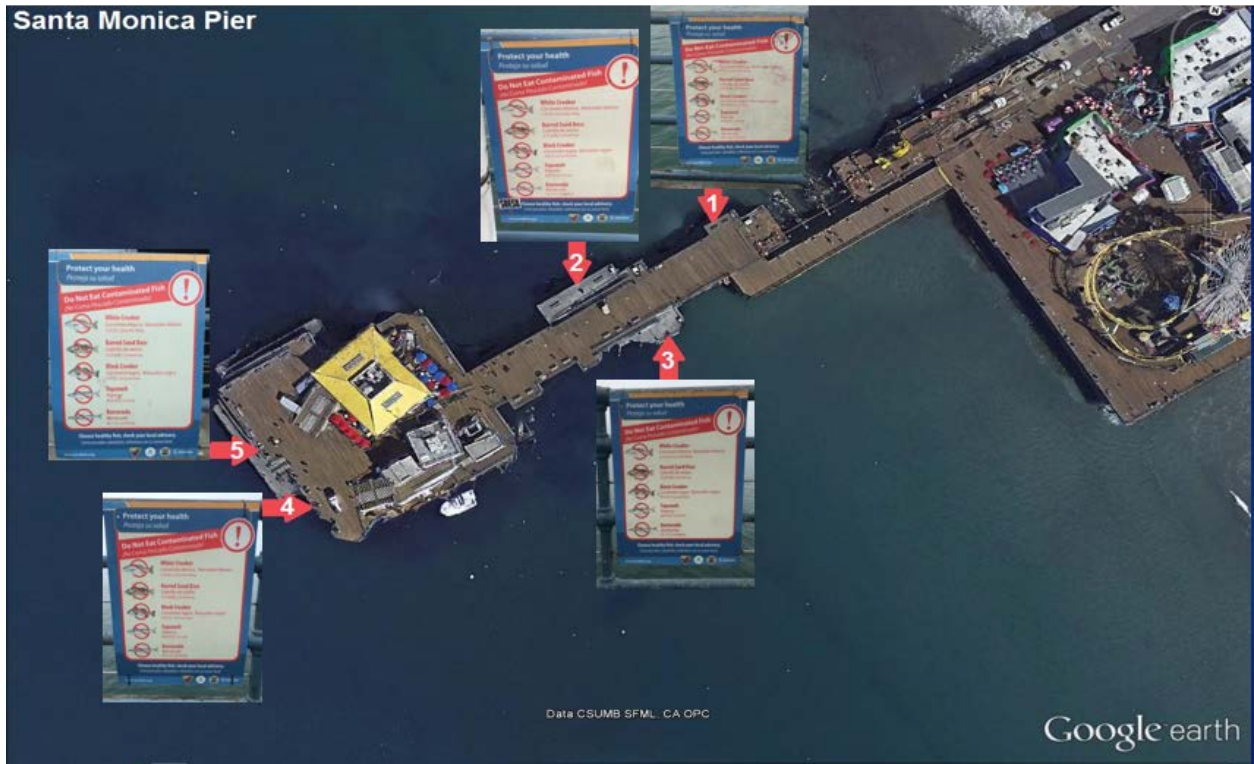
	Total No. of Signs	No. Signs Need Cleaning	No. New Signs Needed
2015	59	16	25
2016	53	24	9

Note: Tables prepared by LACDPH

APPENDIX C

Pier Sign Photographs

(Heal the Bay and Cabrillo)



Santa Monica Pier: Five total signs present. Two signs (#1 and #4) missing and need replacement.



Venice Pier: Seven total signs present. Three signs broken (#4, #6, and #7) and need replacement.

Hermosa Beach Pier

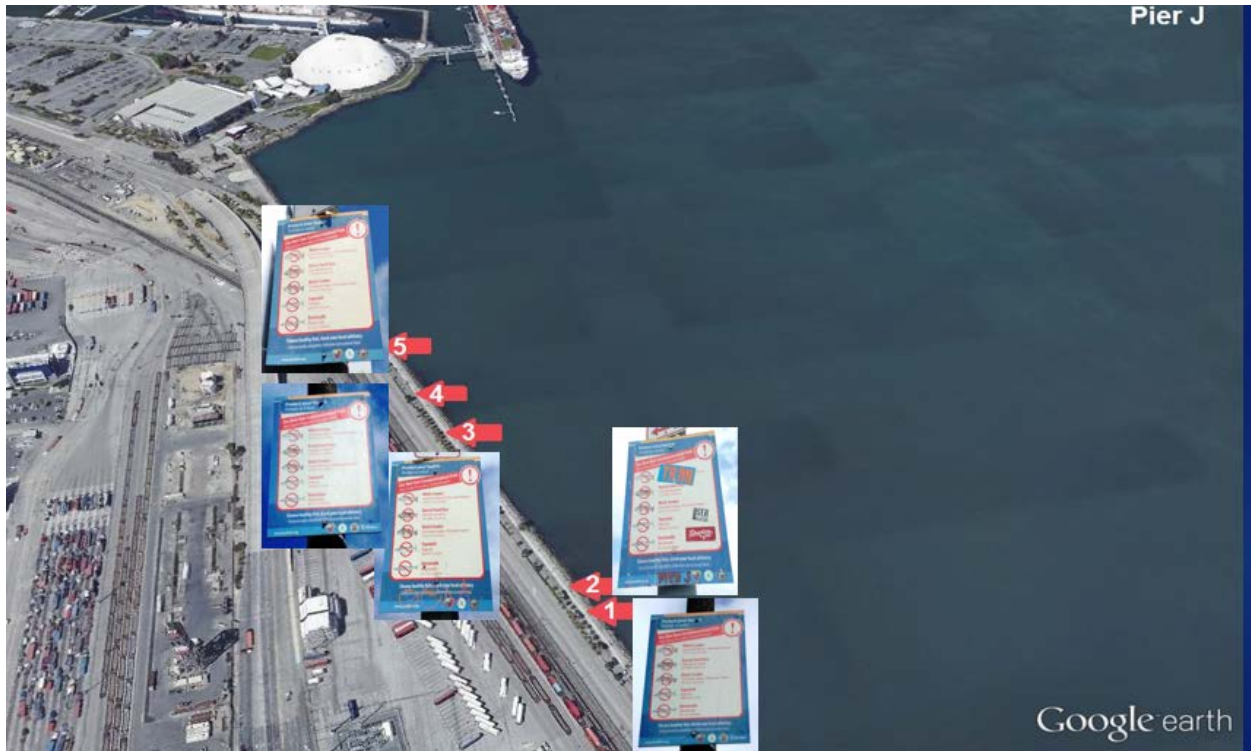


Hermosa Beach Pier: five signs total. One sign missing (#1) and needs replacement.

Redondo Beach Pier



Redondo Beach Pier: Six total signs. One sign cracked (#6) and needs replacement.



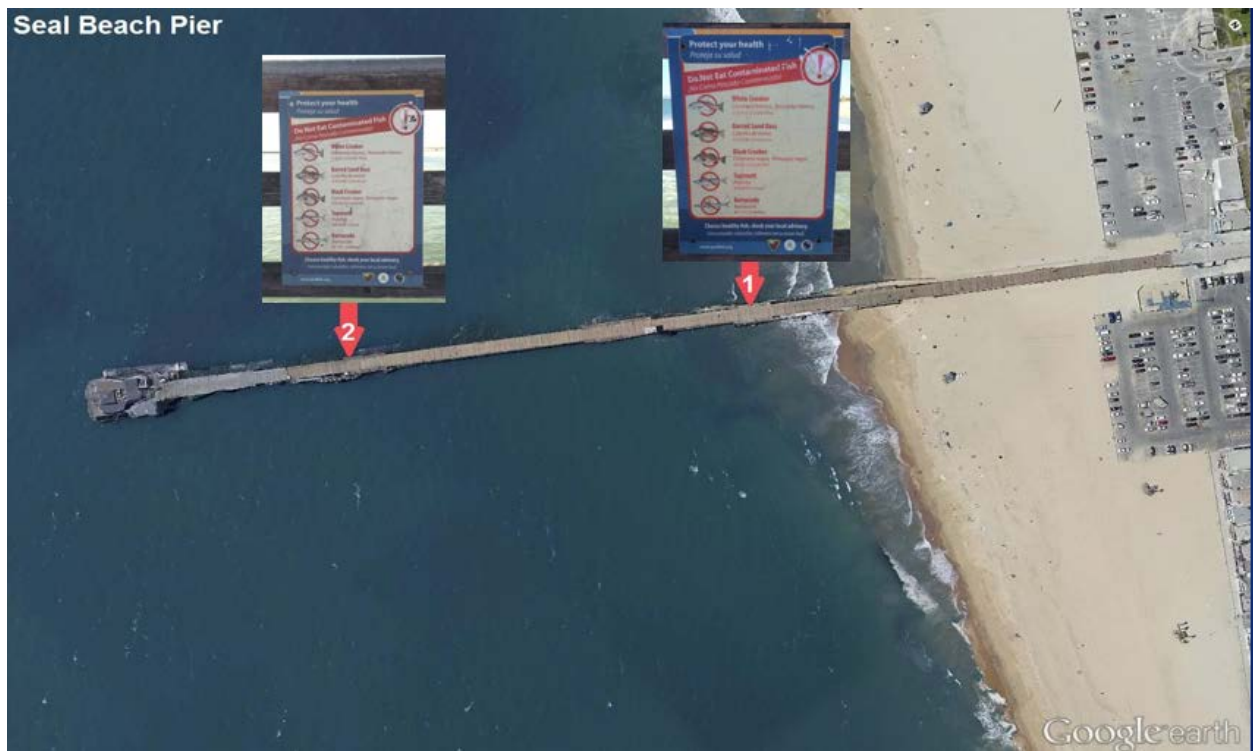
Pier J: Five signs total. No signs need replacement.



Rainbow Harbor Pier: Three signs total. One sign (#1) with graffiti needs replacement.



Belmont Pier: Five signs total. No signs need replacement.



Seal Beach Pier: Two signs total. No signs need replacement.



Cabrillo Pier: Seven signs total. No signs need replacement.