



**University of Southern California Sea Grant Program**  
Wrigley Institute of Environmental Studies University of Southern California  
Los Angeles, CA 90089-0373 213-740-1961 Fax 213-740-5936  
email: [seagrant@usc.edu](mailto:seagrant@usc.edu) <http://www.usc.edu/org/seagrant/>

February 11, 2019

Deborah Halberstadt, Executive Director  
California Ocean Protection Council

Dear Deborah and Ocean Protection Council Members,

As members of the Ocean Protection Council convene this Wednesday, we'd like to take this opportunity to provide an introduction to Sea Grant and to the work we've done together.

Sea Grant is a federal/state/university partnership with 33 programs in the coastal and Great Lakes states, part of the National Oceanic and Atmospheric Administration. California is one of only two states that have two Sea Grant programs -- our program at the University of Southern California, and the California Sea Grant program headquartered at Scripps Institution of Oceanography. At USC, our focus is on the problems of the Urban Ocean -- those issues that assemble when large populations live adjacent to coastal habitats and resources, along with the business and commercial opportunities presented by the two large ports in the Los Angeles Harbor.

USC Sea Grant's relationship with the Resources Agency goes back 50 years; the Resources Agency Sea Grant Advisory Panel reviews proposals for research and advises us on research and outreach priorities. Recently, Sea Grant solicited and reviewed research proposals for OPC as it sought investments for Proposition 84 funds. USC Sea Grant convened review panels in four priority areas -- marine pollution/plastics, sea level rise, coastal sediment management, renewable energy. Engagement with the scientific community in these areas is important to furthering our understanding of the effects of climate change and growing populations. Along with OPC staff, Sea Grant made funding recommendations; going forward, we will administer and provide oversight for the research grants.

Sea Grant has worked as a partner with OPC since its inception. We have been engaged in several areas of importance to the State and to regions: in water quality and waste disposal in coastal waters; in sea level rise modeling and vulnerability assessment, as well as climate adaptation; in surveys of coastal managers to better understand their information and technical needs related to coastal change; in marine protected area policy pursuant to the Marine Life Protection Act and in helping to convey information to public audiences via the Marine Protected Area Collaborative network; in marine education and science literacy; in marine transportation and ports and harbors, and in many other areas over the years.

We offer our support and partnership to Ocean Protection Council members and to staff in any areas where we can provide advice or make a contribution. We look forward to working with OPC and to continuing our productive long-term relationship.

Sincerely,

A handwritten signature in black ink that reads "Linda E. Duguay".

Linda E. Duguay, PhD, Director

A handwritten signature in blue ink that reads "Phyllis M. Grifman".

Phyllis Grifman, Associate Director

**USC Dornsife**

Dana and David Dornsife  
College of Letters, Arts and Sciences



February 11, 2019

Secretary Wade Crowfoot and Members of the Ocean Protection Council  
Ocean Protection Council  
1416 9th Street  
Sacramento, California 95814

Dear Secretary Crowfoot and Members of the Ocean Protection Council,

On behalf of [WILDCOAST](#), an international organization based in California and Mexico that conserves coastal and marine ecosystems and wildlife, and as Co-Chair of the [San Diego County Marine Protected Area Collaborative](#), I am honored to share with you and the Council our recent work, made possible by the Ocean Protection Council, to help improve the management of California's marine protected area network. It is also my wish to thank the Ocean Protection Council for the invaluable support to ensure the conservation of California's coastal and marine resources.

WILDCOAST and the San Diego County MPA Collaborative, one of 14 county-based stakeholder coalitions in California, are committed to the conservation of these resources, including the more than half of a million acres of state waters protected as marine protected areas, or MPAs. Sometimes called underwater parks, MPAs are an ecosystem-based conservation tool used worldwide to recover depleted fisheries and restore ecosystem health. California current network, established in 2012, is the world's largest science-based integrated system of MPAs.

California's MPAs face similar threats to those in other region's and countries; noncompliance and climate change being among the greatest challenges. Through community science, outreach, stewardship, policy, and restoration projects, WILDCOAST's work has become a pillar to effective MPA management in California, helping to address these and other challenges. I am proud to share that many of our MPA management and conservation projects, and those of our partners across the state, have been made possible by the support of the Ocean Protection Council.

I would like to share a few examples of these projects:

*San Diego County Outreach Toolkit*

In 2018, the San Diego County MPA Collaborative was granted \$15,000 in funding from Ocean Protection Council, through Coastal Quest, to create a [San Diego County MPA Outreach Toolkit](#) for educators and docents. The toolkits, just recently printed and digitally stored, were created to build local compliance and stewardship and include lesson plans, activities, and learning materials. They are an outstanding resource to reach, educate, and engage a broad and diverse audience of MPA visitors and users.

## *San Diego County MPA Recreation and Wildlife Guide*

One outreach tool developed as part of the Outreach Toolkit is the [San Diego County MPA Recreation and Wildlife Guide](#). The guide has already become extraordinarily popular among lifeguards, docents, and educators as a thorough, interesting, and entertaining learning and outreach material. The guide, endorsed by California Department of Fish and Wildlife, benefited from input from an array of collaborators including the Southern California Tribal Chairman's Association. WILD Coast and the Collaborative are currently communicating with partners across the state to replicate the guide for other counties and regions.

### *MPA Signage*

An essential component to effective MPA management is adequate signage that informs visitors and users about boundaries, locations, and regulations and shares ecological, cultural, and conservation knowledge. The Ocean Protection Council made possible two rounds of MPA signage development and installation in California [resulting in more than 80 You Are Here signs and interpretive displays in San Diego County alone](#). WILD Coast and the members of the Collaborative played a key role coordinating content among local stakeholders, obtaining approvals from landowners, and installation.

### *Other Projects:*

Other MPA projects WILD Coast has underway include:

**MPA Watch Program:** WILD Coast coordinates [MPA Watch](#), a statewide community science human use monitoring program that is helping resource managers, municipalities, and other partners understand activity within MPAs to guide management efforts. To date, volunteers have submitted more than 23,000 surveys from 56 MPAs across California. The program recently underwent organizational effectiveness planning and will be presenting a new website and opportunities in 2019.

**Enforcement:** WILD Coast and many members in the Collaborative have helped to create and advance policies to [strengthen MPA enforcement](#) in California. This effort has resulted in two state bills, AB 298 and AB 2369 (Gonzalez). The first, becoming law in 2016, enables officers in the field to cite MPA violations with a misdemeanor or an infraction, depending on the severity of the crime. This allows for appropriate fines for lower level crimes which previously might have been disregarded because of the heavy-handed misdemeanor citation. To help address the threat of commercial scale MPA poaching in California, AB 2369 became law in 2019, increasing fines for Commercial Passenger Fishing Vessels and other commercial operators. Both bills, sponsored by WILD Coast, were met with broad and diverse public support. The Collaborative will be hosting a series of enforcement trainings in 2019 for allied agencies.

**Partnerships:** It is without question that the Ocean Protection Council has played a crucial role in MPA policy and coordination across the state. Partnerships among many stakeholder groups, including fishing groups, tribes, academia, enforcement, and allied agencies, have been created through impactful management projects, like those highlighted above, that have been made possible by the Council's support. The San Diego County MPA Collaborative has grown its membership in part because of the successful outreach projects funded by the Ocean Protection Council including the Outreach Toolkits and signage. Currently, the Collaborative is comprised of more than 120 members representing 60 local, state, and federal agencies, tribes,

businesses, user groups, researchers, aquaria, and elected offices. Partnerships like those foraged through the Collaborative and projects made possible by the Ocean Protection Council will continue to provide important stakeholder collaborations to advance California's MPAs as one of the most successful coastal and marine conservation networks on the planet.

On behalf of WILDCOAST and the San Diego County MPA Collaborative, I encourage you and the Council to continue to prioritize MPA management in 2019 and beyond. Although we have together had tremendous success, much work needs to be done. I look forward to continuing this effort together and offer our support to help ensure that California maintains healthy, resilient, and productive ocean and coastal ecosystems for the benefit of current and future generations.

Sincerely,

A handwritten signature in black ink, appearing to read 'Zachary Plopper', with a stylized, flowing script.

Zachary Plopper

Conservation Director, WILDCOAST

Co-Chair, San Diego County MPA Collaborative

## Wyer, Holly@CNRA

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**From:** CNRA COPC Public  
**Sent:** Friday, February 8, 2019 10:47 AM  
**To:** COPC Public Distro List  
**Subject:** FW: February 13 OPC meeting public comment  
**Attachments:** Appendix A Litter in the water through 1.19.19.pdf; Appendix B Litter in the jetties through 1.19.19.pdf; Letter to POLA re litter in LA Harbor Jan 2019.pdf

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**From:** Eva Cicoria  
**Sent:** Friday, February 8, 2019 10:46:17 AM (UTC-08:00) Pacific Time (US & Canada)  
**To:** CNRA COPC Public  
**Subject:** February 13 OPC meeting public comment

Members of the Ocean Protection Council,

Thank you for your work. The Ocean Litter Strategy Initiative seems to be making progress on myriad fronts. It's heartening to see so many entities stepping up. I hope entities will address the litter that is already well on its way into the open waters of the Pacific, but I have some concerns that the jetties and breakwaters don't get the attention that beaches do.

Pictures tell a thousand words, so rather than write at length about the importance of the work being done by the OPC, I thought I'd share correspondence regarding, and photos of, the scope of just one problem--marine debris--in one area of the state--LA Harbor--that needs attention. If, as a body or individually, you are able to nudge the Port of LA to do more about the debris in the jetties and waters of LA Harbor, please do.

Thank you,  
*Eva Cicoria*  
*Rancho Palos Verdes resident*

-----Original Message-----

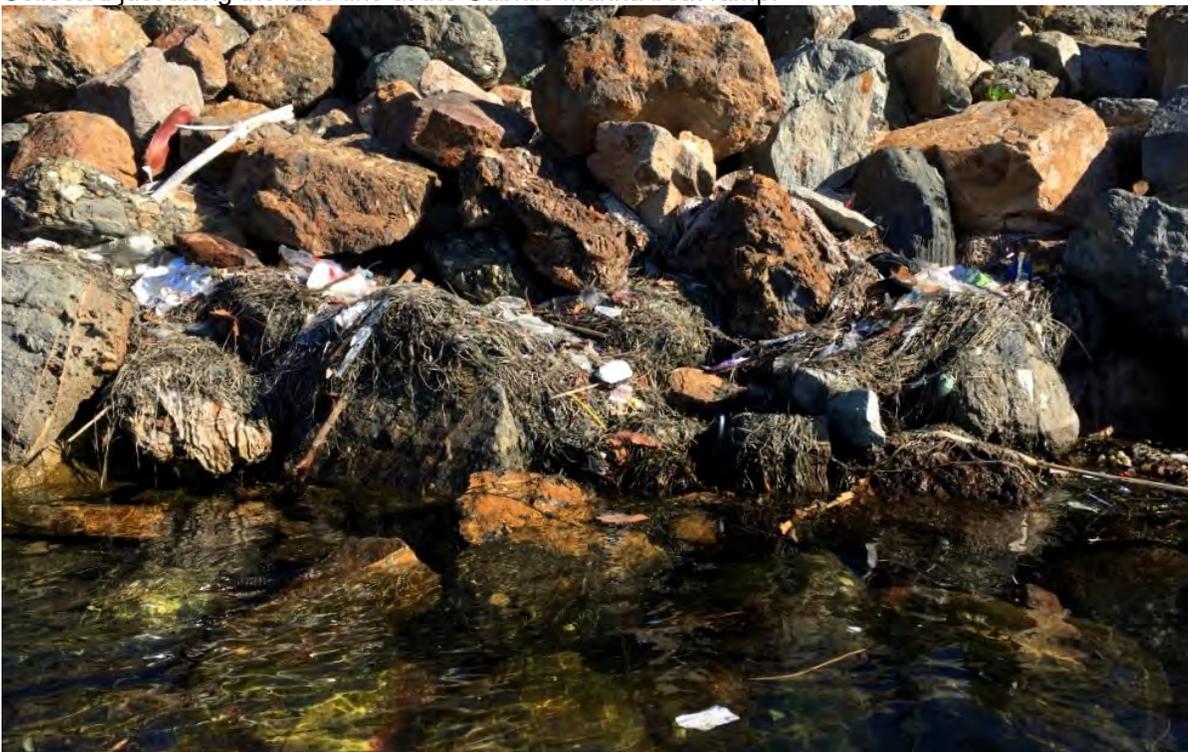
From: Eva Cicoria <cicoriae@aol.com>  
To: community <community@portla.org>; environmental <environmental@portla.org>  
Cc: holly.wyer <holly.wyer@resources.ca.gov>; shellym <shellym@sccwrp.org>; Caroline.brady <Caroline.brady@cmaqua.org>; rap <rap@surfrider-southbay.org>; jbacallao <jbacallao@healthebay.org>; bmeux <bmeux@lawaterkeeper.org>; alsattler <alsattler@igc.org>; Sheri.Pemberton <Sheri.Pemberton@slc.ca.gov>  
Sent: Fri, Feb 8, 2019 9:53 am  
Subject: Re: LA Harbor Litter

Ladies and Gentlemen of the Board of Harbor Commissioners and the Environmental Division of the Port of LA,

Two weeks ago, I wrote of the problem of litter in LA Harbor. Yesterday, I encountered this:



Collected just along the rake line at the Cabrillo Marina boat ramp.



Dense debris on the jetty adjacent Cabrillo Marina.



©Eva Cicoria

Floating debris, including lots of plastic bags and food wrappers.



©Eva Cicoria

Debris among the rocks of the jetties that I cannot get to and had to leave behind.





©Eva Cicoria



©Eva Cicoria

I was able to pick up and pack out much of the debris in the water, but not all.



Media outlets have recently reported on the trash-littered beaches in Southern California, but I've yet to see attention brought to the mess in LA Harbor.

My haul yesterday included well over 500 pieces of litter, including, from the water alone, 132 food wrappers, 44 plastic bags, and 183 small soft plastic pieces broken off from something larger. **Food wrappers, plastic bags, polystyrene and plastic food and drink receptacles, straws, bottle lids, and more threaten to entangle, asphyxiate and fill the bellies of sea life. What is not picked up and packed out will, over time and tide changes, wash out to sea and ultimately break down into microplastics that are increasingly difficult to remove and which studies show make their way to our diets in the fish we eat.**

[https://www.waterboards.ca.gov/sandiego/water\\_issues/programs/sdbay\\_strategy/doc/FINAL San Diego Bay Debris Study Oct2016.pdf](https://www.waterboards.ca.gov/sandiego/water_issues/programs/sdbay_strategy/doc/FINAL_San_Diego_Bay_Debris_Study_Oct2016.pdf)

Obviously, I can't pick it all up alone. Nor can I (or anybody) organize volunteers to clean up the jetties without permission. Permission to go onto the jetties and breakwaters to pick up debris is one step to solving what I view as a crime against the commons. I am sharing this correspondence with others in an effort to elevate awareness and motivate action. It would be nice to be able to say that one or more of you has responded and indicated willingness to help.

Please, do it for the sake of this little gal and others like her.



Thank you for your attention,

*Eva Cicoria*

-----Original Message-----

From: Eva Cicoria <cicoriae@aol.com>

To: community <community@portla.org>; environmental <environmental@portla.org>

Sent: Thu, Jan 24, 2019 2:53 pm

Subject: LA Harbor Litter

Ladies and Gentlemen of the Board of Harbor Commissioners and the Environmental Division of the Port of LA,

Please see my attached letter and appendices containing photos of the terrible litter problem in Los Angeles Harbor and what I (and family and friends) have been doing to help and asking for your help. I have attached the letter rather than embedding it in this email to retain formatting.

I await your reply,  
Eva Cicoria

January 24, 2019

Ladies and Gentlemen of the Board of Harbor Commissioners and the Environmental Division of the Port of LA,

This is the trash that my husband and I picked up in just a couple of hours while kayaking in the open water of the inner LA Harbor this past Saturday, January 19, 2019.



The haul was 437 pieces of trash, including

- 136 food and product wrappers,
- 102 Styrofoam items, including 65 Styrofoam cups, plates and food containers plus 37 other Styrofoam bits,
- 34 plastic bags or partials,
- 24 plastic straws,
- 38 plastic lids,
- 16 plastic bottles,
- a hypodermic needle, a large plastic container lid, a nylon mesh boom that had broken free somewhere, and miscellaneous other debris.

I am writing to inquire about three things:

- 1) Are you aware that there is a lot of litter in the Port of LA—in the water and among the rocks that form the breakwater and jetties?
- 2) What actions are being taken currently and/or are planned by the Port Authority (or anybody else to your knowledge) to collect and dispose of such litter?
- 3) What can you do to facilitate efforts by the public to help remove litter from the water and the jetties?

Some background

I frequently kayak in the LA Harbor (often with my husband or a friend), launching from the inner Cabrillo Beach. We always find trash. Litter in the Harbor is a year-round problem and has been going on for years. The following two photos were taken January 13, 2019 and August 22, 2014.



The following two photos were taken December 21, 2018 in the inner harbor.



The trash is not only in the water, but in the nooks and crannies of rocks forming the jetties and breakwater. The following two photos were taken January 13, 2019 near the Cabrillo Marina.



More photos of the scope of the problem of litter in the LA Harbor waters, including some of the litter we fished out and disposed of over the years, are provided in Appendix A, attached.

More photos showing the scope of the problem of litter among the rocks of the jetties are provided in Appendix B, attached.

We pick up what we can, but when our boats fill up, we return to shore. And we can't get to most of the trash among the rocks of the jetties. Signage indicates it is illegal to walk on the jetties and breakwater.

I see on the POLA website that POLA has implemented various measures to reduce the trash in the Harbor, yet it remains a problem. Some of the litter we have picked up and packed out includes:

- Plastic: bottles, lids (102 in one day!), straws, bags of all types and sizes, six-pack rings, other plastic rings, and packing material (such as bubble wrap);
- Foam: cups, food containers, coolers and cooler parts, and packing material;
- Food wrappers of all types and sizes, even a carton of raw eggs;
- Aluminum cans, aerosol cans, misc. appliance parts;
- Shoes, flip flops, gloves, hard hats, other hats;
- Toothbrushes, dental floss picks, hair brushes, combs, lip savers and lipsticks;
- Cigarette mouthpieces, lighters, inhalers;
- Buckets, laundry bin, suitcase, storage container lids, sponges, funnels;
- Tennis balls, beach balls, and other balls, balloons, Frisbees and other toys;
- Boat bumpers, fishing lures, fishing line, ropes, and nylon mesh boom.

The litter we have seen among the rocks and been unable to access includes many of the items in the above list, as well as a car battery, a child stroller, chairs, and a rake. The following two photos were taken January 13, 2019.



This debris needs to be removed. If the trash in the rocks isn't removed, it will end up in the water. As the tide rises and falls, larger pieces of plastic will break down over time into small bits that will be increasingly more difficult to remove. While most of our clean-up efforts occur in the inner harbor, we have also seen (and attempted to clean up) garbage patches in the outer harbor, beyond Angel's Gate Lighthouse. Much of this debris is susceptible to drifting with the tides. The following photos were taken January 19, 2019.



We regularly see dolphins swim and cavort in both the inner harbor and beyond Angel's Gate Lighthouse.



We have seen dolphins swim through patches of plastic bags, food wrappers, and other garbage. I hope you agree, that is unacceptable. It's humans' mess and we need to clean it up before it ends up harming the sea life, be it by entangling them, suffocating them, filling their bellies, or otherwise.

What can the Port Authority do to reduce the litter problem?

The POLA website indicates that in 2010 there were two or three boats sweeping up litter in LA Harbor waters. I have never seen them. Are they still operating?

I know there are occasional beach cleanups at Cabrillo Beach (not often enough), but am unaware of any effort to clean up the litter among the jetty rocks. Would the Port Authority authorize such clean-ups?

I will continue to pick up what litter I can from my kayak.

I am also willing to organize a group of people to help clean up trash that has collected in the jetties and breakwater, with the requisite permission. Will you grant that permission or point me in the direction of somebody who can?

What can you do?

*Eva Cicoria*

Rancho Palos Verdes resident

An aerial photograph of the ocean's surface, showing numerous small, colorful pieces of litter floating in the water. The water is a deep blue color, and the litter includes various items like plastic caps, bottle caps, and other debris. The text is overlaid on the center of the image.

## Appendix A

# LA Harbor Litter In the Water

An aerial photograph of Los Angeles Harbor, showing the dark blue water and the greenish-brown landmasses. A large whale is breaching the water in the center of the frame, creating a large splash. The text "2019 Los Angeles Harbor" is overlaid in white. In the bottom left corner, there is a small, faint signature that reads "© Eric C. Coe".

**2019**  
**Los Angeles Harbor**

# LA Harbor, January 19, 2019



# LA Harbor, January 19, 2019



# LA Harbor, January 19, 2019



©Eva Cicoria



LA Harbor  
January  
19, 2019



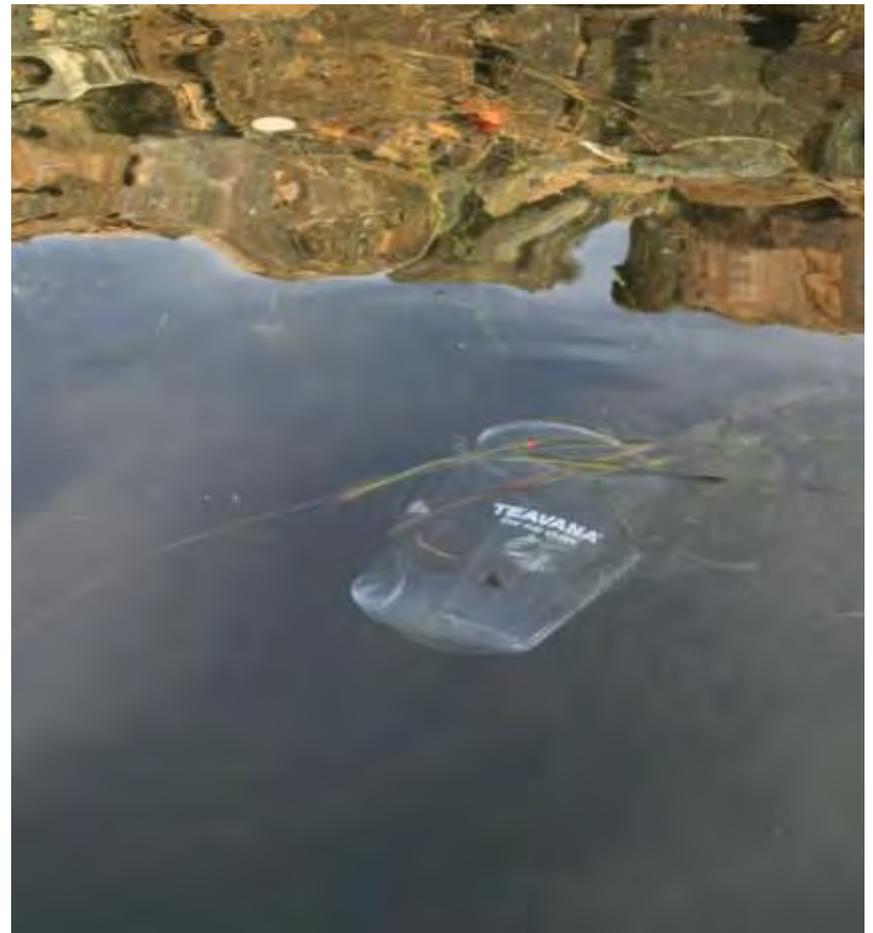
# LA Harbor

January 19, 2019

It adds up



# LA Harbor January 13, 2019



Some litter isn't very visible to us.

LA Harbor

January 13, 2019



# LA Harbor, January 13, 2019

We've been fishing it out of the water.



LA Harbor, January 13, 2019  
Trash picked up by two kayakers.



An aerial photograph of the Los Angeles Harbor, showing the coastline, the harbor basin, and surrounding land. The water is a dark blue-grey color, and the land is a mix of green and brown. The text "2018 Los Angeles Harbor" is overlaid in the center of the image in a white, sans-serif font.

**2018**  
**Los Angeles Harbor**

LA Harbor, December 21, 2018  
We see too much of this.



# LA Harbor, December 21, 2018



# LA Harbor, December 21, 2018



# LA Harbor, December 21, 2018



# LA Harbor, December 21, 2018



# LA Harbor, December 21, 2018



# LA Harbor, December 21, 2018



# LA Harbor, December 21, 2018



# LA Harbor, December 21, 2018



# LA Harbor

## December 16, 2018



# LA Harbor

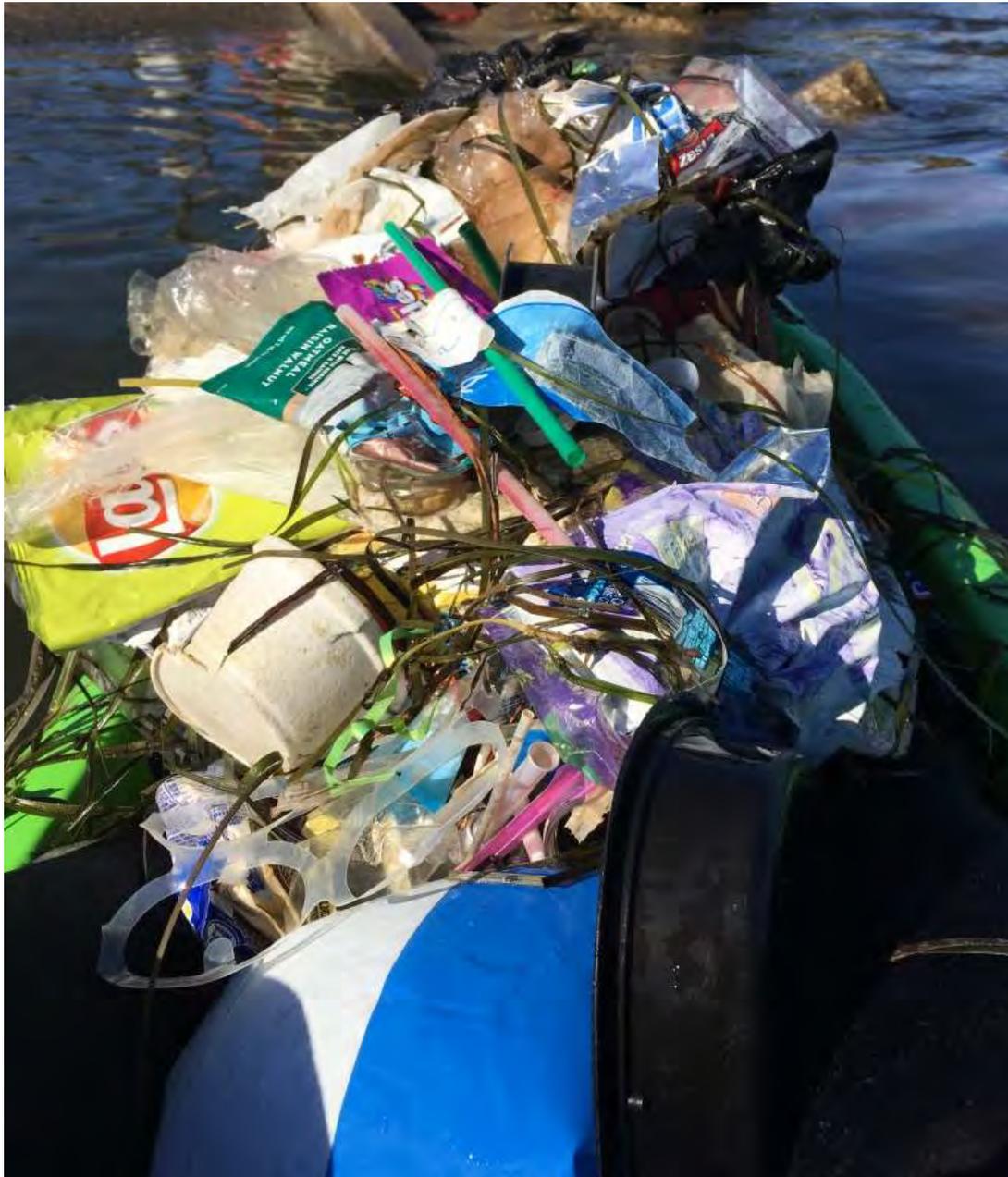
## December 8, 2018



# LA Harbor

## December 8, 2018





LA Harbor  
December 8,  
2018

# LA Harbor

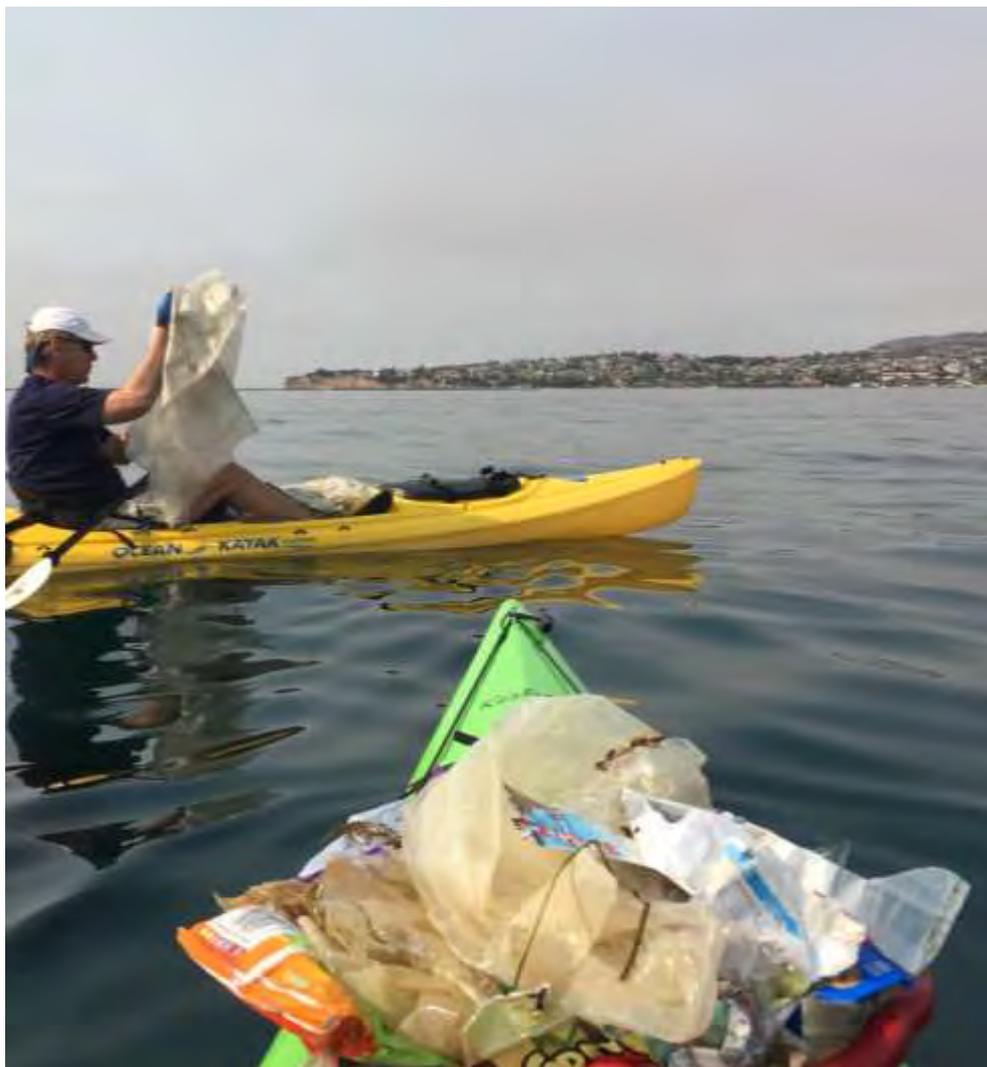
November 18, 2018



# LA Harbor, November 10, 2018



# LA Harbor, November 10, 2018



# LA Harbor

## November 10, 2018



# LA Harbor

## November 4, 2018



# LA Harbor

## October 27, 2018



©Eva Cicoria

# LA Harbor

## October 27, 2018



# LA Harbor

## October 18, 2018



# LA Harbor

## July 21, 2018



# LA Harbor, June 17, 2018



# LA Harbor, May 23, 2018



# LA Harbor, April 22, 2018



# LA Harbor

April 22, 2018



# LA Harbor, February 17, 2018



A photograph of a beach covered in a thick layer of brown seaweed and debris. The seaweed is piled up, and there is a lot of trash scattered throughout, including pieces of white plastic, a yellow cup, and other unidentifiable items. The water is dark blue and reflects the sunlight. The text "2017 Los Angeles Harbor" is overlaid in the center of the image in a white, sans-serif font.

**2017**  
**Los Angeles Harbor**

# LA Harbor October 19, 2017



# LA Harbor, August 10, 2017

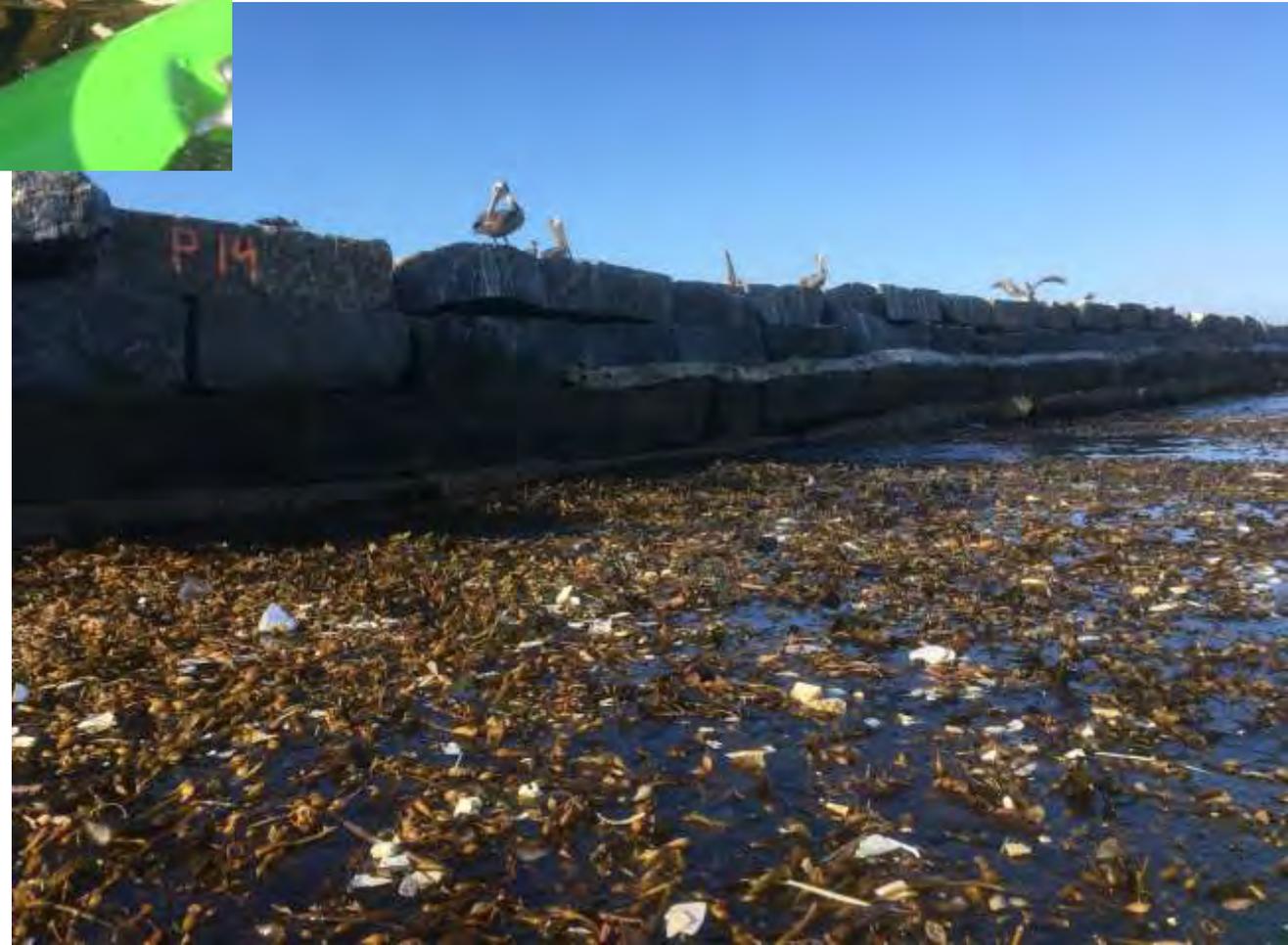


# LA Harbor, August 4, 2017



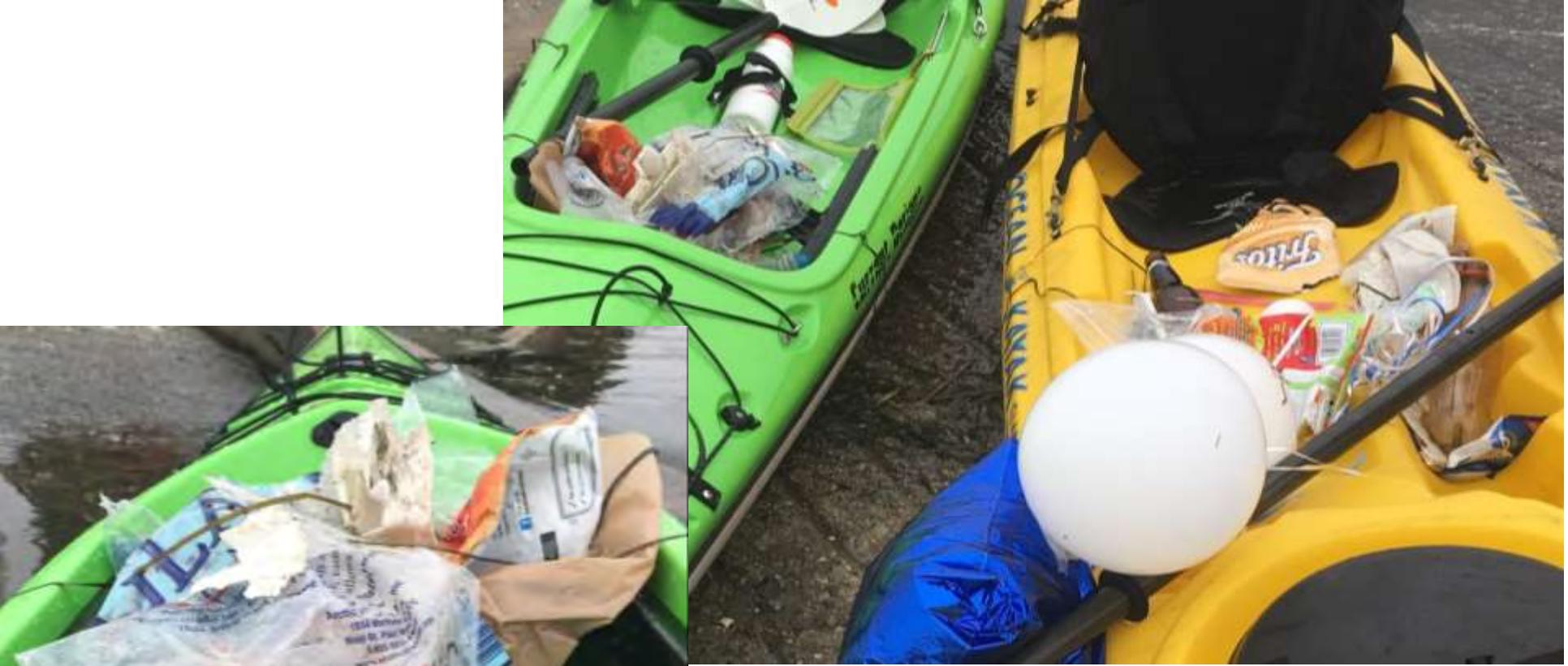
# LA Harbor

## August 4, 2017



# LA Harbor, April 21, 2017





LA Harbor  
March 12, 2017



2014  
Los Angeles Harbor

# LA Harbor, August 22, 2014



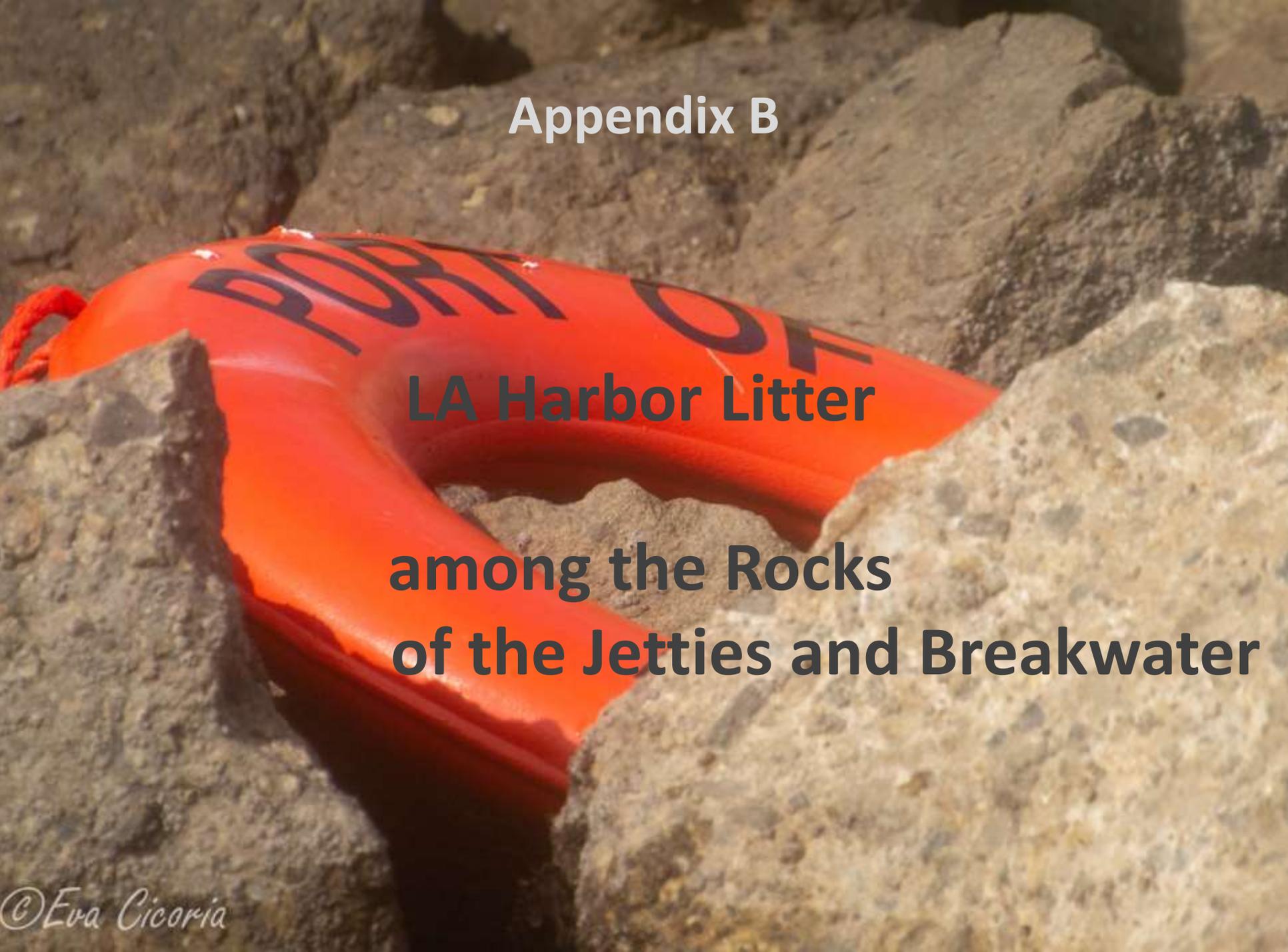
# LA Harbor, May 14, 2014



# LA Harbor

## January 1, 2014



A red life preserver is lying on dark, jagged rocks. The life preserver has the word "PORT" printed in large, dark letters on its side. The background consists of dark, textured rocks.

## Appendix B

**LA Harbor Litter**

**among the Rocks  
of the Jetties and Breakwater**

LA Harbor, January 13, 2019  
From a distance, not too remarkable.



LA Harbor, January 13, 2019

Look closer



# LA Harbor, January 13, 2019 and closer



# LA Harbor, January 13, 2019



# LA Harbor, January 13, 2019



# LA Harbor, January 13, 2019



LA Harbor, January 13, 2019

It's hard to get to it from our kayaks.



# LA Harbor, January 13, 2019



# LA Harbor, January 13, 2019

## We leave a lot behind.



©Eva Cicoria

# LA Harbor, January 13, 2019



# LA Harbor, January 13, 2019



# LA Harbor, January 13, 2019



# LA Harbor, January 13, 2019



# LA Harbor, January 13, 2019



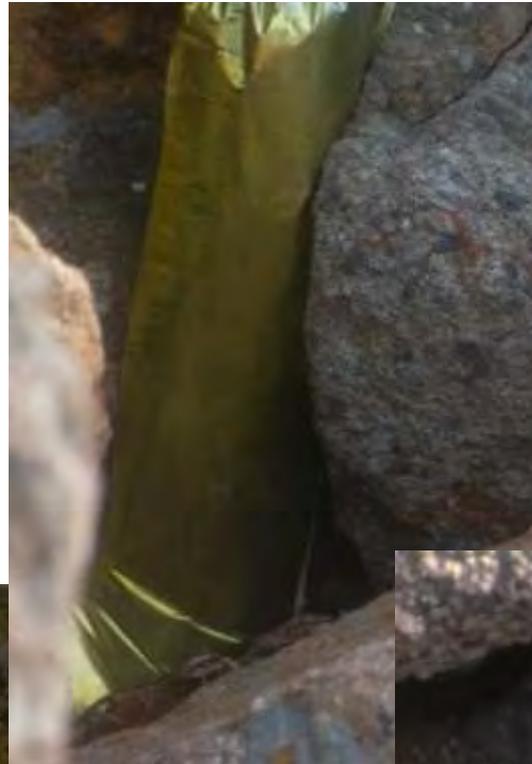
©Eva Cicoria

# LA Harbor, January 13, 2019

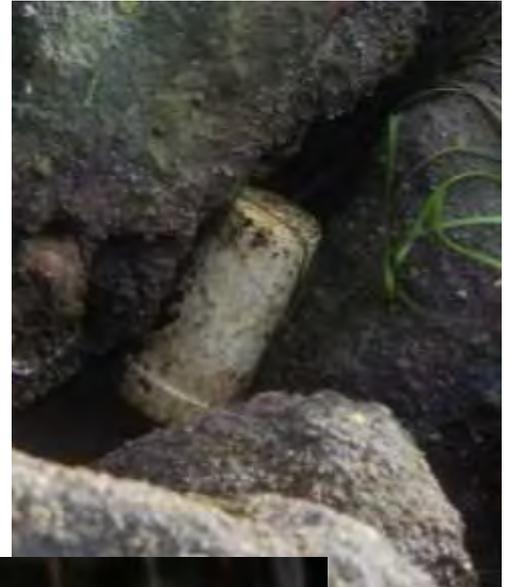
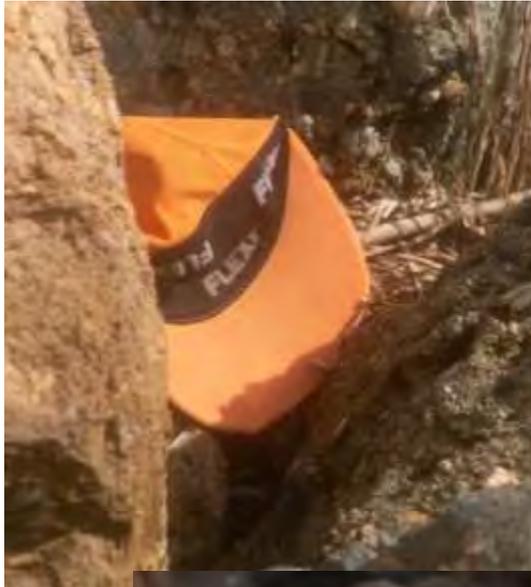


©Eva Cicoria

# LA Harbor, January 13, 2019



# LA Harbor, January 13, 2019



# LA Harbor, January 13, 2019



# LA Harbor, January 13, 2019



# LA Harbor, January 13, 2019



©Eva Cicoria

# LA Harbor

## December 8, 2018



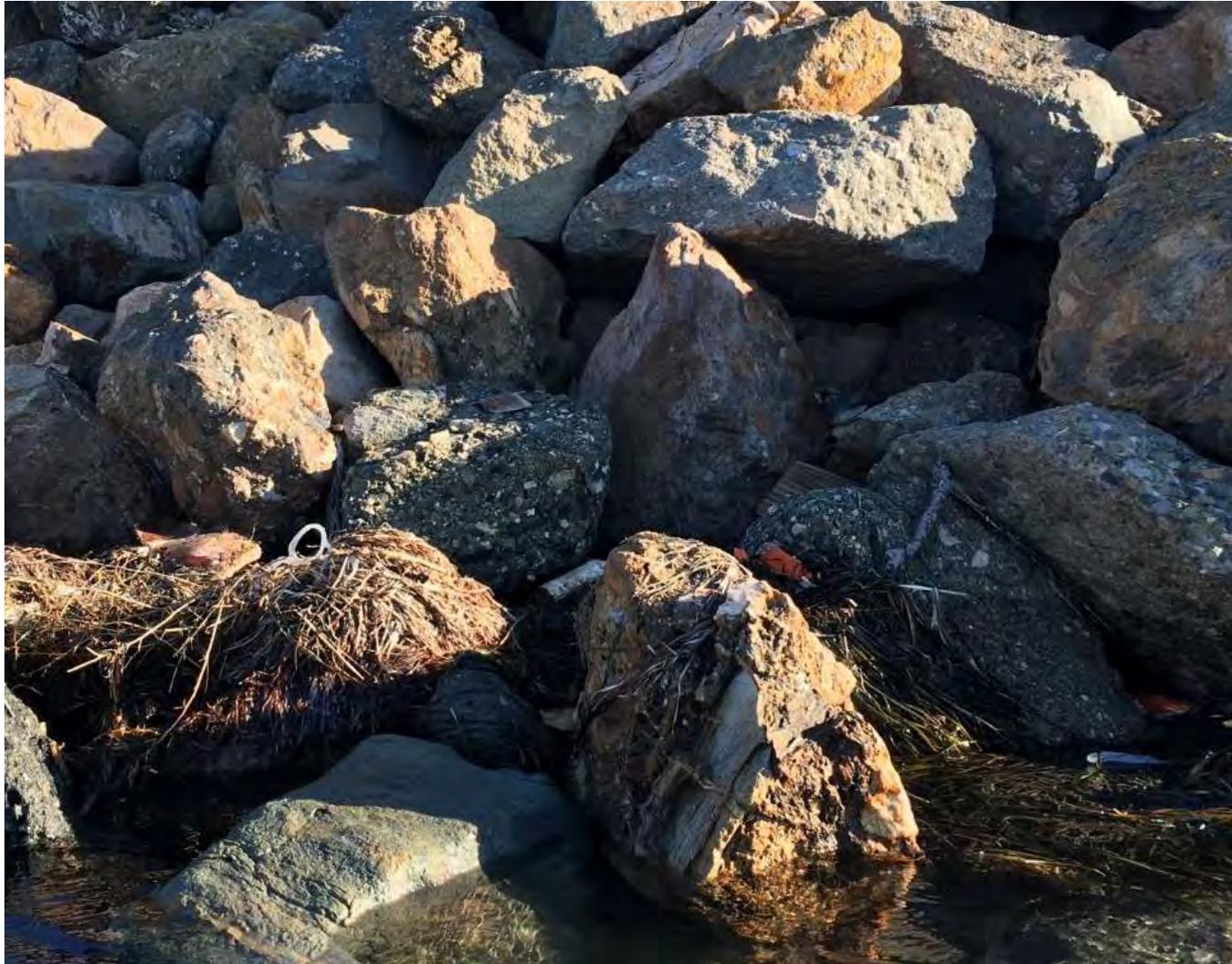
# LA Harbor

## December 8, 2018



# LA Harbor

## December 8, 2018



# LA Harbor

## October 27, 2018

