

# Newport Bay Water Wheel Trash Removal Project

City of Newport Beach  
Harbor Commission

John Kappeler  
Public Works Department  
January 8, 2020



# Trash and Debris Projects

## Capture and Collection Devices

- Install 435 Screens on Catch Basins in the Dry Season.
- Installed 450 Screens inside Catch Basins
- Approximately 40 Continuous Deflective Separation (CDS) Units Installed Citywide. *(public and private)*
- Annually Clean 3.2 Miles of Drainage Channels and 3,400 Catch Basins.
- Street Sweeping over 36,000 Curb Miles.



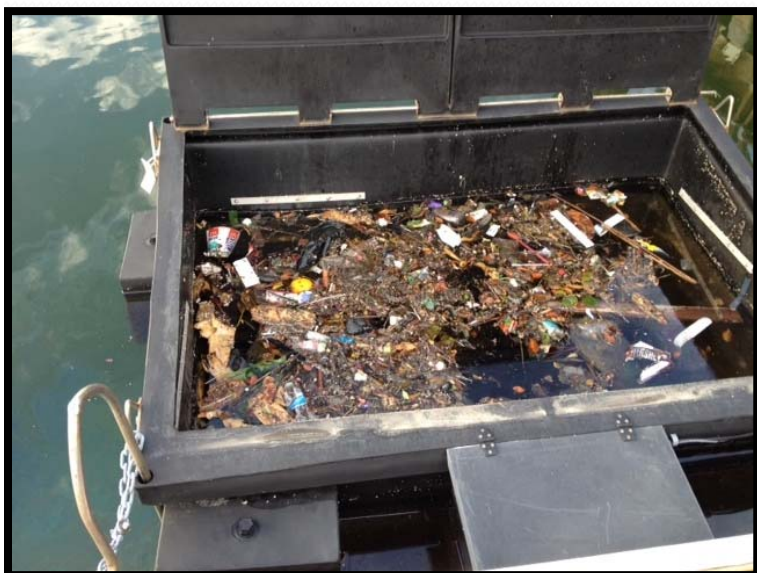




# Trash and Debris Projects

## Capture and Collection Devices

- City Maintained Upper Bay Log Boom  
*(More than 75 Tons of Debris Removed this Storm Season)*
- City Installed and Maintains 6 Trash Skimmers
- City Coordinates/Participates in Various Clean-Up Events





# Newport Bay Over The Years

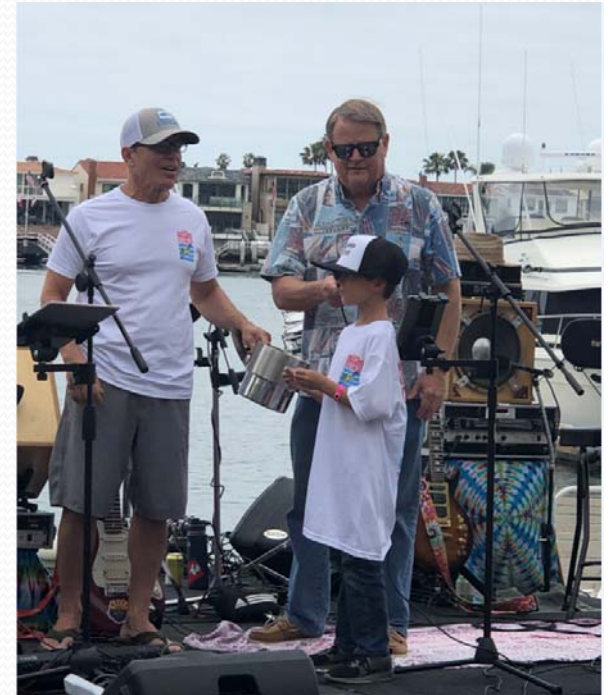




# 2<sup>nd</sup> Annual Newport Harbor Underwater Cleanup

## EVENT TOTALS:

- 223 Volunteers
- 15 Duffy Boats
- Estimated 4,100 pounds of trash
- 18 Environmental Exhibitors






**Santa Ana - Delhi Channel  
Trash Diversion Project**  
\$9 Million Multi-Jurisdictional Collaboration



Protects the bay and ocean while capturing water for additional resources

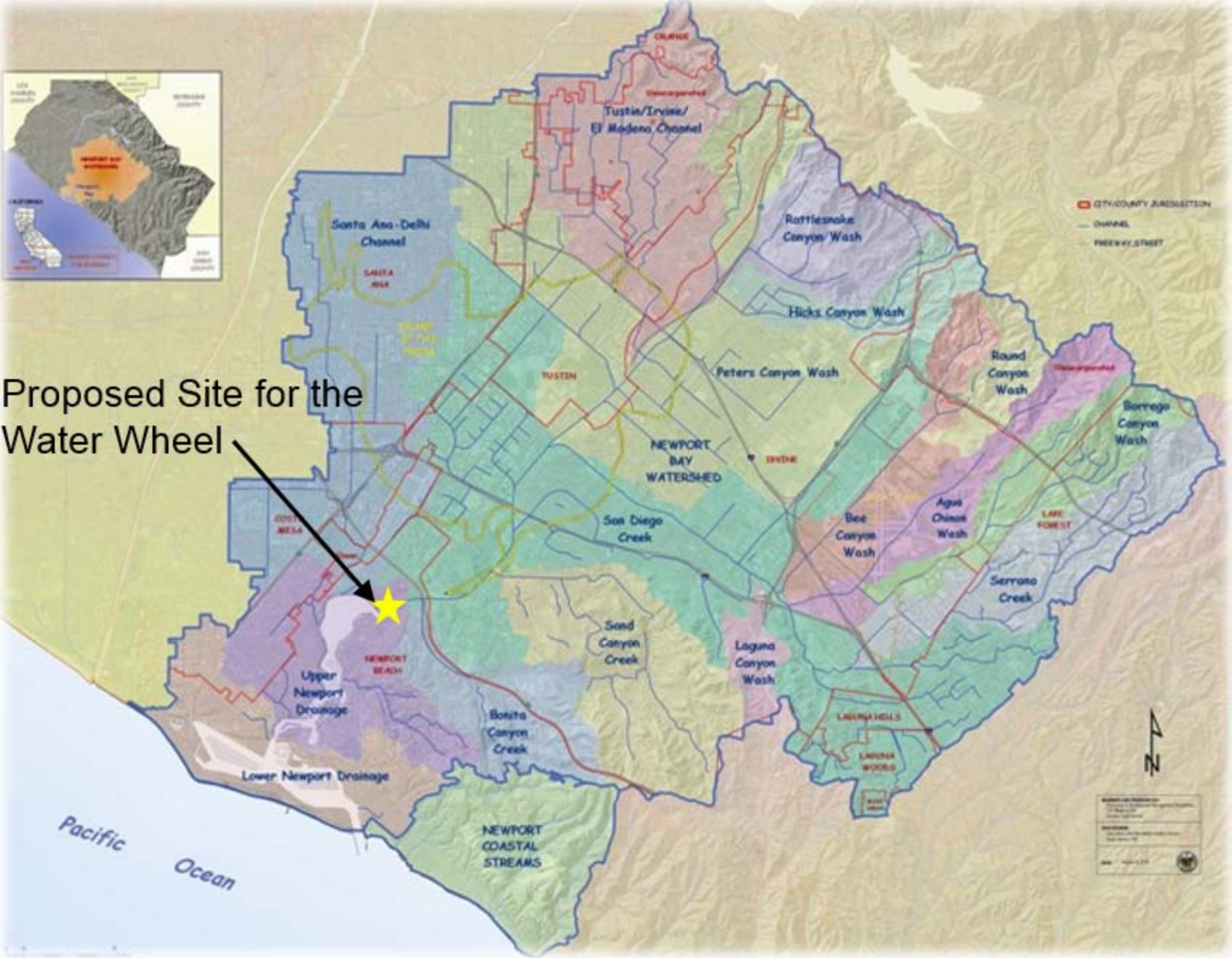
Diverts up to 2 million gallons per day prior to entering the Upper Newport Bay for treatment and reuse by OCSD and OCWD



# The Water Wheel Project

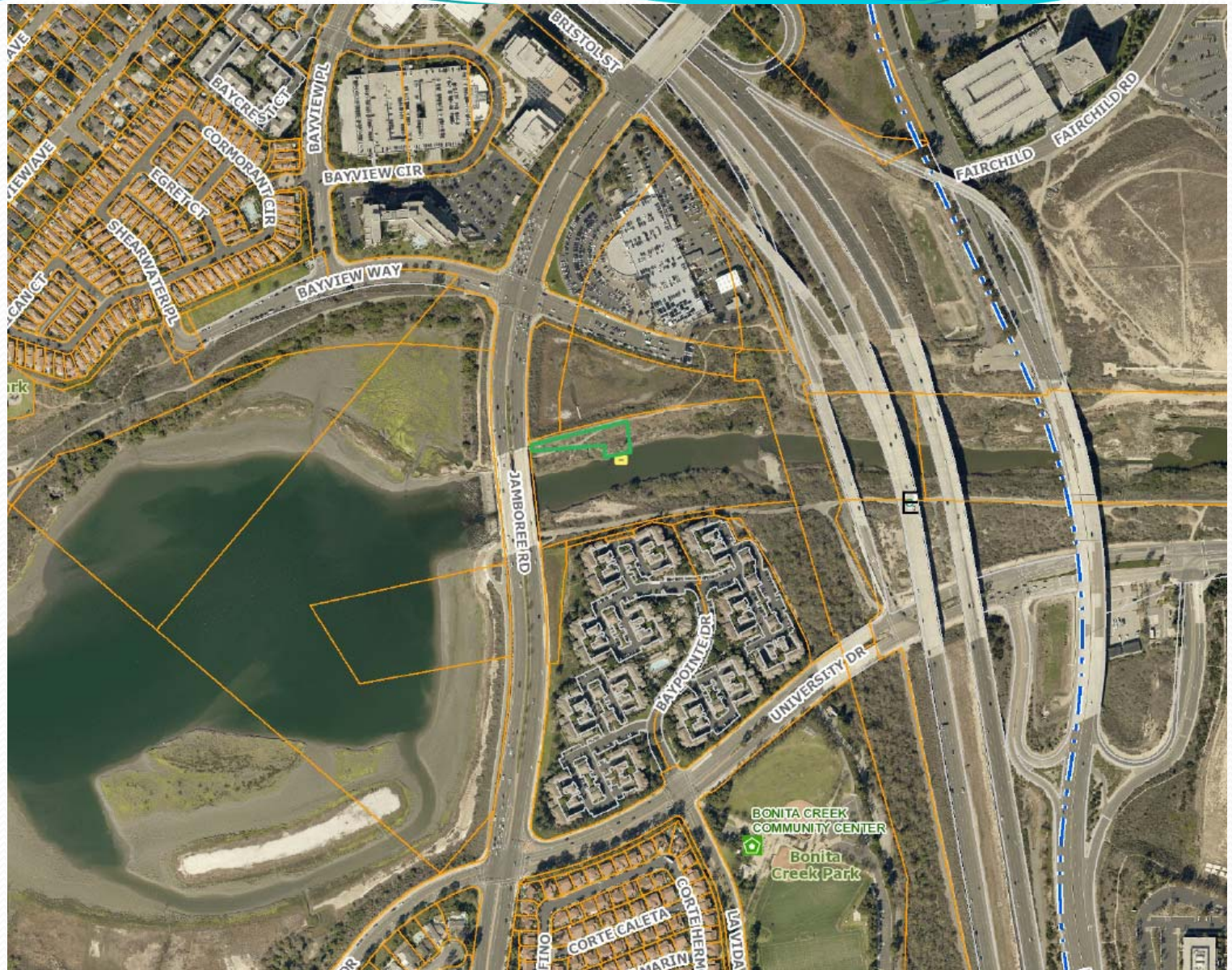








## Proposed Location



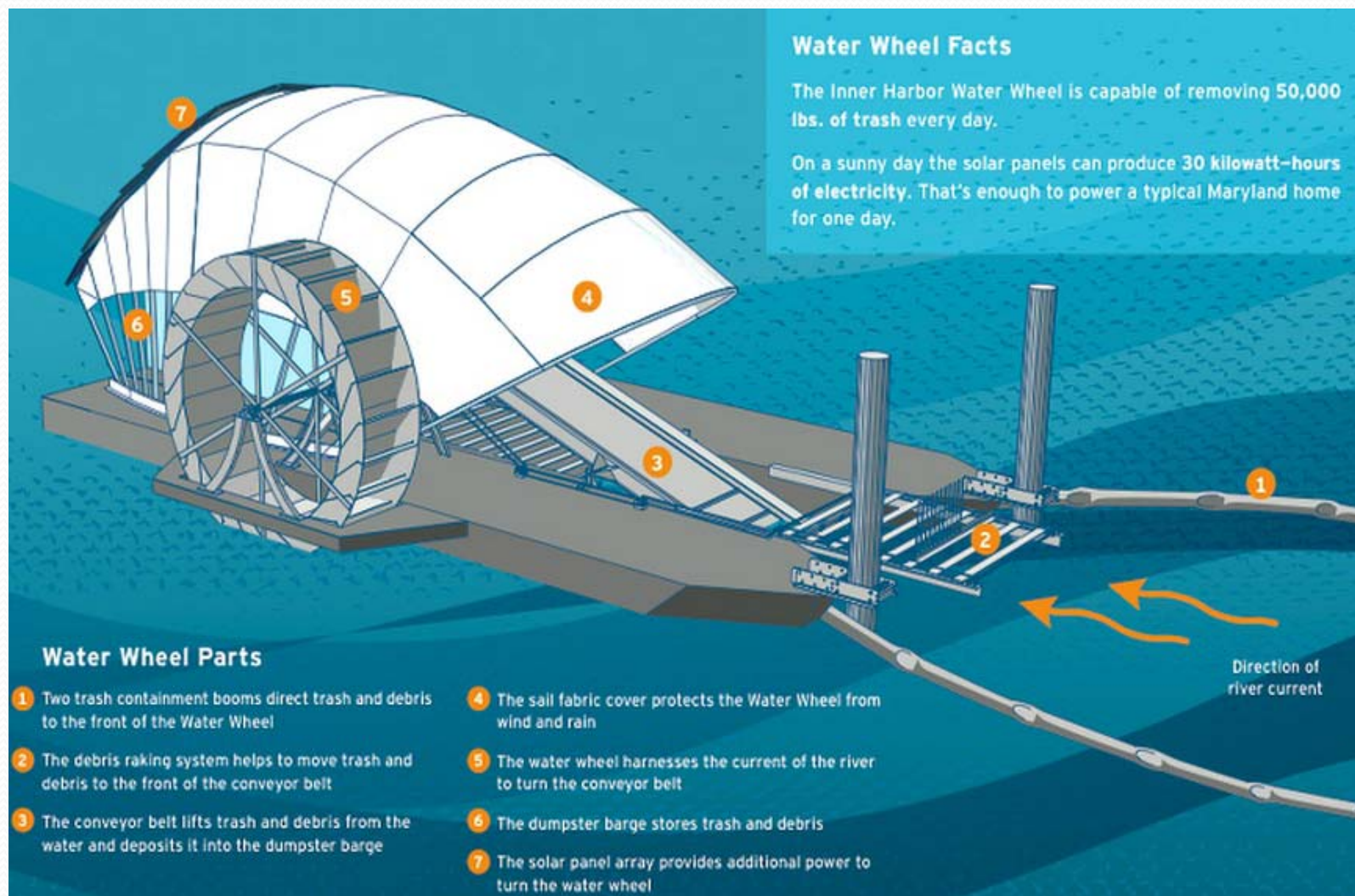


# PROPOSED LOCATION





# \$1.7M Grant Awarded to the City







mrtrashwheel Follow

622 posts 8,762 followers 316 following

Mr. Trash Wheel

Official voice of the Water Wheel cleaning Baltimore's Inner Harbor. Likes tires but not broccoli. Part of the Healthy Harbor Initiative.  
mrtrashwheel.com

# Public Education Concepts

- Build a public viewing platform with educational signage
- Expand/mimic the City's Tidepool Ranger Program
- Create a Website, IG , Twitter, Youtube and/or Facebook pages
- Fund a program to measure and quantify trash
- Webcam and/or other real-time social media live feed
- Creative design concept for the trash wheel

[www.Flickr.com/healthyharbor](http://www.Flickr.com/healthyharbor)



Tweets 3,754 Following 1,491 Followers 17.5K Likes 3,419 Lists 1

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Mr. Trash Wheel  
@mrtrashwheel

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# Project Schedule

Project Schedule	Date
Preliminary Engineering	Complete
Environmental Review (CEQA)	Complete
OPC Grant Agreement	Complete
Consultant Contract Award	February 11, 2020 City Council Mtg
Detail Design / Permitting	2020
Construction	2021



# Project Budget

Task	Estimate
Design/Engineering/Permitting	\$550,000
Water Wheel	\$750,000
Construction	\$700,000
<b>Total</b>	<b>\$2,000,000</b>
O&M	\$25,000 - \$50,000/Annually



# Questions & Comments



**Your Public Works Department**  
*A Well-Engineered Machine*

Protecting and Providing Quality  
Public Improvements and Services