



# GREEN PORT YEAR IN REVIEW 2021-2022

## ENVIRONMENTAL CHAMPION

The Port of San Diego champions the safekeeping and environmental care of our dynamic waterfront. We are proud to be a leader in protecting our water, air and land to ensure the complete ecosystem of San Diego Bay remains a vital natural resource for generations to come. The delicate balance of a healthy San Diego Bay ecosystem is upheld through a collaborative network of programs and initiatives, each working on innovative ways to sustain our waterfront.



### Green Marine Certification

The Port of San Diego has been re-certified by Green Marine, North America's largest voluntary environmental certification program for the maritime industry. The Port of San Diego ranked in the top ten percent of North American ports in the Green Marine program with an average score of 4.3 out of 5 across all categories.



## Natural Resources

The Port learned about Osprey nesting habits through a solar-powered camera installed on the nesting platform at the Chula Vista Wildlife Reserve. This platform has been providing nesting for over 10 years producing 2-4 fledglings per year.

## SUSTAINABILITY AT A GLANCE: PORT OPERATIONS



**40%**

**Energy use reduction**  
compared to 2008



**39%**

**Greenhouse gas  
emissions reduction**  
compared to 2008



**494,000  
kWh**

**Renewable energy  
generated on-site**  
annually



### Waste Diversion

- **40 derelict vessels** and **38 abandoned dinghies** were removed from San Diego Bay.
- **668 pounds** of batteries and lightbulbs from Port facilities were diverted from the landfill through waste diversion programs.



### Environmental Clean-ups

- With the Port's oversight, over 25,000 cubic yards of contaminated soil was removed from Port Tidelands.
- To prevent future contamination, an abandoned underground storage tank was removed beneath Anchorage Lane.



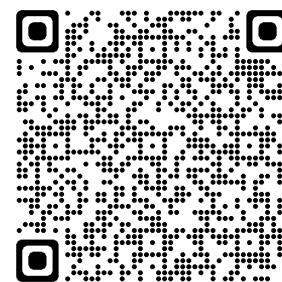
### Copper Reduction Program

- Completed an in-water hull cleaning pause special study within Shelter Island Yacht Basin to understand how in-water hull cleaning affects water quality.



## Regional Harbor Monitoring Program/Report:

The Regional Harbor Monitoring Program's informational brochure highlights the water quality and marine life health for San Diego bay and other harbors. See the 2018 survey results at:





## FUNDING

# \$8m

was awarded to the Port to support the following projects:

## \$5m

From **National Parks Services** to support the construction of the Sweetwater Park in the Chula Vista Bayfront.

## \$700k

From **Builders Initiative** to support the Chula Vista Native Oyster Living Shoreline planning efforts for shellfish and seaweed aquaculture.

## \$70k

From **San Diego Foundation** to support the Environmental Education Program.

## \$25k

From **U.S. Fish & Wildlife Service Refuges** to support endangered species predator control services.

## \$1m

**National Oceanic & Atmospheric Administration Community Restoration Projects** award for habitat friendly shoreline infrastructure.

## \$890k

Awarded by **US Fish & Wildlife Services** and California Coastal Conservancy to support the Native Oyster Living Shoreline Project construction.

## \$325k

From **Maritime Administration, Maritime Environmental & Technical Assistance Program** to support for Blue Carbon Studies in the Bay.

## BLUE ECONOMY INCUBATOR

The Port's Blue Economy Incubator assists in the creation, early development, and initial scaling of sustainable aquaculture and Port-related blue technology ventures.

### Our impact in Numbers

## 110,000

POUNDS

of marine debris removed from San Diego Bay

## Over 25

**PARTNERSHIPS** created through the work of the BEI



## 9

innovative pilot projects launched through a port-wide collaboration process

## \$1.6 MILLION

in funding to support the launch of sustainable aquaculture and blue tech pilot projects



## 3

control cleaning events and concurrent water quality sampling events to evaluate in-situ release of copper from boat hulls



## 5

metals tested by to develop 5-in-1 system for near real-time stormwater compliance monitoring



## PORT ENVIRONMENTAL ACHIEVEMENTS



### ◀ **Native Oyster Living Shoreline:**

The Port, in partnership with the California Coastal Conservancy, and with grant funding from the U.S. Fish & Wildlife Service and the Builders Initiative, deployed 360 reef balls, to create a native oyster living shoreline along the northern shoreline of the Chula Vista Wildlife Reserve. This project will create habitat, increase biodiversity, improve water quality, and improve resiliency of the adjacent coastal salt marsh from future climate change impacts.

The Port is entitling a 75-acre Wetland Mitigation Bank at Pond 20 to restore coastal salt marsh habitat. Mitigation credits will be sold to offset impacts to salt marshes from coastal development projects. In April 2021, the Board certified an Environmental Impact Report and initiated processing the project with the California Coastal Commission.

### **Pond 20:** ▶



### ▶ **EConcrete:**

The innovative EConcrete blocks create tidepools that are creating habitat for marine life while ensuring shoreline stability. To date, over 50 marine species are living and thriving in the tidepools.



### ◀ **Shellfish & Seaweed Aquaculture Planning:**

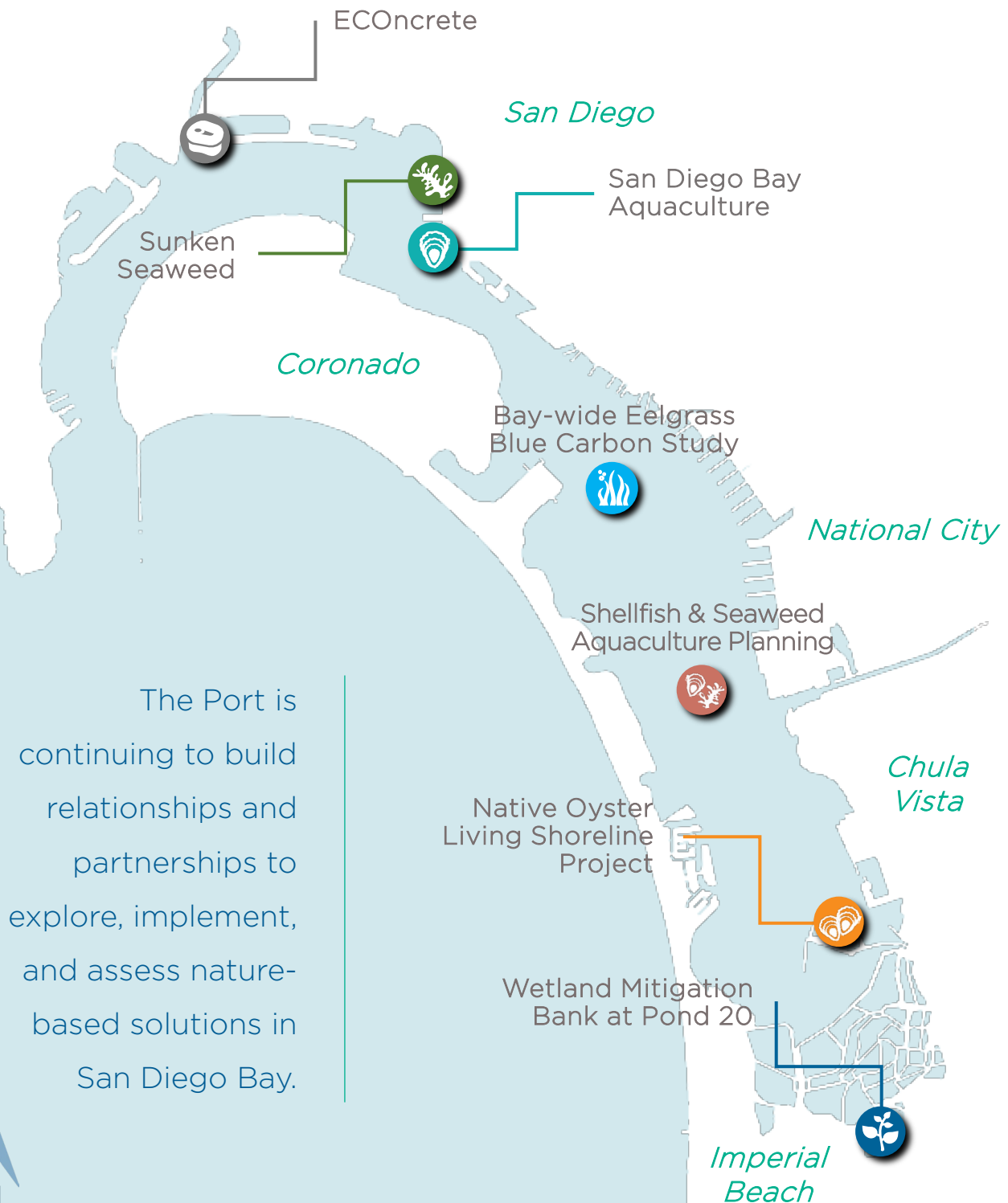
The Port is engaged in a Shellfish & Seaweed Aquaculture Planning effort funded by the Builders Initiative. Shellfish and seaweed aquaculture has the potential to provide bioremediation and ecosystem services, such as improving water quality, carbon sequestration, and habitat enhancement.



### **Eelgrass Blue Carbon Study:** ▶

The Port is partnering with the U.S. Maritime Administration (MARAD) funded by the Maritime Environmental & Technical Assistance Program on the first-ever Bay-wide Eelgrass Blue Carbon Study to assess carbon storage and sequestration rates in eelgrass beds across San Diego Bay. This work will build a baseline for carbon storage in the bay and inform opportunities to mitigate greenhouse gas emissions.

## Building a Profile of **NATURE-BASED SOLUTIONS** through pilot projects and new initiatives



The Port is continuing to build relationships and partnerships to explore, implement, and assess nature-based solutions in San Diego Bay.



## LONG-RANGE PLANNING EFFORTS



**PMPU:** The Port Master Plan Update (PMPU) is the first comprehensive effort to update the foundational Port Master Plan. The Port released the Draft PMPU, and its associated Draft Program Environmental Impact Report (PEIR), for public review and comment. The Final Program Environmental Impact Report is anticipated to be presented to the Board for certification in late 2022.



**National City Bayfront Projects** The Port released the Draft Environmental Impact Report (EIR) for the National City Bayfront Projects (which includes environmental review of the National City Balanced Plan, plus other nearby projects) for public review and comment for 45 days. The Final EIR is anticipated to be presented to the Board for certification in October 2022. The plan is a “win-win-win” for the community, tenant businesses, and the Port.



**Pepper Park:** The Port is working on a design for improvements to the existing park and a 2.5-acre expansion of Pepper Park. This redesign is possible with \$3.85 million from the American Rescue Plan Act funding that the Port received in 2021. In Spring 2022, input on park design was gathered from extensive public outreach, including virtual and in-person design workshops, several in-person “pop-up” workshops, and online surveys. Workshops were held in English, with simultaneous translation in Spanish and Tagalog. The Port anticipated completing improvements to the existing park by mid-2024.



### Maritime Clean Air Strategy

Establishing **“Health Equity for All”** as its vision, the Maritime Clean Air Strategy (MCAS) is an aspirational policy document that identifies Port-related projects and initiatives designed to improve air quality for everyone who lives, works, and plays on and around San Diego Bay. It represents the Port’s commitment to environmental justice and is the most ambitious clean air plan of its kind.

## MARITIME CLEAN AIR STRATEGY

### EMISSION REDUCTION INITIATIVES

The Maritime Clean Air Strategy includes 34 objectives to reduce emissions and improve air quality in and around the Port. Below is a list of the Port's recent emission reduction initiatives underway.



**Harbor Craft:** Port tenant Crowley Tug is currently building the United States' first electric tug, which will be operated in San Diego Bay. Since 2019, Port staff have been collaborating with Crowley's project team to facilitate the construction of shoreside power and charging infrastructure for the Tug. The electric tug is anticipated to begin operating in mid-2023.



**Electric Cargo Handling Equipment:** The Board authorized spending approximately \$14M on the purchase of two all-electric Mobile Harbor Cranes to replace its existing diesel-powered crane at the Tenth Avenue Marine Terminal. The new electric cranes are expected to be operational in mid-2023.



**Port Vehicle Fleet:** The Port is currently operating an electric van and pickup truck with the Board having authorized the purchase of an additional 14 electric vehicles to replace gas or diesel-powered vehicles.



**Zero Emission Trucks:** The Port completed a Zero Emission Heavy-Duty Truck Transition to serve as a roadmap to attain 40% zero emission truck trips in 2026 and 100% zero emission truck trips by 2030.



**Enhanced Vessel Speed Reduction Program:** The Board adopted an updated Vessel Speed Reduction Program to help lower emissions of oceangoing vessels that call to the Port's Cruise Ship and Marine Terminals.



**Port's Updated Health Risk Assessment:** The Port's Updated Health Risk Assessment establishes baseline health risk levels for its two marine terminals based on 2019 operations and forecasts a 42% reduction in cancer risk in West National City and a 47% reduction in cancer risk in Barrio Logan by June 30, 2026, assuming completion of some key Maritime Clean Air Strategy measures.



**Residential Air Filters:** The Port partnered with the San Diego Air Pollution Control District to help fund residential air purifiers and monitoring systems for approximately 500 Portside Community residents through the Maritime Industrial Impact Fund program. To date, 148 air monitors and 97 air purifiers have been distributed and installed.



**EV Charging Systems:** Using a mix of state funding and private partnerships, the Port installed 28 additional charging stations in prominent Port locations at the San Diego Convention Center, the Embarcadero Marina Park South, and Pepper Park in National City.





## EDUCATION AND OUTREACH

### Clean-up Events & Education Activities

- The Port sponsored and participated in two regional cleanup events, Operation Clean Sweep and Creek to Bay, with **over 227 participants** removing a total of **3,120 pounds of trash** around San Diego Bay.
- The Port hosted the fourth annual #ThatsMyBay Service Week at six locations around San Diego Bay with over **50 Port employees** removing an estimated **1,320 pounds of trash**.
- The Port's General Services staff participated in an employee Earth Day cleanup event removing an estimated **2,140 pounds of trash**.
- The Port's Environmental Education program reached **over 25,900 students** during the 2021-2022 academic year. The curriculum provides a unique learning experience focused on pollution prevention, watershed management, and protection of natural resources in and around San Diego Bay. The students also removed **3,225 pounds of trash** through their work.

### Michelle White Environmental Awards

#### Port Staff:

**Adam Meyer**—Real Estate

**John Carter**—Office of the General Counsel

**Renee Yarmy**—Maritime

#### Port Tenant:

**Larry Schmitz**—Terminalift

#### Regional Partners:

**Darbi Barry**—USD, Non-Profit Institute

**Brian Collins**—US Fish & Wildlife Service Refuges

**David Gibson**—San Diego Regional Water Quality Control Board



Port of San Diego Environment champions the safekeeping and environmental care of our diverse ecosystems.

For more information go to:

[www.portofsandiego.org/environment](http://www.portofsandiego.org/environment)

