

GREEN PORT YEAR IN REVIEW 2023



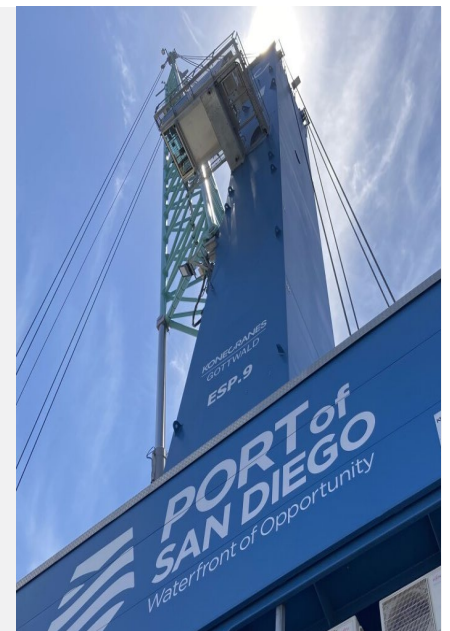
ENVIRONMENTAL CHAMPION

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 air, land, water, and wildlife 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.

Port of San Diego Celebrates Arrival of All-Electric Mobile Harbor Cranes, First in North America!

Two all-electric Mobile Harbor Cranes at a cost of over \$14M arrived at the Tenth Avenue Marine Terminal! Nearly another \$9M was required to upgrade the electrical infrastructure to support electrification of the terminal.

The new electric cranes will replace a diesel crane which is the single largest source of pollution from Cargo Handling Equipment. Use of the electric cranes will result in a 15% reduction in diesel particulate matter and nearly 7% reduction of nitrogen oxides from annual Cargo Handling Equipment use at the Tenth Avenue Marine Terminal. Energy consumption will be supplemented by an on-site micro grid eliminating 47 metric tons of greenhouse gas emissions (CO₂e) annually.



#ThatsMyBay

Since 2018, the Port has heightened public awareness of water quality issues and promoted actions the public could take through its #ThatsMyBay campaign. Cumulatively, the social media campaign garnered over 1,276,934 impressions across all Port web channels (Port owned social media, YouTube, pay-per-click ads, Port website landing page).

BY THE NUMBERS



\$175K

Awarded from the U.S. Maritime Administration for a second year of carbon storage and sequestration research in San Diego Bay's eelgrass beds



66

Shopping carts removed from San Diego Bay and Chula Vista mudflats



39

Derelict and abandoned vessels were removed from San Diego Bay



\$1M

Awarded by NOAA to replace existing shoreline rock revetment with an innovative, nature-based structural solution that creates a robust and healthy ecosystem while providing the necessary protection along an urban edge.



515lbs

Batteries and lightbulbs from Port facilities were diverted from the landfill through waste diversion programs.



3,500lbs

Of trash and debris removed from the San Diego Bay watershed through volunteer efforts.



\$1.7M

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



\$80K

Awarded through SANDAG's TransNet Environmental Mitigation Program to remove invasive weeds, control predators, and support biological monitoring during the 2023 California least tern nesting season.

SUSTAINABILITY AT A GLANCE: PORT OPERATIONS



35%

**Energy use
reduction** compared
to 2008



49%

**Greenhouse gas
emissions reduction**
compared to 2008



**506,400
kWh**

**Renewable energy
generated** on-site
annually

PORT ENVIRONMENTAL ACHIEVEMENTS

Recent Nature-based Shoreline Projects Showing Impressive Results To Date



The first year of post-construction monitoring for the San Diego Bay Native Oyster Living Shoreline indicates establishment of an impressive native oyster population while several aquatic and avian species are present and benefiting from the project. Additionally, eelgrass habitat is unimpaired and wave energy is dissipated as it moves over the project footprint.

The second year of post-construction monitoring for the EConcrete COASTALOCK project indicates a thriving, diverse habitat is establishing along a developed shoreline previously lacking any substantial ecological value. Surveys have identified 22 algae species, 20 sessile invertebrates, 9 mobile invertebrates and 3 fish species in or on the tide pool units. Results indicate an increasing trend of species richness and a diverse marine community greater than that of adjacent rock revetment used as a reference.



Blue Carbon Study Completed



In collaboration with the U.S. Maritime Administration, the Port completed its second year of research on carbon sequestration and storage in San Diego Bay's eelgrass beds. This research is informing how eelgrass conservation and restoration may support the Port's carbon dioxide emissions reduction goals.

Settlement Agreement Finalized

The Port is a strong supporter of efforts to address the transboundary pollution crisis in the Tijuana River Valley. In 2023, a historic settlement agreement was finalized between the Cities of Imperial Beach and Chula Vista and the Port with the U.S. Section of the International Boundary and Water Commission (USIBWC). The settlement resulted in the USIBWC implementing several substantive measures to mitigate the effects of sewage and trash flowing across the border and improving their communication with regional stakeholders.

SANDAG DIAMOND AWARDS 2023

Excellence in commute programs

The SANDAG iCommute Diamond Awards program recognizes employers in the San Diego region who have made strides to promote alternative commute choices in the workplace. The Port is being recognized at the Platinum Tier Level for:

- Offering Reimbursement for Public Transit Passes
- Conducting educational opportunities for employees to learn about electric vehicles, bicycling, and SANDAG's "Try Transit" program
- Hosting a pit stop for Bike Anywhere Day
- Employee-led Vanpooling
- Providing EV charging

MARITIME CLEAN AIR STRATEGY (MCAS)

EMISSION REDUCTION INITIATIVES

The Maritime Clean Air Strategy includes thirty-four objectives to reduce emissions and improve air quality in and around the Port. Nineteen of these objectives go beyond or seek action prior to regulatory requirements. To date, the Port has committed over **\$60M** to advance electrification projects to improve air quality and public health. The list below highlights a few of the Port's recent emission reduction initiatives and successes.



Cargo Handling Equipment: Tenants acquired five new electric yard tractors and two heavy-lifts.



Port Vehicle Fleet: The Port is currently operating four electric vans and three pickup trucks with over twenty additional vehicles scheduled for procurements throughout Fiscal Year 2024.



Heavy-duty Trucks: In effort to hasten the transition of heavy-duty trucks to zero-emission technologies, the Port launched a Zero Emission Truck Technical Assistance Program and conducted extensive outreach to the trucking community regarding zero emission regulations and funding. Meanwhile, Pasha established an electric car hauler route along Harbor Drive between Cesar Chavez and National City Marine Terminal.



Urban Greening: With sponsorship from the CA Department of Forestry and in collaboration with Urban Core, twenty new trees were planted outside the open field area at Cesar Chavez Park in November 2022. This effort coincided with the Field Turf Rehabilitation at the field also located at the Park.



Ocean-going Vessels: A second shore power system was installed at the Cruise Ship Terminals, doubling the capacity at the terminal to simultaneously connect two cruise ships, enabling them to turn off their engines and significantly reduce emissions while the ships are at-berth. Port Commissioners allocated \$8.5M to support shore power expansion at the National City Marine Terminal.

MCAS Outreach and Engagement

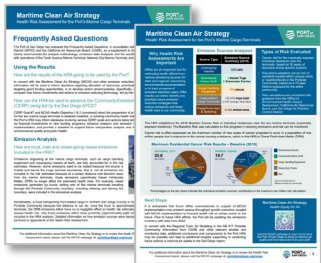


The Port's MCAS Team attended 28 outreach events contacting over 1,100 individuals. In addition to general education regarding the MCAS program, information was often tailored to the events' audiences, establishing contacts and an ever-expanding network of like-minded professionals and community members striving for cleaner air and improved public health.



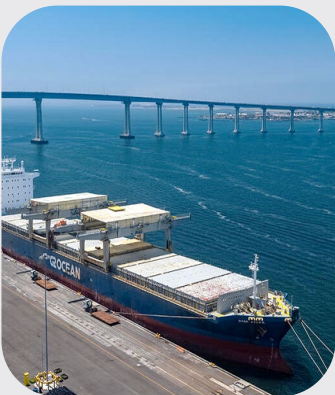
Commercial Harbor Craft: Broke ground to build the infrastructure to support the Crowley Maritime eWolf which will serve as the first electric tugboat in the United States.

Health Risk Assessment



The Port of San Diego prepared a Fact Sheet and Frequently Asked Questions, in consultation with the San Diego Air Pollution Control District and the California Air Resources Board, as a supplement to the Health Risk Assessment (HRA) to clearly communicate the analysis methodology, emissions data analyzed, and the resulting estimated health risks associated with operations of the Tenth Avenue Marine Terminal, National City Marine Terminal, and the transbay commuter ferry.

HRAs are an important tool for estimating health effects from various emissions sources and to track progress of emission reduction strategies. HRA results can help identify and prioritize future emission reduction strategies that reduce emissions and lower health risks in our community.



Maritime Industrial Impact Fund

The Board created the Maritime Industrial Impact Fund (MIIF) in July 2010 in recognition that certain communities may be subject to disproportionate adverse impacts and constraints because of the presence of the Port's maritime industry and terminals. The MIIF pays for projects off Port tidelands to mitigate impacts from the Port's industrial waterfront.

In 2023, the Board of Port Commissioners increased the funding formula for the MIIF from 0.5% to 2% of annual gross maritime industrial revenue. At that rate, it's estimated that more than \$4.8 million will be directed into the MIIF over the next six fiscal years.

LONG-RANGE PLANNING EFFORTS



Port Master Plan Update (PMPU):

The PMPU is the first comprehensive effort to update the foundational Port Master Plan. The Port continues to engage stakeholders and is in the process of finalizing the written responses to comments received on the Draft PMPU, and its associated Draft Program Environmental Impact Report (PEIR). The Final PEIR and Final PMPU are anticipated to be presented to the Board of Port Commissioners for approval in late 2023.



Trust Lands Use Plan: The Port is preparing a Trust Lands Use Plan (TLUP) for the submerged lands granted to the Port's management from State Lands per Senate Bill 507. A Discussion Draft of the TLUP was released in July 2023, and the Port anticipates presenting the Draft TLUP to the Board in Fall 2023 and requesting direction from the Board to submit the Draft TLUP to State Lands to be followed by a comprehensive environmental and coastal review process.



Pepper Park: In early 2023, the Port completed the schematic design for improvements to the existing park and a 2.5-acre expansion of Pepper Park. This redesign, which is possible with \$3.85 million from the 2021 American Rescue Plan Act, \$2 million from the Port's Balanced Capital Program, and \$250,000 from Austal USA, is the result of extensive public outreach that included over 400 participants, including virtual and in-person design workshops, "pop-up" workshops, and receipt of over 300 online surveys. Workshops were held in English, with simultaneous translation in Spanish and Tagalog. The Port anticipates commencing construction of the improvements to the existing park in early 2024.

National City Bayfront Projects: The Board of Port Commissioners certified the Final Environmental Impact Report (EIR) for the National City Bayfront Projects (which included environmental review of the National City Balanced Plan, plus other nearby projects) in November 2022. The National City Balanced Plan is a "win-win-win" for the community, tenant businesses, and the Port.

Free Ride Around National City

The "Free Ride Around National City," or FRANC, is a proposed Neighborhood Electric Vehicle program being created by the City of National City to tie together destinations in central and west National City, including the National City Bayfront. In July 2023, the Board of Port Commissioners approved a Memorandum of Understanding with the City, for the Port to provide \$400,000 from the Port's Maritime Industrial Impact Fund to the FRANC program. The FRANC will expand affordable travel options while improving air quality and public health through reductions in greenhouse gas emissions and criteria pollutants. The FRANC program is anticipated to operate seven days/week, beginning Labor Day 2023.

BLUE ECONOMY AND AQUACULTURE



Blue Economy Incubator

The Port's Blue Economy Incubator (BEI) assists in the early development and initial scaling of sustainable aquaculture and Port-related blue technology ventures. \$1.7 million has been invested to date and some highlights from this year include:

Sustainable Seaweed Aquaculture

The Port reinvested in an expansion of Sunken Seaweed's pilot which enables the company to build and continue its research on ecosystem services in San Diego Bay, while expanding their farming operations to Humboldt Bay where they will benefit from shoreside facilities to help them reach market scale. Sunken Seaweed, an aquaculture start-up company, joined the Port's BEI to demonstrate the feasibility of seaweed aquaculture in San Diego Bay. Since 2018, the company has been successfully cultivating, outplanting, growing, monitoring, and harvesting several species of seaweed native to Southern California. Beyond commercialization, results from the pilot project are helping assess and quantify seaweed aquaculture's multiple co-benefits, from carbon sequestration and bioremediation to improving water quality and ecosystem productivity.



Sediment Remediation in Marine Environments

Final data has been received from the 2020 pilot project with ecoSPEARS. Earlier this year 450 SPEARS were retrieved from three different locations around the bay and evaluated by the company and third-party laboratories to measure the mass of PCBs collected. The pilot was designed to demonstrate the effectiveness of the company's in-situ soil remediation technology to extract legacy contaminants from impacted marine sediment. The final report has been received by the Port and is under review for verification.

Port Supporting Shellfish And Seaweed Aquaculture



NOAA Emissary and TV icon Al Roker, came to San Diego to learn more about the BEI and how the Port is supporting shellfish and seaweed aquaculture. During his visit, which was showcased during a 2023 NBC "Climate Today" series, Mr. Roker sampled a variety of culinary seaweeds and enjoyed shellfish and seaweed prepared by a local chef, and explored the topics of sustainable aquaculture and localized food production

EDUCATION AND OUTREACH



The Port's award-winning Environmental Education Program supported 12 local organizations providing unique and innovative curriculum to over 33,150 students during the 2022-2023 academic year. Students participated in hands-on learning experiences addressing pollution prevention, watershed management, and protection of natural resources connected to San Diego Bay.



MICHELLE WHITE ENVIRONMENTAL AWARDS

Each year the Port honors environmental champions through the Michelle White Environmental Awards. For eleven years, Michelle was an important and influential member of the Port family and created the annual Green Port Month celebration. She brought contagious enthusiasm to her work which resulted in numerous and significant contributions to the region's environmental legacy. As a way of celebrating employees and partners who embody the spirit of Michelle's service at the Port, we honor the following individuals. These people bring passion and zest to their daily work, much in the way Michelle did.

This Year's Recipients are:

Port Staff:

Windee Freireich—Marketing and Communications

Thomas Hahn—General Services

Caroline Hobbs—Government and Civic Relations

Jerome Lemons—General Services

Jennifer Spearel—Harbor Police Department

Port Tenant:

Shelley Griffin—Bay Club Hotel and Marina

Regional Partners:

Chris Helmer—City of Imperial Beach

California State Coastal Conservancy

