NAVAL BASE SAN DIEGO, CA

2021 SECRETARY OF NAVY ENVIRONMENTAL AWARDS NOMINATION
SUSTAINABILITY - NON-INDUSTRIAL INSTALLATION

INTRODUCTION

Naval Base San Diego Complex (NBSD) includes the Main Base (Wet and Dry Side) along Harbor Dr. from Barrio Logan to National City, the San Diego Broadway Complex, the Admiral Baker Golf Course, Recreation Center and RV Park, the Naval Medical Center San Diego Complex, Naval Facilities Engineering Command Southwest Headquarters, and 18 family housing sites. NBSD occupies approximately 1,600 acres of land and 326 acres of San Diego Bay, including 12 Piers and 2 channels offering 56,000 feet of berthing. NBSD has an on-base population of over 35,000 military and civilian personnel, and 15,000 registered contractors supporting the Surface Navy's mission. NBSD Main Base is divided into two distinct areas: the Wet-Side where the ships are moored along the waterfront, and the Dry-Side where most of the community facilities are located. NBSD is homeport to more than 60 ships and over 200 tenant commands including ships that fall under the Military Sealift Command and Maritime Administration. NBSD also provides mooring for visiting U.S. Coast Guard vessels. NBSD provides critical services to the fleet, fighter and their families, including housing, security, public works, environmental, supply, and administrative facilities for tenant units.

San Diego is America's sixth largest city and has become home to technology, telecommunications, and biotechnology companies. San Diegans take tremendous pride in their community and the local environment. In the spirit of community partnership, NBSD is a vigilant caretaker of its property, steadfast in compliance with environmental laws and regulations. NBSD has assumed this responsibility with an aggressive compliance oversight program and has developed relationships with San Diego's elected officials and the regulatory community.

BACKGROUND

Environmental Program: The NBSD Environmental Office oversees regulatory compliance for all activities at NBSD. Environmental Office personnel report to the Installation Environmental Program Director (IEPD), who in turn reports to the NBSD Public Works Officer (PWO) for environmental compliance. The Commanding Officer has established NBSD's environmental policy. The goals of this policy are achieved through a system of inspections and training as part of NBSD's Environmental Management System (EMS).

In order to support fleet activities multiple regulated practices are overseen by the NBSD environmental office. These regulated activities include: 73 San Diego Air Pollution Control Board (APCD) permitted sites and/or equipment, 39 San Diego County Department of Environmental Health permitted hazardous waste (HW) collection sites, a Part B permitted RCRA Hazardous Waste Facility, a Conditionally Authorized Bilge and Oily Waste Treatment Facility, various underground storage tanks (USTs), and multiple facilities whose waste discharges are permitted under National Pollution Discharge Elimination System (NPDES) permits.

Sustainability Program: It is NBSD Installation Commanding Officer (ICO) policy to achieve sustainability by ensuring that pollution is prevented or reduced at the source whenever feasible; mandating recycling for all NBSD activities; conservation of energy and water resources; and continual review of existing operations and processes for opportunities to use new technologies and Low Impact Design construction methods.

SUMMARY OF ACCOMPLISHMENTS

LIVABLE COMMUNITIES, MASTER PLANNING AND GREEN BUILDINGS

Broadway Complex Redevelopment: In 2020, NBSD completed a major move of Navy Region Southwest (NRSW) and Naval Facilities Engineering Systems Command Southwest (NAVFAC SW), from their headquarters in in Building 1 Broadway Complex and 1220 Pacific Highway Complex into a newly constructed administrative building. NRSW divested from the 12-acre Broadway Complex property, which was originally granted to the military in 1920 for the Navy Supply Center. The project replaces NRSW Headquarters and numerous parking lots with seven buildings totaling 3 million square feet across eight city blocks. NRSW footprint was reduced to a new state of the art environmentally-green New Building 1. As part of the shutdown and demolition of the complex, NBSD utilized multiple reuse and recycling measures to divert hundreds of thousands of pounds of waste from the local landfill and save over three million dollars in new equipment and furniture procurement costs. Reuse and recycling efforts included:

- *Furniture Reuse* - 11,003 Furniture/Equipment/Supplies items, with over $3M value, if purchased new, were transferred to Fleet units, resulting in cost avoidance redirected to support critical fleet and mission operations.
- *E-waste* - 11,731 electronic items, with a value of $261,225, were transferred to Defense Logistics Agency (DLA) Disposition Services (formally DRMO). This initiative allowed DLA to recover valuable materials from old electronics to be repurposed or used to create new products, saving energy, reducing pollution and greenhouse gas emissions, and saving natural resources.

- *Paper Shredding* - 67,305 lbs. of paper was shredded. This facilitated the conversion of waste materials into new products and helped lower greenhouse gas emissions as well as reduced landfill space.
- *Purge and Metal Recycling Events* - Broadway complex hosted a total of 8 Purge Events and 13 Metal Recycling events where 245,946 lbs. of metal was collected and recycled, generating $6,785.50 for the Recycling program, and reducing landfill waste.
- *HAZMAT Events*- Hazardous materials collection events and reclamation efforts helped avoid environmental hazards by properly disposing of 3,744 lbs. of hazardous materials.
- *Appliance Transfer Events* - Four Appliance Pickup events collected at least 75 appliances for reuse by other commands.

USS Bonhomme Richard (LHD 6): On the morning of July 12, 2020, a fire broke out on board USS Bonhomme Richard (LHD 6) while it was in a maintenance availability on NBSD at pier 2. The fire lasted for five days and was the worst fire witnessed at NBSD in its 100-year history. As NBSD personnel, FEDFIRE and firefighting teams from multiple afloat and ashore commands fought the fire, NBSD Environmental personnel provided 24-hour support that included on-scene monitoring, coordinating with state, local and regulatory agencies, ensuring appropriate environmental controls and mitigations were in place and escorting representatives from various agencies to view the impact of the fire on the local environment. Additionally, NBSD Water Program staff worked closely with the City of San Diego to obtain authorization to divert water from the fire to the City's wastewater system, effectively saving the NBSD over $3 million is hazardous waste disposal costs.

Avoiding Power Outages: The City of San Diego avoided planned power outages in various communities including Barrio Logan during the 2020 heat wave due to NBSD and NRSW leadership coordinated removal of 22 ships from shore power. The State of California declared a state of emergency, and NBSD based ships were taken off the grid, shifting them from pier-connected shore power to shipboard power, significantly reducing the strain on the San Diego electrical grid. NBSD efforts are estimated to have saved almost three million kilowatt hours of electricity.

Naval Vessel Cold Ironing: NBSD cold irons all US Navy vessels that are homeported at the installation. Cold ironing of ships refers to ships relying on ship-to-shore power and shutting down their main and auxiliary diesel-fueled engines. NBSD is unique to the San Diego portside community, as the US Navy is the only organization that cold irons all in port vessels. The U.S. Environmental Protection Agency estimates that under certain circumstances, a vessel connected to shore power can reduce overall pollution emissions up to 98% when utilizing power from the regional electricity grid. For example, at NBSD, cold ironing of a littoral combat ship (LCS) for 1,000 hours reduces emissions of oxides of nitrogen (NOx) and diesel particulate matter (PM) emissions by approximately sixty-five and three tons, respectively. For all ships home-ported at NBSD, the NRSW estimates an annual reduction of total emissions of 4,174 tons of NOx, 394 tons of SOx, 250 tons of CO, 75 tons of PM, and 69.5 tons of diesel PM due to cold ironing.

Reduction in Traffic Emissions: NBSD has been able to reduce emissions from vehicular traffic through various programs and policies. NBSD supports the Federal Transportation Improvement Plan (TIP) & San Diego Association of Governments (SANDAG) iCommute

Programs, which provide a direct reduction in vehicular motor traffic via use of public transportation and vanpool options. NBSD TIP Coordinators market the program to all Sailors on station, newly arriving Sailors to the city, and Sailors within San Diego to maximize TIP and Vanpools. NBSD has deployed additional Sailors and increased throughput at gates during peak traffic hours to help reduce traffic congestion and reduce queuing delays. In addition to increased gate throughputs, NBSD has also restricted Sailors (E-4 and below) from driving onto base during peak morning commute hours to reduce traffic congestion. NBSD is also exploring innovative ideas within existing housing areas to maximize the Federal TIP program, positively impacting Navy Family quality of life and community sustainability goals.

Storm Water Pollution Prevention (SWPP) Training: NBSD environmental team provides SWPP training events to NBSD tenants in order to ensure SWPP measures are implemented to reduce discharge of toxic metals and chemicals into San Diego Bay. Events include:

- Monthly training to hazardous waste coordinators.
- Quarterly training to Municipal Separate Storm Sewer System (MS4) building monitors.
- In-Field training is provided to facility points of contact during Quarterly Industrial Visual Facility Inspections (QIFVIs), Annual Comprehensive Site Compliance Evaluation (ACSCE), and MS4 facility inspections.
- NBSD Environmental Waterfront group provides daily training to ship force and contractors related to storm water BMP implementation.

Water Quality Special Projects: In addition to existing storm water treatment units installed on base, NBSD Environmental continues to gather data and evaluate new technologies available to improve water quality at industrial areas. The following treatment units or low impact development best management practices are in place or planned for installation at NBSD:

- **Storm Water Filtration Units:**
  - Pier 10
  - Pier 12
  - Channel Lane for Outfall 33
  - Channel Lane for Outfall 35
  - Recycling Center

- **Bioswales:**
  - Child Development Center
  - Regelin Hall
  - Commissary Parking Lot
  - Navy Federal Credit Union Parking Lot

- **Pacific Beacon Detention Basin**

NBSD is leveraging the industrial storm water-monitoring program to collect influent samples concurrently with the effluent compliance samples at storm water filtration units to evaluate the effectiveness of existing filtration units at removing pollutants. The data is being used better inform maintenance schedules and the selection of filtration units for future projects.

NIWC Pulse Exposure Toxicity Study: NBSD participated in the Naval Information Warfare Center (NIWC) Pacific Pulse Exposure Toxicity Testing Study. The objective of this project was to derive, demonstrate and validate a standardized environmentally relevant and scientifically defensible exposure design for laboratory toxicity testing (i.e. whole effluent toxicity; WET) to assess impacts to receiving waters from episodic discharges such as storm water runoff. Concurrent in situ testing was performed in the receiving environment to validate the representativeness and protectiveness of the new proposed laboratory-based methodology in both the receiving water and sediments. The project team is in the process of developing a test method user's guide for pulsed exposure methodology and will seek approval from Regional Water Boards for inclusion in National Pollutant Discharge Elimination System (NPDES) permits. The goal is to provide a methodology that is scientifically defensible and sufficiently conservative to the nature (i.e., duration) of the toxicity exposure required in Navy-held NPDES permits, increasing the likelihood for compliance while ensuring protection of San Diego bay water quality.

Other NIWC and Navy Environmental Sustainability Development to Integration (NESDI) Program recent and ongoing projects supporting NBSD & NAVFAC SW: In addition to support from NIWC, NBSD is utilizing NESDI projects to find innovative technologies, processes, materials, and to minimize operational environmental risks, constraints, and costs, while ensuring Fleet readiness. Examples include:

- Annual Sediment and Water Monitoring.
- Evaluation of the effectiveness of low-cost sweepers to clean piers and reduce pollutant concentrations in storm water samples.
- NBSD In-pipe, Storm Water BMP. An in-pipe BMP prototype was deployed and tested during storm events at NBSD during the 2019 and 2020. The initial results are promising and this BMP technology may be another important tool available to storm water program managers to help achieve compliance with NPDES permits and sustain water quality in the receiving waters.
- Navy Exchange Area storm water monitoring.
- In-situ automatic storm water sampling device for use at tidally impacted sampling locations.
- Flexible under pier sediment assessment.
- Background analysis and tracer study to identify metal contaminant source contributions to storm water runoff.
- Contaminant monitoring and mapping for informing storm water best management practices.

COMPLIANCE WITH E.O. 13834

AB 617: Assembly Bill 617, signed into law in July 2017, required the Air Resources Board (ARB), in consultation with air districts and other stakeholders, to select priority locations around the state with the highest cumulative exposure burden for criteria pollutants and toxic air contaminants for the development of community air monitoring systems and/or preparation of community emissions reduction programs. The law established several criteria for community

selection, including prioritization or disadvantaged communities and sensitive receptor locations. The ARB selected an initial list of communities in September 2018. Two communities that have self-selected themselves to be nominated are Barrio Logan (Portside Communities) and Otay Mesa/San Ysidro Border Crossing. Base and Region staff have attended several workshops and are contributing information to support development of a Community Emissions Reduction Plan.

Traffic Reduction Initiatives: Mobile source emissions were cited as the primary source of criteria pollutants and toxic air contaminants in the AB 617 self-nominated communities. Moreover, the the population of SD County is planned to grow by 500,000 (including military population numbers) by 2050. NBSD is proactively partnering with local communities to improve transportation in and around NBSD.

Commute with Enterprise Van Pool Service: NBSD has partnered with Enterprise Car Rental to establish a vanpool service. Benefits thus far include CO2 Emission Reductions to date of 2,017,386 lbs., and Approximately 2,581,807 commuter miles saved on San Diego roads.

EDUCATION, OUTREACH, AND PARTNERING

Community Involvement: NBSD has established partnerships with the communities of San Diego, Barrio Logan, City of National City, City of Chula Vista, and other community organizations. Working relationships have been established with various San Diego waterfront organizations including the Port of San Diego, General Dynamics/NASSCO, Marine Group Boat Works and BAE Systems.

In an effort to improve mutual understanding, the Installation Commanding Officer, (ICO) has hosted leaders from neighboring communities and shared information about the positive role the Navy plays in the community. NBSD understands that addressing community concerns is critical to building trust. The following are examples of environmental partnerships with various outside agencies, non-governmental organizations and compliance partners:

- NBSD is actively involved with the implementation of the AB 617, a wide-reaching program, and contains many complementary components, in Barrio Logan, a community that borders NBSD. Due to AB 617 Communities may be designated for a Community Emissions Reduction Plan (CERP), a Community Air Monitoring Plan (CAMP), or both. These plans are developed in close collaboration with the community, through Community Steering Committees. NBSD's PWO is working with the APCD to install an air quality-monitoring unit on NBSD to monitor air quality in and around the surrounding community. NBSD representatives participate in the community steering committees to discuss ways to improve quality of life through environmental sustainability.
- NBSD executes annual Oil Spill Exercise in coordination with Navy Region SW Navy On-Scene Coordinator (NOSC), U.S. Coast Guard, external agencies such as State Fish and Game, U.S. Fish and Wildlife and local industry. This exercise establishes close coordination with local communities to ensure rapid response resources will be available in the unlikely event of a major oil spill scenario, in order to ensure vital resources are protected

Chollas Creek Trash Cleanup: NBSD conducts a cleanup of Chollas Creek to prevent trash from making its way into the San Diego Bay from upstream sources. The base collects everything from plastic bottles to tires and wooden crates, which gather behind the booms just a few hundred feet from the San Diego Bay. NBSD collaborates with the City of San Diego to clean up Chollas and Paleta Creeks prior to their discharge into the bay. This partnership prevents more than 10,000 pounds of waste from entering the San Diego Bay annually and supports U.S. Navy environmental stewardship initiatives.

Rideshare: NAVBASSANDIEGOINST 5530.2B has been revised to allow issuance of DBIDS access credentials to taxicabs, rideshare, limousine and shuttle drivers. Vehicles will display company logos and rideshare drivers shall show their "app/phone" verifying customer request for service and pick up location.