

**2024 SECRETARY OF DEFENSE ENVIRONMENTAL AWARD  
ENVIRONMENTAL QUALITY – NON-INDUSTRIAL INSTALLATION  
MARINE CORPS BASE HAWAII**

**INTRODUCTION**

Marine Corps Base Hawaii (MCBH) stands as a testament to the unwavering dedication and exceptional service of its personnel and was created in 1994 to consolidate Marine Corps assets in Hawaii. MCBH consists of 2,951-acre Mokapu Peninsula (MCBH Kaneohe Bay); 220-acre Camp H. M. Smith; 137-acre Pu‘uloa Range Training Facility; 27-acre Pearl City Warehouse Annex; 63-acre Manana Housing Area; 187-acres of Waikane Valley, and 1074-acre Marine Corps Training Area-Bellows (MCTAB), all on the Island of Oahu. On Molokai, MCBH controls a 12-acre training facility. This diverse landscape serves as the backdrop for the base's vital mission: to sustain combat readiness for its operating forces and tenants while providing for the well-being, morale, and safety of its nearly 18,000 personnel, including 9,235 active-duty Marines and Sailors alongside their 6,441 dependents, 1,917 dedicated civilian Marines, and 334 valuable contractors.

MCBH Kaneohe Bay’s location within the Ko‘olaupoko District of windward Oahu presents a unique operational environment. Dramatic tropical landscapes, steeply contoured drainage basins, and diverse ecosystems paint a vibrant picture of the region. This rich natural setting necessitates a keen commitment to environmental stewardship, a principle woven into the very fabric of MCBH's operations. The base actively collaborates with state and federal agencies to conserve and protect endangered species, manage invasive species, and ensure the sustainability of its precious natural resources.



*MCBH Kaneohe Bay. In the foreground, Ulupa'u Crater Live Fire Range; Kaneohe Bay lies in the background separating the MCBH peninsula from the cities of Kane'ohe and Kailua.*

Beyond its physical borders, MCBH fosters strong partnerships with the surrounding communities. The base actively engages in outreach programs, educational initiatives, and cultural exchanges, promoting mutual understanding and appreciation.

This collaborative spirit has woven MCBH into the tapestry of the Hawaiian community, solidifying its position as a vital member and valued neighbor.

**BACKGROUND**

Within this complex tapestry, the MCBH Environmental Compliance & Protection Division (ECPD) stands as a pillar of environmental responsibility. ECPD comprises a dedicated team of professionals, including environmental scientists, engineers, planners, and specialists, united by a shared commitment to protecting the island's ecological treasures and safeguarding human health.

Their mission is clear: to provide the most efficient and effective support for MCBH operations while maximizing environmental protection. This unwavering dedication manifests in several key objectives:

1. **Enhancing Training Opportunity and Availability:** ECPD works tirelessly to identify and implement innovative solutions that enhance training opportunities for Marines and Sailors while minimizing environmental impact. This includes developing innovative training grounds, utilizing advanced simulation technology, and continuously refining training protocols to ensure both mission readiness and environmental protection.

2. **Reducing Risks to People and the Environment:** By implementing proactive environmental management practices, ECPD minimizes the potential for environmental damage and ensures the health and safety of all personnel at the base. This includes proactive pollution prevention measures, strict adherence to environmental regulations, and ongoing risk assessment and mitigation strategies.
3. **Enhanced Endangered Species Protection and Recovery:** Recognizing the vital role endangered species play in the delicate ecological balance of Hawaii, ECPD actively participates in conservation and recovery efforts. This includes collaboration with federal and state agencies, implementation of habitat restoration projects, and continuous monitoring of endangered species populations.
4. **Building Strong Community and Regulatory Partnerships:** ECPD understands the importance of collaboration in achieving its environmental goals. By fostering strong relationships with community members, environmental advocacy groups, and regulatory agencies, ECPD ensures transparent communication, efficient problem-solving, and a shared commitment to environmental well-being.
5. **Cutting Operational Costs:** Recognizing the need for fiscal responsibility, ECPD strives to implement cost-effective environmental solutions. This includes leveraging technology, promoting energy conservation, and identifying opportunities to reduce waste and optimize resource utilization.

Military operations throughout Hawaii for all service branches face significant regulatory and public perception challenges since the petroleum release from the Red Hill storage facility impacted drinking water systems in 2021. The incident and subsequent actions eroded trust with regulatory agencies and resulted in increased scrutiny of all DoD operations in the state, making it harder to obtain permits and approvals for future projects. However, through dedicated efforts by ECPD, the U.S. Marine Corps remains a model for environmental stewardship and cooperation within Hawaii. As MCBH looks towards the future, the ECPD remains steadfast in its commitment to continuous improvement and innovation. By utilizing new technologies, exploring sustainable practices, and fostering a culture of environmental awareness, MCBH will continue to serve as a beacon of environmental responsibility, ensuring the enduring beauty and ecological health of this island paradise for generations to come.

### **Outreach and Education**

Environmental Quality efforts start with educating and raising environmental protection awareness of our communities both internal and external to the installation. In FY23, MCBH contracted outreach services dedicated to promoting sustainable protection of the environment, regulatory compliance, and natural and cultural resource preservation and awareness. Outreach involved contacting tenant commands, Marine Corps Community Services (MCCS) organizations, military police, schools, and more. The extra capability promoted a larger educational outreach and allowed the ECPD to coordinate 12 service projects with (171 volunteers providing 567 hours of work), attend 7 outreach and information fairs reaching over 1200 people, provide 19 environmental briefs to 703 people, and give 2 tours (cultural resources bike tour, Audubon society bird walk) and educated 43 kids in a day long program with DEFY (Drug Education for Youth).

Educating the youth on the environment has been a focus to help foster a passion for environmentalism that will last a lifetime. ECPD coordinated an earth day poster contest with 18 students participating. Student winners received environmental coloring books, planters, and nature activity books. ECPD



*Beach cleanup efforts on-base have removed thousands of pounds of debris from critical species habitats.*

provided an entire day of environmental education to the youth program DEFY encompassing natural resources, stormwater management interactive display, and beach cleanup with 43 students. ECPD participated in two STEM Fest nights at Mokapu Elementary School, reaching over 200 students and playing a recycling relay race to promote sorting trash from recyclables and green waste in the home and shared an interactive stormwater and run off display. In total ECPD reached 271 school-aged children in FY23.

Ahead of fourth of July weekend ECPD had an outreach campaign to share the base's fishing regulations. A poster with a QR code for the fishing webpage was shared around base at popular beaches and the marina to spread awareness on the laws and regulations for fishing on base. Due to this campaign the Fishing webpage moved to the

top 25 page views for all MCBH in 2023. In a 7-day period, ECPD had 30 downloads of the Fishing regulations, and 128 unique page views for an average of 10 minutes each.

Weed Warriors service projects continues to remove invasive species from endangered species habitat in the aids in Nu'upia Ponds, Fort Hase Beach, and at Camp Smith. In FY22 ECPD had 41 participants that provided 191 man-hours of work. In FY23 ECPD had significant participation increase to 128 volunteers that provided 493-man hours of work in our critical habitat for protected water birds! Due to the creation of a volunteer email list, the program had a 212% increase in volunteers and a 158% increase in total man hours from FY22 to FY23. Throughout these activities, volunteers are exposed to outreach messaging that they are encouraged to take and share.

Operation Clean Water 'Ohana is a new volunteer opportunity for the base community to help label storm drains around base housing and clean up any trash in the neighborhoods that was started in FY23. ECPD held two events totaling in 43 volunteers and 74 man-hours. As a result of these events, an additional 84 storm drains were labeled in the base housing community. Participants received an informational talk on the importance of stormwater management and the effects of run off on the local water ecosystems, as well as received information on wetlands and point source pollution.

### **Clean Water Act Programs**

MCBH Kaneohe Bay maintains two National Pollutant Discharge Elimination System (NPDES) permits issued by the Hawaii Department of Health (HDOH) to regulate its stormwater and wastewater discharges. These permits require MCBH to implement comprehensive programs to protect the quality of local waterways and comply with stringent water quality standards. Through dedicated efforts and innovative solutions, MCBH has made significant progress in achieving these goals, as outlined below:

Stormwater Program: On August 11<sup>th</sup>, 2022, MCBH entered into a compliance agreement with the U.S. Environmental Protection Agency (EPA) to improve the stormwater program at MCBH Kaneohe Bay. In the thirteen months since this agreement MCBH has:

- Trained 170 Environmental Compliance Coordinator's (ECCs) on stormwater management and preventing illicit discharges.

- Surveyed and inspected a large portion of the assets associated with the stormwater Municipal Separate Storm Sewer System (MS4) including 52 outfalls and discharge points, and over 80% of the curb inlets and manholes on MCBH. Survey data will be incorporated into a GIS based management system to establish a routine inspection and maintenance program.
- Relabeled over 250% of the required storm drains in accordance with the compliance agreement, consisting of 128 storm drains or approximately 50% of MCBH.
- Developed and implemented a comprehensive Storm Water Management Plan (SWMP) outlining the requirements for the stormwater program, including a Post-Construction Best Management Practices (BMP) manual, a trash reduction plan, construction field manuals, BMP fact sheets and more.
- Implemented site-specific Stormwater Pollution Prevention Plans (SWPPPs) for the 26 industrial sites listed in the base's NPDES MS4 permit and trained the respective ECC's on the sampling, reporting and compliance requirements.
- Created a tracking and management system for all commercial, industrial, and construction sites on MCBH properties. To include inspection of 100% of the commercial, industrial, and construction site.
- Managed 49 NPDES general construction, dewatering, and hydrostatic testing permits for construction projects on Marine Corps properties.
- Screened 112 construction projects for suitability for BMP Retrofit.
- Completed a comprehensive third-party audit of the stormwater program, including MCBH's compliance with the NPDES MS4 permit and EPA compliance agreement that did not identify any critical or major deficiencies.

Wastewater Program: On May 6<sup>th</sup>, 2022, MCBH received a Notice of Violation and Order (NOVO) from the HDOH for exceeding NPDES permitted effluent limits for enterococci bacteria and failing to report the exceedances in a timely manner. Since receiving the NOVO, MCBH has taken extensive steps to improve wastewater effluent quality and to reestablish direct and open lines of communication with State regulators. Major accomplishments include:

- Design of new, fully redundant, wastewater treatment facility that will reduce enterococci concentrations by more than 99%. The new system will also be capable of diverting over one million gallons, or approximately 40% of treated effluent for irrigation reuse at the on-base Klipper golf course.
- No reportable effluent exceedances or permit violations for 19 consecutive months beginning in March 2022 and continuing through FY23, despite extensive ongoing construction projects at the MCBH Water Reclamation Facility (WRF) designed to address aging equipment and facilities.
- Positive feedback from State regulators during a FY23 compliance evaluation inspection regarding MCBH's efforts to sustain and upgrade effluent quality and compliance.
- Tentative settlement with HDOH to reach full compliance with 2022 NOVO, including the development of Supplemental Environmental Proposal (SEP) that increases the WRF's recycled water production capabilities, in lieu of a \$240,250 monetary penalty.
- Bio-solid management at MCBH employs a cradle-to-grave approach while maximizing efficiency and eliminating cost. During CY21-22, a total of 286 tons of dried bio-solids generated at the WRF were disposed of at the sanitary landfill on base. Disposing of the biosolids at the landfill allows the bacteria to increase the rate of decomposition, speeding up microbial decay by a magnitude of years.

Spill Response Program: In addition to MCBH's NPDES permits, ECPD maintains a robust spill response program to protect aquatic resources in Hawaii. Due to MCBH's geographic location, an oil or hazardous substance spill could result in severe damage to human health, the local economy, public support, and the surrounding ecosystems that include sensitive coral reefs and endangered marine animals. The ECPD Spill Response has a dedicated spill hotline for dispatch of spill response personnel to any incident site. The type of discharge, responsible party, the appropriate response, and follow up activities are tracked in a spill database. ECPD conducts annual spill management training, exercising the MCBH Integrated Contingency Plan (ICP) and the Hawaii Contingency Plan.



*MCBH conducts spill response training with community and regional partners.*

ECPD has taken significant preemptive precautions to protect state waters by placing spill containment boom around critical stormwater outfalls in the event of release. Although no spills have occurred since their placement, regulatory officials from HDOH and the Environmental Protection Agency (EPA) have praised this protective approach and suggested it as a model program to be implemented at other critical sites within Hawaii.

Overall, MCBH's Clean Water Act programs have made significant progress in improving water quality and protecting public health. By overcoming regulatory and community challenges, the programs have set a strong example for other communities to follow.

### **Safe Drinking Water Act Program**

As discussed previously, the quality of drinking water in Hawaii, and especially on the island of Oahu, is a particularly sensitive issue given the release associated with the Red Hill fuel storage facility. Despite the regulatory and public scrutiny, MCBH has maintained its public water supply in full compliance of all drinking water quality standards for FY22-23. MCBH receives water from the Hawaii Board of Water Supply and includes secondary disinfection before delivering to on-base customers. MCBH also independently tests the incoming water supply for lead and copper, disinfection bi-products, total coliform bacterial, Escherichia coli bacteria (E-Coli) and asbestos on a routine basis. ECPD prepares an annual Consumer Confidence Report that summarizes water quality, sampling efforts, and the state of regulations for the year. In FY23, ECPD revised the CCR format to be more informative and easier to understand for all parties receiving it.

### **Solid Waste Management and Recycling Efforts**

MCBH maintains a Solid Waste Management permit issued by HDOH to regulate its on-base landfill and diverts as much solid waste as possible through its aggressive Qualified Recycling Program (QRP).

Solid Waste Program:

- For the reporting periods between July 2021 and June 2023, MCBH processed 4,894.70 tons of trash at the on-base landfill, including 484 tons of green waste and 273.30 tons of sludge generated at the WRF. By using wood and green waste as an alternate daily cover at the landfill, the demand on soil from borrow pits has been eliminated. MCBH has generally exceeded the DoD C&D waste diversion goal of 60%.

- Fill material originating from on-base construction projects is not accepted without first being certified as clean following sampling and analysis. The newly developed soil control program at MCBH allows significant cost-avoidance for landfill operations, with only minimal clean fill needing to be purchased in FY22-23, providing enhanced pollution prevention, ensuring unknown contamination is identified, while minimizing costs.



*Expended small arms cartridge casings (ESACC) is emptied from a storage bin into a brass deformer while a QRP employee monitors the process.*

#### Qualified Recycling Program:

- MCBH's Qualified Recycle Program (QRP) continues to excel, exceeding previous benchmarks and solidifying its leadership in environmental stewardship. In FY22-23 the recycling center collected wood, appliances, aluminum cans, plastic and glass bottles, cardboard, white paper, newspaper, and steel for recycling. Processing over 1,644 tons of recyclables and generating substantial revenue (approximately \$987,411 over the period), the program reinvests funds to sustain and improve the QRP. By implementing innovative initiatives, and fostering collaborative partnerships, the program diverted an impressive 46% of all materials from the landfill, a significant achievement that

underscores its commitment to resource conservation.

- MCBH's leadership extends to brass recycling, a critical area where it remains the only government program in Hawaii. MCBH developed a successful, cooperative DOD partnership for expended small arms cartridge casings (ESACC) recycling with U.S. Army Garrison Hawaii (USAG-HI). MCBH keeps 50% of the proceeds from the sale of USAG-HI ESACC (brass). In FY23, MCBH signed a new agreement with U.S. Air Force 647 Security Forces Squadron (SFS) which allows MCBH to keep 100% of the proceeds from future 647 SFS brass sales. ECPD receives, processes, deforms, and sells the brass and provides specialized Certifier/Verifier safety training to both US Army and US Air Force personnel to ensure safety and compliance of the program. During the FY22/23 reporting period, MCBH processed 224,916 pounds of MCBH expended small arms cartridge casings (ESACC) and 232,815 pounds of Army ESACC. MCBH sold the processed (deformed) ESCACC through the QRP as brass resulting in \$854,698 for MCBH and \$349,855 for the Army.

### **Environmental Management System and Environmental Compliance Evaluation Programs**

MCBH is committed to sustaining, protecting, and preserving the resources entrusted to us. MCBH has achieved environmental excellence with innovative and progressive ideas and is a leader in compliance, pollution prevention, and conservation. MCBH's Environmental Management System (EMS) helps the installation to continue to achieve these milestones. The Marine Corps Environmental Management System is modeled on the cyclic "Plan-Do-Check-Act" approach, a self-correcting system that helps ensure MCBH complies with environmental regulations and continually improves environmental performance. The scope of the MCBH EMS includes all practices and tenants located on MCBH, except those tenants who maintain their own EMS. In these cases, MCBH contacts the respective government agency to confirm they have an EMS in place, confirming it addresses the specific tenant under their responsibility.

The MCBH Environmental Compliance Evaluation (ECE) program evaluates installation and unit environmental compliance. The ECE Program assesses each command's compliance, identifies actions necessary to correct deficiencies, monitors corrective measures, and facilitates continual improvement of environmental compliance and risk mitigation. Between FY22 and FY23, MCBH showed a significant decrease in potential environmental compliance findings, dropping from 42 to 15 internally-identified potential issues. Collectively and individually, the identified findings do not pose an immediate or significant risk to the mission, human health, or the environment. The significant decrease in findings is a direct result of successful compliance efforts made by ECPD staff and Environmental Compliance Coordinators.

## **SUMMARY OF ACCOMPLISHMENTS**

MCBH provides forward-based, sustainable, and secure training and operational support, facilities, and services to enable Operational Forces to accomplish their mission. MCBH has set the standard for proactive and comprehensive environmental stewardship, demonstrating a deep commitment to both operational readiness and community engagement. Through innovative programs and unwavering dedication, MCBH has not only minimized its environmental footprint but also fostered positive relationships with local stakeholders, solidifying its position as a responsible and collaborative partner within Hawaii.

MCBH's environmental leadership has translated into tangible benefits beyond ecological conservation. By prioritizing environmental quality and compliance, MCBH has enhanced operational readiness and strengthened infrastructure resilience, ensuring mission effectiveness in a changing environment.

The Marine Corps Base Hawaii Environmental Compliance and Protection Division is dedicated to meeting and exceeding expectations; *Continual Improvement in the Sustainment of Mission Readiness and a Healthy Environment is Our Goal*. It is our duty to provide efficient and sustainable initiatives for Marine Corps Base Hawaii through functions of compliance, pollution prevention, conservation, installation restoration, training, education, and outreach while contributing to combat readiness of our Marines and protecting human health and the environment. From October 2021 to September 2023, we improved both our mission support and commitment to environmental stewardship across all programs. We appreciate the opportunity to share these accomplishments with you. Mahalo.