FY05 SECRETARY OF DEFENSE ENVIRONMENTAL AWARD
ENVIRONMENTAL QUALITY
NON-INDUSTRIAL INSTALLATION

INTRODUCTION

Mission, Population, and Acreage. Our mission is to provide facilities and services that support combat readiness and promote the well-being, morale, and safety of military and civilian personnel that live and work aboard Marine Corps Base Hawaii. MCBH manages installations on 4,500 acres on Oahu, including Camp Smith, Kaneohe Bay, Marine Corps Training Area Bellows, Manana Family Housing Area, Pearl City Warehouse Annex, and Pu'uloa Range Complex. We support over 25,000 Marines, Sailors, civilian employees and family members working or living aboard MCBH. Over 10,000 retirees regularly access base facilities.

Environmental and Geographical Setting. The richness and sensitivity of natural resources in Hawaii is reflected by the fact that over 25 percent of all endangered species in the United States are found here. Cultural resources significant to native Hawaiians are greatly valued by outspoken advocacy groups. MCBH Kaneohe Bay includes Nuupia Ponds, a protected Wildlife Management area and an eligible National Historic Property, and is the most environmentally sensitive of all MCBH properties. We are surrounded by pristine waters that are of tremendous importance to the lives and livelihoods of many Hawaii residents; consequently, state water quality standards are more stringent than federal ones. Living coral reefs and threatened green sea turtles inhabit these waters, along with endangered humpback whales and Hawaiian monk seals. We face many environmental constraints, such as endangered species habitat, historic sites, digging restrictions and erosion-prone coastlines. Aircraft flight paths are governed by noise impacts and accident risks to adjacent communities totaling 120,000 residents.

BACKGROUND

MCBH has uncommon beauty and biological and cultural diversity. In a remote island state with 25% of the nation's endangered species, we face high waste disposal costs, small recycling markets, strict environmental standards, stiff land/water access competition, and strong environmental advocates. Through partnerships, we cut costs, support training, reduce risks, enhance endangered species, and gain regulator approval and community trust. This is essential for sustaining base operations and providing responsive support to our operating forces to enhance combat readiness, global power projection and quality of life. Environmental compliance and protection is not only the responsibility of the MCBH Environmental Department's 30 civilian and military environmental professionals, but of all of MCBH, its subordinate commands, tenants and personnel. The MCBH Commanding General issued an Environmental Policy statement that is publicly displayed to emphasize senior leadership's commitment to environmental excellence and continual environmental stewardship. In October 2005, MCBH became the first Marine Corps installation to implement an environmental management system (EMS) meeting all USMC, DoD and EO 13148 requirements.

TEAM	PROGRAMS	STAFFING
Pollution Prevention	HAZMIN, HW, EPCRA, P2 Initiatives, Oil and Hazardous Substances	3 civilians and 9 contractors
Compliance	UST, SPCC, Drinking Water, Storm Water, Wastewater, Noise, PCB, Air, Solid Waste, Recycling, Landfill, Installation Restoration	10 civilians
Conservation	Cultural and Natural Resources, NEPA	5 civilians
Sustaining	Emergency Response, Training, Inspectors, Environmental Management System, Budget, GIS, Information Systems	4 Marines and 8 civilians

Environmental Plans and Permits. MCBH keeps plans and permits updated to allow continued, unrestricted base operations. Our plans and permits are listed below with the date of the latest revision:

ENVIRONMENTAL PROGRAM PLANS AND PERMITS			
Pollution Prevention Plan	Jul 05	Storm Water Pollution Management Plan	Apr 03
Spill Prevention, Control and Countermeasures	Aug 05	Hazardous Chemical/Waste Management Plan	Oct 05
Pest Management Plan Update	Feb 06 (ECD)	Integrated Contingency Plan	Dec 05
Solid Waste Management Plan	Jul 03	Landfill Operations Plan	Aug 05
NPDES Permit - Water Reclamation Facility	Feb 02	NPDES Permit for Storm Water	Jan 03
Sanitary Landfill Permit	Jun 03	Noncovered Source Air Permit Renewal Application	Feb 05

PROGRAM SUMMARY – "Basewide Environmental Management System Integration and Sustainability"

Our environmental achievements are worthwhile only if we can sustain these efforts through a successful Environmental Management System (EMS) that is implemented throughout the entire base. MCBH has met its goal to implement an EMS before 31 December 2005. In October 2005, MCBH became the first Marine Corps installation to meet all USMC and DoD implementation criteria to fulfill EO 13148 requirements.

Policy. The Commanding General signed our Environmental Policy, emphasizing senior leadership's commitment to environmental excellence, responsible stewardship, and continual improvements in environmental management.

Goal Setting & Gap Analysis. While we have met all DoD and USMC EMS implementation criteria, we will continue to conduct self-audits to identify gaps and set goals to improve our EMS performance. We conducted our first gap analysis in July 2004 and a self-audit in September 2005 and have developed improvement action items.

Written Implementation Plan. We established an EMS Implementation Plan of Action and Milestones timeline identifying actions and completion dates to implement EMS base wide by 31 December 2005.

Aspect / Impact Analysis. We identified and created an inventory list of the industrial work centers whose practices, products and services have the most impact to our environment. We prioritized each practice/aspect based on its impact to our environment and have set targets and objectives to mitigate these impacts.

Stakeholder Involvement. We rigorously identified all customers/stakeholders and environmental program regulatory drivers to ensure our environmental objectives and targets address all concerns.

Training (Awareness, Executive, and Implementation Team). We provided EMS Awareness training to all Environmental department personnel and established a team to lead MCBH EMS program implementation. We briefed executive staff about EMS and educated them on their roles and responsibilities to assist and support implementation. The EMS Implementation Team completed several phases of EMS implementation courses including Lead Auditor Training and successfully conducted an EMS Review in September 2005. We also provide monthly EMS awareness training to practice owners and on-site contractors.

Management Review Process. We established procedures for our management review process, published it in our MCBH EMS Manual, and conducted our first Management Review in April 2005.

Sustainability. We will sustain our efforts by integrating environmental requirements into all work processes. We revamped our Environmental SOP to provide clearer, more concise instructions for base personnel covering all environmental program areas. We will continue to conduct periodic work center inspections, SOP training, awareness training and specialized training. We have had successes and expect that the best is yet to come.

Objective: Improve compliance with hazardous waste regulations.

- Achievement: Completed DOH compliance assist visit in May 2005, resulting in amnesty from DOH compliance inspections for 6 months

Objective: Minimize use of hazardous material while sustaining mission readiness.

- Achievement: Completed base-wide implementation of HAZMIN in June 2005 (see page 4).

ACCOMPLISHMENTS

Pollution Prevention and Waste Reduction Efforts

Maintaining Permits and Compliance Records. Complying with regulations governing wastewater generation, storm water discharges, solid waste disposal, and air emissions is essential if we are to maintain our full operational capability. We comply with Department of Health (DOH) storm water and Water Reclamation Facility (WRF) NPDES permit discharge limits, solid waste landfill permit requirements, and non-covered air source permit emissions limits, and have received no DOH compliance inspection violations. We submitted a timely application for our air permit renewal and awarded projects to renew our storm water and WRF NPDES permits.

Sampling / Monitoring Techniques.

Permit and Compliance Sampling – We program automatic samplers to obtain storm water samples and wastewater samples at various locations and frequencies specified by our NPDES permits. In addition, we conduct semi-annual illicit connection surveys and facility inspections, promote best management practices (BMPs), and submit annual reports. We completed an extensive air source inventory to quantify the types and quantities of air emissions and are working closely with DOH to renew our air permit. We conduct regular solid waste dumpster inspections to ensure no hazardous waste and excluded materials enter our landfill in violation of our landfill permit. We inspect satellite accumulation areas (SASs) and pollution prevention equipment to maximize our pollution prevention efforts while maintaining compliance with hazardous waste regulations.

Soil and Ground Water Sampling - MCBH conducted soil and groundwater sampling to determine the extent of contamination at 14 former underground storage tank (UST) locations, and through coordination with DOH received "no further action required" at 7 of the sites and developed corrective actions at the remaining sites. We awarded a follow on project to monitor and remediate contamination at the remaining sites and investigate contamination at an additional 3 sites. A comprehensive work plan is currently under review by the DOH.

Operating Plant / Facility Improvements. We awarded $3.6M in design and construction projects to improve aging and inadequate facilities. We continue WRF upgrades to promote optimum efficiency: Influent/effluent pumps have been replaced, and sludge-drying beds are being lined and repaired to improve dewatering efficiency and groundwater protection. We are constructing a CSSG-3 painting/depainting enclosure that will not only reduce air emissions but will also improve vehicle maintenance and corrosion control. We are building containment and diversionary structures for the flight line and marina areas to prevent fuel spills from reaching Kaneohe Bay's class AA waters. We awarded a project to upgrade 7 large capacity cesspools. Upgrades to the flight line's hot fueling pits are currently under design and will include expansion of containment sumps to comply with SPCC regulations. We completed construction of a $700K Hazardous Waste Storage Facility to replace rusting storage sheds.

Process Change / Source Reduction.

Wave Energy Technology (WET) - MCBH partnered with NAVFACPAC/ONR to test and evaluate wave energy conversion buoys installed offshore. The WET system converts ocean wave energy to electrical energy by the oscillation of a tethered buoy connected to a hydraulic system that drives an electrical generator moored on the seafloor. The wave-generated electricity is transmitted to shore by an undersea cable and fed into the Base grid. If tests show that the system is reliable and efficient, MCBH may implement the technology to reduce its dependence on the fossil fuel dependent commercial grid.

Pollution Prevention Initiatives - We realized $12,000 annual savings by installing a NoFoam Unit to eliminate the Aqueous Film Forming Foam (AFFF) waste stream generated during weekly testing of Aircraft Rescue and Firefighting vehicles. We achieved $1,500 annual savings by replacing a methylene chloride dip tank with a fully automated heated paint-stripping tank for aircraft parts. On-site antifreeze recycling yields $6,300 annual savings.

Human Health Considerations.

Spill Response - Transport and storage of fuel is critical to continued base operations and military readiness because catastrophic oil or hazardous substance spills could result in health and ecological impacts, reduced base operations or even base closure. Through annual Facility Response Team Training and weekly spill equipment deployment drills, we train our on-water response team to effectively protect the highly sensitive areas surrounding MCBH. We conduct annual large-scale Spill Management Team Training exercises with the State, City and County, Federal and Coast Guard agencies, and the community to enhance our spill response readiness. Our spill team is recognized as one of the best in DoD and the primary spill response team on the windward side of Oahu.

HAPs, VOCs, and Air Emissions Reduction - Our use of paint gun washers, particle counters for patch testing, steel grit blasters, high volume low pressure (HVLP) paint guns, antifreeze recyclers, plastic blast media (PMB) for paint stripping, aqueous parts washers, and dry filter paint booths reduce or eliminate HAPs and VOCs emissions during painting and depainting, corrosion control, fluid change out, degreasing and surface cleaning.

Drinking Water Protection - We maintain an excellent record of compliance with Safe Drinking Water Regulations and distribute drinking water Consumer Confidence Reports. MCBH also completed a Vulnerability Assessment (VA) to evaluate potential drinking water contamination scenarios and recommend methods to mitigate the risks. We purchase our water from the Honolulu Board of Water Supply, chlorinate and fluoridate it once it enters the base water system, and conduct weekly fecal coliform counts, test for tri-helomethanes and submit reports to DOH.

Recycling Efforts and Accomplishments.

Recycling Brass- MCBH Recycling Center continued their successful cooperative DOD partnership to use our brass deformer to process military shells, market the brass for sale and keep 25% of the revenues received. Other DOD agencies avoid investing in expensive equipment, providing deforming facilities, and training personnel. In FY05, we processed 49,000 lbs. of USMC brass and 120,000 lbs. of Army and Navy brass to earn $79,195.

Recycling Total - In addition to brass recycling, the recycling center collected 558 tons of wood, appliances, aluminum cans, plastic and glass bottles, cardboard, white paper and newspaper and 175 tons of steel. In addition to diverting material from our landfill, the recycle center received $47,662 in revenues for these materials.

Furniture Donations - We researched alternatives and contacted several community organizations to donate church pews from the recently demolished chapel. This diverted approximately 4 tons of wood that would have ended up in the City and County's landfill, earning the gratitude of church groups that were able to reuse the pews.

Recycling Center Employee Conversion - Converted four Non-Appropriated Fund employees to Wage Grade positions in July 05, well ahead of the Sept 05 Headquarters Marine Corps deadline.

Food Recycling – In FY05 diverted 2,821 tons of food from the base landfill by expanding food waste recycling from the Commissary and Enlisted Mess Hall to also include the Officers' Club, Staff NCO Club, Enlisted Club, Food Court vendors and a Chinese restaurant.

Reducing Funds Expended.

Water Conservation - On the densely populated island of Oahu, water conservation is critical to preserving limited drinking water supplies. For over 30 years, MCBH has conserved water by using WRF effluent for golf course irrigation (estimated 2004-2005 savings of 160M gallons or $224,000).

Hazardous Material (HM) Inventory Management - MCBH is committed to reducing environmental liability and costs by eliminating or reducing the use of HM. Rapid HM order/delivery supports our Marines and Sailors in combat-ready, operational conditions. In June 2005 the Hazardous Material Consolidation Program (HCP) achieved 100% participation from base and tenant commands. Each year we avoid $150K in HW disposal and HM procurement costs by redistributing 35,000 pounds of excess materials at no cost to units. Each year units achieve a half a million dollar man-hour savings by reducing the time spent managing hazardous materials.

Environmental Compliance Assessment and Management Program

Self-Assessments and Follow-Up. A March 2002 headquarters Environmental Compliance Evaluation (ECE) of 38 media areas and 9,589 questions identified only six findings. Projects are programmed to address deficiencies identified during the HQMC ECE and internal audits. Many of the accomplishments of today are the result of identifying necessary corrective measures and taking appropriate actions.

Interaction With Regulators Regarding Inspections, Notices of Violation (NOVs), Agreements, Fines and Penalties, and Other Regulatory Actions. In 2004 and 2005, State DOH and EPA conducted UST, Storm Water, Wastewater, and Air Compliance Inspections yielding no findings.

Budget Data to Illustrate Adequate Funding. Our annual budget averages $4-5 million including operational expenses, TAD, training and compliance contracts that are funded through our operating budget, centralized management environmental projects (CMEP), and interservice support agreements. We obligate funds promptly, carefully monitor execution, and evaluate our budget needs periodically and submit operating budget deficiency requests and CMEP funding as necessary. We identified our budget requirements through 2013 in POM08.

Sustainable Operations and Programs. MCBH strives to sustain and enhance military readiness for base and tenant activities while ensuring compliance with environmental regulations. This is the primary goal of our base EMS (see page 2). We utilize upfront planning to ensure that resident and transient unit training activities remain environmentally compatible while fulfilling mission requirements. Major actions accomplished included: developing Geographic Information System (GIS) training map overlays of sensitive resource areas, working closely with state regulators and cultural and natural resource trustees, advising training units on environmental "do's and don'ts" and following up with periodic inspections. This enabled base, tenant, and visiting commands to conduct realistic training with minimal environmental impacts, including the following training exercises:

- III MEF exercises at Pohakaloa Training Area / Weekly training at Ulupau Weapons Range
- Small unit exercises at MCTAB / Small arms training at Puuloa Range Facility
- Small SOC Sustainment Training for 11th, 13th, and 15th MEU elements / RIMPAC Exercises
- SOCPAC's Operation Bantam Runner for 1st Battalion, 1st Special Forces group, 353rd Special Operations Squadron, Naval Special Warfare Unit-1, and III MEF, SOTG forces

Training and Outreach Programs. MCBH provides base military and civilian personnel with a solid foundation of basic and specialized environmental knowledge and skills through the Comprehensive Environmental Training and Education Program to ensure compliance with regulations and safety of personnel and natural resources. In FY04-05, 2,927 Marines, Sailors, Civilians, on-site Contractors, and family members aboard MCBH facilities received environmental awareness training. Topics covered included the MCBH Environmental Management System, the Commanding General's Environmental Policy, Natural and Cultural Resources, Recycling and Solid Waste, Pollution Prevention, Hazardous Material and Waste, Spill Response, and the National Environmental Protection Act. We also host Civil Engineer Corps Officers School (CECOS) classes and other training. Unit commanders receive overview briefs at our Senior Leaders Course and shop level coordinators receive in-depth training at our SOP Training Classes. We publicize HAZMIN/Recycling/Reuse Center efforts through base newspaper and local television. We have an active outreach program at our base school to enlist a new generation of diligent recyclers.

Effective Use of Funds

In-House Effort vs. Contractor Effort – MCBH utilized in-house staff to prepare two environmental assessments, annual EPCRA reports and updates to our Pollution Prevention Plan, Hazardous Waste Management plan, and Landfill Operations Plan. EMS Implementation was accomplished by utilizing in-house staff's effort and knowledge with no additional contractor costs. We provided jobs to state subsidized workers laid off due to the Sept 11 terrorist attacks through Hawaii's Emergency Environmental Workforce, saving $60K in labor costs while removing invasive weeds and reducing brushfire risks in our wildlife and training areas. We worked closely with DOH to move from assessment to detection landfill groundwater monitoring which will result in reduced contract costs.

Community Relations

Community Involvement and Activities, and Affiliation With Civic and Local Organizations. We plan current/future use of Kaneohe Bay resources in the Kaneohe Bay Regional Council and discuss community issues at monthly Civilian-Military Council meetings. Our Marines repair local public school buildings/grounds and read to their students. Annual, supervised assault amphibious vehicle (AAV) "mud ops" training hosted just before endangered Hawaiian stilt nesting season removes weeds from their habitat while enhancing AAV operator skills. In 2004, MCBH hosted a community-attended ceremony unveiling a national poster featuring this partnership in the USFWS / USMC "Saving a Few Good Species" poster series, accessible on their national websites.

Cooperation With Federal, State, Local Agencies, Organizations, and Academic Institutions.
MCBH serves on the Local Emergency Planning, State Emergency Response, and U.S. Coast Guard Committees for spill response planning, drills and exercises. We hold quarterly Hawaii Pollution Prevention Partnership meetings with State, Army, Navy, and Air Force personnel to develop economical and innovative solutions to compliance issues. We joined a unique interagency/industry spill response "Clean Islands Council" coop, enabling access to a response center, specialized personnel, the state's best equipment, and spill drill assistance. We host secure facilities and volunteer access for a non-profit marine mammal stranding program to help stranded whales/dolphins be rehabilitated or humanely destroyed. State-subsidized Oahu Island Invasive Species Committee fieldworkers regularly help MCBH staff monitor and remove invasive Ft. Grass from training lands to reduce the threat of brushfires. Our natural resources/wildlife technician is trained in Federal Conservation Enforcement and is a volunteer State Enforcement Officer.

Environmental Education Efforts. Over 1000 individuals from civic clubs, schools, environmental and Native Hawaiian groups, businesses and agencies participated in natural resources enhancement projects and educational tours to improve wildlife habitat, repair bird nesting structures, remove invasive plants, replant native plants, perform bird counts, clean beaches and/or carry out field research. Our natural resources Ph.D. served as a pro-bono adjunct faculty advisor to University natural resources/environmental management students.

Compliance with E.O. 12898. We established a community involvement program within our installation restoration program. As a first step we have been holding community interviews to determine how to best reach out to the community and to determine whether minority, low-income and other disadvantaged groups are being treated fairly. Interviewees include neighborhood board chairpersons, Native Hawaiian groups, civic leaders and environmental groups. Results and recommendations will be published in a community involvement plan.

National Environmental Policy Act (NEPA)

Proposed actions vital to base operation, combat readiness and quality of life were reviewed with the majority (179) being approved at the categorical exclusion (CATEX) level. Environmental Department staff prepared two environmental assessments (EAs) for natural resource conservation projects at significant cost savings. No Environmental Impact Statements (EIS) were needed due to effective mitigation and flexibility in project planning and design. Environmental Department staff with local area expertise reviewed EAs prepared by other agencies for projects involving MCBH property. Subject matter experts facilitated, and in some cases were able to expedite the interagency consultation process on behalf of the action proponents because of credibility and amicable working relationships developed over the years with regulatory agencies.

Expeditionary Fighting Vehicle (EFV) - Waters offshore MCBH provide an ideal rough-water, open-ocean test area for the development of the EFV. The EFV is the next generation replacement of the Assault Amphibian Vehicle (AAV) currently in use by the Marine Corps. Rough-water testing of the EFV was successfully conducted at MCBH during August and September 2005. MCBH environmental staff worked closely with the EFV Program Office and the test team to ensure that the tests were conducted in a manner that avoided adverse affects on the environment. With the help of MCBH environmental staff, in 4 months the Program Office was able to complete an EA for the testing. Further ocean testing at MCBH is anticipated before delivery of the EFV to Marine Corps units.