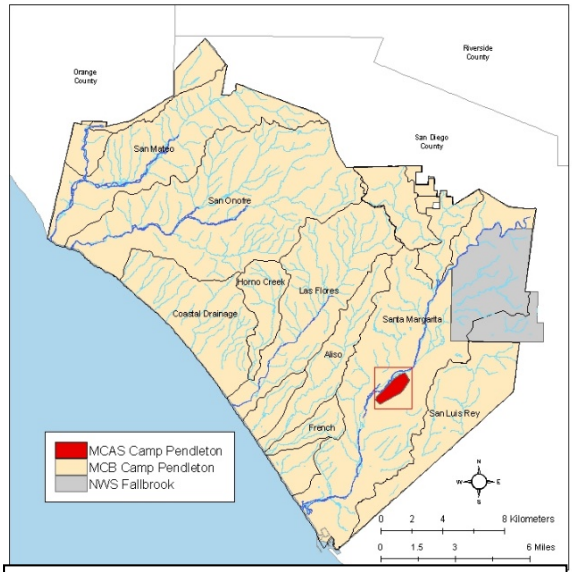
2021 Secretary of Defense Environmental Award
Environmental Quality - Industrial Installation
Marine Corps Air Station Camp Pendleton

Introduction

Marine Corps Air Station (MCAS) Camp Pendleton is a full-service air installation that supports both rotary- and fixed-wing aircraft. Nestled entirely within the fence line of sister installation Marine Corps Base (MCB) Camp Pendleton, MCAS Camp Pendleton is 488 acres of largely developed floodplain in Southern California's San Diego County. The Air Station enjoys a Mediterranean-type climate and maintains mature Willow Woodland and Riparian Scrub from the adjacent Santa Margarita River. The Air Station is protected and bordered by a 14,500-foot levee and 2,300-foot floodwall constructed in 2000 to safeguard the Air Station and aircraft from the Santa Margarita River during flood events. The mission of MCAS Camp Pendleton is to maintain and operate Air Station facilities and property, providing support and services that enable I Marine Expeditionary Force (MEF), tenant units, and visiting units to maintain and enhance their mission capability and combat readiness. MCAS Camp Pendleton and tenants are able to focus entirely on the mission of the Air Station and maintaining and operating aircraft, as all base housing and community services are provided by the adjacent MCB Camp Pendleton. The Air Station is home to nine flying squadrons from Marine Aircraft Group 39 (MAG-39), 4th Marine Aircraft Wing's Marine Light Helicopter Attack Squadron 775, and intermediate maintenance and logistics units. During a working day, MCAS Camp Pendleton supports 3,500 active duty and civilian personnel in the execution of their duties.



MCAS Camp Pendleton in the context of 'Greater' Camp Pendleton.

Background

Adjacent to the Santa Margarita River Basin and located on top of the aquifer providing a large portion of drinking water for the greater Camp Pendleton, MCAS Camp Pendleton's Environmental Department maintains the vital balance between mission accomplishment and the protection of human health and the environment. The department is responsible for regulatory compliance with local and federal laws, conservation of the natural resources entrusted to the Air Station, pollution prevention initiatives, and environmental training and education. Although small, comprising only eight permanent environmental staff, the MCAS Camp Pendleton Environmental Department adeptly meets the demands of the ever-changing regulatory reality.

An overhead view of MCAS Camp Pendleton with the adjacent Santa Margarita River.

Summary of Accomplishments

Clear Zone Vegetation Obstruction Maintenance

In November 2007, MCAS Camp Pendleton identified significant vegetation obstructions in the Runway Clear Zone. The vegetation obstructions not only violated the Department of Defense's Airfield and Heliport Planning manual, but also posed a significant safety concern to pilots and aircrew operating aboard MCAS Camp Pendleton. The violation was quickly noted in the Naval Safety Center Safety Inspections and Naval Air Training and Operating Procedures Standardization inspections. Several attempts were made to manage the vegetation, but they were often met with insurmountable obstacles. In 2014, the project was scoped and an Environmental Assessment (EA) investigated the potential environmental impacts of the project per the National Environmental Policy Act (NEPA) process. The proposal never moved beyond planning, as the vegetation removal and the mitigation requirement for the habitat removal was going to cost roughly $20,000,000, an amount that the region was unable to achieve. The project, and the vegetation obstructions, remained untouched.

In the years since, the MCAS Camp Pendleton Environmental Department continued to refine its processes and worked to develop healthy working relationships with regulatory agencies. The shift from an "us against them" mindset to one of mutual benefit and cooperation allowed MCAS Camp Pendleton to begin the Clear Zone Vegetation Obstruction Project anew. Working in close coordination with the Carlsbad Fish and Wildlife Office (CFWO), the local arm of the Fish and Wildlife Services (FWS) and a reputable environmental mitigation bank, MCAS Camp Pendleton re-scoped the project and kicked-off an entirely new NEPA EA on 23 August 2019. Utilizing the recently updated Department of the Navy (DoN) NEPA guidance, MCAS Camp Pendleton streamlined the EA by using existing biological data and studies, recent Geographic Information System mapping, and natural resource metrics from annual data calls, thereby preventing lengthy studies into the species and habitat. The entire NEPA process, including Section 7 consultation from the CFWO, took under 10 months and the Commanding Officer signed a Finding of No Significant Impact (FONSI) on 18 June 2020.

An AH-1Z Viper from MAG-39 flies over the riparian scrub located in the MCAS Camp Pendleton Clear Zone.

The cooperative relationship and involving the CFWO from the beginning of the project also created additional benefits for the project. Mitigation for the acreage had proven costly in the 2014 attempt to address the vegetation obstructions. By having CFWO involved from the beginning, MCAS Camp Pendleton and CFWO were able to compromise on a scope, and

the involvement of the mitigation bank during planning meant CFWO was able to also help with the habitat mitigation plan. The re-scoped project and ideal mitigation plan with input from the CFWO decreased the mitigation requirement, and the project was approved with less than a 1:1 ratio of habitat removed to habitat mitigated. This drastically reduced the cost of the endeavor, and although six years later than the initial project in 2014, the project cost was only a third, totaling $7,800,000 including the habitat mitigation.

Environmental planning complete, the project remained precariously uncertain, requiring funding and obligation of that funding before the close of the Fiscal Year. With the mitigation requirement, the $7,800,000 was outside of the Marine Corps Installation Command (MCICOM) Environmental Budget, and MCICOM had to request Fiscal Year end funds. Having been made aware of the massive human health and safety implications and eager to capitalize on the extremely favorable and cost-effective mitigation requirement, Congress approved the Above Threshold Reallocation on 14 September 2020, only 16 days to the end of the Fiscal Year. MCAS Camp Pendleton Environmental staff, in extremely close coordination with the CFWO, the National Fish and Wildlife Foundation (NFWF), and Navy Facilities Command Southwest (NAVFAC SW), burned the midnight oil and a Cooperative Agreement was signed and funding successfully obligated by 30 September 2020. Historically, per NAVFAC SW contract personnel, Cooperative Agreements and other contracts of this magnitude would take a minimum of six months to complete. MCAS Camp Pendleton, NFWF, and NAVFAC SW showed just how administratively capable a closely coordinated, cooperative installation and staff can be when external agencies are included in the decision-making process and supportive of the project.

Aircraft parked on the MCAS Camp Pendleton Apron with flight line and Willow Woodland in background.

Reaching a fiscally responsible, mutually beneficial solution for the Clear Zone Vegetation Obstructions at MCAS Camp Pendleton truly was a triumph of the leadership and Environmental staff at MCAS Camp Pendleton and a testament to the strong partnerships with the CFWO and NAVFAC SW. The removal of the vegetation obstructions will have direct, substantive, and positive impacts on protecting human health aboard MCAS Camp Pendleton and paves the way for the Air Station's long-term strategic goals of increased fixed-wing capability.

Excellence in Environmental Compliance

MCAS Camp Pendleton maintains a healthy, cooperative relationship with Environmental Regulators. Through regular communication, prior coordination on all projects and efforts, regularly seeking regulator input, and consistent excellence in compliance, the department has earned the trust of external agencies. This healthy relationship creates unique opportunities with our partners. On 25 August 2020, during the annual Industrial Hygiene (IH) survey, the lead inspector brought Industrial Hygienists in training to inspect the MCAS Camp Pendleton HCP to show them "what right looks like." The inspectors took photos of several locations and labels in the HCP to use as educational materials for other Camp Pendleton HAZMAT Warehouses and storage sites. On 23 October 2020, MCAS Camp Pendleton stood the Annual Inspection from the San Diego Department of Environmental Health (SD DEH) Hazardous Materials Division (HMD). The inspection investigated compliance with the Resource Conservation and Recovery Act (RCRA) specific to hazardous waste management, Aboveground Petroleum Storage Act (APSA), and the Spill Prevention, Control, and Countermeasure (SPCC) Program. The results were excellent, with no discrepancies, findings, or violations. In the spring of 2019 and summer of 2020, the San Diego Air Pollution Control District (SD APCD) inspected the 30 permits the Air Station maintains. In both years, the SD APCD cited no enforcement actions. Excellence in environmental compliance is one of the many ways MCAS Camp Pendleton ensures the protection of human health and the environment

Pollution Prevention

The reduction of waste streams has proven extremely effective in minimizing the potential impacts of hazardous materials (HAZMAT), hazardous wastes, and the associated costs. In keeping with this effort, the Environmental Department has several initiatives that merit notice. In Fiscal Years 2019 and 2020, MCAS Camp Pendleton's tenant squadrons and departments utilized 383,200 recycled red rags for spot cleanups of HAZMAT that can be laundered and reused, vice using disposable wipes, thereby avoiding hundreds of thousands of dollars in barrels, containers, manifesting, and disposal costs of Resource Conservation and Recovery Act (RCRA) hazardous waste. The Environmental Department recycled 29,320 gallons of Jet Propellant (JP)-5/8 and 11,270 gallons of used oil/oil mix and hydraulic fluid. This process saved the air station $58,418 in hazardous waste disposal avoidance costs and countless more from avoided potential environmental impacts. The HAZMAT Consolidation Program (HCP), the Air Station's single point of order and issue for HAZMAT, continued the effective HAZMAT reuse and shelf-life extension programs. Reuse of

MCAS Camp Pendleton HAZMAT handlers safely dispose of retired Military Specification Aqueous Film Forming Foam.

HAZMAT, the issuing of one squadron's already ordered, but unused, HAZMAT to another squadron, saved $185,755 in avoided orders since the reuse of HAZMAT is free of charge. The shelf-life extension program extended the use of $1,606,678 of existing HAZMAT, preventing the reclassification of the expired HAZMAT as hazardous waste, which avoided even more disposal costs. MCAS Camp Pendleton invested in an aerosol can puncturing tool, and, minus the $644 initial investment, the effort saved the air station $10,850 in aerosol can disposal costs and yielded $1,796 in recycling funds by delivering 985 pounds of empty cans to the Qualified Recycling Program as scrap metal in the two fiscal years.

Innovative Environmental Technologies

In addition to pollution prevention initiatives, the MCAS Camp Pendleton Environmental Department installed filters on all flight deck storm drains with Smart Sponge inserts as a Best Management Practice. These sponges, paid for entirely from the Air Station Operational budget, provide an additional layer of protection for the aquifer upon which MCAS Camp Pendleton is located. The smart sponges are capable of removing sediment and hydrocarbons from water, and prevent all trash and debris from entering the drain. The installation of the smart sponges drastically reduces the amount of petroleum, oils and lubricants that would travel to the storm drains during a rain event. Since the installation of these smart sponges, the Air Station has not tested high for these constituents in any of the four annually mandated tests required by the National Pollutants Discharge Elimination System (NPDES) permit from the State. To date, MCAS Camp Pendleton is the only Marine Corps Installations West (MCIWEST) Installation to employ smart sponges in storm drains.

Comprehensive Environmental Training and Education Program

The Comprehensive Environmental Training and Education Program (CETEP) is the cornerstone of protecting human health and the environment at MCAS Camp Pendleton. With only a staff of eight in the Environmental Department, the true purveyors of safe practices with HAZMAT, Hazardous Waste, and rapid response to spills that could threaten the environment are the Marines that work with the materials on a daily basis. Home to nine flying squadrons, an immense amount of maintenance, and therefore use of HAZMAT, occurs aboard the Air Station. The CETEP ensures that all personnel understand the materials they work with, are certified to handle HAZMAT, and are trained in First Responder Operations. In Fiscal Years 2019 and 2020, the CETEP trained and refreshed 455 HAZMAT Handlers and First Responders through classroom training, and approximately 1,800 squadron personnel received unit-level environmental awareness training.

MCAS Camp Pendleton personnel undergo First Responder Operations training through the department CETEP.