
NAS NORTH ISLAND - NAVY REGION SOUTHWEST NAVY ENVIRONMENTAL LEADERSHIP PROGRAM

CLEANUP

BIOREMEDIATION TREATMENT FACILITY

LEAD ACTIVITY

Public Works Center (PWC) San Diego

STATUS

Completed

MISSION

On-site bioremediation of petroleum contaminated soils

DESCRIPTION

Public Works Center (PWC) San Diego has designed and constructed a Bioremediation Treatment Facility (BTF) at NAS North Island to bioremediate petroleum hydrocarbon-contaminated soils using a vented biopile technique. This technique uses electric blowers to pull fresh air through contaminated soil piles to enhance aerobic biodegradation. Effluent vapors are treated with vapor-phase activated carbon. In addition, an application system is present that dispenses nutrients to the biopile.

The BTF received a Class II Designated Waste Facility permit, which allows the treatment of petroleum contaminated soils from NAS North Island, Naval Amphibious Base (NAB) Coronado, and Naval Outlying Field (NOLF) Imperial Beach. At present, the BTF is used only to bioremediate petroleum hydrocarbon-contaminated soils (designated wastes) generated at underground storage tank (UST) sites.

On-site treatment of contaminated soil will significantly reduce the cost of cleaning sites at NAS North Island. For example, for a typical petroleum UST site that generates 1,000 tons of contaminated soil, treatment at the BTF will save about \$30,000 as compared to thermal desorption or soil washing at local facilities and more than \$100,000 as compared to disposal at an off-site Class II landfill.

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