



● EARLY TRANSFER AND ENVIRONMENTAL REMEDIATION FORMER MARE ISLAND SHIPYARD, VALLEJO, CALIFORNIA



To spur island redevelopment, WESTON assumed environmental liability, expedited early transfer of more than 2,800 acres, and met aggressive deadlines to remediate contaminants, explosives, and low-level radioactive wastes.

The former Mare Island Naval Shipyard, located 25 miles north of San Francisco in Vallejo, California, began operations in 1854 and was closed in 1996 as a result of Base Realignment and Closure (BRAC). Soil, groundwater, and dredge ponds were impacted due to improper disposal of hazardous wastes from shipbuilding and unsafe ordnance from firing range operations.

Weston Solutions, Inc. (WESTON®) was contracted to manage the early transfer of the western parcel of Mare Island from the U.S. Navy to the California State Lands Commission (SLC) and to perform environmental remediation and discarded military munitions removal in the dredge ponds, landfill, and historic disposal areas.

Project Highlights

- Negotiated and facilitated early transfer of the property, saving the partnership time and money.
- Remediated environmental contamination to facilitate community, recreational, and industrial redevelopment.
- Remediated discarded military munitions and related contaminants, eliminating safety concerns for future residents, personnel, and visitors.

Early Transfer of Contaminated Property

WESTON facilitated the early transfer of the western half of Mare Island under a Finding of Suitability for Early Transfer, an element of BRAC that allows the government to transfer property prior to completion of environmental cleanup, enabling significant cost and schedule savings. By forming a partnership with the City of Vallejo and negotiating an Environmental Services Cooperative Agreement with the Navy, WESTON managed the early transfer process under a Fixed Price Remediation with Insurance contract. Assuming \$54 million worth of cleanup and closure obligations from the Navy, WESTON helped limit cost and environmental liabilities during ownership

transfer, while placing 2,800 acres of land back into beneficial use.

As the prime contractor, WESTON completed multiple site and risk assessments, provided a wide range of environmental services, and developed a plan to construct a recreational trail along the Mare Island coast.

Dredge Pond Remediation and Munitions Removal

Military operations dating back 120 years contaminated Mare Island's western parcel with hazardous, toxic, and radioactive waste. WESTON conducted sampling and analysis of soil, surface water, groundwater, and sediment to support the early transfer of the dredge ponds. WESTON completed the geophysical survey work over the levees and outfall areas for 10 dredge ponds covering more than 600 acres. The outfalls and metal anomalies identified during



As part of the overall island development, WESTON is remediating a 72-acre former landfill and preparing it for final closure.

disposal areas), located adjacent to the dredge ponds, suffered significant contamination due to former site activities. WESTON performed an interim remedial action to eliminate off-site migration of contaminated shallow groundwater by installing a soil-bentonite slurry wall with a groundwater collection trench to provide a physical barrier between the landfill area and the adjacent dredge ponds and wetlands. To cap the landfill for final closure, WESTON designed and will construct a multilayer geosynthetic clay liner, geomembrane, and soil cover system.

In addition, WESTON performed removal and on-site consolidation of over 35,000 cubic yards of soil contaminated with volatile and semivolatile organic compounds, metals, PCBs, pesticides, lead-based paint, asbestos, and petroleum fuels. An additional 50,000 cubic yards of contaminated soil removal/consolidation is planned before final closure. WESTON will construct approximately 8 acres of new wetlands to compensate for contaminated wetlands impacted as part of the containment area cap. WESTON will also implement mitigation measures to protect the endangered salt marsh harvest mouse through a Biological Opinion negotiated with the U.S. Fish and Wildlife Service and the California Department of Fish and Game.

WESTON will conduct long-term operations and maintenance of the landfill cap, including quarterly groundwater monitoring, analysis of groundwater samples, data quality assurance and control, and semiannual reports for the Department of Toxic Substances Control and Regional Water Quality Control Board.

Rifle Range and Outfall Munitions Excavation and Removal

Addressing concern for human health stemming from new home construction less than 1,000 feet from a former Marine Corps firing range, WESTON performed excavation, testing, and off-site removal of over 30,000 cubic yards of lead-contaminated soil to achieve site cleanup requirements. WESTON also performed excavation and mechanical screening of 36,000 cubic yards of soil containing discarded military munitions and radiological items from a former dredge pond outfall adjacent to the homes and rifle range, and performed a confirmation geophysical survey to investigate remaining anomalies. WESTON removed 1,291 live munitions items, 601 low-level radioactive items, and 340,000 pounds of nonmunitions scrap metal. UXO technicians also performed detonation of all recovered munitions. In total, WESTON worked over 18,500 man-hours and completed the field work within 6 months without incurring any restricted or lost-work cases or incidents.

Remediation Paves Way for Redevelopment

WESTON's ability to complete an early transfer of the western parcel of Mare Island played an integral part in completing property cleanup 7 to 10 years sooner than traditional approaches. WESTON's environmental and UXO remediation will facilitate the City of Vallejo's plans for the future redevelopment of the overall island, including wetlands restoration, open-space areas, and residential and industrial development.

the geophysical survey were investigated and live munitions were removed along with numerous radioactive luminescent items. WESTON also dredged and disposed of PCB- and mercury-contaminated soil from Mare Island's western submerged lands.

Landfill and Historic Disposal Area Remediation

A 72-acre former landfill and historic disposal site (including a wastewater treatment plant, oil disposal sumps, and lead battery

