



# Mare Island Naval Shipyard Ordnance Status Update

May 31, 2001

## INTRODUCTION

The Navy has prepared this fact sheet in response to recent articles about the Ordnance Cleanup Program at the Mare Island Naval Shipyard (Mare Island). Investigation and removal of ordnance at Mare Island is high on the Navy list of environmental priorities. This fact sheet focuses on the current status of ordnance issues at Mare Island, including:

- ✓ Mare Island History
- ✓ Investigation and Removal of Ordnance
- ✓ Future Site Actions
- ✓ Who to call for more information

The Navy defines ordnance as any munitions, weapon delivery system, or ordnance item that contains an explosive component. Unexploded ordnance (UXO) is a category within this general category that has been primed, fused, and fired, yet remains unexploded. Because of this, UXO has a greater potential to explode if mishandled. Most of the ordnance found at Mare Island is not of the UXO variety, and presents less of a safety hazard. To ensure worker and public safety, both ordnance and UXO are handled by only qualified individuals in accordance with all Federal, State, and Navy ordnance safety and cleanup requirements.

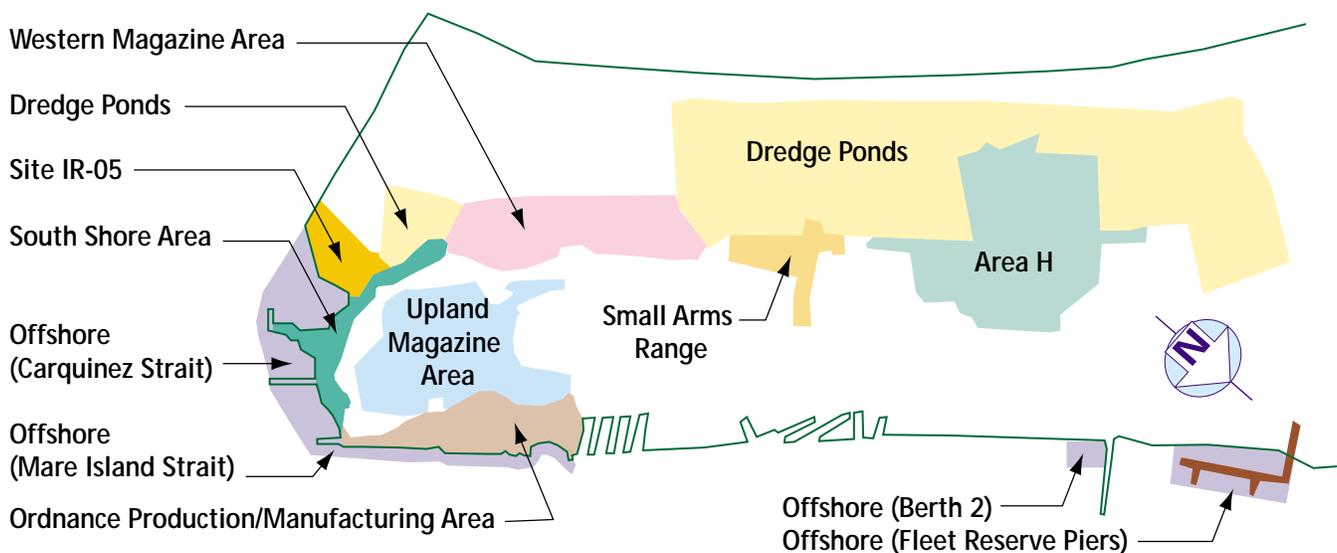
## MARE ISLAND HISTORY

Mare Island was established by the Navy in 1854 and was closed under the Base Realignment and Closure program in April 1996. The Navy has identified various sites (Figure 1), both on and offshore, where past site uses make it possible that ordnance exists. Throughout Mare Island history, ordnance has been manufactured, maintained, subjected to quality control testing, stored, and loaded on and off ships and other forms of transportation. Because of this, the Navy has and will continue to conduct a detailed ordnance investigation. It is our goal to identify where ordnance is located on Mare Island and clean it up to make the land safe before it is turned over to the City of Vallejo or other recipients.

## MARE ISLAND ORDNANCE INVESTIGATION AND CLEANUPS

The Navy's effort to locate and remove ordnance at Mare Island began prior to 1994. This work has been conducted with oversight provided by various Navy, Federal and State regulatory agencies, including the U.S. Environmental Protection Agency and the California Department of Toxic Substances Control.

**FIGURE 1  
AREAS OF CONCERN**



The ordnance location and removal program at Mare Island is a step-by-step process that accomplishes the cleanup, and ensures protection of the public and environment. The Mare Island program generally follows the CERCLA process, which is the Federal law that regulates environmental cleanup. The process is described below.

**Preliminary Assessment:** During this phase, the Navy reviewed Mare Island historical records, interviewed individuals with knowledge of past site operations, and evaluated aerial photos and old maps, to gain a better understanding of the types and amounts of ordnance potentially present. The Navy completed the base-wide ordnance Preliminary Assessment for Mare Island in September 1995.

**Site Investigation:** Using the information gathered in the assessment, this phase included extensive survey work at the sites with suspected ordnance. Trained and specially qualified personnel used metal detection equipment to locate metallic items below the ground surface. These items could potentially be ordnance items, based on similar metal composition. The efficiency and accuracy of the detection equipment is affected by many factors, including the depth of the item, the size and composition of the item, current site conditions and geology. The Navy completed the Ordnance Site Investigation report for Mare Island in April 1997.

**Remedial Investigation/Feasibility Study:** The Navy is still in this phase of work for the majority of ordnance sites. During this phase areas are excavated to determine the type, location, and amount of ordnance at each site. Options for removal are then assessed.

Each investigation has a Site Specific Work Plan that is reviewed and approved by the Naval Ordnance Safety and Security Activity, the Department of Defense Explosives Safety Board and regulatory agencies. The Restoration Advisory Board also provides the Navy with community input on these work plans. Each work plan outlines the investigation methodology, planned land reuse, investigation depth, ordnance handling and disposal practices, and safety plans.

To date, the Navy has investigated and removed subsurface ordnance at over 850 acres. These investigations have yielded 11,882 individual ordnance items and over 1,900 tons of metal debris. In addition, over 200,000 small arms bullets, like those that can be purchased over the counter, were removed. All excavated ordnance has been disposed of in accordance with applicable laws.

**PROPOSED PLAN AND RECORD OF DECISION**

The Proposed Plan and Record of Decision are the final decision documents for cleanup actions. They summarize all work completed and document how this work meets current regulations and protects public safety. In these documents, the Navy will outline the management practices it will engage in to ensure safety once the land is transferred. Technical experts agree that no cleanup program can guarantee that 100 percent of all ordnance has been detected and removed. This is due to limitations in the current technology and site conditions. Therefore, the Navy must consider whether engineering and land use controls are needed to protect future land users.

The decision documents will be reviewed by the regulatory agencies and made available to the public, so that interested individuals can comment on the adequacy of the remediation efforts, and compatibility of such efforts with future land uses.

**MARE ISLAND CURRENT AND FUTURE ACTIONS**

To protect public safety and ensure that all past ordnance removals are consistent with future land use designations, the Navy is currently conducting a validation process for all ordnance work. Through this process, all ordnance investigation and removal work is reviewed by the Navy to (1) determine if the work conducted is sufficient, (2) to double check results, and, (3) to determine if any future site actions are warranted.

As shown on the Table 1, the Navy is still conducting investigative work or validation studies on most of the ordnance sites. The one site that has been thoroughly investigated and determined safe, the Upland Magazine, has been transferred to the City of Vallejo.

In the future, the Navy will be documenting our validation findings, conducting additional site investigations and removals, and establishing engineering and land use controls, as needed, to protect the public prior to transfer.

**FOR MORE INFORMATION**

The Restoration Advisory Board (RAB) is a forum for members of the community to discuss environmental cleanup at Mare Island with representatives from the Navy and regulatory agencies. The RAB routinely provides comments on technical work plans, and relays community interests and concerns to the Navy. RAB meetings are open to the public and community participation is encouraged. The RAB meets the last Thursday of each month at the J.F.K. Library, 505 Santa Clara St., Vallejo. You may also call the RAB Community Co-Chair, Myrna Hayes, at (707) 557-9816.

The Navy values your input. If you have questions or concerns about the material presented in this fact sheet, please contact the Navy's Mare Island Environmental Coordinator, Jerry Dunaway at (707) 562-3104, or you may e-mail him at DunawayJT@efdswnavfac.navy.mil.

**TABLE 1**

ORDNANCE AREAS OF CONCERN	ACRES	STATUS
<b>ONSHORE AREAS</b>		
Ordnance Production Area (OPA)	59	Field validation for RI/FS
South Shore (adjacent to OPA)	49	Field validation for RI/FS
Dredge Ponds	476	Field validation for RI/FS
Western Magazine	103	Field validation for RI/FS
Upland Magazine	126	Part transferred and part ready for transfer
DRMO	5	Site Investigation
Landfill Area H1 (2 areas)	27	RI/FS
IR Site 5 (historic detonation range)	35	Field validation for RI/FS
Present OB/DD range	5	In use
Marine Corps Firing Range	5	Site Investigation
<b>OFFSHORE AREAS</b>		
Fleet Reserve Piers	48	Site Investigation
Berths 2 and 3	9	Site Investigation
Mare Island Strait (off OPA)	52	Site Investigation
Carquinez Strait (off South Shore)	65	Site Investigation

