

## THE HISTORY OF THE DEPARTMENT OF NAVY AND PYRAMID LAKE

On April 12, 1944, the Department of Navy negotiated and entered into two separate leases with the Pyramid Lake Paiute Tribe and the Pyramid Lake Ranch for a total of 76.5 acres of land. The area was located on the western shore of Pyramid Lake near the community of Sutcliffe and came to be known as Torpedo and Bombing Range Pyramid Lake or simply Target 14. The acreage was established for the land-based operations in support of the torpedo and bombing activities for the Naval Air Center, Alameda. Such activities included mobile water targets, a dive-bombing practice area, and a strafing area. For bombing and target practice, a submarine-shaped target was towed on the lake while naval airplanes from Naval Auxiliary Air Station Fallon fired torpedoes. The leases for the acreage were canceled in December 1945 and January 1946, and the site was officially declared surplus in 1947.

Because of these activities, the Pyramid Lake Torpedo and Bombing Range was declared a Formerly Used Defense Site (FUDS) in September 1999, one of approximately 9800 FUDS locations nationwide. In accordance with the FUDS program, the U.S. Army Corps of Engineers is conducting investigations into potential environmental issues stemming from past Department of Defense (DoD) activities at the site.



### ☎ For More Information ☎

#### U.S. Army Corps of Engineers Contact Information:

Gerald Vincent  
FUDS Program Manager  
(916) 557-7452

[Gerald.E.Vincent@usace.army.mil](mailto:Gerald.E.Vincent@usace.army.mil)

Toll Free Information Line  
Public Affairs Office  
1-800-227-0951

Cindy Vincent  
TRW Technical Writer  
(916) 557-7887

[Cindy.S.Vincent@usace.army.mil](mailto:Cindy.S.Vincent@usace.army.mil)

#### Pyramid Lake Paiute Tribe Environmental Office Contact Information:

Anna Keyzers  
Environmental Specialist  
(775) 574-0101 ext. 15  
[Akeyzers@powernet.net](mailto:Akeyzers@powernet.net)



Bonnie Akaka-Smith  
Tribal Chairwoman  
(775) 574-1000  
[akakasmith@gbis.com](mailto:akakasmith@gbis.com)

## PYRAMID LAKE TORPEDO AND BOMBING RANGE

Defense Environmental Restoration Program  
Formerly Used Defense Site

Vol. 04, Issue 01  
March 2004

### INSIDE THIS ISSUE:

- ▶ LAKE MAPPING RESULTS AVAILABLE
- ▶ CULTURAL DEBRIS INVESTIGATION COMPLETED
- ▶ SEDIMENT CHARACTERIZATION DATA RELEASED
- ▶ STORAGE TANKS AND STRUCTURES REMOVED
- ▶ ROV TO BE LAUNCHED THIS SPRING
- ▶ CONTACT INFORMATION

### SITE INVESTIGATION UPDATE

#### Strategic Project Implementation Plan (SPIP)

In July 2003, U.S. Army Corps of Engineers contractor, EMAssist, completed the Strategic Project Implementation Plan (SPIP) for Pyramid Lake. The SPIP researched the history of the Department of Defense (DoD) involvement at Pyramid Lake to establish a comprehensive list of potential contaminants associated with the former torpedo and bombing range activities. The plan also helped to determine the potential impact areas and any remaining debris left from past DoD activities.

Most importantly, the SPIP outlined the investigation and mitigation measures to be executed by environmental contractors for the Pyramid Lake Paiute Tribe. Specifically, these measures identified the need for the removal of deteriorated fuel tanks and storage structures as well as the need for a cultural debris investigation for ordnance-related items and debris remaining from the 1988 naval-plane crash. Sediment characterization, magnetic and side-scan sonar surveys, and bathymetric mapping of the entire lake were also outlined to be conducted for the investigation of any remaining ordnance or explosives from prior DoD activities.

All investigation activities identified in the SPIP were paid for through the Native American Lands Mitigation Program (NALEMP) in cooperation with the Pyramid Lake Paiute tribe and U.S. Army Corps of Engineers.

#### Pyramid Lake Mapping Results Available

After completing the effort that began in September to map the bottom of Pyramid Lake (approximately 158 square miles), David



Pyramid Lake Paiute Tribe  
208 Capitol Hill  
Nixon, NV 89424



U.S. Army Corps of Engineers  
Sacramento District  
1325 J Street, CESPK-PM-H  
Sacramento, CA 95814

(continued from previous page)

released their draft report, *Bathymetric Mapping & Cultural Debris Survey*, last month. The report details the results from the bathymetry, the side-scan sonar and magnetometer surveys, the conductivity, temperature, and depth (CTD) measurements, the cultural debris investigation, and the sediment characterization. The lake bathymetry mapping commenced on September 23 and

utilized the professional services of Zephyr Marine who provided a 28-foot custom boat equipped with an integrated navigation and data-acquisition system. The mapping produced high quality results and was able to display a possible fault line at the north end of the lake, slide areas beneath the water as well as many calcium carbonate formations.

During this time the CTD measurements were also taken to

map the lake's thermal profile and correct any errors with the bathymetry data due to sunlight refractions in the water. The side-scan sonar and magnetometer surveys clarified the mapping further by adding data that identified objects and located features above the lake floor. No positive identification of ordnance or explosives occurred, although several significant unknown objects were located.

### Cultural Debris Investigation Completed

On November 8, 2003, David Evans and Associates initiated a cultural debris investigation to identify man-made objects on the lake bottom in the Sutcliffe area. The investigation focused on areas where the torpedo bombings are suspected to have occurred (see map). The investigation began with shallow water reconnaissance 10 to 30 feet in depth.

On November 12, the survey crew assisted the U.S. Navy diver investigations on several targets in the Sutcliffe area. The next day, David Evans and Assoc. moved toward larger

depths as they continued the investigation in the area between Pelican Point and Indian Head Rock.

The sonar data gathered during the investigation produced very clear records of both geologic and man-made objects on the lake floor. David Evans and Assoc. were able to identify several anomalies and areas that will need further investigation. The U.S. Army Corps plans to continue the investigation in May 2004.



This map shows the suspected navy target areas that were used between 1944 and 1945.

### Storage Tanks and Structures Removed

In November 2003, EMAssist, in coordination with the Pyramid Lake Paiute tribe, completed the removal of a former DoD fuel bladder and underground structures.

The tribe requested the removal of the bladder and structures after the items were determined to be a potential hazard. In November EMAssist excavated the storage

areas and properly disposed of the scrap metal from the structures along with the fuel bladder.

The removal sites did not show evidence of hazardous leaks or ordnance, therefore the project has been determined closed. The closure report for this removal action is currently in process and due out this spring.



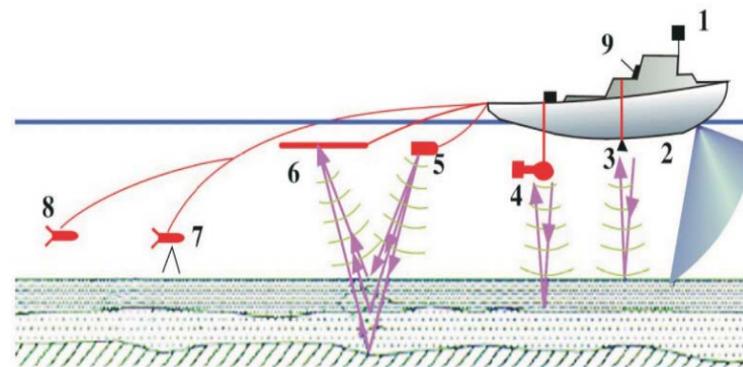
### Sediment Characterization Data Released

The Sediment Characterization report is complete and has determined that the Pyramid Lake sediments do not pose significant environmental concern.

On November 20, Integral Consulting, Inc., a sub-consultant for David Evans and Associates, initiated the sediment characterization for Pyramid Lake. A total of 35 samples

were taken, 16 samples in depths less than 75 feet, and 19 samples taken in depths greater than 75 feet.

The samples were analyzed for metals; benzene, toluene, ethylbenzene, xylene (BTEX); total petroleum hydrocarbons (TPH); and polychlorinated biphenyls (PCB)-Aroclors. The data does not suggest that the sediments pose a significant environmental concern.



### Remote-Operated Vehicle to be Launched This Spring

A remote-operated vehicle (ROV) will be launched this spring in Pyramid Lake to continue the investigation for ordnance and explosives due to prior DoD use.

The ROV was chosen to continue the investigation instead of diving personnel because the ROV has no depth limitations, long deployment times, and is safer to use in potential ordnance and explosives environments in comparison to live divers. The vehicle will be equipped with a scanning sonar which will allow the vehicle to detect small targets up to 20 meters away. The sonar will also allow the ROV to be piloted directly to the target without having to hunt for the object.

Deployment for the ROV is scheduled to be in May 2004. The contract agency has yet to be determined.

### GLOSSARY:

- **BTEX:** Benzene, Toluene, Ethylbenzene, Xylene  
Colorless liquids found in crude oil and gasoline.
- **CTD:** Conductivity, temperature and depth  
This information is used to define the lake's thermal profile and helps to correct errors in bathymetry data.
- **DoD:** Department of Defense  
The Department of Defense is funded through the executive branch of the U.S. Government by Congress.
- **NALEMP:** Native American Lands Mitigation Program  
The NALEMP was established by the DoD to specifically address the effects of past military operations on Native American lands and Alaska Native Claims Settlement Act (ANCSA)-conveyed properties.
- **PCB:** Polychlorinated Biphenyl  
PCB is a mixture of various chlorinated compounds that are not naturally occurring in the environment and were used as coolants and lubricants for electrical equipment before they were banned in 1977. Aroclor is the U.S. trade name for many commercial PCB mixtures.
- **ROV:** Remote-Operated Vehicle  
A ROV is used in place of a diver to locate and identify anomalies found on the lake floor.
- **SPIP:** Strategic Project Implementation Plan  
The key document for managing activities regarding environmental impacts on or near Tribal lands.
- **TPH:** Total Petroleum Hydrocarbons  
The amount of petroleum-based hydrocarbons present in a given amount of soil or water.