



**US Army Corps
of Engineers**
Norfolk District

RESTORATION

Former Nansemond Ordnance Depot Project Update

News

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July 2001

Project Makes Strides

The U.S. Army Corps of Engineers has made progress this spring and early summer at the Former Nansemond Ordnance Depot (FNOD) site.

James River Beachfront - In June 2001, the Corps removed the human burial that was found in May 1998 near a road cut to the James River Beachfront following a full-scale archaeological study at the site. The removal efforts were coordinated with EPA, the State Historic Preservation Office, and the Nansemond Tribal Association. During the removal, the team unearthed a single coffin burial. The remains were excavated and sent to Radford University for further analysis. Once the origin of the remains is determined, the Corps will work with the above agencies to determine the final resting place for the remains.



Debris located along the James River beachfront

The Corps began removing debris and associated soil from a 700-foot section along the south bank of the James River on Tidewater Community College property west of the I-664 bridge in July 2001. This site was used as a disposal area for scrap metal, concrete slabs, bricks, and other construction debris. The removal effort will take about three months to complete. The debris will be picked up by hand as well as by using a front-end loader and other removal equipment. Following the removal effort, the Corps will conduct confirmation sampling to ensure all affected soil has been removed. They also will install a revetment (stone facing) to protect the shoreline from additional erosion. Removal efforts at this site will be completed by September 2001.

Offshore Ordnance and Explosives Investigation - In June, the U.S. Army Corps of Engineers, Norfolk District and the Navy Explosives Ordnance Disposal (EOD) team from the Norfolk Naval Station completed their investigation of possible Unexploded Ordnance (UXO)

off the James River Beachfront. The area of investigation was several hundred feet west of the Monitor Merrimac Bridge Tunnel. After an extensive search that included side scan SONAR mapping and approximately 18 one-hour dives, the team did not locate any Ordnance or Explosives.

A pallet and several cylindrical objects believed to be possible Ordnance and Explosives (OE) were discovered last year by a Virginia Department of Transportation (VDOT) contract dive team surveying the river bottom for another bridge crossing location. This led the Corps to team up with the Navy EOD team for a more comprehensive investigation.

The Navy EOD team found a large debris field that included pieces of pipe, metallic scrap in varying sizes, and concrete blocks from the old mooring station demolished by the VDOT in the 1980s, as well as netting and line tangles. The team also located an apparent metal pallet with three cylindrical objects similar in size and shape to those described by the original VDOT contract dive team. The Navy EOD team determined the objects they found were not OE.

Initial results of other investigations in the same general area also found no OE. Sediment samples in the river have shown less contaminants than were expected. Based on the findings of the investigation, the Corps and Navy Team have determined further dives are unwarranted.

Other Removal Efforts (continued on page 3)

***New Project Website!**

See insert for details.

SAIC Completes Offshore Ecological Study

A yearlong ecological study conducted along the James River Beachfront has just been completed by SAIC under contract to the U.S. Army Corps of Engineers. The study began with a review of historical photos to identify shoreline erosion along the James River since the 1940's. There has been up to 300 feet of recession in some areas of the shoreline since 1942. SAIC reviewed 3 miles of shoreline from the vicinity of the Horseshoe Pond in the west to Streeter Creek in the east (and in Streeter Creek).

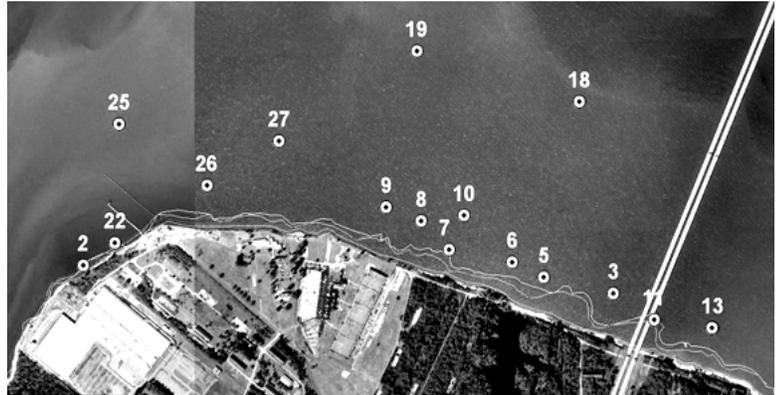
The purpose of the study was to analyze the short and long term effects of potential chemical releases from the former depot on the natural resources. It was called an Ecological Risk Assessment (ERA). SAIC did field investigations to identify debris, metals, burn layers, and residual explosive chemicals. The goal of the investigation was to find out where potential chemical releases could be found offshore, if they have migrated, and if offshore ecological impacts exist.

SAIC used acoustic devices (side scan SONAR and a sub-bottom profiler) to detect layers of deposition and erosion of offshore soil. The digital data was used to make maps of different features and objects on the river bottom.

The study also included offshore sediment sampling along the shore to determine the possible affect on animals such as hard clams, blue mussels, oysters, blue crabs, croaker, black-crowned night herons, and raccoons. These samples were analyzed for chemicals such as metals, organics, pesticides, and other ordnance burn related contaminants.

Findings - Sediment concentrations of metals, Polynuclear Aromatic Hydrocarbons (PAHs), and

pesticides were only marginally above levels considered safe by EPA at a few locations and were lower than expected in an industrial river setting. No toxicity was observed. Therefore, the risk to sediment associated animals is considered to be low. For food chain effects – the few isolated areas that had chemical exposures, which



Historic shoreline location at FNOD and core sample locations

exceeded safe levels, were far-removed from the site. Concentrations of chemicals that would be ingested by birds and mammals are generally low and pose no significant animal health risks.

There are some important FNOD habitats including the former pier area, Streeter Creek (see article below) and inland lakes that may require additional sampling.

A copy of this report will be posted on the project web site in September 2001.

Corps Needs Volunteers for Residential Well Sampling

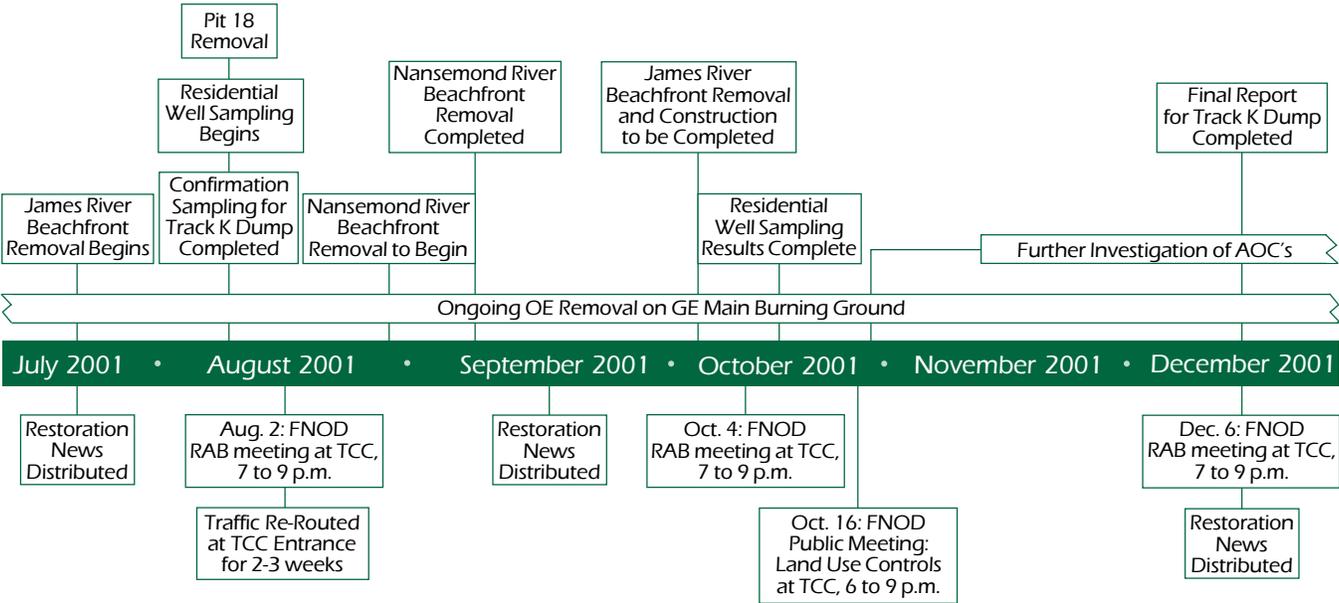
The Corps is requesting volunteers with either deep or shallow wells in Bay Circle and the area north of Streeter Creek to receive well water testing. Volunteers, whose location will remain confidential, will receive the results of a \$1,500 sampling for free. The tests will include a full suite of contaminant analysis including metals and salt. The Corps expects the wells will be selected in early August, with sampling beginning in mid August. Results from the testing should be available by the October RAB meeting. If you are interested in volunteering for the program, please contact George Mears, USACE, Norfolk District at 757-441-7267.



Side scan of sunken pier and pilings

Project Timeline

Technical Milestones



Public Involvement / Project Updates



US Army Corps of Engineers

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