



# Lake Ontario Ordnance Works

Lewiston-Porter, New York

**U.S. Army Corps of Engineers**  
**Buffalo District**

**Building Strong**®

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## Defense Environmental Restoration Program for Formerly Used Defense Sites

The Defense Environmental Restoration Program (DERP) was established in 1986 to address contamination caused by Department of Defense (DoD) activities. Sites no longer owned by the DoD as of October 17, 1986, are addressed under the DERP for Formerly Used Defense Site (FUDS). The U.S. Army is the executive agent responsible for the DERP-FUDS. This fact sheet has been prepared to address community outreach needs and is consistent with provisions of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

### Site Description

The former Lake Ontario Ordnance Works (LOOW) is a 7,500-acre site located in the towns of Lewiston and Porter, New York, and was formerly used for a World War II trinitrotoluene (TNT) manufacturing facility (see figure). Approximately 7,000 acres of the site meet the criteria of a DoD FUDS. The TNT production, production support, and storage areas were constructed on approximately 2,500 acres. The remaining 5,000 acres, located to the west of the production area, were not heavily utilized and became known as the undeveloped zone. Current owners of the former LOOW include local and federal government, individual private residents, and private corporations.

### Current Status of Projects

#### Remedial Investigations

The Corps conducts its environmental investigations, decision-making and cleanup work using the CERCLA process. The remedial investigation (RI) for LOOW was conducted in multiple phases to work within funding constraints. The Phase I and Phase II RIs occurred in 1998 and 2000. The Phase II RI was designed to further evaluate areas of potential environmental concern based upon a historical document search of the former LOOW, previous investigations, results of the Phase I RI, and areas that had little or no impact from non-DoD entities. The Phase III RI (Underground Utilities RI or UURI), released in 2009, was conducted to investigate the underground utilities within the former LOOW.

The Phase IV RI was performed between 2009-2010 and released in October 2011. Activities included an evaluation of the nature and extent of potential DoD contamination at the former LOOW Waste Water Treatment Plant (WWTP). The former LOOW WWTP, currently owned by the Town of Lewiston, was built during World War II and provided primary treatment of storm, sanitary, and process wastewaters from the original TNT production plant and later DoD operations. The RI for the Occidental Chemical Corporation Property (OCCP) was published in April 2013. OCCP was part of the undeveloped zone at the former LOOW.

### Risk Assessments

A human health risk assessment was performed for all exposure units (EUs) within the former LOOW, which were evaluated during the Phase I, II, III, and IV RIs. The objective of the HHRA was to estimate the nature and probability of adverse health effects in humans who may be exposed to chemicals within the EUs and to answer the overall question of "What is the risk and how bad is it?" Additionally, a screening level ecological risk assessment was performed to evaluate whether or not there was a potential risk to ecological receptors at the former LOOW. The RI's for both the WWTP (Phase IV RI) and the OCCP included the results of the risk assessments for these two properties.

### Feasibility Studies

The recommended path forward for each EU is based on the results of the screening level ecological risk assessment and the human health risk assessment. The following three outcomes are considered for each EU:

- No further action recommendation,
- Inclusion into a feasibility study (FS) for potential remedial action, or
- Completion of an interim removal action with eventual inclusion into a FS.

The final path forward for each EU will be based on risk management decisions made by the Corps' Remedial Project Manager in consultation with members of the technical team and Corps' DERP-FUDS policy decision makers. A FS report for the WWTP was published in June 2014. A FS report for EU 8 at the OCCP was published in June 2015.

### Proposed Plan

A proposed plan to document the Corps of Engineers preferred remedial alternative for the OCCP was released for public comment in December 2016.

### Groundwater Monitoring Well Decommissioning

A groundwater monitoring well decommissioning completion report was published in June 2013 that documents the activities conducted and procedures implemented during the decommissioning of monitoring wells (MWs) at the former LOOW. Decommissioning of 19 MWs was completed using a grout in-place method. The MW decommissioning activities were completed between March 18 - 22, 2013, in accordance with applicable New York State Department of Environmental Conservation, U.S. Environmental Protection Agency, and Corps MW decommissioning guidance.

### Site Inspection (SI) for Ground Disturbances

A site inspection (SI) report was published in November 2014 that presented an evaluation of ground disturbances that were present during the period that the TNT plant was operated. These disturbances were identified by the U.S. Army Topographic Engineering Center and documented in *Former Lake Ontario Ordnance Works Examination of Historical Aerial Photography – Selected Sites* (September 2002). The SI was conducted to determine if potential environmental impacts were present at the ground disturbance locations that were attributable to former DoD activities. The SI report concluded that no further action is necessary for the evaluated ground disturbance locations.

### Management Action Plan (MAP)

Initially published in October 2009, the primary project objective of the LOOW MAP is to establish a comprehensive planning document in which the Corps formally communicates issues, findings, conclusions, and recommendations to achieve the objectives of the CERCLA responsibilities at the former LOOW. Update 1.0 (2013) and Update 2.0 (2015) to this plan were based upon actual work accomplishments and progress made evaluating the parcels. The attached figure summarizes the current status of each of the former LOOW parcel groups.

### Administrative Record File

The Administrative Record File for the former LOOW contains documents that support the decision-making process for the site. It is available electronically for your review at the following locations:

Town of Lewiston Public Library  
305 8<sup>th</sup> Street  
Lewiston, NY 14092.

Youngstown Free Library  
240 Lockport Street  
Youngstown, NY 14174

U.S. Army Corps of Engineers  
1776 Niagara Street  
Buffalo, NY 14207 (by appointment)

