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Lake Ontario Ordnance Works Management Action Plan Fact Sheet

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

Building Strong®

Defense Environmental Restoration Program for
Formerly Used Defense Sites (DERP-FUDS)
June 2015

Site Description and History

The former Lake Ontario Ordnance Works (LOOW) is located approximately 10 miles north of the City of Niagara Falls within the Towns of Lewiston and Porter in Niagara County, New York.

The original site encompassed approximately 7,500 acres and was established in 1942. A portion of LOOW, consisting of 6,500 acres, is eligible for inclusion in the Department of Defense (DoD) Defense Environmental Restoration Program for Formerly Used Defense Sites (DERP-FUDS). During World War II, the U.S. Army built and operated a trinitrotoluene (TNT) plant on approximately 2,500 acres of the site, known as the developed zone. The remaining 5,000-acre undeveloped zone served as a buffer area around the TNT plant. The plant manufactured bulk TNT for approximately nine months and was decommissioned in 1943. The Corps of Engineers (Corps) is conducting an environmental investigation on the former LOOW in accordance with the phased Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Current owners of the former LOOW include federal and local governments, individual private residents, and private corporations. Additional information regarding the former LOOW can be found on the web at:

www.lrb.usace.army.mil/Missions/HTRW/DERPFUDS/LakeOntarioOrdnanceWorks

Management Action Plan

Due to the size of the former LOOW, the number of current real estate tax parcels (over 550), and the variability in site use (e.g., from a school to a Subtitle C landfill), the planning, funding, and execution of environmental response activities (including closure of those areas not adversely impacted by federal activities) has been challenging. The purpose of the LOOW Management Action Plan (MAP) is to integrate and evaluate information from prior Corps reports and relevant non-Corps sources to establish a single comprehensive agency planning document in which the Corps formally communicates findings, conclusions, and a framework to achieve the objectives of the Corps' CERCLA responsibilities at the former LOOW for each parcel group.

For the MAP, a parcel group is defined as a single parcel or multiple parcels with similar characteristics with regard to FUDS property eligibility, location relative to the developed area of LOOW, ownership, known or suspected DoD impacts, and land use. It is the unit for which each Property Management Action Plan (PMAP) was developed and for which findings, conclusions,

and strategies for eventual closure are presented. The over 550 parcels that comprise the former LOOW have been divided into separate parcel groups, which are shown in Figure 1.

The LOOW MAP is not intended to replace or serve as a formal CERCLA decision document, but rather as a planning document with an anticipated path forward for completion of the DERP-FUDS mission at the property parcels comprising the former LOOW.

The MAP presents: objectives; methodologies; Corps and other federal, state, and local agency authority and responsibilities; summary of findings and strategy; and explains why and how each of the real property parcels, defined by the Niagara County Department of Real Property, were combined into parcel groups.

The MAP is a “living” document that is updated when a significant change in strategy or status from the previous submittal has occurred. The MAP and associated PMAPs were originally published in October 2009, updated in February 2013 (Update 1), and updated in May 2015 (Update 2). Within the MAP and PMAPs, changes from the previous version are highlighted and outlined to allow the reader easy access to updated information. This fact sheet presents a summary of the key changes that occurred in Updates 1 and 2 as presented below.

February 2013 MAP and PMAPs, Update 1

The MAP and all associated PMAPs were revised and published in February 2013 for Update 1. Property boundaries were updated to reflect the Niagara County Department of Real Property Tax 2010 records, and information from a number of documents, listed below, was incorporated into the PMAPs.

- Earth Resources Technology, Inc. 2011. Final Site Inspection Report for the Lewiston-Porter Central School District at the Former Lake Ontario Ordnance Works, Niagara County, New York. March.
- Earth Resources Technology, Inc. 2011. Final Remedial Investigation Report for Phase IV Remedial Investigation/Feasibility Study at the Former Lake Ontario Ordnance Works Niagara County, New York. October.
- LATA-Sharp Remediation Services, LLC. 2012. Final Completion Report for Mitigation of Safety Hazards at the Lake Ontario Ordnance Works Office of Economic Adjustment Wastewater Treatment Plant, Lewiston, New York. March.
- New York State Department of Health. 2008. Investigation of Cancer Incidence in the Area Surrounding the Niagara Falls Storage Site and the Former Lake Ontario Ordnance Works, Towns of Lewistown and Porter, Niagara County, New York, 1991-2000. September.
- Science Applications International Corporation. 2011. Remedial Investigation Report Addendum for the Niagara Falls Storage Site. April.
- U.S. Army Corps of Engineers. 2010. Defense Environmental Restoration Program for Formerly Used Defense Sites Archives Search Report, Lake Ontario Ordnance Works. 17 September.
- U.S. Army Geospatial Center. 2009. Niagara Falls Storage Site Historical Photographic Analysis, Lewistown Township, New York. Final. September.

- U.S. Department of Energy. 2010. Niagara Falls Storage Site Vicinity Properties, New York: Review of Radiological Conditions at Six Vicinity Properties and Two Drainage Ditches. October.
- U.S. Department of Energy. 2012. Assessment of Historical Knolls Atomic Power Laboratory Waste Storage Locations, Niagara Falls Storage Site, FUSRAP Site, Lewiston, New York. February.

At that time, 21 parcel groups had a status of response complete (No DoD Action Indicated or NDAI), nine parcel groups required further evaluation of hazards or potential hazards, two parcel groups were ineligible for investigation under DERP-FUDS, and one parcel group was being investigated under the Formerly Utilized Sites Remedial Action Program (FUSRAP) rather than DERP-FUDS.

May 2015 MAP and PMAPs, Update 2

The MAP and 12 associated PMAPs were revised and published in May 2015 for Update 2. These PMAPs were revised because new information became available from a number of documents. The 12 PMAPs that were updated, and the relevant documents are:

- 02: SOMERSETGRP-P1 (Somerset Group, Inc.) and 02: WMLLC-P1 (Waste Management, LLC)
 - Earth Resources Technology, Inc. and EA Engineering, Science, and Technology, Inc. 2013. Final Groundwater Monitoring Well Decommissioning Completion Report, Former Lake Ontario Ordnance Works, Niagara County, New York. June.
- 02: LWSTNTOWN-P4 (Town of Lewiston; former LOOW Wastewater Treatment Plant or WWTP)
 - Earth Resources Technology, Inc. and EA Engineering, Science, and Technology, Inc. 2014. Final Feasibility Study, Wastewater Treatment Plant at the Former Lake Ontario Ordnance Works, Niagara County, New York. June.
- 03: SPECIALCONS-OCCIDENTAL (Occidental Chemical Company Property or OCCP)
 - Earth Resources Technology, Inc. and EA Engineering, Science, and Technology, Inc. 2013b. Final Remedial Investigation Report for the Occidental Chemical Corporation Property at the Formerly Used Defense Site Former Lake Ontario Ordnance Works, Niagara County, New York. April.
- 04-1: SUPPRTFCLTY-LOOW ADMINISTRATIVE OFFICES
- 04-1: SUPPRTFCLTY-LOOW SLURRY POND
- 04-2: GROUP R (30-inch Outfall Line)
- 04-4: GROUP N (Four Mile Creek)
- 04-6: GROUP K (Southwest Drainage Ditch)
- 04-9: TEC GROUP B (historical aerial photograph anomaly, small bermed clearings)
- 04-9: TEC GROUP C (historical aerial photograph anomaly, disturbed ground)
- 04-9: TEC GROUP D (historical aerial photograph anomaly, mounded material)

- The above eight PMAPs were revised per Earth Resources Technology, Inc. and EA Engineering, Science, and Technology, Inc. 2014. Final Site Inspection Report, Ground Disturbances at the Former Lake Ontario Ordnance Works, Niagara County, New York. November.
- All 12 PMAPs were revised per
 - U.S. Army Corps of Engineers. 2012. Defense Environmental Restoration Program-Formerly Used Defense Sites Amended Inventory Project Report for Property No. C02NY0025, Addendum-2, Former Lake Ontario Ordnance Works, LEWISTON, New York. June.

The current status of the environmental investigations on the former LOOW, as reflected in the May 2015 MAP update, is summarized below and in Table 1 for each parcel group:

- Twenty-eight parcel groups had a status of Response Complete, NDAI.
- Two Parcel groups are active/ongoing and require further evaluation of hazards or potential hazards.
- Two parcel groups were ineligible for investigation under DERP-FUDS because they were currently owned by the U.S. government or were transferred from DoD ownership after 17 October 1986.
- One parcel group is being investigated under FUSRAP rather than DERP-FUDS.

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Table 1: LOOW Project Status

Parcel Group	Parcel Group Description	HTRW Active/Ongoing	Response Complete		DERP-FUDS Ineligible	Investigated Under FUSRAP
			No DoD Action Indicated	HTRW/PRP Eligible		
Parcel Group 01 – DERP-FUDS Ineligible Parcels (located within the Former LOOW Developed Zone)						
01: USA-P1-DoD-WETS	U.S. Army National Guard Weekend Training Site (WETS); also known as the Youngstown Local Training Area (YLTA).				X	
01: PostOct96Trans/Sthprt RailTrnLLC-P1	Former Youngstown Test Annex property. Transferred out of DoD ownership after October 1986.				X	
Parcel Group 02 – DERP-FUDS Eligible Parcels within the Former LOOW Developed Zone						
02: ModernAffCo-P2	Property owned by Modern Affiliated Corporation.			X		
02: SomersetGrp-P1	Property owned by Somerset Group Inc.		X			
02: LwstnTown-P2	Property owned by Town of Lewiston and used for maintenance facilities.		X			
02: LwstnTown-P4	Property owned by Town of Lewiston; former LOOW WWTP was located.	X				
02: PorterTown-P2	Property owned by Town of Porter		X			
02: USA_LakeOntOrd-P1	Niagara Falls Storage Site (NFSS)					X
02: ChemWstMngmt-P1	Property owned by Waste Management LLC			X		
Parcel Group 03 – DERP-FUDS Eligible Parcels within the Former LOOW Undeveloped Zone (Special Consideration Property)						
03: SpecCons-School	Lewiston-Porter Central School District.		X			
03: SpecCons-Occidental	Occidental Chemical Corporation Property (OCCP); confirmed DoD impact.	X				

Parcel Group	Parcel Group Description	HTRW Active/Ongoing	Response Complete		DERP-FUDS Ineligible	Investigated Under FUSRAP
			No DoD Action Indicated	HTRW/PRP Eligible		
Parcel Group 04 – DERP-FUDS Eligible Parcels within the Former LOOW Undeveloped Zone (Standard Property with Potential DoD Impacts)						
04-1: Administrative Offices/Slurry Pond/Transportation Center	Part of the former LOOW Administrative Area, freshwater treatment plant slurry pond, or LOOW Transportation Center		X			
04-2: Group R	Parcels traversed by the 30-inch outfall line.		X			
04-3: Group P	Parcels traversed by the 42-inch intake line.		X			
04-4: Group N	Parcels traversed by Four Mile Creek.		X			
04-5: Group L	Parcels traversed by the Central Drainage Ditch.		X			
04-6: Group K	Parcels traversed by the Southwest Drainage Ditch.		X			
04-7: Group J	Parcels traversed by Twelve Mile Creek.		X			
04-8: Group I	Parcels traversed by Six Mile Creek.		X			
04-9: TEC Aerial Anomalies (Groups B, C, and D)	Parcels on which aerial anomalies classified as small bermed clearings (SBCs), disturbed ground/ground scars, or mounded material were noted.		X			
Parcel Group 05 – DERP-FUDS Eligible Parcels within the Former LOOW Undeveloped Zone (Standard Property with No Known or Suspected DoD Impacts)						
05: LandUse Group A01	Parcels with a land use classification of residential.		X			
05: LandUse Group A02	Parcels with a land use classification of industrial.		X			

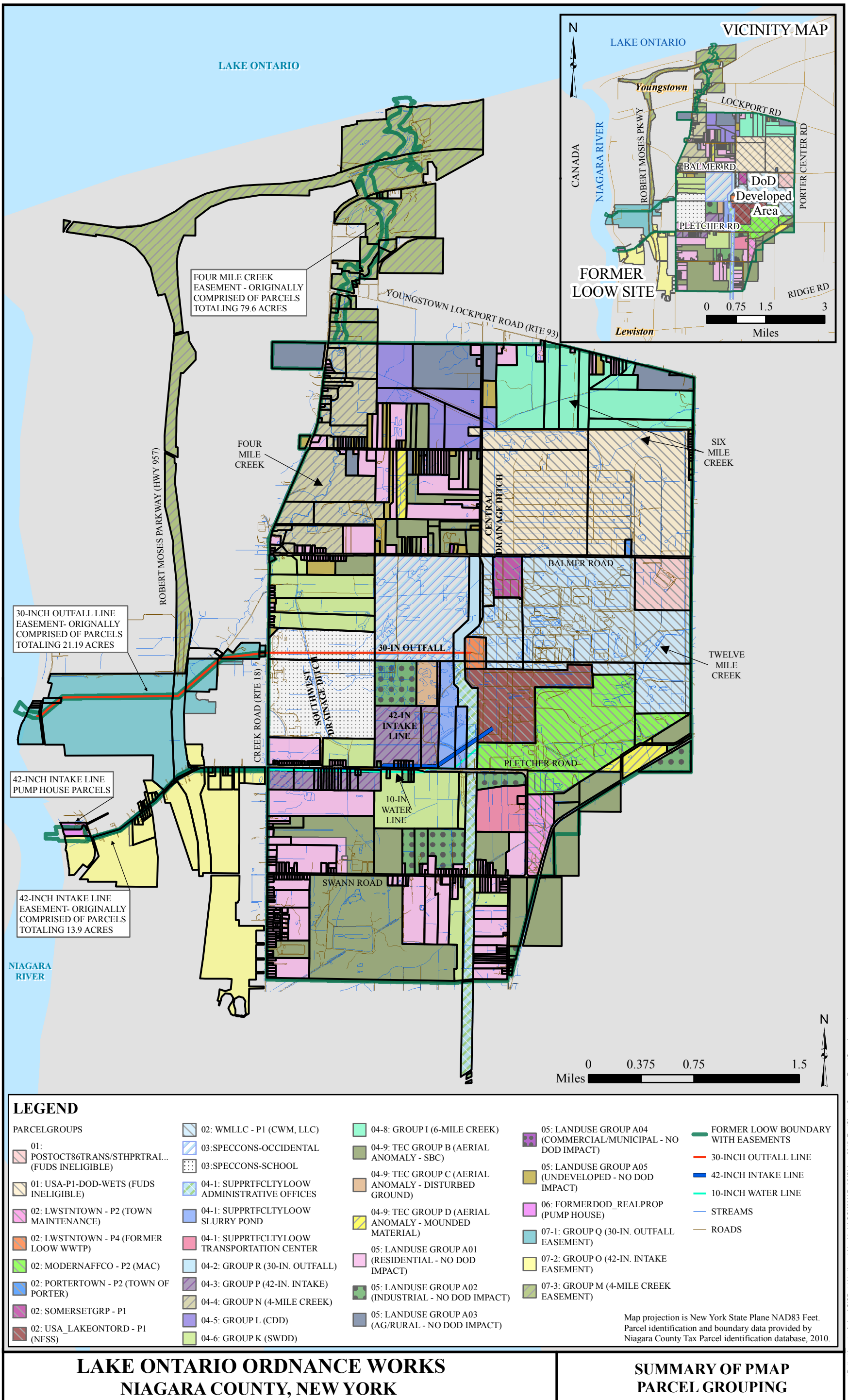
Parcel Group	Parcel Group Description	HTRW Active/Ongoing	Response Complete		DERP-FUDS Ineligible	Investigated Under FUSRAP
			No DoD Action Indicated	HTRW/PRP Eligible		
05: LandUse Group A03	Parcels with a land use classification of agricultural or rural residential.		X			
05: LandUse Group A04	Parcels with a land use classification of commercial, municipal, or community service.		X			
05: LandUse Group A05)	Parcels with a land use classification of undeveloped, recreational, park, or wildlife area.		X			
Parcel Group 06 – DERP-FUDS Eligible Parcels Outside of the Former LOOW Boundary (Former DoD Real Property)						
06: FormerDoD_RealProp	Parcels that were owned by the DoD for use as the 42-inch freshwater intake line pump house.		X			
Parcel Group 07 – DERP-FUDS Eligible Parcels Outside of the Former LOOW Boundary (Former DoD Easement)						
07-1: Group Q	Parcels with an easement for the 30-inch outfall line.		X			
07-2: Group O	Parcels with an easement for the 42-inch intake line.		X			
07-3: Group M	Parcels with an easement along Four Mile Creek.		X			

DERP – Defense Environmental Restoration Program
 DoD – Department of Defense
 FUDS – Formerly Used Defense Site
 FUSRAP – Formerly Utilized Sites Remedial Action Program
 HTRW – Hazardous, Toxic, and Radioactive Wastes
 LOOW – Lake Ontario Ordnance Works
 NDAI – No DoD Action Indicated
 NFSS – Niagara Falls Storage Site
 OCCP – Occidental Chemical Corporation Property

PRP – Potentially Responsible Party
 SBC – Small bermed clearing
 SomersetGrp – Somerset Group
 TNT – Trinitrotoluene
 WETS – (New York Army National Guard) Weekend Training Site. Also known as the Youngstown Local Training Area
 WWTP – Wastewater Treatment Plant
 YLTA – Youngstown Local Training Area

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Figure 1: Summary of PMAP Parcel Grouping



**LAKE ONTARIO ORDINANCE WORKS
NIAGARA COUNTY, NEW YORK**

**SUMMARY OF PMAP
PARCEL GROUPING**