

FINAL

MANAGEMENT ACTION PLAN

FOR THE FORMER

LAKE ONTARIO ORDNANCE WORKS (LOOW)

NIAGARA COUNTY, NEW YORK

UPDATE 2 – MAY 2015

(Update 2.1_2015)



**US Army Corps
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Prepared for:
U.S. Army Corps of Engineers
Baltimore District
Contract W912DR-05-D-0008
Delivery Order 0016



**US Army Corps
of Engineers®**
BUILDING STRONG®

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(410) 584-7000

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Approvers:

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Project Manager

3 April 2015

Date

[Redacted Signature]

Program Manager

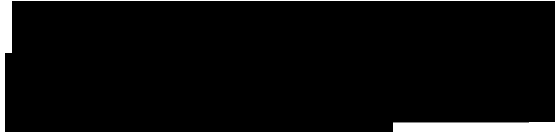
3 April 2015

Date

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COMPLETION OF SENIOR TECHNICAL REVIEW

This document has been produced within the framework of EA's total quality management system. As such, a senior technical review has been conducted. This included review of the overall design addressed within the document, proposed or utilized technologies and alternatives and their applications with respect to project objectives and framework of USACE regulatory constraints under the current DERP FUDS HTRW project within which this work has been completed.



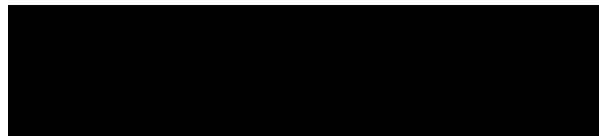
3 April 2015

Date

Senior Technical Reviewer

COMPLETION OF INDEPENDENT TECHNICAL REVIEW

This document has been produced within the framework of EA's total quality management system. As such, an independent technical review, appropriate to the level of risk and complexity inherent in the project, has been conducted. This included review of assumptions (methods, procedures, and material used in analyses), alternatives evaluated; the appropriateness of data used and level of data obtained; and reasonableness of the results, including whether the product meets the project objectives. Comments and concerns resulting from review of the document have been addressed and corrected as necessary.



3 April 2015

Date

Independent Technical Reviewer

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LIST OF ACRONYMS

ACM	Asbestos-containing materials
ACSIM	Assistant Chief of Staff for Installation Management
AEC	Atomic Energy Commission
ASA (I&E)	Assistant Secretary of the Army for Installations and Environment
AST	Aboveground Storage Tank
BD/DR	Building Demolition/Debris Removal
CDD	Central Drainage Ditch
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEMP	Directorate of Military Programs
CNAD	North Atlantic Division
CON/HTRW	Containerized/Hazardous, Toxic, and Radioactive Waste
CX	Center for Excellence
DASA (ESOH)	Deputy Assistant Secretary of the Army for Environment, Safety, and Occupational Health
DD	Decision Document
DEP	Director of Environmental Programs
DERP	Defense Environmental Restoration Program
DPC	Defense Plant Corporation
DoD	Department of Defense
DoE	Department of Energy
DoJ	Department of Justice
EDR	Environmental Data Resources
EE/CA	Engineering Evaluation/Cost Analysis
ER	Engineering Regulation
FDE	Findings and Determination of Eligibility
FUDS	Formerly Used Defense Sites
FUSRAP	Formerly Utilized Sites Remedial Action Program
FS	Feasibility Study
FYDP	Future Years Defense Plan
GIS	Geographical Information System
GOCO	Government-Owned Contractor Operated
HQDA	Headquarters, Department of the Army
HQUSACE	Headquarters, USACE
HTRW	Hazardous, Toxic, and Radioactive Waste
IDW	Investigative Derived Waste
INPR	Inventory Project Report
IRP	Installation Restoration Program

LIST OF ACRONYMS

LOOW	Lake Ontario Ordnance Works
LTM	Long-Term Monitoring
MAC	Modern Affiliated Companies
MC	Munitions Constituents
MEC	Munitions and Explosives of Concern
MM	Military Munitions
MMRP	Military Munitions Response Program
MOU	Memorandum of Understanding
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NDAI	No DoD Action Indicated
NFSS	Niagara Falls Storage Site
NPL	National Priorities List
NTCRA	Non-Time Critical Action
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
ODUSD	Office of the Deputy Under Secretary of Defense
O&M	Operations & Maintenance
OSD	Office of the Secretary of Defense
PA	Preliminary Assessment
PCO	Project Close Out
PDT	Project Delivery Team
PM	Project Manager
PMAP	Property Management Action Plan
PMP	Project Management Phase
POL	Petroleum, Oil or Lubricants
PRP	Potentially Responsible Party
PRG	Preliminary Remediation Goals
RA	Remedial Action
RA-C	Remedial Action – Construction
RA-O	Remedial Action – Operations
RAC	Risk Assessment Code
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RCWM	Recovered Chemical Warfare Materiel
RD	Remedial Design
RI	Remedial Investigation
SARA	Superfund Amendments and Reauthorization Act
SBC	Small Bermed Clearing
SDWA	Safe Drinking Water Act

LIST OF ACRONYMS

SI	Site Investigation
SLERA	Screening Level Ecological Risk Assessment
SWDD	Southwest Drainage Ditch
TAGM	Technical and Administration Guidance Memorandum
TCRA	Time Critical Removal Action
TEC	Topographic Engineering Center
TNT	Trinitrotoluene
TSCA	Toxic Substances Control Act
USACE	U.S. Army Corps of Engineers
USACHPPM	U.S. Army Center for Health Promotion and Preventative Medicine
USAGC	U.S. Army Geospatial Center
USO	United Services Organization
USEPA	U.S. Environmental Protection Agency
UST	Underground Storage Tank
VP	Vicinity Property
YLTA	Youngstown Local Training Area
YTA	Youngstown Test Annex
WETS	Weekend Training Site
WWTP	Wastewater Treatment Plant

DEFINITIONS

Throughout the course of this document, several words or phrases are used that have become recognized idioms when discussing Lake Ontario Ordnance Works (LOOW). To assist the reader who may be unfamiliar with the site, the following definitions are presented.

Buffer Zone	Also referred to as the “undeveloped area (or zone).” It refers to that area of the former LOOW where no manufacturing took place. It is generally considered to consist of approximately 5,000 acres of the western, northern, and southern portion of LOOW. No significant former Department of Defense (DoD) structures are located in this area, with the exception of an open shed formerly used as part of the transportation area, and a fenced storage area. However, various types of disturbances are visible on aerial photographs of the buffer zone taken during the timeframe of DoD use.
DERP	Defense Environmental Restoration Program (DERP). A program developed to address environmental response at active, inactive, and formerly used DoD sites.
Developed Zone	Also referred to as the “developed area.” It refers to that area of the former LOOW where the majority of the manufacturing took place. It is generally considered to consist of approximately 2,500 acres of the eastern portion of LOOW, and is comprised of the former trinitrotoluene (TNT) storage bunkers (north of Balmer Road), the nitration area (north of M Street), the wastewater treatment plant (WWTP) (on property currently owned by the Town of Lewiston), the shops and acid concentration area (on property currently owned by the Department of Energy [DoE] for the Niagara Falls Storage Site [NFSS]), and the administrative area (north of Pletcher Road, on property currently owned by Modern Disposal).
DoD Activities	Refers to activities conducted by the DoD that are known or presumed to have occurred. Note that anecdotal information (such as memories and recollections, stories for which the source is not clear, old newspaper articles, etc.) is considered evidence of possible DoD activity.
DoD Impacts	Defined as concentrations of chemical constituents in soil, sediment, surface water, ground water, or air that exceed health-based risk criteria developed by regional U.S. Environmental Protection Agency (USEPA) offices or the New York State Department of Environmental Conservation (NYSDEC) and that can be attributed to the DoD with reasonable confidence. Anecdotal information (such as memories and recollections, stories for which the source is not clear, old newspaper articles, etc.) does not indicate possible DoD impact.
Eligibility	For the purpose of this document, eligibility refers to the enabling authority under DoD regulations for Formerly Used Defense Sites (FUDS) environmental response. A property and/or a project may be deemed eligible or ineligible for funding and/or response under DERP FUDS.

DEFINITIONS

Exposure Unit	An area comprised of similar history, contaminants, routes of exposure, and/or regulatory constraints, etc., such that the potential risk to a receptor (human or ecological) can be defined within that unit.
FUDS	A legal term that is defined as real property that was under the jurisdiction of the Secretary of Defense and owned by, leased by, or otherwise possessed by the United States (including governmental entities that are the legal predecessors of DoD or its components, such as Air Force, Navy, etc.) and those real properties where accountability rested with DoD but where the activities at the property were conducted by contractors (i.e., government-owned, contractor operated [GOCO] properties) that were transferred from DoD control prior to 17 October 1986.
FUSRAP	Formerly Utilized Sites Remedial Action Program (FUSRAP). FUSRAP is an environmental cleanup program established in March 1974 by the Atomic Energy Commission (AEC) (predecessor of the DoE) under the authority of the Atomic Energy Act of 1954. This program was created to identify, investigate and take appropriate cleanup action at sites with radioactive contamination from the nation's early atomic energy program. In October 1997, the management of the program was transferred from the DoE to the U. S. Army Corps of Engineers (USACE). The program is important to the LOOW site because the NFSS, a FUSRAP site, is located within the boundary of the former LOOW. Investigations on FUSRAP and neighboring Vicinity Properties (VPs) are conducted under FUSRAP and not under DERP FUDS.
Investigative Area	An area identified during the Phase I and Phase II Remedial Investigations (RI) comprised of similar history, contaminants, routes of exposure, and/or regulatory constraints. Exposure Unit designations used in later RIs and in risk assessments were based on these Investigative Areas.
Modern Affiliated Companies (MAC)	Those companies owned by any of the following: Modern Disposal Corporation, Modern Landfill, Inc., Modern Recycling.
NFSS	Niagara Falls Storage Site, a 191-acre FUSRAP site located within the former LOOW developed area. Environmental response for both radiological and FUDS eligible hazards at the NFSS is being conducted under the FUSRAP and not under FUDS.

DEFINITIONS

Operable Unit	A term developed by the USEPA to describe environmental responses addressing geographic portions of a site, specific site problems, or initial phases of an action, or any set of actions that are concurrent but located in different parts of a site. The determination of an operable unit may vary over time as a result of change in activity or need.
LOOW Boundary	Refers to that area of the main contiguous acreage acquired for construction of the former LOOW. The area is loosely bounded by Youngstown-Lockport Road (Route 93) to the north, Porter Center Road to the east, Creek Road (Route 18) to the west, and Ridge Road to the south (the boundary is approximately 4,500 feet [ft] north of Ridge Road).
Parcel	An area of real property as identified and described by Niagara County Department of Real Property Tax.
Parcel Group	A single parcel or multiple parcels with similar characteristics with regard to FUDS property eligibility requirements, 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.
PMAP	A management plan for each parcel group that presents the environmental impacts, response strategy, and response status for a parcel or group of parcels with similar characteristics.
Wastewater Treatment Plant (WWTP)	A WWTP built during the initial construction of LOOW to treat sanitary sewer and acidic wastes, and to dilute wastewater used in manufacturing of TNT. Subsequently used by other Federal agencies after the closing of LOOW. It is currently owned by the Town of Lewiston.
30-in. Outfall Line	The discharge line from the WWTP to the Niagara River.

RECORD OF REVISIONS

This is the draft version of the second update of the Management Action Plan. As such, it is **update number 2.1_2015 dated May 2015.** Significant changes to the text of the Management Action Plan, PMAPs, and tables are indicated by yellow highlighting and boxed text.

Update number format represents the following:

- First digit – the update number. The first Management Action Plan will be 0. The first update will be 1, etc.
- Second digit – represents the version of that update. For example, a preliminary draft will be “.0,” a draft may be “.1,” and a final may be “.2.” Any reissue due to an important policy change that could not wait until the next full update may be “.3.”
- Year – the year in which the update is submitted.

Subsequent record of revisions shall list:

- Each Property Management Action Plan (PMAP) parcel group.
- Number of parcels in each PMAP parcel group- including which (if any) parcels have been added or deleted from the group. Note, changes in real property tax boundaries (i.e., parcel boundaries) may not be updated for each update of the Management Action Plan. Parcel data in this version of the document (2.1_2015) were obtained from the Niagara County Department of Real Property Tax in 2010.
- Last date of changes in property or project eligibility for each parcel group.
- Last date of changes in response strategy (if any) for each parcel group.
- Last date of change in status, including issuance of project declaration statements and regulatory concurrence for each parcel group.

Furthermore, the database developed for this Management Action Plan has been designed to capture changes made, the type of change, and the date on which the change was made. Forms capturing these changes shall be incorporated into subsequent updates of the Management Action Plan.

RECORD OF REVISIONS

Parcel Group Database Code	Number of Parcels in Group	Parcels added to the Group	Parcels removed from the Group	Last Date of Changes in Property or Project Eligibility	Last Date of Changes in Response Strategy	Last Date of Change in Status
01: PostOct86Trans/ SthprtRailTrnLLC-P1	1	--	--	--	--	--
01: USA-P1-DoD-WETS	4	--	--	--	--	--
02: ChemWstMngmnt - P1	7	--	--	--	2011	2011
02: Lwstn Town - P2	1	--	--	--	--	--
02: Lwstn Town - P4	2	--	--	--	2015	2015
02: Modern AffCo - P2	3	--	--	--	2011	2011
02: Porter Town - P2	1	--	--	--	--	--
02: Somerset Grp - P1	1	--	--	--	--	--
02: USA_LakeOntOrd - P1	1	--	--	--	--	2011
03:Spec Cons- Occidental	1	--	--	--	2011	2015
03:Spec Cons- School	2	--	--	--	2011	2011
04-1: SupprtFclyLOOW Administrative Offices	1	--	--	--	2011	2015
04-1: SupprtFclyLOOW Slurry Pond	2	--	--	--	2011	2015
04-1: SupprtFclyLOOW Transportation Center	2	--	--	--	--	--
04-2: Group R	1	--	--	--	2011	2015
04-3: Group P	25	--	--	--	2011	2011
04-4: Group N	24	--	--	--	2011	2015
04-5: Group L	5	--	--	--	2011	2011
04-6: Group K	12	--	--	--	2011	2015
04-7: Group J ¹	0	--	--	--	2011	2011
04-8: Group I	9	--	--	--	--	2011
04-9: TEC Group B	32	--	--	--	2011	2015
04-9: TEC Group C	1	--	--	--	2011	2015
04-9: TEC Group D	2	--	--	--	2011	2015
05: LandUse Group A01	284	--	--	--	--	--
05: LandUse Group A02	22	--	--	--	--	--
05: LandUse Group A03	25	--	--	--	--	--
05: LandUse Group A04	1	--	--	--	--	--
05: LandUse Group A05	32	--	--	--	--	--
06: FormerDOD_RealProp	2	--	--	--	--	--
07-1: Group Q	10	--	--	--	--	--
07-2: Group O	30	--	--	--	--	--
07-3: Group M	24	--	--	--	--	2011

-- = No change

¹ Parcels along Twelve Mile Creek were targeted for inclusion into parcel group 04-7: Group J. However, due to the hierarchy used in placing parcels into parcel groups, this group has no parcels.

Information highlighted in yellow indicates changes from Management Action Plan Update 1.2_2013.

EXECUTIVE SUMMARY

This Management Action Plan and attached Property Management Action Plans (PMAPs) present a summary of the U.S. Army Corps of Engineers (USACE) strategy for completing and closing, on a real property basis, the parcels comprising the former Lake Ontario Ordnance Works (LOOW) that meet the definition of a Formerly Used Defense Site (FUDS) under the Department of Defense (DoD) Defense Environmental Restoration Program (DERP). The USACE is responsible for FUDS environmental restoration program management and execution. To date, the environmental response at the former LOOW has been performed at several areas of concern on properties owned by various property owners, which has presented challenges for project prioritization, funding, and closure. Due to the size and complexity of the former LOOW site, the USACE developed a strategy, presented in this Management Action Plan, to break the LOOW site down into manageable units based on property parcels, or groups of parcels, and to review the history, impacts, and environmental response based on current property ownership. The intent is to present a concise representation of the past DoD activities and impacts on the parcel (or parcel group), the strategy for addressing those impacts, and the current status of the environmental response at the parcel. It also provides a vehicle for presentation of project declaration statements (such as “no further DoD action indicated” [NDAI]) to the lead regulator for eventual regulatory concurrence and closure. The USACE intent is to periodically update the Management Action Plan to capture changes in available information regarding past DoD use of the property, response strategy, and status of the response. This is a working document and the content contained herein is likely to change over time.

There are over 550 parcels (as defined by the Niagara County Department of Real Property Tax) comprising the former LOOW. Many of the parcels have similar attributes with regard to land use and past DoD activities. Therefore, the parcels were grouped based on the hierarchy and parameters discussed in Section 1.4. The methodology resulted in 33 parcel groups. For each parcel group, an evaluation of the eligibility of potential hazards from past DoD use was made with regard to the five project types under DERP FUDS:

- Hazardous, toxic, and radiological wastes (HTRW) project eligible hazards.
- Containerized hazardous, toxic, and radiological wastes (CON/HTRW) project eligible hazards.
- Military munitions response program (MMRP) project hazards.
- Building demolition and debris removal (BD/DR) eligible project hazards.
- The possibility of impact from other potentially responsible parties (PRP).

The eligibility, with regard to each project type, was categorized as listed below. Additional detail for the definition of each status group is presented in Section 1.4.2.

- Ineligible – the parcel group was either comprised of a parcel or parcels that were not an eligible FUDS property, or there are no FUDS eligible projects at an eligible FUDS property. For example, in the case of a BD/DR project, the parcel group is described as “ineligible” if the parcel(s) did not meet the requirements for a BD/DR project. For HTRW, MMRP, CON/HTRW, and HTRW/PRP project status determination, all parcel

groups that met the definition of a FUDS were considered eligible, although specific hazards may not be present and action within the project may not be required.

- Inactive – eligible hazards have been identified and an environmental response may be required, but no response action has been initiated under DERP FUDS to date.
- Active/Ongoing – environmental response has already been initiated to address eligible hazards under an authorized FUDS project.
- Pending – eligible hazards have been identified and a project has been proposed in an Inventory Project Report (INPR) or INPR addendum, but the project has not yet been authorized.
- Closed-PRP – indicates that a legal resolution has been reached between the PRP(s) and the USACE that releases the USACE from responsibility for, and authority to, conduct environmental response actions at the hazard(s) or parcel(s) identified in the settlement.
- NDAI Category I - After completion of INPR efforts, the USACE determined that hazards were not attributable to the DoD, or the project is not approved for policy reasons.
- NDAI Category II - After completion of a Site Investigation, the USACE determined that hazards do not pose a risk to human health or the environment, nor do they pose an explosives safety hazard.
- NDAI Category III - After completion of a Remedial Investigation/Feasibility Study, the USACE determined that hazards do not require further response actions.
- NDAI Category IV - A response action, including the full period required for long term monitoring, has been completed.
- NDAI/PRP - The only remaining areas of possible past DoD impacts that have not been fully addressed under the HTRW environmental response process are areas with a high likelihood of impacts by non-DoD parties, and the policy decision has been made to discontinue the investigation/response action under HTRW due to those non-DoD impacts.

Of the 33 parcel groups, two do not meet the definition of a FUDS and therefore do not have a response strategy outline in this Management Action Plan. A third parcel group does not contain any individual properties, as the properties were placed into other parcel groups based on the hierarchy explained in Section 1.4. One parcel group that was originally eligible for FUDS programs is no longer eligible because Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) liability was resolved through Judicial Consent Decree. Of the remaining 29 parcel groups comprised of parcels meeting the requirements of a FUDS, hazards at 27 parcel groups have been evaluated sufficiently for the USACE to reach decisions of NDAI for HTRW, CON/HTRW, MMRP, and BD/DR projects. Potential HTRW hazards are present at

the two remaining parcel groups, which will continue to be addressed in active/ongoing HTRW projects.

It should be noted that while potential BD/DR hazards have been identified, none of them are eligible for evaluation. In addition, an Archives Search Report (ASR) was completed for the LOOW (USACE 2010), and it was determined that there are no known MMRP hazards. For these reasons, no BD/DR or MMRP projects have been authorized. A PRP/HTRW project is authorized, but there are no active evaluations being conducted under that project.

Table ES-1 lists each parcel group abbreviation, a description of the parcel group, and the general status with regard to the FUDS projects.

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TABLE ES-1 SUMMARY OF PARCEL GROUPING AND STATUS FOR LOOW FUDS PROJECTS

Parcel Group Database Code¹	Parcel Grouping Decision Pathway Abbreviation	HTRW Project Status	CON/HTRW Project Status	MMRP Project Status	BDDR Project Status	PRP Project Status
01: PostOct86Trans/ SthprtRailTrnLLC-P1	FUDS Ineligible - Post 10/17/86 Transfer-Southport Rail Transfer LLC. POC: [REDACTED] [REDACTED]-P1	Ineligible	Ineligible	Ineligible	Ineligible	Ineligible
01: USA-P1-DoD-WETS	FUDS Ineligible/DOD-Owned/United States Of America -P1-DoD-WETS	Ineligible	Ineligible	Ineligible	Ineligible	Ineligible
02: ChemWstMngmnt - P1	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: Chemical Waste Management Inc. - P1	Response Complete NDAI - Cat. III and PRP (01)	Response Complete NDAI – Cat. IV	Response Complete NDAI – Cat. I	Ineligible	Inactive
02: LwstnTown - P2	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: Town Of Lewiston - P2	Response Complete NDAI – Cat. II (01)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
02: LwstnTown - P4	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: Town Of Lewiston - P4	² Response Complete NDAI - Cat. III (01) and Active/Ongoing (10)	Response Complete NDAI – Cat. IV	Response Complete NDAI – Cat. I	Ineligible	Inactive
02: ModernAffCo - P2	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: Modern Affiliated Companies - P2	Response Complete NDAI - Cat. III and PRP (01)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
02: PorterTown - P2	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: Town Of Porter - P2	Response Complete NDAI – Cat. I (01)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I
02: SomersetGrp - P1	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: Somerset Group Inc - P1	Response Complete NDAI – Cat. III and PRP (01)	Closed - PRP	Closed - PRP	Ineligible	Closed - PRP
02: USA_LakeOntOrd - P1	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: US Government (Lake Ont. Ord) - P1 (NFSS)	Response Complete NDAI – Cat. I (01)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I
03:SpecCons-Occidental	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Special Consideration: Occidental	² Response Complete NDAI - Cat. III (01) and Active/Ongoing (11)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
03:SpecCons-School	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Special Consideration: School	Response Complete NDAI - Cat. III (01)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive

TABLE ES-1 SUMMARY OF PARCEL GROUPING AND STATUS FOR LOOW FUDS PROJECTS

Parcel Group Database Code ¹	Parcel Grouping Decision Pathway Abbreviation	HTRW Project Status	CON/HTRW Project Status	MMRP Project Status	BDDR Project Status	PRP Project Status
04-1: SupprtFclyLOOW Administrative Offices	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/Support Facility/LOOW Administrative Offices	Response Complete NDAI - Cat. III (01) and Response Complete NDAI - Cat. II (12)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
04-1: SupprtFclyLOOW Slurry Pond	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/Support Facility/LOOW Slurry Pond	Response Complete NDAI - Cat. III (01) and Response Complete NDAI - Cat. II (12)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
04-1: SupprtFclyLOOW Transportation Center	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/Support Facility/LOOW Transportation Center	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
04-2: Group R	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/30-Inch Outfall	Response Complete NDAI - Cat. III (01) and Response Complete NDAI - Cat. II (12)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
04-3: Group P	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/42-inch Intake	Response Complete NDAI - Cat. I (01)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
04-4: Group N	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/4-MileCreek	Response Complete NDAI - Cat. III (01) and Response Complete NDAI - Cat. II (12)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
04-5: Group L	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/Central Drainage Ditch	Response Complete NDAI - Cat. III (01)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
04-6: Group K	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/Southwest Drainage Ditch	Response Complete NDAI - Cat. III (01) and Response Complete NDAI - Cat. II (12)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
04-8: Group I	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/6MileCreek	Response Complete NDAI - Cat. III (01)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive

TABLE ES-1 SUMMARY OF PARCEL GROUPING AND STATUS FOR LOOW FUDS PROJECTS

Parcel Group Database Code¹	Parcel Grouping Decision Pathway Abbreviation	HTRW Project Status	CON/HTRW Project Status	MMRP Project Status	BDDR Project Status	PRP Project Status
04-9: TEC Group B	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/TEC Aerial Anomaly/SBC	Response Complete NDAI - Cat. II (01) and Response Complete NDAI - Cat. II (12)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
04-9: TEC Group C	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/TEC Aerial Anomaly/disturbed ground/scar	Response Complete NDAI - Cat. I and PRP (01) and Response Complete NDAI - Cat. II (12)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
04-9: TEC Group D	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/TEC Aerial Anomaly/material/ mounded material	Response Complete NDAI - Cat. I (01) and Response Complete NDAI - Cat II (12)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
05: LandUse Group A01	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/No DOD Impact/Land Use: Residential	Response Complete NDAI – Cat. I (01)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
05: LandUse Group A02	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/No DOD Impact/Land Use: Industrial	Response Complete NDAI – Cat. I (01)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
05: LandUse Group A03	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/No DOD Impact/Land Use: Agricultural/Rural	Response Complete NDAI – Cat. I (01)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
05: LandUse Group A04	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/No DOD Impact/Land Use: Commercial/Municipal/Community Service	Response Complete NDAI – Cat. I (01)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
05: LandUse Group A05	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/No DOD Impact/Land Use: Undeveloped/parks/rec/wildlife	Response Complete NDAI – Cat. I (01)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
06: FormerDOD_RealProp	FUDS Eligible/Outside LOOW/Former DOD Real Property/LOOW Freshwater Intake Pump House	Response Complete NDAI – Cat. I (01)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I
07-1: Group Q	FUDS Eligible/Outside LOOW/Former DOD Easement/30-Inch Outfall	Response Complete NDAI - Cat. III (01) and PRP	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive

TABLE ES-1 SUMMARY OF PARCEL GROUPING AND STATUS FOR LOOW FUDS PROJECTS

Parcel Group Database Code ¹	Parcel Grouping Decision Pathway Abbreviation	HTRW Project Status	CON/HTRW Project Status	MMRP Project Status	BDDR Project Status	PRP Project Status
07-2: Group O	FUDS Eligible/Outside LOOW/Former DOD Easement/42-inch Intake	Response Complete NDAI – Cat. I (01)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
07-3: Group M	FUDS Eligible/Outside LOOW/Former DOD Easement/4-Mile Creek	Response Complete NDAI – Cat. I (01)	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive

Note that parcels were placed into parcel groups based on a hierarchy of DoD activity and land use as described in Section 1.4, and a parcel may only be included into a single parcel group. Therefore, there may be some parcels included in one parcel group, that have some of the attributes of another parcel group. For example, the 03:SepcCons-School parcel group was traversed by both the Southwest Drainage Ditch (SWDD) and the 30-in. outfall line, but was included into a special considerations group because of potentially sensitive receptors (school children) and was therefore not included into the 30-in. outfall or SWDD parcel groupings.

Two digit numbers in parentheses, e.g. (01), are the HTRW project number that has the noted status.

Information highlighted in yellow indicates changes from Management Action Plan Update 1.2_2013.

¹ Parcels along Twelve Mile Creek were targeted for inclusion into parcel group 04-7: Group J. However, due to the hierarchy used in placing parcels into parcel groups, this group currently has no parcels.

1. INTRODUCTION

1.1 BACKGROUND

The original Lake Ontario Ordnance Works (LOOW) was constructed as an explosives production plant during World War II. After the war, the site was subdivided and owned and/or operated by a variety of federal and non-federal landowners. Ongoing Remedial Investigations (RIs) are assessing the nature and extent of contamination associated with process areas and underground utility lines of the former trinitrotoluene (TNT) plant and subsequent Department of Defense (DoD) operations that are fully eligible for investigation within the approved and ongoing Defense Environmental Restoration Program (DERP) Formerly Used Defense Site (FUDS) Hazardous, Toxic, and Radioactive Waste (HTRW) project.

Due to the size of the former LOOW (7,567.46 acres), the number of current parcels (over 550), and variability in site use (e.g., school to a Subtitle C landfill), the planning, funding, and execution of environmental response activities (including closure of those areas not adversely impacted) has been challenging.

1.2 PROJECT SCOPE

The LOOW Management Action Plan is intended to integrate and evaluate information from prior USACE reports and relevant non-USACE sources to establish a single comprehensive agency planning document in which the USACE formally communicates findings, conclusions, and a framework to achieve the objectives of the USACE Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) responsibilities at the former LOOW site. The LOOW Management Action Plan is not intended to replace or serve as a formal CERCLA decision document (i.e., Proposed Plan or Record of Decision), but rather is a planning document with an anticipated path forward for completion of the DERP FUDS mission at the property parcels comprising the former LOOW. The LOOW Management Action Plan addresses the original 7,453.28 acres of real property and 114.18 acres in easements, including both FUDS eligible and ineligible properties, comprising the LOOW site.

At FUDS eligible properties, USACE investigations have subdivided the former LOOW into real property parcels, process areas, operable units, and exposure units. The LOOW Management Action Plan is structured according to real property parcels, as defined by Niagara County Department of Real Property Tax and current as of 2010, as the primary subdivision of the former site. This Management Action Plan accumulates and integrates information from past USACE investigations and provides a property management action plan (PMAP) for each real property parcel (or group of parcels with the same owner) within the “Developed Zone” of the former LOOW (Appendix B). In the “Undeveloped” or “Buffer Zone” of the former LOOW, the Management Action Plan addresses groups of properties based on site use, zoning, or other criteria. Separate PMAPs are developed for select high priority properties in the former “Buffer Zone” including the Lewiston-Porter Central School District Property, and each of the former DoD easements (water supply, wastewater discharge, and storm water discharge via 4-Mile Creek). Additional information on the methodology used in grouping parcels is discussed in Section 1.4.

Each PMAP has been developed as a complete document, such that the reader need not reference this forward portion of the Management Action Plan. However this has resulted in some reiteration between Sections 1 through 5 of the PMAP and Sections 1 through 4 of the Management Action Plan. Each PMAP follows the same outline as presented below:

- Executive Summary – a database-populated summary sheet detailing which parcels (by tax parcel identification number) are included in the PMAP parcel group, the eligibility of the parcels for inclusion into FUDS programs and projects, and project status.
- Logic Diagram – a logic tree illustrating the parcel grouping process for parcels in that PMAP.
- Location Figure – a figure illustrating where the parcels included in the PMAP parcel group are located within the LOOW boundary.
- Text – presents the rationale for eligibility for inclusion into a FUDS environmental response project, a summary of USACE decisions and documentation regarding each property’s status with respect to DERP and Formerly Utilized Sites Remedial Action Program (FUSRAP), a strategy for closure within FUDS, and the general status of strategy implementation (e.g., does action need to be taken [if so, what are the recommended actions], is no DoD action indicated [NDAI] such that the parcels included in that PMAP grouping can be closed) and non-FUDS environmental investigations at these properties (if applicable). Each text follows the same outline:
 - Introduction
 - Statutory Authority
 - Regulatory Context
 - Organizational Responsibility
 - Available Information
 - Property Activities
 - Environmental Impacts
 - Property Eligibility
 - Project Eligibility
 - Response Strategy
 - Response Status.

1.3 PROJECT OBJECTIVES

The primary project objective of the LOOW Management Action Plan is to establish a single written, comprehensive, agency planning document in which USACE formally communicates issues, findings, conclusions, and recommendations to achieve the objectives of the USACE CERCLA responsibilities at the former LOOW site. The intent is for the USACE to publish updates to this plan based upon progress made on remedial issues, consideration of public input, and possible receipt of new information.

The LOOW Management Action Plan will be available to the public to communicate the status of existing and future USACE environmental responses and decisions at each former LOOW property parcel with respect to DERP FUDS and FUSRAP. The LOOW Management Action Plan is not intended to replace or serve as a formal CERCLA decision document (i.e., Proposed Plan or Record of Decision). It is intended to integrate and summarize key facts, findings, and recommendations from numerous USACE and non-USACE investigations and information related to the former LOOW. The LOOW Management Action Plan shall serve to guide the overall USACE remedial planning, design, and execution requirements to achieve CERCLA requirements. In addition to the primary objective stated above, the supporting objectives of the project are:

- Articulating USACE positions in the context of property ownership rather than program scope or environmental media (integrate issues, facts, findings, decisions, and recommendations for each property of the former LOOW in a common framework).
- Articulating USACE positions on federal authority and program/project scope and their objectives for DERP FUDS and FUSRAP at each property. Specifically indicate which environmental response activities the USACE is authorized (and not authorized) to execute at the former LOOW under each program for each property to include properties/areas deferred for potential Potentially Responsible Party (PRP) actions.
- Articulating USACE remedial objectives, their status, and their projected closure requirements to include historical events and impacts, federal/non-federal impacts, remedial investigation findings, risk assessment findings, feasibility for remedial alternatives, legal and regulatory issues, and community issues.
- Guiding USACE discussions with stakeholders to help capture and focus concerns, communicate USACE positions and recommendations, and provide a framework for outreach activities.

1.4 METHODOLOGY

This Management Action Plan presents an integration of the individual PMAP findings and recommendations. Appendix B presents the individual PMAPs upon which this Management Action Plan is based. As discussed above, PMAPs were developed for parcel groups based upon certain property attributes, such as ownership, land use, past DoD site use, etc. Section 1.4.1 describes the methodology used in assigning parcels into parcel groups for each PMAP. Section 1.4.3 describes the organization of and type of information presented in each PMAP.

1.4.1 Parcel Grouping

To streamline the strategy for eventual site closure of LOOW and to meet the project objectives, the first step involved grouping parcels with similar attributes. There are over 550 parcels within the former LOOW boundary and easements placed during the development of LOOW (Figure 1-1). Many of these parcels are similar with respect to former DoD activities (or lack of activity) conducted on the parcel, status with regard to DERP FUDS hazards, and current land use. These

similarities were used to develop parcel groups with similar strategies for closure within DERP FUDS. The following sections present the attributes and the general logic/order used to group parcels into specific PMAPs.

Each of the attributes discussed in the sections below were used in assigning the parcel into a parcel group. A database was developed to assist in tracking the individual attributes for each parcel. Some of the attributes are not mutually exclusive. In other words, a single parcel may be described as both “traversed by the Central Drainage Ditch,” “traversed by the 30-in. outfall line,” and is considered a “special consideration” parcel. Therefore, a hierarchy for assignment into a parcel group was established. The hierarchy is loosely represented by the order in which the following subsections appear.

Figure 1-2 presents an example logic diagram for establishing parcel groups. Each PMAP has a similar figure, edited with yellow highlighting to indicate the logic used for grouping the parcels in that PMAP. The figure is essentially a flow diagram that can be followed by determining whether or not the statement in the gray box applies to the parcel in question. For example, the first step in grouping parcels was to determine: is the parcel FUDS Ineligible or FUDS Eligible (Section 1.4.1.1). Parcels that are FUDS ineligible were grouped based on the reason for ineligibility (i.e., currently owned by the DoD or transferred from DoD ownership after 17 October 1986). Note that contiguous parcels were grouped by property owner.

Parcels that are FUDS eligible were further parsed based on whether or not they are located within the LOOW boundary or outside of the LOOW boundary (Section 1.4.1.2). If the parcel is located within the LOOW boundary, it was then examined with respect to whether or not it is located within the former LOOW developed zone or the undeveloped zone (Section 1.4.1.3). Contiguous parcels within the developed zone were grouped by property owner. Parcels located in the undeveloped zone were grouped based on certain parcel attributes, and the hierarchy of attributes is represented by the order in which they are listed on Figure 1-2 (see also Sections 1.4.1.4 and 1.4.1.5). The hierarchy was developed for assigning parcel groups only, and shouldn’t be misconstrued as a “level of importance.”

If a parcel is FUDS eligible, is located within the LOOW boundary, is located within the former LOOW undeveloped zone, and is considered a special consideration property based on one of its attributes (see Section 1.4.1.4), then that parcel was identified as a parcel group, regardless of the other attributes it might have (e.g. being traversed by a man made drainage ditch or underground utility line). If a parcel is FUDS eligible, is located within the LOOW boundary, is located within the former LOOW undeveloped zone, and does *not* have a special consideration attribute, then it would be grouped based on whether or not potential DoD impacts were present on the property and the other attributes it had (e.g. a former LOOW support facility, or being traversed by a former LOOW utility line). As mentioned earlier, the hierarchy used for defining parcel groups is represented by the order in which they are presented on Figure 1-2.

1.4.1.1 Parcel Grouping With Regard to FUDS Eligibility

Each parcel associated with LOOW was evaluated with regard to eligibility for inclusion into DERP FUDS. Only those parcels meeting required eligibility criteria can be considered for the FUDS program (see Section 2.1.1.1). The main criterion is that the parcel be formerly owned and/or used by the DoD and transferred from DoD ownership prior to 17 October 1986. Currently, only those parcels owned and used for the Youngstown Local Training Area (YLTA, formerly known as the Army National Guard Weekend Training Site [WETS]) and a parcel transferred by the U.S. Air Force in 2007 (formerly the Youngstown Test Annex [YTA]) are ineligible (Figure 1-1). All other parcels and easements (see Section 1.4.1.2) were deemed eligible for DERP FUDS response action, if required.

1.4.1.2 Parcel Grouping With Regard to the LOOW Boundary, Real Property, and Easements

Each parcel associated with the LOOW Management Action Plan was evaluated with regard to where the parcel lies in reference to the “LOOW boundary.” The LOOW boundary refers to the main portion of the approximately 7,500 acres of real property (as opposed to easements) acquired for LOOW that is loosely bounded by Creek Road to the west, by Youngstown-Lockport Road (Route 93) to the north, by Porter-Center Road to the east, and to the south the boundary ends approximately 4,500 ft north of Ridge Road. Although a portion of real property acquired for LOOW was outside of this area (namely, the fresh water intake pump house property), these remote parcels have been traditionally excluded from the definition of “inside the LOOW boundary” because they are not contiguous with the main portion of real property acquired for the site. Note that the definition of “outside of the LOOW boundary” with regard to this Management Action Plan is used for parcel grouping only, and by no means dictates eligibility or indicates a decision to exclude those parcels from the LOOW environmental response program.

Each parcel was also further evaluated as to whether it was a part of the LOOW that was acquired outright as real property or a portion of an easement. There were three easements associated with the acquisition of LOOW:

- The 4-Mile Creek easement comprised of 79.6 acres and extending from the northern LOOW boundary north to Lake Ontario.
- The 30-in. outfall line easement comprised of 21.19 acres and extending west from the western LOOW boundary at Creek Road to the Niagara River, including the discharge hydraulic head house.
- And the 42-in. intake line comprised of 13.39 acres and extending west from the western LOOW boundary at Creek Road to the Niagara River.

Figure 1-1 illustrates the traditional LOOW boundary, the real property parcels on the Niagara River (for the freshwater pump house), and the three easements.

1.4.1.3 Parcel Grouping of the Former LOOW Developed and Undeveloped Areas

During the operation of LOOW, the majority of the TNT manufacturing activities occurred within the eastern portion of the LOOW boundary. The western portion remained undeveloped (presumably for possible future expansion from a six-line TNT plant to a 12-line plant) and was referred to as the “buffer zone.” Each parcel included in the Management Action Plan was evaluated as to whether the parcel was within or outside of the highly developed area of the former LOOW. More DoD activities occurred within the developed area. Therefore, parcel groups were comprised of fewer parcels and were grouped based on ownership only—adjacent parcels with the same owner located in the former developed area of LOOW were included in a single parcel group as described in Table 1-1.

Additional considerations, listed below, were given to those parcels located outside of the developed area in the buffer zone, such that parcels with similar attributes could be grouped and discussed in a single PMAP.

1.4.1.4 Parcel Grouping of the Undeveloped Area - Parcels With Special Considerations

Sensitive properties and/or properties with known DoD impacts are given special consideration and will be discussed in individual PMAPs. Sensitive properties include schools, for example. Because one objective of the PMAP is to present a strategy for regulatory closure, any parcel with known DoD impacts will be presented in a separate PMAP (unless it is one of several adjacent parcels owned by the same owner). Within the buffer zone, any parcel with known DoD impacts or that has a large number of sensitive receptors (such as the Lewiston-Porter Central School District property) are classified as a special consideration parcel.

1.4.1.5 Parcel Grouping of the Undeveloped Area – Parcel Attributes With Regard to DoD Activities

Within the undeveloped area, each parcel was assessed with regard to the DoD activities that took place there. There are several “activity types” that were identified. The term “activity” is loosely defined and includes DoD support facilities, traversing of the parcel by underground utilities placed by the DoD for LOOW, traversing of the parcel by large man-made drainages put in place during the construction of LOOW, traversing of the parcel by natural drainages, presence of ground scarring or other anomalies as determined by review of aerial photographs during the timeframe of DoD use, etc. Parcels having undergone the same activity were grouped into a single PMAP. Because each PMAP is to present a strategy for closure for the hazards on that parcel (or all parcels within that parcel group), the decision was made that a parcel could be included in only one parcel group. However, a single parcel may have experienced several different types of past DoD activities. Therefore, a parcel grouping hierarchy¹ was assigned to the activity type as follows:

¹ The hierarchy is for assigning parcel groups and shouldn’t be misconstrued as “level of importance” or “significance of activity.” The prioritization was selected based upon a scenario that would result in the maximum number of separate PMAPs.

1. Support facility—for example, the former LOOW transportation center.
2. 30-in. outfall line—originates from the former LOOW WWTP and formerly discharged to the Niagara River. That portion of the line beyond the former LOOW boundary was used under an easement to the DoD.
3. 42-in. intake—a fresh water intake line originating from a pump house located on the Niagara River and terminating at the former LOOW freshwater treatment plant. That portion of the line beyond the former LOOW boundary was used under an easement to the DoD.
4. Four-Mile Creek—A natural drainage that accepted discharge from many man-made drainages on LOOW. That portion of the Creek beyond the former LOOW boundary was used under an easement to the DoD.
5. Central Drainage Ditch (CDD)—a man-made drainage discharging to Four Mile Creek.
6. Southwest Drainage Ditch (SWDD) —a man-made drainage discharging to Four Mile Creek.
7. Twelve-Mile Creek—A natural drainage originating in the southeast corner of LOOW.
8. Six-Mile Creek—A natural drainage originating in the north-central portion of LOOW.
9. Aerial photograph anomaly—a photographic anomaly discovered during an aerial photograph review performed by the U.S. Army Topographic Engineering Center (TEC) or U.S. Army Geospatial Center (USAGC).
10. No known or suspected activity—for those parcels where no DoD activities or impact were suspected, parcels were grouped based on current land use as defined by the Town Master Plan in which the parcel is located (either the Town of Lewiston or Porter).

An example of how the hierarchy was used for parcel group assignment follows: if a residential parcel contained an aerial photographic anomaly from 1942 (during the timeframe of DoD activity) and was traversed by the SWDD, the parcel was placed into the SWDD parcel grouping. Land use and the presence of aerial anomalies are attributes “below” the SWDD attribute in the parcel grouping hierarchy and are discussed in the text and presented on the figures within the PMAP, but do not influence which group the parcel is placed in. Similarly, if a commercial parcel contained aerial anomalies, was traversed by the CDD and the 30-in. outfall line, the parcel would be included in the 30-in. outfall line parcel grouping.

The remainder of this section discusses pertinent details for each of the buffer zone, hierarchical parcel group definitions.

Support Facilities

Support facilities refer to those features outside of the developed area that were used by the DoD to support ongoing activities at LOOW. They were identified explicitly in available historical documentation or were determined to be support facilities by overwhelming evidence. Examples of known support facilities in the buffer zone include the transportation center, a slurry pond, a portion of the administrative offices, and a presumed storage area. For this Management Action Plan, facilities are defined as real property having undergone verifiable improvements with the

primary purpose to support LOOW. For the purpose of this Management Action Plan, support facilities do not include underground utilities, man-made drainages, or natural surface water drainages.

30-in. Outfall and 42-in. Intake Underground Lines

Each of the parcels included in the LOOW Management Action Plan was assessed as to whether or not it was traversed by either the 30-in. outfall or 42-in. fresh water intake line. Both of these underground utilities were constructed in support of LOOW. A portion of each of these lines (west of Creek Road, Route 18) was constructed and subsequently utilized under easements owned by the DoD. The portions of each line east of Creek Road were placed on real property owned by the DoD. For the purpose of assigning parcels into groups, those parcels west of Creek Road (used under an easement and also referred to as “outside of the LOOW boundary”) that were traversed by either line and those parcels east of Creek Road (on property formerly owned by the DoD and also referred to as “within the LOOW boundary”) traversed by either line were placed into separate parcel groups.

Creeks and Ditches

Each of the parcels included in the LOOW Management Action Plan were assessed as to whether they were traversed by man-made or natural surface water drainages. Parcels traversed by any of the following surface water drainages are identified as such in the database established for this project:

- 4-Mile Creek
- Central Drainage Ditch
- Southwest Drainage Ditch
- 12-Mile Creek
- 6-Mile Creek.

The parcel is included as traversed by these features only if the main body of the surface water drainage, as determined during a 1997 topographic survey and geo-referenced with the 2010 tax parcel boundaries, traverses the parcel. Parcels traversed by tributaries of these drainages are not included in the grouping.

Parcel grouping with regard to surface water drainages was considered important because the ditches were constructed by the DoD during development of LOOW. For example, the CDD and SWDD are man-made. Therefore, parcels traverse by the ditches are considered as having “known DoD activities” take place on the parcel. Because these ditches discharged to natural drainages (i.e., 4-Mile Creek, 6-Mile Creek, and 12-Mile Creek), parcels traversed by these drainages were also considered as having known DoD activities take place on the parcel. Note that the occurrence of DoD activity does not necessarily indicate an adverse environmental impact from those activities.

Aerial Photographic Anomalies

Two analyses of aerial photographs of the LOOW site taken prior to acquisition (circa 1939) and during ownership by the DoD (1942, 1956) were completed. The first analysis was completed in

2002 (TEC 2002) by the TEC; the second analysis was completed in 2009 (USAGC 2009) by the USAGC, which was formerly known as the TEC. Anomalous features that appeared on the photographs during the timeframe of DoD ownership are considered evidence of DoD activity. Several types of anomalies were identified. To incorporate these features into the database being developed for the Management Action Plan, a list of valid values were developed and the TEC/USAGC descriptions standardized to the valid value. Tables 1-2 and 1-3 are included to demonstrate how the descriptions were standardized for the 2002 and 2009 evaluations, respectively. Individual anomalies that were identified during the analyses are illustrated on the figures included in each PMAP with the aerial photograph in which the anomaly was observed.

Current Land Use

Each parcel within LOOW was characterized with regard to land use to assist in parcel grouping. For those parcels with no known or suspected DoD activities, land use was the primary defining attribute for the parcel grouping. Land use was assigned based upon information presented in the Town of Lewiston Comprehensive Plan (URS 2000) and the Comprehensive Plan for the Town of Porter (Smith 2004).

For the Town of Porter, existing land use (as presented in Figure 3-1 of Smith 2004), was utilized to assign land use attributes to each parcel. For the Town of Lewiston, a land use figure was not available. Therefore, zoning information (as per Figure 20 from URS 2000) was utilized as the basis for applying land use attributes to each parcel. In addition, the zoning and land use as presented in the different plans was standardized for inclusion into the Management Action Plan parcel database, as described in Table 1-4.

The total number of parcel groups included in this version of the Management Action Plan is presented in Section 4.

1.4.2 Determination of Parcel Group Project Status

The initial parcel grouping, information specific to the former DoD activities and impacts on the parcel(s), and evaluation of the required and completed USACE response actions were utilized to assign the general status of the parcel group with regard to FUDS projects. As discussed in Section 2.1.1.2, there are five different FUDS project types: HTRW, Containerized/Hazardous, Toxic, and Radioactive Waste (CON/HTRW), Military Munitions Response Program (MMRP), PRP, and Building Demolition/Debris Removal (BD/DR), each with specific types of hazards that are considered eligible (or ineligible) for environmental response under DERP FUDS. Available data regarding each parcel was reviewed (see Section 3) to determine:

- If hazards or potential hazards (e.g. photographic anomalies indicating ground disturbance) were present on the property.
- If the hazards were eligible for inclusion into one of the project types.
- Whether an environmental response had been initiated to address the specific hazard.
- Whether additional or initial environmental response was necessary.

- Whether funding would be required to address the hazard.

The information was utilized to categorize the parcel into one of the following status groups for each project group. To assist the Project Manager (PM) and Project Delivery Team (PDT) in planning, a general assessment of whether funding would be required was also evaluated. The parcel status is presented in each PMAP and is also summarized in table format in each PMAP executive summary.

- Not eligible refers to the overall eligibility of the parcels in the parcel group and not eligibility for inclusion of specific hazards. Parcels not eligible for a project are listed as not requiring funding.
- Response Complete (No DoD Action Indicated [NDAI] Category I) indicates that the parcel(s) is eligible for inclusion into a project, but no eligible hazards have been identified or confirmed. Many parcel groups with the status Response Complete are characterized as requiring funding. This is specifically for completion of a project declaration statement and gaining regulatory concurrence (see Section 2.1.3). With regard to a PRP project, “response complete” indicates that there are no known areas of combined DoD and non-DoD impacts.
- Inactive indicates that hazards within that parcel group have been identified, but a project to specifically address the hazards within that parcel group has not been initiated. For HTRW, CON/HTRW, MMRP, and BD/DR projects, this status results in “funding required” status. However, for PRP projects, a status of “Inactive” indicates that the parcel group has areas of potential combined DoD and non-DoD impacts, and funding is listed as “not required” until the project becomes “Active/Ongoing.”
- Active/Ongoing indicates that hazards have been identified, and an environmental response (Site Investigation [SI], Remedial Investigation [RI], etc.) has been initiated by the USACE. Funding is generally required under this project status.
- Pending indicates that eligible hazards have been identified and a project has been proposed in an Inventory Project Report (INPR) or INPR addendum, but the project has not yet been authorized.
- Closed-PRP indicates that a legal resolution has been reached between the PRP(s) and the USACE that releases the USACE from responsibility for, and authority to, conduct environmental response actions at the hazard(s) or parcel(s) identified in the settlement.
- Response Complete (NDAI Category II) indicates that the USACE had initiated an environmental response under that specific project type, but after completion of SI activities it was determined that additional action is not required because hazards do not pose risk to human health or the environment. If indicated that funding is required, the funding is to complete a project declaration statement and obtain closure, but no

additional assessment is proposed under that specific project type. Additional evaluation may be performed, if required, under a PRP/HTRW project.

- Response Complete (NDAI Category III) indicates that the USACE had initiated an environmental response under that specific project type, but after completion of RI and feasibility study (FS) (if required) activities it was determined that additional action is not necessary because hazards do not require further response actions. If indicated that funding is required, the funding is to complete a project declaration statement and obtain closure, but no additional assessment is necessary under that specific project type. Additional evaluation may be performed, if required, under a PRP/HTRW project.
- Response Complete (NDAI Category IV) indicates that the USACE has completed a remedial action or an equivalent effort. If long term monitoring was required, it has also been completed. Additional evaluation may be performed, if required, under a PRP/HTRW project.

The following chart (adapted from Table 6-5 in USACE 2004) presents a summary of the criteria used to identify each NDAI category.

	INPR Efforts ¹	SI Efforts	RI/FS Efforts	RA Efforts
NDAI Criteria	INPR/ Preliminary Assessment (PA) report indicates no further DoD response action required	SI report indicates no further DoD response action required	RI/FS report indicates no further DoD response action required	All DoD response actions taken
NDAI Category	NDAI-Category I	NDAI-Category II	NDAI-Category III	NDAI-Category IV

¹ Includes the determination of FUDS eligibility or CERCLA PA phase.

1.4.3 Organization and Content of Property Management Action Plans

Each PMAP is organized in the same manner, and is preceded by an executive summary specific to the parcel group.

1.4.3.1 Executive Summary of the PMAP

The executive summary is populated by the database and concisely presents the parcel group designation, parcels included in the parcel group, the status of the parcel group with regard to eligibility for environmental response under DERP FUDS, and whether a response action is required, active/ongoing, or not necessary with regard to the FUDS projects (HTRW, CON/HTRW, BD/DR, MMRP, and/or PRP). A figure illustrating where the parcels are located, as well as the decision tree documenting how the parcels were included into the parcel group is also included in the executive summary.

1.4.3.2 PMAP Introduction, Statutory and Regulatory Authority (PMAP Sections 1 through 4)

PMAP Sections 1 through 3 present the introduction to the PMAP, as well as the statutory authority and regulatory context under which the PMAPs were developed. Section 4 presents the organizational responsibility for execution of DERP FUDS and day-to-day management of eligible FUDS projects. This information is also presented in additional detail in Section 2 of this Management Action Plan.

1.4.3.3 Parcel Specific Information, DoD Activities, and DoD Impacts (PMAP Sections 5 through 7)

Within each PMAP, Sections 5, 6, and 7 present the available information, history and activities, and environmental impacts, respectively, as documentation to support the current project status and response strategy. These sections summarize the key historical events and investigations with regard to DoD activities at the site. The summary is not exhaustive. The purpose is to present information about activities and impacts on the parcel(s) with respect to types of hazards eligible for inclusion into DERP FUDS projects and to provide the documentation to support the USACE response strategy. With that goal in mind, the summary is weighted heavily toward former DoD and non-DoD activity that may have adversely impacted the site. If there is potential or confirmed impact to the parcel from non-DoD activities or other responsible parties, it is discussed in these sections of the PMAP.

In these sections, distinction is drawn between *potential* and *confirmed* activities. Potential refers to that which may have occurred, or where evidence suggests something occurred on the parcel, but what and whether it was attributable to the DoD cannot be ascertained. Examples of potential DoD activity would be anecdotal information passed on from one person to another about an area where the DoD may have stored supplies or aerial photographic evidence or ground disturbance that suggests something occurred, but the details could not be substantiated through review of historical documentation. Confirmed activities refer to activities that are known to have occurred and are directly attributable to DoD site use based upon review of historical documentation, as-built drawings, and historical plans (when confirmed with site reconnaissance). Examples of confirmed activities include the construction and use of process areas for LOOW and the Air Force Plants.

Distinction is also drawn between *activities* and *impacts*. Known or potential DoD site activities do not necessarily result in adverse environmental impacts that would require a response action. For this Management Action Plan, *impact* refers to chemical constituents in site matrices (soil, groundwater, air, and/or surface water) in concentrations exceeding generally recognized and widely accepted risk-based screening criteria. Activities refer to the confirmed or potential use of the site.

1.4.3.4 Property and Project Eligibility (PMAP Sections 8 and 9)

Sections 8 and 9 within each PMAP discuss eligibility for inclusion of the parcel(s) into DERP FUDS as well as project specific eligibility, respectively, and draws from those activities and impacts discussed in Sections 5 through 7 of the PMAP. Definition of parcel eligibility with regard to FUDS is discussed in Section 2.1.1.1. Additional information on the DERP FUDS project types is presented in Section 2.1.1.2.

Project eligibility was determined through examination and categorization of known hazards on the parcel(s) with respect to project-specific eligibility criteria set forth in the FUDS Program Policy (Engineering Regulation [ER]200-1-3) (USACE 2004). A summary of the hazards for each parcel(s), as well as the eligibility of the hazards for inclusion into a FUDS project, are summarized in Section 9 of the PMAP. For example, if an underground storage tank (UST) installed by the DoD is known to be present on a parcel, and meets specific criteria for inclusion into a CON/HTRW project as defined in ER200-1-3 (USACE 2004), then the parcel(s) would be categorized as eligible for a CON/HTRW project. For parcels with greater DoD impact, a summary of the areas of concern with known DoD impact are included in the PMAP.

1.4.3.5 USACE Response Strategy and Status (PMAP Sections 10 and 11)

Sections 10 through 11 of each PMAP present discussions on the environmental response strategy and status, respectively, for each parcel group. As per DERP FUDS guidance, the USACE response strategy follows the CERCLA process, with the short-term goal of reaching a NDAI determination for a parcel group and the ultimate goal of regulatory closure for the parcel group and eventually for the LOOW FUDS site as a whole. The CERCLA process includes one or more of the following steps: a PA/SI with a hazard ranking system scoring; RI/FS, including any necessary risk screens and assessments and development of remedial action objectives; record of decision to document the final plan of remedial action; the remedial design (RD)/remedial action (RA) including possible operations and maintenance (O&M) of the remedy; closure/delisting from the National Priorities List (NPL). However, for non-NPL sites (such as LOOW), the DERP FUDS environmental response differs slightly, and may include one or more of the following for HTRW and MMRP projects:

- INPR, PA, and risk assessment code (RAC) (for MMRP projects)
- SI
- RI (including risk assessment)
- FS or Engineering Evaluation and Cost Estimate (EE/CA) for a time critical or non-time critical removal action (TCRA or NTCRA)
- Decision Document (DD) or Action Memorandum (for a TCRA or NTCRA)
- Remedial Design (RD)
- Remedial Action (RA) (Remedial Action-Construction [RA-C], Remedial Action-Operation [RA-O]) or TCRA or NTCRA
- Construction Completion
- O&M Long-Term Monitoring (LTM)
- Response Complete (RC) (Project Close Out [PCO] – requires regulatory concurrence)

- Project Declaration Statement.

Sections 10 and 11 of the PMAP will indicate, for the parcels included in that group, the USACE strategy and status for the environmental response. Note that the INPR has been prepared for the LOOW site as a whole, and will not be discussed on a PMAP specific basis. It was initially prepared in June 1986, the original Findings and Determination of Eligibility (FDE) was signed on 15 June 1986, and a HTRW project was authorized for the LOOW site. Based on information gathered during subsequent investigations under the HTRW project, an Addendum No. 1 to that INPR was signed in 2008 (FUDS project number C02NYC0025), proposing CON/HTRW, MMRP, and PRP projects. Between the INPR and Addendum No. 1, HTRW, CON/HTRW, and PRP projects were authorized for the LOOW site. While MMRP projects were proposed as part of Addendum No. 1, none were authorized. Addendum No. 2 to the INPR, signed in 2012, redefined HTRW projects 00, 01, 02, and 04 and established three new HTRW projects (10 through 12).

Per FUDS guidance, a project is “a unique name given to an area of an eligible FUDS property containing one or more releases or threatened releases of a similar response nature, treated as a discrete entity or consolidated grouping for response purposes...” (USACE 2004). An eligible FUDS property, such as the majority of the LOOW site, may have more than one authorized project. The PMAP will discuss the response strategy with regard to each individual authorized project that is ongoing or required to address the project-specific hazards specific to the parcels in the PMAP. The recommended strategy in PMAPs for parcel groups with little or no known DoD activity will be preparation of a Project Declaration Statement of NDAI and pursuit of regulatory concurrence, both of which will be included in the subsequent updates to the PMAP.

1.4.3.6 Stakeholder Response and References (PMAP Sections 12 and 13)

Section 12 of the PMAP summarizes major public comments or concerns regarding the specific parcel or parcel group addressed by the PMAP. The USACE intends to release the initial version of each PMAP and capture public input specific to each PMAP. Subsequent versions of the PMAPs will be updated to reflect a summary of public input received. Section 13 is a reference to the master reference list (which is included herein as Table 3-2).

**TABLE 1-1 GROUPING OF FUDS ELIGIBLE PARCELS WITHIN
THE FORMER LOOW DEVELOPED AREA**

Parcel Group	Owner	Parcel ID	Standardized Owner Name
02:ModernAffCo-P2	Modern Landfill	75.00-1-1	Modern Affiliated Companies
	Modern Landfill	74.00-1-11.2	Modern Affiliated Companies
	Modern Landfill	75.00-1-2.2	Modern Affiliated Companies
02:SomersetGrp-P1	Somerset Group Inc	60.00-3-9.1	Somerset Group Inc
02:LwstnTown-P2	Town Of Lewiston – P2	74.00-1-11.1	Town Of Lewiston
02:LwstnTown-P4	Town Of Lewiston – P4	60.00-3-11	Town Of Lewiston
	Town Of Lewiston – P4	74.00-1-53	Town Of Lewiston
02:PorterTown-P2	Town Of Porter - P2	61.00-1-32.2	Town Of Porter
02:USA_LakeOntOrd-P1	US Government (Lake Ont. Ord) (NFSS) - P1	74.00-1-8.1	U.S. Government (Lake Ont. Ord) (NFSS)
02:WMLLC-P1	Chemical Waste Management Inc. - P1	60.00-3-7	Chemical Waste Management Inc.
	Chemical Waste Management Inc. - P1	60.00-3-8	Chemical Waste Management Inc.
	Chemical Waste Management Inc. - P1	60.00-3-9.2	Chemical Waste Management Inc.
	Chemical Waste Management Inc. - P1	61.00-2-1	Chemical Waste Management Inc.
	Chemical Waste Management Inc. - P1	74.00-1-6	Chemical Waste Management Inc.
	Chemical Waste Management Inc. - P1	74.00-1-7	Chemical Waste Management Inc.
	Chemical Waste Management Inc. - P1	75.00-1-2.1	Chemical Waste Management Inc.

TABLE 1-2 TOPOGRAPHIC ENGINEERING CENTER AERIAL ANOMALY DESCRIPTIONS
AND ASSIGNED VALID VALUES

Valid Value Assigned for Database	TEC Description ¹	TEC Remarks ¹	Year of Anomaly
sbc	pit	sbc ; feature appears as small circular pit.	1944
sbc	berm	sbc ; feature appears as horseshoe-shaped berm.	1944
sbc	berms	sbc ; two identical features - small & horseshoe-shaped.	1944
sbc	berm	sbc ; feature appears as horseshoe-shaped berm.	1944
sbc	berm, possible	sbc (possible); berm (possible) (predominately obscured by snow cover).	1944
sbc	pit	sbc ; feature appears as a small somewhat circular pit.	1944
sbc	berm	sbc ; feature appears as horseshoe-shaped berm.	1944
sbc	berm	sbc ; feature appears as horseshoe-shaped berm.	1944
sbc	berms	sbc ; multiple horseshoe-shaped berms; scattered.	1944
sbc	berms	sbc ; two identical horseshoe-shaped berms.	1944
sbc	pit	sbc ; feature appears as small circular pit.	1944
sbc	pit, possible	sbc (possible); feature appears as a possible small circular pit.	1944
sbc	pit, possible	sbc (possible)	1944
sbc	berm	sbc ; feature appears as horseshoe-shaped berm.	1944
sbc	berm	sbc ; feature appears as horseshoe-shaped berm.	1944
sbc	pits or berms	sbc ; two identical features - small circular pits or berms.	1944
sbc	pit	sbc	1944
sbc	pit	sbc ; polygon shifted (corrected) via '51 orthophoto.	1944
sbc	pit, possible	sbc (possible ; polygon shifted (corrected) via '51 orthophoto.	1944
sbc	pit	sbc ; feature more observable on '44 oblique photo # 1314.	1944
sbc	pit	sbc ; feature more observable on '44 oblique photo #1314.	1944
sbc	pit	sbc (possible); feature is more observable on '44 oblique photo #1314.	1944
sbc	berm	sbc ; feature appears as horseshoe-shaped berm.	1944
sbc	pit or berm	sbc	1944
sbc	pit	sbc	1944
sbc	pit	sbc	1944
sbc	pit	sbc	1944
sbc	berm	sbc ; feature appears as horseshoe-shaped berm.	1944
sbc	berm, possible	sbc (possible); possible horseshoe-shaped berm.	1944
sbc	berm	sbc ; feature appears as horseshoe-shaped berm.	1944
sbc	berm	sbc	1944
sbc	pit	sbc ; polygon shifted (corrected) via '51 orthophoto.	1944
sbc	pits	sbc ; three pits; vehicle tracks; polygon shifted via '51 orthophoto.	1944
sbc	pit or berm, possible	sbc (possible)	1944
sbc	pit	sbc ; veh. tracks; polygon shifted (corrected) based upon '51 orthophoto.	1944

**TABLE 1-2 TOPOGRAPHIC ENGINEERING CENTER AERIAL ANOMALY DESCRIPTIONS
AND ASSIGNED VALID VALUES**

Valid Value Assigned for Database	TEC Description¹	TEC Remarks¹	Year of Anomaly
sbc	pit	sbc ; lrg pit area; mtle (veh.) tracks; polygon shifted (re: '51 orthophoto).	1944
sbc	pit, possible	sbc (possible); polygon shifted (corrected) based upon '51 orthophoto.	1944
sbc	berms	sbc ; 1 lrg & 1 sml "C"-shaped brms; polygon shifted via '51 orthophoto.	1944
sbc	pit	sbc ; vehicle tracks lead in; polygon shifted via '51 orthophoto.	1944
sbc	pit	sbc ; vehicle tracks in the vicinity; polygon shifted via '51 orthophoto.	1944
sbc	pit	sbc ; vehicle tracks in the vicinity; polygon shifted via '51 orthophoto.	1944
sbc	berm, possible	sbc (possible) ; large "C"-shaped berm (poss.); poly. shifted via '51 orthophoto	1944
sbc	pit	sbc ; circular-shaped pit; polygon shifted via '51 orthophoto.	1944
sbc	berm	sbc ; horseshoe-shaped berm; polygon shifted via '51 orthophoto.	1944
sbc	pit	sbc ; polygon shifted (corrected) based upon '51 orthophoto.	1944
sbc	pit	sbc ; circular-shaped; poly. shifted (corrected) based upon '51 orthophoto.	1944
sbc	pit or berm, possible	sbc (possible) ; polygon shifted (corrected) based upon '51 orthophoto.	1944
sbc	pit	sbc ; polygon shifted (corrected) based upon '51 orthophoto.	1944
sbc	pit	sbc ; polygon shifted (corrected) based upon '51 orthophoto.	1944
sbc	pit	sbc ; polygon shifted (corrected) based upon '51 orthophoto.	1944
sbc	berm	sbc ; polygon shifted (corrected) based upon '51 orthophoto.	1944
sbc	berm	sbc ; polygon shifted (corrected) based upon '51 orthophoto.	1944
sbc	pit & berm (possible)	sbc ; pit and poss. horseshoe-shaped berm; poly. shifted via '51 orthophoto.	1944
sbc	pits	sbc ; two pits; vehicle tracks lead in; polygon shifted via '51 orthophoto.	1944
sbc	berm or pit	sbc ; vehicle tracks lead in; polygon shifted based upon '51 orthophoto.	1944
sbc	pits	sbc ; see TEC's Final Report -Sep '02 (PowerPoint slides #27 & #28)..	1944
sbc	pit	sbc ; pit w/ berm ; see TEC's Final Report- Sep '02 (PwrPnt slides 27, 28).	1944
sbc	pit	sbc ; circular-shaped pit.	1944
sbc	pit, possible	sbc (possible)	1944
sbc	pit, possible	sbc (possible); feature appears dark-toned against the background of snow.	1944
sbc	berm	sbc ; feature appears as horseshoe-shaped berm.	1944
sbc	pit	sbc ; circular-shaped pit.	1944

TABLE 1-2 TOPOGRAPHIC ENGINEERING CENTER AERIAL ANOMALY DESCRIPTIONS
AND ASSIGNED VALID VALUES

Valid Value Assigned for Database	TEC Description ¹	TEC Remarks ¹	Year of Anomaly
sbc	pits, possible	sbc (possible); features appear dark-toned against the background of snow.	1944
sbc	pits and berms	sbc ; TEC's Final Report -Sep '02 (slides 29, 30); poly. set to '51 orthophoto.	1944
sbc	berm, possible	sbc (possible); possible horseshoe-shaped berm.	1944
sbc	berm	sbc ; horseshoe-shaped berm.	1944
sbc	berm	sbc ; horseshoe-shaped berm; polygon shifted (corrected) to '51 orthophoto.	1944
sbc	pit	sbc ; circular-shaped pit; vehicle tracks in the vicinity.	1944
sbc	berm	sbc ; horseshoe-shaped berm; vehicle tracks lead in & out.	1944
sbc	pit	sbc ; circular-shaped pit; vehicle tracks lead in & out.	1944
sbc	pit or berm	sbc	1944
sbc	pit, possible	sbc (possible); vehicle tracks lead in and stop at this (poss. pit) location.	1944
sbc	pit, possible	sbc (possible)	1944
sbc	berm	sbc ; feature appears as horseshoe-shaped berm.	1944
sbc	pit	sbc ; circular-shaped pit.	1944
sbc	berm	sbc ; feature appears as horseshoe-shaped berm.	1944
sbc	pit	sbc ; circular-shaped pit.	1944
sbc	berm, horseshoe-shaped	sbc ; polygon shifted (corrected) based upon '51 orthophoto.	1944
sbc	berm, horseshoe-shaped	sbc ; polygon shifted (corrected) based upon '51 orthophoto.	1944
sbc	pits	sbc ; scatterd pits & berms; see TEC's Final Report-Sep '02 (slide 31).	1944
sbc	pit, possible	sbc (possible)	1944
sbc	pit	sbc	1944
sbc	berm	sbc ; large "C"-shaped berm.	1944
sbc	pit	sbc	1944
sbc	pit	sbc	1944
sbc	pit	sbc ; small circular-shaped pit; poly. shifted (corrected) to '51 orthophoto.	1944
sbc	pit, possible	sbc (possible); polygon shifted (corrected) to '51 orthophoto.	1944
sbc	pit	sbc ; small circular-shaped pit; poly. shifted (corrected) to '51 orthophoto.	1944
sbc	berm	sbc ; horseshoe-shaped berm; poly. shifted (corrected) to '51 orthophoto.	1944
sbc	pit, possible	sbc (possible) ; location today is in junkyard.	1944
sbc	pits, possible	sbc (possible); polygon shifted (corrected) based upon '51 orthophoto.	1944
sbc	pit	sbc	1944
sbc	pit	sbc ; small circular-shaped pit.	1944
sbc	berm	sbc ; horseshoe-shaped berm; polygon shifted based upon '51 orthophoto.	1944
sbc	pit	sbc ; small circular-shaped pit; polygon shifted based upon '51 orthophoto.	1944

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AND ASSIGNED VALID VALUES

Valid Value Assigned for Database	TEC Description ¹	TEC Remarks ¹	Year of Anomaly
sbc	berm	sbc ; horseshoe-shaped berm; polygon shifted based upon '51 orthophoto.	1944
sbc	pits	sbc ; two small circular-shaped pits.	1944
sbc	berm	sbc ; feature appears as horseshoe-shaped berm.	1944
sbc	berm, possible	sbc (possible) ; possible "C"-shaped berm; poly. shifted to '51 orthophoto.	1944
sbc	pit	sbc ; small circular-shaped pit; polygon shifted based upon '51 orthophoto.	1944
sbc	berm	sbc ; horseshoe-shaped berm; polygon shifted based upon '51 orthophoto.	1944
sbc	berm	sbc ; horseshoe-shaped berm; polygon shifted based upon 51 orthophoto.	1944
sbc	berms, possible	sbc (possible); 2 poss. "horseshoe-style"; polys. shifted via '51 orthophoto.	1944
sbc	pits & berm	sbc ; 2 pits & 1 horseshoe-shaped berm; polygon shifted via '51 orthophoto.	1944
sbc	pits & berm	sbc ; 2 pits & 1 horseshoe-shaped berm; polygon shifted via '51 orthophoto.	1944
sbc	berm, possible	sbc (possible); poss. horseshoe-shaped berm; poly. shifted via '51 orthophoto.	1944
sbc	pit, possible	sbc (possible); poss. small pit; polygon shifted based upon '51 orthophoto.	1944
sbc	pits, possible	sbc (possible); poss. pits; polygon shifted based upon '51 orthophoto.	1944
sbc	pits	sbc ; one large and one small pit; polygon shifted based upon '51 orthophoto.	1944
sbc	pits	sbc ; two small circular-shaped pits; 1 pit observable on '44 oblique (#1325).	1944
sbc	pit, possible	sbc (possible)	1944
sbc	pits & berms	sbc ; 2 berms and multiple pits.	1944
sbc	pit	sbc ; 1 pit observable on '44 large-scale aerial oblique (#1325).	1944
sbc	pit	sbc ; 1 pit observable on '44 large-scale aerial oblique (#1325).	1944
sbc	pit	sbc ; featured in TEC's Final Report- Sept '02 (see PwrPnt slides 33 & 34).	1944
sbc	berm	sbc ; featured in TEC's Final Report- Sept '02 (see PwrPnt slides 33 & 34).	1944
sbc	berm	sbc ; small berm; see TEC's Final Report- Sept '02 (PwrPnt slides 33 & 34).	1944
sbc	berm	sbc ; small berm; see TEC's Final Report- Sept '02 (PwrPnt slides 33 & 34).	1944
sbc	berm	sbc ; featured in TEC's Final Report- Sept '02 (PwrPnt slides 33 & 34).	1944
sbc	ground scar	sbc ; feature appears to be a partially-formed "sbc"; see '44 oblique #1325.	1944
disturbed ground/scar	scraped out area	shallow excavation	1944
disturbed ground/scar	scraped out area	shallow excavation	1944
disturbed ground/scar	scraped out area	shallow excavation	1944
material/mounded material	mounded material	may be associated with local farming.	1944

**TABLE 1-2 TOPOGRAPHIC ENGINEERING CENTER AERIAL ANOMALY DESCRIPTIONS
AND ASSIGNED VALID VALUES**

Valid Value Assigned for Database	TEC Description¹	TEC Remarks¹	Year of Anomaly
material/mounded material	mounded material	possible soil pile from nearby clearing or may be associated with local farming.	1944
material/mounded material	mounded material	poss. soil from nearby surface scrapings; may be associated with local farming.	1944
disturbed ground/scar	disturbed ground		1944
disturbed ground/scar	disturbed ground, possible	low lying area; appears to possibly contain small amounts of disturbed ground.	1944
tracks/trail	heavily-tracked area	area also depicts some standing liquid; see '44 large scale aerial oblique #1114	1944
disturbed ground/scar	ground scars	may be associated with local farming.	1944
disturbed ground/scar	scraped out area	shallow excavation	1944
disturbed ground/scar	disturbed ground	faint visual evidence of vehicle tracks (leading in from railroad area).	1944
material/mounded material	ground scars, mounded material	mounded material located in SW quadrant of polygon.	1944
liquid or pond	pond, shallow	see '44 large scale areal obliques: #1114 and #1319.	1944
burning ground	burning ground	see TEC's Final Report- Sept '02 (PwrPnt slides 12, 13, 79 & 80).	1944
disturbed ground/scar	scraped out area		1944
material/mounded material	mounded material	may be associated with local farming.	1944
disturbed ground/scar	ground scars		1944
tracks/trail	heavily-tracked area	see TEC's Final Report- Sept '02 (PwrPnt slides 14 & 15).	1944
disturbed ground/scar	scraped out area	see 1944 large scale aerial oblique photo #1318 for closer look.	1944
disturbed ground/scar	scraped out area	see 1944 large scale aerial oblique photos #1130 & #1318 for a closer look.	1944
material/mounded material	mounded material	may be associated with local farming; polygon shifted via '51 orthophoto.	1944
disturbed ground/scar	scraped out area	see TEC's Final Report- Sept '02 (PwrPnt slides 17 & 18).	1944
material/mounded material	material	see TEC's Final Report- Sept '02 (PwrPnt slide 17); poly. shifted via '51 ortho.	1944
tracks/trail	depressions, linear	see TEC's Final Report- Sept '02 (PwrPnt slides 17 & 18).	1944
disturbed ground/scar	ground scar	vehicle tracks lead in & out; traces of ground scars visible on '51 photos.	1944
other	open storage		1944
disturbed ground/scar	disturbed ground	location is near incinerator & controlled burning ground.	1944
material/mounded material	mounded material	vehicle tracks lead in; see '44 large scale aerial oblique photo #1319.	1944
other	open storage area,		1944
liquid or pond	pond	see '44 aerial oblique photo #1138; poly. shifted via '51 aerial orthophoto.	1944
material/mounded material	scattered material	see TEC's Final Report- Sept '02 (PwrPnt slides 10 & 11).	1944
disturbed ground/scar	disturbed ground	see TEC's Final Report- Sept '02 (PwrPnt slides 20 & 21).	1944
other	depression	see TEC's Final Report- Sept '02 (PwrPnt slide 20).	1944

TABLE 1-2 TOPOGRAPHIC ENGINEERING CENTER AERIAL ANOMALY DESCRIPTIONS
AND ASSIGNED VALID VALUES

Valid Value Assigned for Database	TEC Description ¹	TEC Remarks ¹	Year of Anomaly
other	probable storage area	see TEC's Final Report- Sept '02 (PwrPnt slides 23-25, 42-43).	1944
other	cleared area	vehicle tracks lead in; polygon shifted via '51 aerial orthophoto.	1944
material/mounded material	material, unidentified	vehicle tracks in vicinity; polygon shifted (corrected) via '51 orthophoto.	1944
material/mounded material	material, unidentified	vehicle tracks in vicinity; polygon shifted (corrected) via '51 orthophoto.	1944
material/mounded material	material, unidentified	polygon shifted (corrected) via '51 aerial orthophoto.	1944
material/mounded material	vehicles & equip., possible		1944
disturbed ground/scar	ground scar		1944
tracks/trail	vehicle tracks in area	numerous vehicle tracks.	1944
other	other, unidentified	approx. location in woods; see TEC's Final Report- Sept '02 (PwrPnt slide 38).	1944
material/mounded material	mounded material	may be associated with local farming; poly. shifted via '51 orthophoto.	1944
material/mounded material	mounded material	may be associated with local farming; poly. shifted via '51 orthophoto.	1944
material/mounded material	mounded material	may be associated with local farming; poly. shifted via '51 orthophoto.	1944
material/mounded material	mounded material	may be associated with local farming; poly. shifted via '51 orthophoto.	1944
material/mounded material	mounded material	may be associated with local farming; poly. shifted via '51 orthophoto.	1944
other	other, unidentified	circular-shaped feature - unidentified.	1944
other	other, unidentified	approx. location in woods; see TEC's Final Report- Sept '02 (PwrPnt slide 38).	1944
disturbed ground/scar	ground scar		1944
disturbed ground/scar	ground scars	vehicle tracks lead in; polygon shifted (corrected) via '51 orthophoto.	1944
disturbed ground/scar	ground scars	see '44 oblique photo #1323 for closer look; poly. shifted via '51 orthophoto.	1944
liquid or pond	pond	see '44 oblique photo #1323 for closer look; poly. shifted via '51 orthophoto.	1944
disturbed ground/scar	ground scars	see '44 oblique photo #1323 for closer look; poly. shifted via '51 orthophoto.	1944
disturbed ground/scar	ground scars	poss. open storage area; see '44 oblique #1323; poly. shifted via '51 ortho.	1944
material/mounded material	mounded material	polygon shifted (corrected) based upon '51 aerial orthophoto.	1944
material/mounded material	mounded material		1944
disturbed ground/scar	scraped out area		1944
material/mounded material	berm & mounded material	vehicle tracks lead in & out; polygon shifted (corrected) via '51 aerial orthoph	1944
disturbed ground/scar	ground scars, scattered, faint	vehicle tracks lead in from two locations on the east side of the polygon.	1944

**TABLE 1-2 TOPOGRAPHIC ENGINEERING CENTER AERIAL ANOMALY DESCRIPTIONS
AND ASSIGNED VALID VALUES**

Valid Value Assigned for Database	TEC Description¹	TEC Remarks¹	Year of Anomaly
disturbed ground/scar	scraped out area	polygon shifted (corrected) based upon '51 aerial orthophoto.	1944
disturbed ground/scar	scraped out area	polygon shifted (corrected) based upon '51 aerial orthophoto.	1944
disturbed ground/scar	scraped out area	polygon shifted (corrected) based upon '51 aerial orthophoto.	1944
disturbed ground/scar	scraped out area	polygon shifted (corrected) based upon '51 aerial orthophoto.	1944
disturbed ground/scar	scraped out area	polygon shifted (corrected) based upon '51 aerial orthophoto.	1944
disturbed ground/scar	scraped out area	polygon shifted (corrected) based upon '51 aerial orthophoto.	1944
disturbed ground/scar	scraped out area	polygon shifted (corrected) based upon '51 aerial orthophoto.	1944
disturbed ground/scar	ground scar	polygon shifted (corrected) based upon '51 aerial orthophoto.	1944
disturbed ground/scar	ground scars	polygon shifted (corrected) based upon '51 aerial orthophoto.	1944
disturbed ground/scar	ground scars	polygon shifted (corrected) based upon '51 aerial orthophoto.	1944
other	other	unidentified raised object; not observed in 1942; only grd scar remains in '51	1944
liquid or pond	standing liquid	possible pond; same area appears as a ground scar on '51 aerial photos.	1944
tracks/trail	depression, veh. traks lead in	see '44 aerial oblique photo #1114; polygon shifted via '51 orthophoto.	1944
liquid or pond	derpression & standing liquid	see '44 aerial oblique photo #1114; polygon shifted via '51 orthophoto.	1944
disturbed ground/scar	ground scar	location is along "A" Street	1951
disturbed ground/scar	disturbed ground	"Probable Storage Area" aka "Fenced-In Area".	1951
disturbed ground/scar	ground scar	faint ground scars along road; possible vehicle parking area.	1951
disturbed ground/scar	ground scar	faint ground scars along road; possible vehicle parking area.	1951
other	building	observed for 1st time on avail. photography: 1944.	1951
other	removed building	observed for last time on avail. photography: 1944.	1951
disturbed ground/scar	ground scars		1951
disturbed ground/scar	ground scars, scattered	features lie within a field; may be associated with farming.	1951
material/mounded material	material	poss. OS of K-65 residue (in drums); re: LOOW Hist. Search Rpt ('98)	1951
material/mounded material	material	poss. OS of K-65 residue (in drums); re: LOOW Hist. Search Rpt ('98)	1951
disturbed ground/scar	ground scars	possible ground-scarred area in Property "G".	1951
disturbed ground/scar	ground scar	crescent-shaped GS with veh. tracks leading in; same area shows trees in '56.	1951
material/mounded material	material, light-toned	material lies within the Property "G" Area & just to the east of Property "G".	1951
disturbed ground/scar	ground scar	ground-scarred area or (possible) cleared area in Property "G" area.	1951

TABLE 1-2 TOPOGRAPHIC ENGINEERING CENTER AERIAL ANOMALY DESCRIPTIONS
AND ASSIGNED VALID VALUES

Valid Value Assigned for Database	TEC Description ¹	TEC Remarks ¹	Year of Anomaly
disturbed ground/scar	depression	feature observed as a shallow pond on 1944 imagery.	1951
disturbed ground/scar	ground scars	traces of ground scars (possible)	1951
disturbed ground/scar	ground scars	see "Scrap... Disposal", "The Fed. Conn., Vol .I, Jan '81, NY State, pp. 235,6.	1951
disturbed ground/scar	disturbed ground		1951
disturbed ground/scar	ground scar	mounded material observed near this location on '44 imagery.	1951
disturbed ground/scar	ground scars	tracks lead in	1956
liquid or pond	standing liquid	two pools separated by a linear berm; Bell Test Center area	1956
liquid or pond	pond or excavation	vehicle tracks lead in to small pond from the west (1956 only)	1956
disturbed ground/scar	ground scar, linear, narrow	a very narrow GS from Nike Control Area to Launch Area; poss. comm. line.	1956
disturbed ground/scar	ditch or track; ground scars	circular ditch or track (1956-1978); scattered ground scars (1956 only)	1956
disturbed ground/scar	ground scars, scattered	these GSs not observed on 1951 imagery; possible light-toned material in area	1956
material/mounded material	material, light-toned	area is also somewhat ground-scarred; 1951 imagery depicts similar finding	1956
disturbed ground/scar	ground scars, scattered	includes GSs from poss. K-65 drum storage along dirt road (see '51 findings)	1956
disturbed ground/scar	cleared area	area appears light-toned & recently utilized for unknown purpose	1956
other	structure or small building	fence-enclosed; sml ditch runs west from area into (main) central drainage ditch	1956
material/mounded material	material	material laying parallel to edge of clearing in "Probable Storage Area".	1956
material/mounded material	material	material laying parallel to edge of clearing in "Probable Storage Area".	1956
material/mounded material	material	material laying parallel to edge of clearing in "Probable Storage Area".	1956
material/mounded material	material	material laying parallel to edge of clearing in "Probable Storage Area".	1956
disturbed ground/scar	clearing	clearing in woods; vehicle tracks lead in; Acome Landfill location.	1956
disturbed ground/scar	depression	feature observed as a shallow pond on 1944 imagery.	1956
disturbed ground/scar	ground scars, scattered	faint GSs in a field; these features may be related to local farming.	1956
liquid or pond	standing liquid	possible waste pond associated with Navy IPPP operations	1958
disturbed ground/scar	berm, "J" -shaped	berm surrounds a large rectangular structure ; Navy IPPP area	1958
disturbed ground/scar	berm, oval-shaped	located in the vicinity of the Navy IPPP; poss. burn area or disposal site.	1958
disturbed ground/scar	ground scars	see "Scrap Metal Disposal" - "Fed. Conn. ..., NY State Comm., Jan '81, pp 235,6	1958

**TABLE 1-2 TOPOGRAPHIC ENGINEERING CENTER AERIAL ANOMALY DESCRIPTIONS
AND ASSIGNED VALID VALUES**

Valid Value Assigned for Database	TEC Description¹	TEC Remarks¹	Year of Anomaly
disturbed ground/scar	ground scars	site of former Slurry Pond; note crude "bridge" over ditch allowing access in.	1958
disturbed ground/scar	excavation	Acome Landfill	1958
disturbed ground/scar	ground scars	GSs are prominent in 1958, less so in 1960; Navy IPPP area.	1958
disturbed ground/scar	disturbed ground	former underground toluene tank storage area.	1958
material/mounded material	mounded material		1958
material/mounded material	mounded material		1958
material/mounded material	mounded material		1958
disturbed ground/scar	disturbed ground		1958
disturbed ground/scar	ground scars, possible	area shows possible "faint" remains of ground scars.	1958
material/mounded material	scattered material	site is served by two loose-surface roads; possible disposal area.	1958
disturbed ground/scar	possible ground scars	features appear as possible scattered GSs in the former Slurry Pond	1958
disturbed ground/scar	scattered ground scars		1958
disturbed ground/scar	ground scars	GSs in "Presumed Storage Area" aka "Fenced-In Facility".	1958
disturbed ground/scar	ground scar	feature observed as a shallow pond on 1944 imagery.	1958
disturbed ground/scar	ground scars	GSs along dirt road; see '51 findings (re: poss. K-65 drums in open storage).	1958
disturbed ground/scar	ground scars, scattered	see 1951 findings - i.e. light-toned material & GSs in the same area.	1958
disturbed ground/scar	berm, oval-shaped	possible burn or disposal area	1963
disturbed ground/scar	berm, c-shaped	possible burn or disposal area	1963
disturbed ground/scar	ground scar	light-toned ground scar in Property "G" Area	1963
disturbed ground/scar	ground scars	traces of ground scars in Property "G" Area	1963
disturbed ground/scar	ground scars	traces of ground scars in Property "G" Area	1963
disturbed ground/scar	ground scars	traces of ground scars in Property "G" Area	1963

¹ Descriptions and remarks are as they appear in the geographical information system (GIS) project from TEC.

**TABLE 1-3 U.S. ARMY GEOSPATIAL CENTER AERIAL ANOMALY DESCRIPTIONS
AND ASSIGNED VALID VALUES**

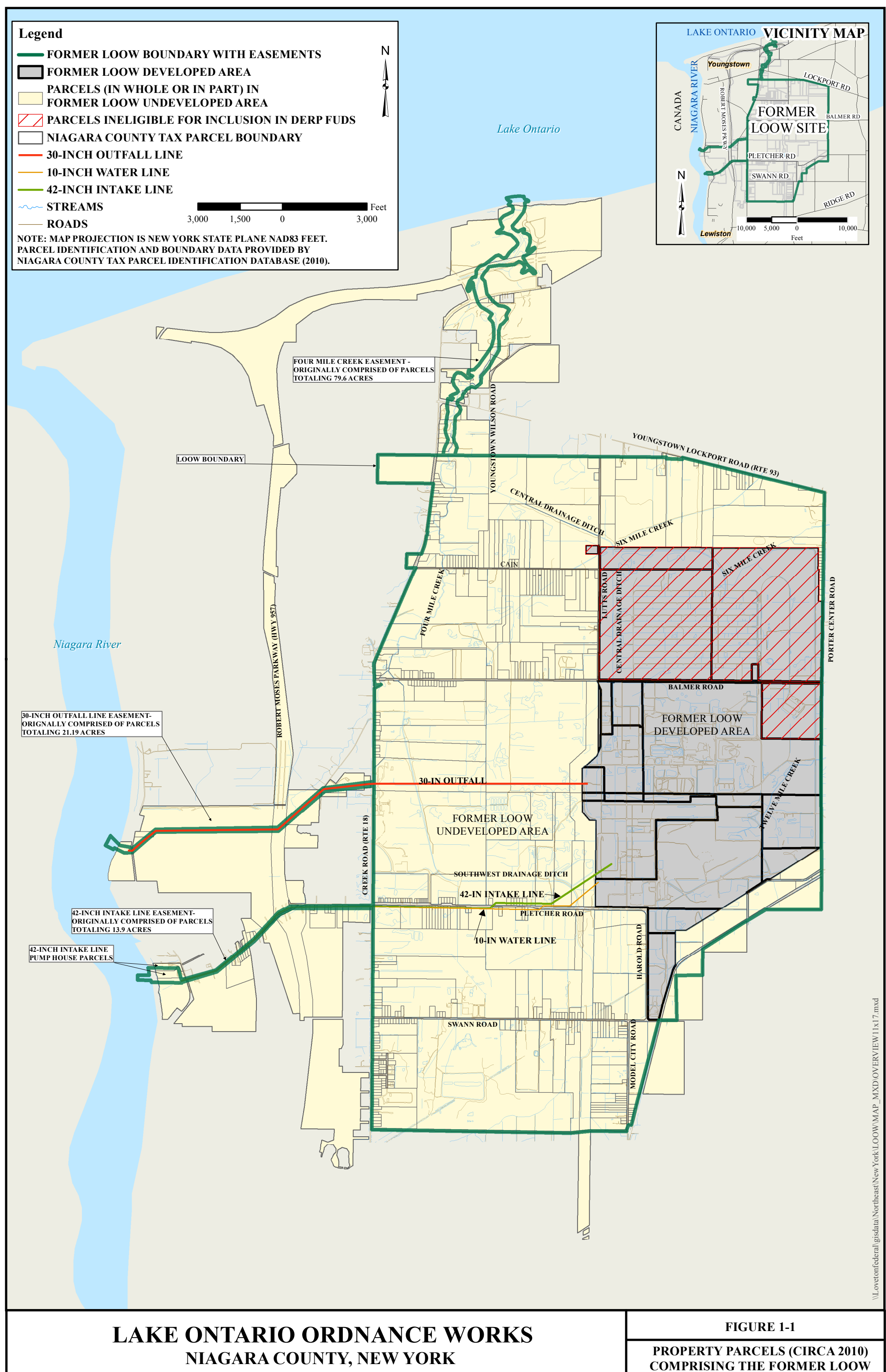
Valid Value Assigned for Database	USAGC Description¹	USAGC Remarks¹	Year of Anomaly
disturbed/ground scar	Ground Scar(s)	Probably ground scars from agricultural activity.	1942
material/mounded material	Mounded Material	From construction of ditch	1944
material/mounded material	Disturbed Ground	Possibly Mounded Material or vegetation. No roads or trails leading in or out.	1944
material/mounded material	Mounded Material	Probably diggings from construction of drainage ditch	1951
disturbed/ground scar	Circle Features	Scattered Pits, Ground Scars and Circle Features	1951
disturbed/ground scar	Ground Scar(s)		1958
material/mounded material	Mounded Material	From construction of ditch	1944
material/mounded material	Mounded Material	From construction of ditch	1944
material/mounded material	Mounded Material		1944
disturbed/ground scar	Pit(s)		1944

¹ Descriptions and remarks are as they appear in the geographical information system (GIS) project from TEC.

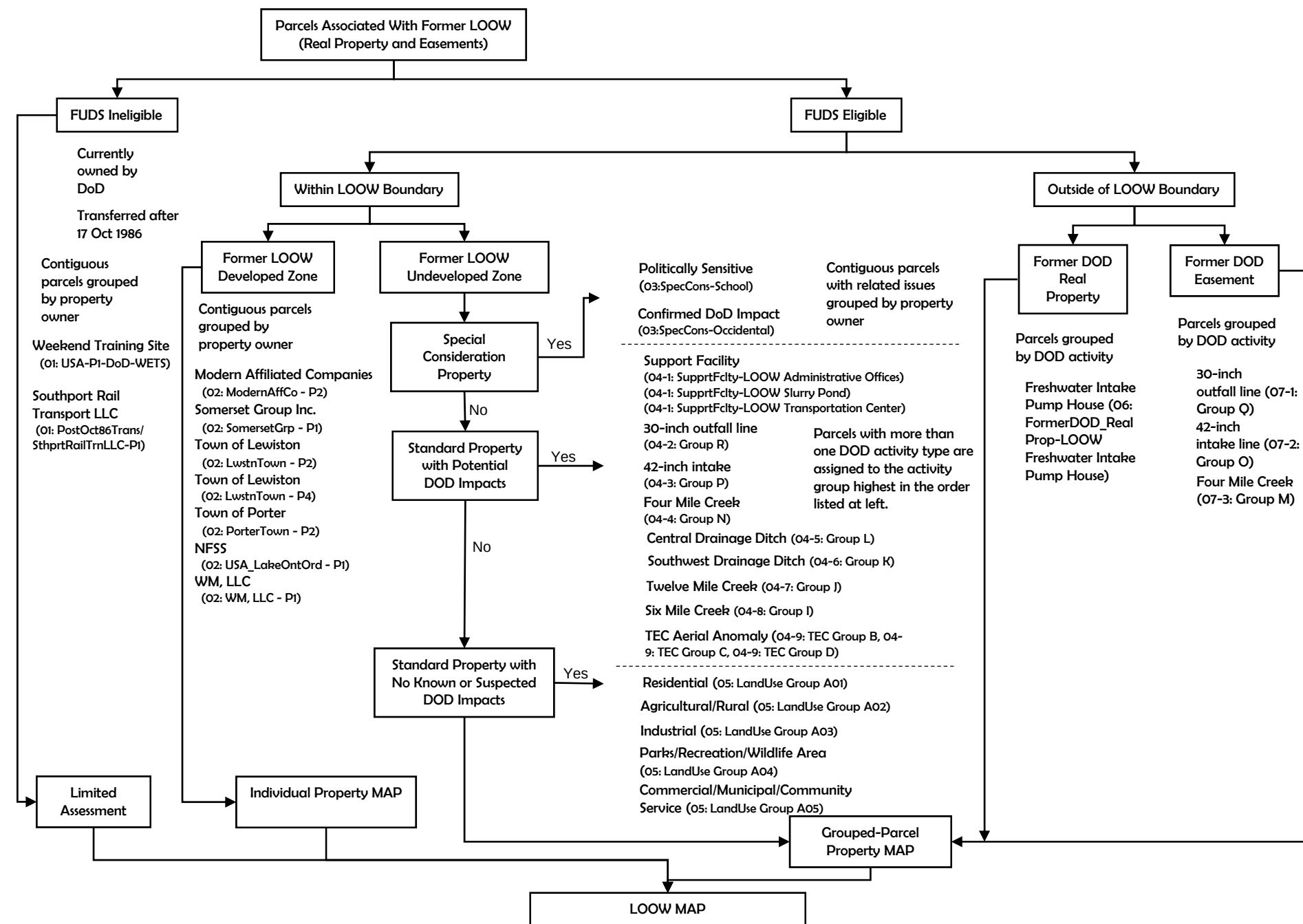
Note that the USAGC evaluation of historic aerial photographs identified more anomalies than are listed in this table. This table only includes those anomalies identified for further evaluation.

TABLE 1-4 CONSOLIDATION AND STANDARDIZATION OF
LAND USE DEFINITIONS

Land Use Definition/Code From Town Plans	Standardized Land Use Code Used In Database
Rural Residential	Agricultural/Rural
R1 - Residential	Residential
R1A - Residential	Residential
R2 - Residential	Residential
Residential	Residential
Industrial	Industrial
Industrial: No Housing Permitted	Industrial
Agricultural	Agricultural/Rural
Agricultural and Rural Residential	Agricultural/Rural
Commercial/Municipal	Commercial/Municipal/Community
Community Service	Commercial/Municipal/Community
Industrial: Housing Permitted	Commercial/Municipal/Community
Publicly Owned (Park)	Undeveloped/parks/rec/wildlife
RoadRightofWay	Undeveloped/parks/rec/wildlife
Undeveloped/parks/rec/wildlife	Undeveloped/parks/rec/wildlife



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Yellow shading on PMAP figures indicates parcel group pathway for parcel(s) in the associated PMAP

FIGURE 1-2 EXAMPLE OF PARCEL GROUPING LOGIC TREE

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2. LEGAL CONTEXT

2.1 USACE AUTHORITY

2.1.1 Formerly Used Defense Sites

Environmental restoration activities at FUDS were first initiated under the Defense Appropriations Act² in 1983. In 1984, execution of this program was delegated by the DoD to the USACE. In October 1986, the Superfund Amendments and Reauthorization Act (SARA) was signed into law, and Section 211 of SARA established the DERP³. The DERP legislation authorized the Secretary of Defense to carry out environmental response, in accordance with CERCLA⁴, with respect to releases of hazardous substances from active defense sites, FUDS (so long as the releases occurred while the facility was under the jurisdiction of the Secretary of Defense), and vessels owned or operated by the DoD. The DERP legislation specifies that the Secretary of Defense does not have basic responsibility for response actions if such an action by another potentially responsible party has been authorized in accordance with section 122 of CERCLA.

Three overarching goals were identified in the DERP legislation:

1. The identification, investigation, research and development, and cleanup of contamination from hazardous substances, pollutants, and contaminants.
2. Correction of other environmental damage (such as detection and disposal of unexploded ordnance) which creates an imminent and substantial endangerment to the public health or welfare or to the environment.
3. Demolition and removal of unsafe buildings and structures, including buildings and structures of the DoD at sites formerly used by or under the jurisdiction of the Secretary.

Pursuant to DoD Instruction 4715.7- *Environmental Restoration Program*, the Secretary of the Army is designated as the DoD Executive Agent for the FUDS program (ODUSD 2001), and the Secretary of the Army further delegated the program management and execution responsibility for FUDS to the Chief of Engineers of the USACE (USACE 2004). Therefore, the USACE has the authority, and responsibility, to carry out the FUDS program and to achieve the goals of the DERP in accordance with the DERP legislation, and applicable guidance and DoD policies.

2.1.1.1 FUDS Property Eligibility

The FUDS program addresses real property that meet two criteria (USACE 2004):

1. Properties that were formerly owned by, leased by, possessed by, or otherwise under the jurisdiction of the Secretary of Defense, or governmental entities that are the legal

² Defense Appropriations Act: Public Law 98-212

³ Defense Environmental Restoration Program: 10 USC §2701 et seq.

⁴ Comprehensive Environmental Response, Compensation and Liability Act: 42 U.S.C. 9601 et seq.

predecessors of the DoD, and those properties where accountability rested with the DoD but where the activities at the property were conducted by contractors.

2. Properties that were transferred from DoD control prior to October 17, 1986.

These criteria must be met before the property is deemed eligible for inclusion into DERP FUDS. However, there are certain other features that may exclude the property, in whole or in part from eligibility for environmental response. These include:

- Categorically excluded properties – United Services Organization (USO) properties, recruiting centers, and cemeteries.
- Properties declared excess prior to, but not conveyed until after 17 October 1986.
- Non-DoD ownership – properties that were not under the jurisdiction of the Secretary of Defense and owned by, leased by, or otherwise possessed by the United States (including governmental entities that are the legal predecessors of DoD).
- State National Guard Properties – unless they were formerly under the jurisdiction of the Secretary and owned by, leased by, or otherwise possessed by the United States.
- Non-U.S. Properties – this includes properties outside the United States or outside those districts, territories, commonwealths, and possessions over which the United States has jurisdiction.
- Defense Plant Corporation – any Defense Plant Corporation (DPC), and similar properties for which successor agencies and departments other than DoD are responsible for environmental restoration activities. These are sometimes referred to as PLANCOR.
- Civil Works Properties – this includes all Department of the Army Civil Works properties.
- Acts of War Properties – this includes properties where a release occurred solely as a result of an act of war.
- Offshore Ordnance Properties – properties where military munitions are more than 100 yards seaward of the mean high-tide point are not eligible.
- Properties Without Records – this includes properties for which there are no records showing that the property was formerly under the jurisdiction of the Secretary of Defense.
- Restoration Already Initiated – this includes a FUDS at which a DoD component has already initiated environmental restoration activities.

- Duplicate Properties – this is a property that is known by a different name, yet is the same physical property already listed in the FUDS inventory.
- DoD Active Installation – this includes properties still under the jurisdiction of DoD components.

LOOW FUDS Property Eligibility

The property addressed in this Management Action Plan was owned by the DoD beginning in the late 1930s for use as the LOOW and other DoD facilities. Approximately 984 acres are either still owned by the DoD or were transferred after October 17, 1986. Approximately 6,583 acres were transferred from DoD ownership prior to October 17, 1986 and fall under the definition of a FUDS. Furthermore, to date, there is no evidence that this acreage exhibits any of the parameters that would exclude the property from FUDS restoration. Therefore, the USACE is responsible for the management and execution of the DERP FUDS programs at 6,583 acres of the former LOOW property. Figure 1-1 illustrates those areas of the former LOOW which are not eligible FUDS property.

2.1.1.2 FUDS Project Eligibility

The USACE is required to develop an execution strategy for the FUDS program that addresses the following goals (USACE 2004):

- Reducing risk to human health and the environment through implementation of effective, legally compliant, and cost-effective environmental response.
- Having final remedies in place and completing response actions.

To achieve the goals of the DERP, the DoD has established the following programs to classify activities at FUDS properties. Each program addresses different types of environmental issues, and therefore a single FUDS property could be eligible for one or all of the programs.

- Installation Restoration Program (IRP) – The installation restoration program was established to identify, investigate, and clean up contamination on DoD properties (both active installation and FUDS). It specifically focuses on the cleanup of contamination from past hazardous waste operations and hazardous material spills.
- Military Munitions Response Program (MMRP) – The MMRP is used to address munitions and explosives of concern (MEC) or munitions constituents (MC) at active installations and FUDS.
- Building Demolition/Debris Removal (BD/DR) Program – The BD/DR program is used for the demolition and removal of unsafe buildings and structures at FUDS properties.

Among these three programs, there are five types of projects that can be authorized for a FUDS. These are:

- Hazardous, Toxic, and Radioactive Waste (HTRW) project – under the purview of the IRP. HTRW projects address environmental response at an area of an eligible FUDS property as the result of DoD activities related to hazardous substances, pollutants, and contaminants as defined in CERCLA; petroleum, oil, or lubricants (POL); DoD-unique materials; hazardous wastes; low-level radioactive materials or low-level radioactive wastes; and explosive compounds released to soil, surface water, sediments, or groundwater as a result of ammunition or explosives production or manufacturing at ammunition plants (USACE 2004).
- Containerized HTRW (CON/HTRW) project – under the purview of the IRP. CON/HTRW projects address environmental response at an area of an eligible FUDS property involving former DoD underground storage tanks (UST), aboveground storage tanks (AST), transformers, hydraulic systems, investigative derived waste (IDW), abandoned inactive monitoring wells, etc. CON/HTRW projects also address environmental response for drums containing hazardous substances, pollutants, and contaminants, and incidental removal of contaminated soils resulting from a leaking UST or other container (USACE 2004).
- BD/DR project – under the purview of the BD/DR Program. For FUDS, only those properties continually owned by State and/or local government, or Alaskan Native Corporation subsequent to DoD ownership are eligible for inclusion into a BD/DR project. Furthermore, for hazards to be deemed eligible for inclusion into a FUDS BD/DR project, they must have been a direct result of prior DoD use, must have been inherently hazardous when the property was transferred, and must represent a clear danger to persons exercising ordinary and reasonable care (USACE 2004).
- MMRP project– under the purview of the MMRP. Projects include response actions at an area of an eligible FUDS property related to military Munitions and Explosives of Concern (MEC) and their Munitions Constituents (MC) as the result of DoD activities at FUDS.
- PRP project – used to address CERCLA liability on properties with impact from sources other than the DoD. A PRP is any person, company, or agency other than the DoD, related to a property that is a current owner or operator, a past owner or operator at the time of disposal of any hazardous substance, pollutant, or contaminant, one who arranges for disposal, treatment, or transport for disposal or treatment of hazardous substances, or a transporter who has selected the site for the disposal of a hazardous substance. PRP projects involve activities where DoD may bear potential CERCLA liability for hazards or hazardous substance releases along with a non-DoD entity. A FUDS where HTRW or MMRP cleanup requirements exist and parties other than DoD are PRP for the materials can result in a PRP/HTRW or PRP/MMRP project (USACE 2004). PRP projects are managed by the representative USACE PRP District in coordination with the Department of Justice (DoJ) (during litigation).

Although eligible HTRW, CON/HTRW, MMRP, and/or BD/DR hazards may exist on a property, those hazards are ineligible for environmental response under FUDS if any of the following occurs:

- The current owner refuses USACE legal access to the property.
- The hazards resulted from civil works activities rather than military activities.
- Where project response actions would abate asbestos-containing materials (ACM) or lead-based paints, unless the abatement is incidental to completion of a response action for an approved project, or where ACM was released into the environment by DoD disposal actions resulting in an on-site CERCLA hazardous substance release for which DoD is responsible.
- Underground storage tanks or other structures that have been beneficially used by any owner subsequent to DoD. Furthermore, for a CERCLA release from a beneficially used UST or transformer subsequent to DoD control, a PRP project may only be proposed if there is evidence of a CERCLA release resulting from DoD use.

With specific regard to BD/DR projects, the following would render potential hazards ineligible for inclusion into a FUDS BD/DR project:

- The hazard is a result of neglect by an owner/grantee subsequent to DoD use, regardless of whether the deed or disposal document required the owner/grantee to maintain the property improvements.
- Instances where an owner subsequent to DoD usage has been compensated by the government in lieu of property restoration (by a payment or offset in the purchase price).
- Where the response action would only partially demolish a structure (i.e., the demolition must be of the entire building or structure to be allowed).
- Projects involving structures or debris that were altered or beneficially used by owners subsequent to DoD usage.
- Projects where response actions would eliminate potential hazards, to include the deliberate or unintentional demolition of buildings (i.e., conditions that may become hazardous through deliberate and/or careless acts are ineligible).
- Projects for which the lease, permit, deed, or other title transfer document absolves the government from the obligation for property restoration

LOOW FUDS Project Eligibility

During the LOOW INPR, a screening was performed to assess whether potential hazards specific to each project type were present on the LOOW FUDS, and whether the hazards were eligible

for inclusion into a FUDS project. Based on the FDE of the INPR, the IRP and MMRP have been deemed appropriate for the LOOW FUDS, and the following project types are currently authorized for the LOOW FUDS:

- HTRW
- CON/HTRW
- PRP/HTRW.

Although BD/DR hazards from formerly used DoD facilities were present on the LOOW FUDS, the hazards were not eligible for inclusion into a FUDS project for one or more of the reasons discussed earlier in this Section. In addition, no potential MMRP hazards were identified during the ASR (USACE 2012), and a MMRP project has not been authorized.

Although HTRW, CON/HTRW, and PRP/HTRW projects are authorized for the LOOW FUDS, initiation of a project specific to an area or parcel group may not be required or warranted if no FUDS eligible hazards are present on the parcel(s). In this Management Action Plan, FUDS eligible hazards are assessed on a parcel group basis and are presented in each PMAP.

2.1.2 Formerly Utilized Sites Remedial Action Program (FUSRAP)

Portions of the LOOW are being evaluated under a separate Federal program known as the FUSRAP. The FUSRAP was created in the 1970's by the former Atomic Energy Commission (AEC), now the Department of Energy (DoE), to identify, investigate, and clean up or control residual contamination remaining at sites where work had been performed as part of the Nation's early atomic energy program (USACE 2003). The Niagara Falls Storage Site (NFSS) is a Federal facility located within the former LOOW that is used to store radioactive residues from the early atomic energy program that is being remediated under the FUSRAP.

Congress transferred responsibility for administering and executing FUSRAP from the DoE to the USACE in 1997. In March 1999, the DoE and USACE entered into a Memorandum of Understanding (MOU) for the purpose of delineating administration and execution responsibilities for the FUSRAP (USACE 2003). It was agreed that USACE has the authority to administer and execute cleanup activities at eligible FUSRAP sites pursuant to the provisions of the Energy and Water Development Appropriations Act of 1998⁵, the Energy and Water Development Appropriations Act of 1999⁶, and in accordance with CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan⁷ (NCP). In addition, it was agreed that DoE does not have regulatory responsibility or control over the FUSRAP activities of USACE. Except as noted in the MOU, USACE is responsible for all environmental response activities at FUSRAP sites until two years after site closeout, at which point DoE assumes responsibility for any additional required activities at the site.

⁵ Energy and Water Development Appropriations Act of 1998: Title I, Public Law 105-62, 111 Stat. 1320, 1326

⁶ Energy and Water Development Appropriations Act of 1999: Title I, Public Law 105-245, 112 Stat. 1838, 1843

⁷ National Oil and Hazardous Substances Pollution Contingency Plan: 40 C.F.R. Chapter 1 Part 300

During evaluation of the NFSS, conducted in the 1970's and 1980's under the regulatory authority of the DoE, properties adjacent to the NFSS that were known or suspected of having been utilized for storage of radioactive materials were designated as "Vicinity Properties" (VPs) for environmental response and were assigned letter designations (see Figure 2-1). As of March 1999, regulatory closure had been achieved for all but three VPs. Authority and responsibility for the closed VPs lies with DoE, not with USACE. The NFSS and the three "open" VPs (designated E, E-prime, and G), however, are still active FUSRAP sites under the authority of the USACE.

The NFSS is considered a FUDS and is eligible for response actions under FUDS because the property was transferred from DoD ownership to predecessors of the DoE. The property is currently owned by the DoE. The project management for both the NFSS FUSRAP and LOOW FUDS lie with the USACE-Buffalo District. To minimize duplication of effort during investigation of the NFSS, and to reduce confusion over responsibility, the decision was made to investigate both radiological and non-radiological impacts at NFSS under the FUSRAP. FUDS eligible hazards on NFSS are being addressed by the FUSRAP.

2.1.3 USACE FUDS Project Close Out Authority

The decision to require no further action may be made at any one of several decision points in the CERCLA process, pending adequate information to support the technical argument for the decision. Under DERP FUDS, the USACE PM has the authority to make a NDAI decision, which would be documented in a Project Declaration Statement (USACE 2004) and incorporated into this Management Action Plan (or the appropriate PMAP). Different categories of NDAI have been defined under FUDS guidance, depending upon where in the restoration process the declaration is made:

- Property Level NDAI Decisions – this property level decision is made following the INPR if the property is (i) categorically excluded for consideration, (ii) not eligible for consideration under the FUDS program, or (iii) eligible but no potential hazards were identified.
- Project Level NDAI-I Decisions – NDAI-I decisions are made following the initial screening where USACE has determined that the hazards found were not attributable to DoD, or if, for policy reasons, the project is not approved.
- Project Level NDAI-II Decisions – NDAI-II decisions are made by the USACE based on the results of a SI after USACE has determined impacts do not pose risk to human health or the environment or pose an explosives safety hazard warranting further studies.
- Project Level NDAI-III Decisions – NDAI-III decisions are made by the USACE based on the results of the RI after USACE has determined that impacts do not pose risk to human health or the environment or do not require further response actions.

- Project Level NDAI-IV Decisions – NDAI-IV decisions are made by the USACE when a response action, or an equivalent effort for a CON/HTRW or BD/DR project, have been completed.

The declaration of NDAI is a USACE administrative decision and does not require regulatory concurrence. Neither does it represent project or property regulatory closure. A closed-out FUDS property is one for which all projects requiring regulatory concurrence of closeout decisions have been achieved (USACE 2004). One of the purposes of this Management Action Plan and the individual PMAPs is to facilitate regulatory concurrence on NDAI declarations on a parcel group basis, such that the concurrences can be consolidated for use in eventual overall LOOW FUDS property close out.

2.2 ORGANIZATIONAL RESPONSIBILITY

This Section outlines the levels of authority for DERP FUDS projects and the responsibilities held at each level of authority. The information in this section was obtained from the Environmental Quality - FUDS Program Policy Manual, Engineering Regulation (ER) 200-3-1 (USACE 2004).

2.2.1 Secretary of Defense

The Assistant Deputy Undersecretary of Defense (Environment, Safety, and Occupational Health) acts on behalf of the Office of the Secretary of Defense (OSD) to establish the overall policies for the FUDS program and to provide oversight of the program including development and defense of the ER-FUDS account. In addition, this office is responsible for conducting reviews of the FUDS program and directing changes to the program as necessary.

2.2.2 Department of the Army

There are two levels of organization within the Department of the Army with various responsibilities for FUDS projects, and each is summarized below.

2.2.2.1 Deputy Assistant Secretary of the Army for Environment, Safety, and Occupational Health

The Deputy Assistant Secretary of the Army for Environment, Safety, and Occupational Health [DASA(ESOH)] works under the direction of the Assistant Secretary of the Army for Installations and Environment [ASA(I&E)], and is responsible for a number of activities, some of which are similar to the responsibilities held by the Secretary of Defense. The DASA (ESOH) is responsible for executing the duties and responsibilities of the FUDS program, establishing program policy, direction, and priorities, providing program oversight, and conducting periodic program reviews. As a result of these reviews, the DASA (ESOH) must provide guidance for and eventual approval of the FUDS annual work plan and guidance for the Future Years Defense Plan (FYDP). In addition, this office is responsible for approving and submitting financial management documents that support the ER-FUDS account (e.g. Program Objective Memorandum, Budget Estimate Submission, President's Budget, and Environmental Liabilities

Reports) to the OSD. The DASA (ESOH) is also responsible for providing policy guidance for outreach programs designed to improve coordination and relationships with stakeholders, approving Decision Documents for FUDS projects of interest to the Army Secretariat, and coordinating with the OSD and other Military Services on issues concerning the FUDS program.

2.2.2.2 Assistant Chief of Staff for Installation Management

The Director of Environmental Programs (DEP) within the Office of the Assistant Chief of Staff for Installation Management (ACSIM) is responsible for exercising primary Army staff responsibility to oversee, direct, and coordinate the FUDS program. The DEP is also responsible for developing implementation guidance and instructions for execution of environmental response under the FUDS consistent with the overall Army program, participating in periodic program reviews of the program and making recommendations to DASA (ESOH) on guidance for program development of the annual work plan and FYDP. The DEP is further responsible for providing financial management guidance to Headquarters (HQ) USACE, reviewing and making recommendations to DASA (ESOH) on financial management documents in support of the ER-FUDS account, and reviewing and approving DD for FUDS projects forwarded for ACSIM approval. The DEP reviews and endorses development of HQUSACE procedures to conduct independent technical review of FUDS projects, develops procedures for the FUDS outreach programs in coordination with HQUSACE, reviews and provides proposed responses to administrative issues, such as proposed legislative language and draft audit reports, when requested by DASA (ESOH), and the DEP prepares, as required, draft responses concerning inquiries on FUDS properties from stakeholders and Congress for signature by DASA (ESOH).

2.2.3 USACE

Each level of the USACE has different functional responsibilities with respect to management and execution of FUDS projects. These are described below.

2.2.3.1 Headquarters, USACE

The Directorate of Military Programs (CEMP) at HQUSACE is responsible for overall FUDS program management and execution. Within CEMP, the HQUSACE DoD Team (CEMP-DE) carries out all assigned FUDS responsibilities including policy formation, planning, programming, and budgeting, program oversight, reporting of program status, coordination with other federal agencies and fostering coordination between USACE Divisions and Districts, and promulgating the FUDS quality management process. HQUSACE issues all regulations and guidance pertaining to FUDS program management and execution, and provides consultation on all policy matters including all legal matters. They are responsible for managing all FUDS planning, programming, budgeting, and execution activities in coordination with Headquarters, Department of Army (HQDA) and DoD and are responsible for ensuring USACE Divisions distribute quarterly funds in accordance with the approved Current Year Annual Work Plan. HQUSACE must ensure that FUDS program management and execution throughout the USACE is consistent with applicable legal requirements and with program and fiscal policies of DoD, HQDA, and HQUSACE, and they act as the lead office on all PRP settlements and all matters involving litigation.

2.2.3.2 Geographic Division

USACE Divisions have regional responsibility for the FUDS program. There are seven divisions, and the North Atlantic Division (CNAD) is responsible for FUDS programs in the state of New York. Divisions are accountable for policy formation through providing comments to HQUSACE regarding necessary improvements to existing or proposed policies and proposing new policies to HQUSACE. The Divisions' responsibilities regarding planning, programming, and budgeting activities include the dissemination of HQUSACE policies and directives to Districts, determining FUDS property eligibility, and providing project approvals in accordance with current FUDS policy. Program oversight responsibilities include reviewing and prioritizing District current or budget year work plans, monitoring the execution of environmental response, ensuring that Districts maintain and update Project Management Plans (PMP) in accordance with ER 5-1-11. The Divisions are also responsible for ensuring effective coordination with all applicable regulators and stakeholders.

2.2.3.3 Geographic District

The Geographic District and assigned PM is the overall manager for approved FUDS projects, with the exception of PRP projects. There are 18 USACE Districts. USACE-Buffalo is the Geographic District responsible for the former LOOW FUDS projects. The PM within the District leads and facilitates the PDT toward effective project development and execution. The District is responsible for managing project costs, schedule, and scope to ensure quality and proper coordination with government and non-government entities. The District is also responsible for programming funding and for upward reporting.

The majority of District and District PM responsibilities revolve around project execution and include:

- Recommending potential FUDS properties and projects to the Division
- Providing notice and opportunity for comment to the U.S. EPA, appropriate state and local officials, and current property owners prior to eligibility determination being finalized
- Managing the execution of all phases of environmental response at assigned FUDS projects including management of contractors, establishing and maintaining public involvement, an Administrative Record file, and permanent Project Files for each eligible project
- Developing and managing public involvement activities
- Administering community relations contracts and PRP contracts, as appropriate
- Managing project costs, schedule, and scope to ensure quality execution

- Coordinating the preparation and updating of the Management Action Plan and PMAP and release to the U.S. EPA, state, and other stakeholders.

2.2.3.4 Design District

The Design District provides support to the Geographic District for all planning, programming, budgeting, and contracting activities and serves on the PDT to support the Geographic District PM in investigation and design activities. The Design District for the former LOOW project is USACE-Baltimore. The Design District submits deliverables for HTRW and MMRP projects to the appropriate Centers for Excellence (CX) and other federal agencies (e.g. U.S. Army Center for Health Promotion and Preventative Medicine [USACHPPM]) for review and approval. They also assist the Geographic District PM in coordinating public involvement on HTRW projects and in developing an appropriate Public Involvement Plan.

2.2.3.5 Potentially Responsible Party District

Project Management responsibility for PRP projects resides with the PRP District on finalization of a PRP INPR. Only designated PRP Districts may respond to allegations made against DoD concerning past activities associated with CERCLA contaminants at FUDS. Upon receipt of any such allegation, the Geographic District will immediately provide a copy of the allegation to the Office of Counsel at the designated PRP District, who has sole authority for determining the appropriateness of its managing the matter as a PRP negotiation. USACE-Baltimore is the PRP District for the former LOOW project.

2.2.3.6 Military Munitions and RCWM Design Centers and Remedial Action Districts

The Military Munitions (MM) or Recovered Chemical Warfare Materiel (RCWM) Design Centers provide direct support to the Geographic Districts and MM Remedial Action Districts. Only the RCWM Design Center is authorized to execute any phase of a response on a RCWM project. The MM Remedial Action District is authorized to, and is responsible for, performing remedial or removal response actions for MMRP Projects. They prepare MMRP remedial or removal contract acquisition strategies and ensure sufficient contract capabilities exist to execute the assigned work. The MM Remedial Action district is responsible for reviewing and approving project documents, and coordinating MMRP activities with the PM, MM Design Center, and the MM CX.

2.2.3.7 Centers of Expertise

USACE designates the CX for HTRW and MMRP projects. The HTRW CX does not execute environmental response for programs or projects; rather it provides technical support to the USACE in their performance of FUDS projects. USACE Divisions and Districts may access various technical specialists and other services through designated CX points of contact. Similarly, the MM CX was established to assist USACE organizational elements in performing their activities and maintaining state-of-the-art technical expertise for all aspects of response activities for projects involving MEC. The mission of the MM CX is to safely eliminate or

reduce risks from ordnance, explosives, and recovered chemical warfare materiel at current defense sites or FUDS.

2.3 REGULATORY AUTHORITY

The USACE-Buffalo District is the lead federal agency for the former LOOW, and coordinates project activities with the USEPA, the appropriate state and local regulatory agencies, and the USACE PRP District for the LOOW FUDS. The lead Federal regulator for environmental investigations and responses at the former LOOW is the USEPA and the lead State regulator is the New York State Department of Environmental Conservation (NYSDEC). Additional regulatory considerations are provided by the New York State Department of Health (NYSDOH).

2.3.1 USACE Responsibility

The USACE has the responsibility to carry out the FUDS program and to achieve the goals of the DERP in accordance with the DERP legislation. The USACE is required to develop an execution strategy for the FUDS program that addresses the following goals (USACE 2004):

1. Reducing risk to human health and the environment through implementation of effective, legally compliant, and cost-effective environmental response.
2. Having final remedies in place and completing response actions.

To achieve the goals of the DERP, the DoD has established the programs and projects described in Section 2.1.

DERP must be implemented "in consultation with" USEPA⁸. For non-NPL sites, consultation is generally defined as providing the opportunity to the Federal and State lead regulatory agencies to review and comment on major site documents (historical property use records, work plans, sampling and analysis plans, investigatory/study reports, RI/FS reports, EE/CAs, decision documents, and RD/RA plans and reports) and responsiveness in addressing those comments. Consultation with the USEPA (and or oversight assignee) in the form of providing information with regard to FUDS INPR, categorical exclusions, NOFA/NDAI determinations, and identification of non-DoD PRPs at FUDS is also expected.

2.3.2 USEPA and State Regulatory Responsibility

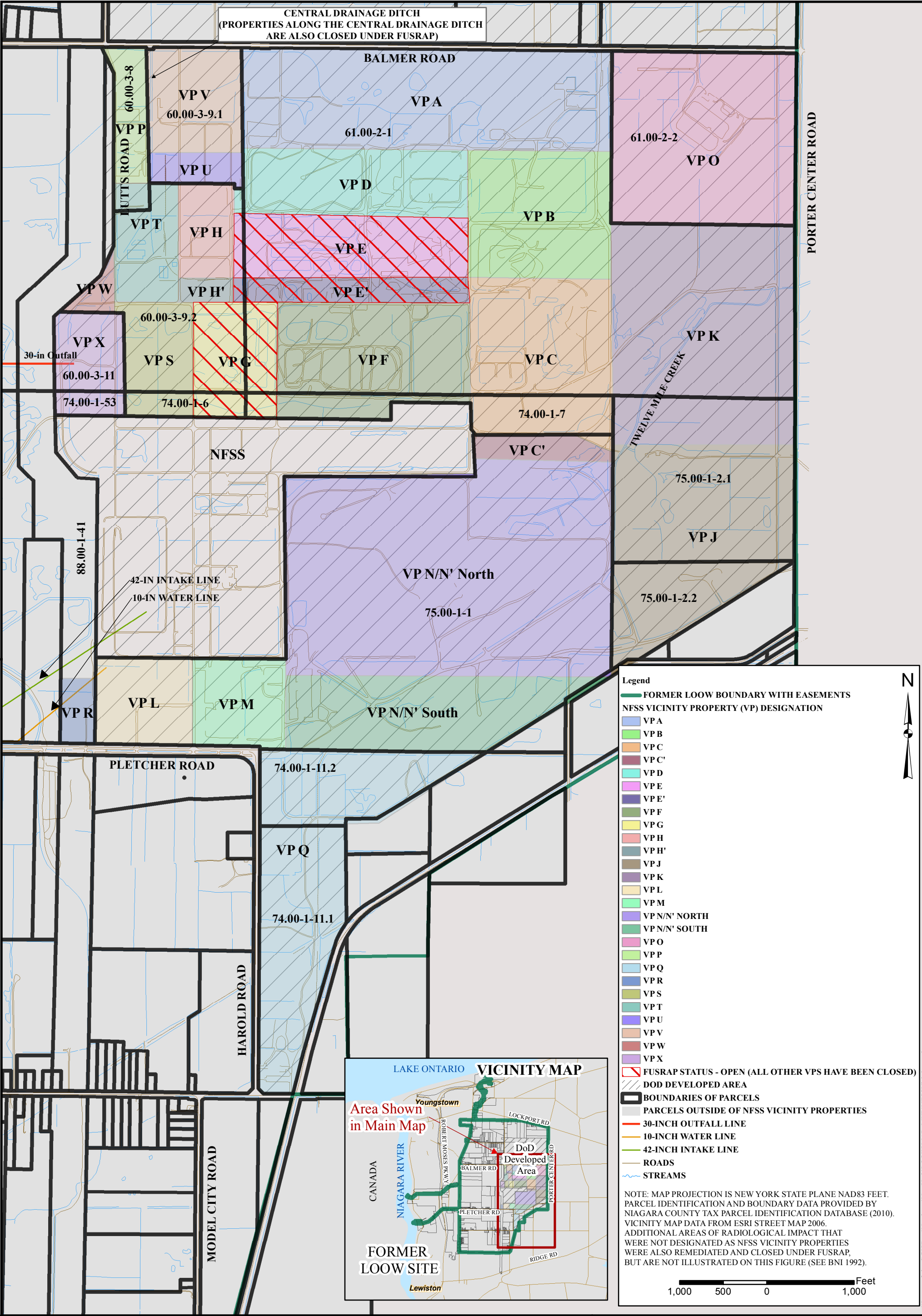
Per the DoD Management Guidance for the DERP, activities under the FUDS program must be conducted in accordance with the provisions of CERCLA as amended by SARA. CERCLA provides broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment, and the USEPA is the regulatory agency that provides oversight for CERCLA related activities. The act established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided

⁸ As per 10 USC §2701-§2707

for liability of persons responsible for releases of hazardous waste at these sites, established a trust fund to provide for cleanup when no responsible party could be identified, and identified the process for site investigation and closure.

For those areas where no known release has occurred, the USACE may reach a NDAI conclusion without concurrence from the USEPA or primary oversight agency, but does so at the risk of re-evaluation by the USEPA. If upon re-evaluation, the USEPA or primary oversight agency determines a need for additional site assessment, the USEPA consults with the USACE to reach an agreement for additional evaluation. If an agreement cannot be reached, the USEPA or primary oversight agency may perform the additional evaluation.

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LAKE ONTARIO ORDNANCE WORKS
NIAGARA COUNTY, NEW YORK

FIGURE 2-1
FORMERLY USED SITES
REMEDIAL ACTION PROGRAM (FUSRAP),
NIAGARA FALLS STORAGE SITE (NFSS),
VICINITY PROPERTIES

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3. SOURCES OF INFORMATION

Several sources of information were utilized during development of the PMAPs. The information was gathered to set forth the premise on which decisions regarding the current or recommended property and/or project eligibility have been made.

The most important were those documents demonstrating the parcel boundaries and real estate transfers to the DoD and from the DoD for the acquisition and disposition of LOOW. This information was acquired from the Niagara County Recorder of Deeds and grantor and grantee reference atlases. Additional information was obtained from historical documents, namely the *Federal Land Bank of Springfield, LOOW Map of Surplus Land, First Declaration* land disposal records for LOOW and the National Archives Historical Reports (USATHAMA 1981). The parcel information used in this Management Action Plan update is from 2010 and was obtained from the Niagara County Department of Real Property Tax.

In 1997, the USACE conducted an extensive history search for LOOW as a basis for beginning a RI of the LOOW property. A multitude of agencies, individuals, museums, and archives were contacted for the search. Documents pertaining to both DoD and non-DoD use of the LOOW property, as well as environmental investigations conducted by the USACE as well as others, were reviewed. Because much of the information gathered was summarized and included in the History Search Report, this document is referenced heavily throughout the PMAPs. However, in those instances when the History Search Report citation was not clear, or where additional information (not originally included in the History Search Report) was pertinent to the discussion, the source document was referenced.

Since 1997, several additional investigations have been performed for or by the USACE for the LOOW FUDS, for example Phase I, Phase II, Phase III, and Phase IV RIs, interim removal actions to address specific underground utility lines, data gaps investigations, two historical aerial photograph reviews, a screening level ecological risk assessment (SLERA), and human health risk assessments. Additional investigations have been performed at the NFSS under the FUSRAP, as well. These documents have been utilized, where applicable, to support project strategy and status for certain PMAPs.

To assist in assessment of possible impacts from other sources, a search of several environmental databases was conducted. The search was conducted by Environmental Data Resources (EDR) and included those sources presented in Tables 3-1a through 3-1d. The EDR report lists all database incidences recorded within the search boundary, which was established at approximately 0.5 miles from the LOOW boundary.

Each of the sources used for this Management Action Plan and individual PMAPs have been consolidated into a master reference list presented herein as Table 3-2. References throughout this Management Action Plan and associated PMAPs are cited as indicated on the table. As additional information concerning LOOW becomes available and/or necessary for inclusion in the Management Action Plan, the appropriate references will be added to this list and referenced in the text where applicable.

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TABLE 3-1A EDR FEDERAL RECORDS DATABASE SEARCH

Abbreviation	Database
NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
Delisted NPL	National Priority List Deletions
NPL LIENS	Federal Superfund Liens
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
US ENG CONTROLS	Engineering Controls Sites List
US INST CONTROL	Sites with Institutional Controls
US BROWNFIELDS	A Listing of Brownfields Sites
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
ODI	Open Dump Inventory
TSCA	Toxic Substances Control Act
SSTS	Section 7 Tracking Systems
LIENS 2	CERCLA Lien Information
US CDL	Clandestine Drug Labs
LUCIS	Land Use Control Information System
DOT OPS	Incident and Accident Data
MLTS	Material Licensing Tracking System
MINES	Mines Master Index File

TABLE 3-1B EDR STATE AND LOCAL RECORDS DATABASE SEARCH

Abbreviation	Database
DEL SHWS	Delisted Registry Sites
SWRCY	Registered Recycling Facility List
MOSF UST	Major Oil Storage Facilities Database
MOSF AST	Major Oil Storage Facilities Database
ENG CONTROLS	Registry of Engineering Controls
INST CONTROL	Registry of Institutional Controls
VCP	Voluntary Cleanup Agreements
DRYCLEANERS	Registered Drycleaners
BROWNFIELDS	Brownfields Site List
AIRS	Air Emissions Data
RES DECL	Restrictive Declarations Listing
MOSF	Major Oil Storage Facility Site Listing

TABLE 3-1C EDR TRIBAL RECORDS DATABASE SEARCH

Abbreviation	Database
INDIAN LUST	Leaking Underground Storage Tanks on Indian Land
INDIAN UST	Underground Storage Tanks on Indian Land

TABLE 3-1D EDR PROPRIETARY RECORDS

Abbreviation	Database
Manufactured Gas Plants	EDR Proprietary Manufactured Gas Plants

TABLE 3-2 MASTER REFERENCE LIST

Citation		Update Number
Acres 1989	Acres International Corporation. 1989. PD-6 Document Search/Background Report. April.	0.1_2009
Acres 1990	Acres International Corporation. 1990. RI/FS Former Lake Ontario Ordnance Works, Lewiston/Porter, Niagara County, New York : Final Remedial Investigation Report. August.	0.1_2009
Acres 1992	Acres International Corporation. 1992. Base Map of CWM and surrounding properties. 23 March.	0.1_2009
Acres 1992b	Acres International Corporation. 1992. Preliminary Contamination Assessment Report, Operable Unit No. 2, Volume I of II. December.	0.1_2009
Acres 1995	Acres 1995. Final Engineering Evaluation/Cost Analysis (EE/CA) for Removal Actions in Operable Units 1 and 2. March.	0.1_2009
Acres 1997	Acres 1997. Notes From 5 November 1997 Site Visit By [REDACTED] of Acres International. November.	0.1_2009
Acres 1998	Acres International Corporation. 1998. RI/FS Former Lake Ontario Ordnance Works, Lewiston/Porter, Niagara County, New York : Draft Remedial Investigation Report - Appendices. November.	0.1_2009
AES 1981	Advanced Environmental Systems, Inc. (AES). 1981. Mercury and THO Analysis of Four Solid Samples. Report Prepared for Town of Lewiston Water Pollution Control Center. 13 August.	1.2_2013
Argonne 2007	Argonne National Laboratory 2007. Review of Historical Information on the Possible Presence of Phosgene Cylinders at the Lake Ontario Ordnance Works and Niagara Falls Storage Site. Draft. September.	0.1_2009
Bell Test Center 1982	Bell Test Center. 1982. RCRA Generator Inspection Form. 9 September.	0.1_2009
BNI 1986	Bechtel National, Inc. 1986. Post-Remedial Action Report for the Niagara Falls Storage Site Vicinity Properties - 1983 and 1984 Lewiston, New York. December.	0.1_2009
BNI 1992	Bechtel National, Inc. 1992. Certification Docket for the Remedial Action Performed at the Niagara Falls Storage Site Vicinity Properties in Lewiston, New York, from 1983 through 1986. July.	0.1_2009
BNI 1996	Bechtel 1996. Administrative Record, NFSS, Technical Memorandum. 03 September.	0.1_2009

TABLE 3-2 MASTER REFERENCE LIST

Citation		Update Number
BuffaloNews.com 2010	BuffaloNews.com "Modern Landfill announces intent to sue" published September 28, 2009. Updated August 21, 2010. Accessed June 15, 2011 at http://www.buffalonews.com/city/communities/niagara-county/article14621.ece	1.2_2013
BuffaloNews.com 2010b	BuffaloNews.com "Modern suit on waste in Lewiston is dropped" published May 11, 2010. Updated August 21, 2010. Accessed February 2, 2011 at http://www.buffalonews.com/city/communities/niagara-county/article47023.ece	1.2_2013
Chopra-Lee 2001	Chopra-Lee, Inc. 2001. Letter Report submitted to Lewiston-Porter Central School District regarding soil sampling for heavy metals at the northeast side of the Lewiston-Porter Central School. 20 July.	0.1_2009
Chopra-Lee 2001b	Chopra-Lee, Inc. 2001b. Letter Report submitted to Lewiston-Porter Central School District regarding soil sampling for heavy metals at the northeast side of the Lewiston-Porter Central School. 31 July.	0.1_2009
Chopra-Lee 2001c	Chopra-Lee, Inc. 2001c. Letter Report submitted to Lewiston-Porter Central School District regarding soil sampling for heavy metals at the northeast side of the Lewiston-Porter Central School. 13 August.	0.1_2009
Chopra-Lee 2001d	Chopra-Lee, Inc. 2001d. Letter Report submitted to Lewiston-Porter Central School District regarding soil sampling for arsenic at the northeast side of the Lewiston-Porter Central School. 27 August.	1.2_2013
Chopra-Lee 2003	Chopra-Lee, Inc. 2003. Letter Report submitted to Lewiston-Porter Central School District regarding soil sampling at two proposed palyground areas and a dirt mound on the school property. 8 January.	0.1_2009
CWM 1990	Chemical Waste Management Inc. 1990. PCB Surface Soil and Surface Water Drainage Course Investigation. February.	0.1_2009
CWM 1993	CWM 1993. Letter to Mr. George Rowley, U.S. Army Corp. of Engineers, Kansas Dity District, regarding Field Analytical Procedures/Information for the Waterline Construction Areas. January.	0.1_2009
CWM 1994	CWM 1994. Letter from CWM to Mr. Cornwell of the USACE regarding the discovery of a former DOD burn pit. 27 July.	0.1_2009
EA 1998	EA Engineering, Science and Technology, Inc. 1998. Final History Search Report, LOOW, Niagara County, NY. 1 August.	0.1_2009

TABLE 3-2 MASTER REFERENCE LIST

Citation		Update Number
EA 1998b	EA Engineering, Science and Technology, Inc. 1998b. Memorandum: Former Lake Ontario Ordnance Works (LOOW) RI/FS Contract No. DACA31-94-D-0025, Delivery Order No. 0115 Additional Information on Property Development Restrictions. September.	0.1_2009
EA 1999	EA Engineering, Science and Technology, Inc. 1999. Final Report of Results for the Phase I Remedial Investigation at the former Lake Ontario Ordnance Works, Niagara County, New York. Prepared for the U.S. Army Corps of Engineers, Baltimore District. July.	0.1_2009
EA 2002	EA Engineering, Science and Technology, Inc. 2002. Final Report of Results for the Phase II Remedial Investigation at the Lake Ontario Ordnance Works (LOOW), Niagara County, NY. Prepared for the U.S. Army Corps of Engineers, Baltimore District. February.	0.1_2009
EA 2005	EA Engineering, Science and Technology, Inc. 2005. Draft Human Health Risk Assessment of Selected Exposure Units (EU1-EU6, EU8, EU9) at the Former Lake Ontario Ordnance Works (LOOW), Niagara County, NY. October.	0.1_2009
EA 2006b	EA Engineering, Science, and Technology, Inc. (EA) 2006b. Abbreviated Preliminary Assessment Lake Ontario Ordnance Works Property Number C02NY0025. June.	0.1_2009
EA 2006c	EA Engineering, Science, and Technology, Inc. (EA) 2006c. Conversation With Mr. [REDACTED], Chief Operator, Town of Lewiston, Water Pollution Control Center. October.	0.1_2009
EA 2008	EA Engineering, Science and Technology, Inc. 2008. Report of Results for the Remedial Investigations of Underground Utility Lines, Formerly Used by the Department of Defense, Lake Ontario Ordnance Works (LOOW), Niagara County, NY. Final. September.	0.1_2009
EA 2008b	EA Engineering, Science and Technology, Inc. 2008b. Final Human Health Risk Assessment of Selected Exposure Units (EU1-EU-6, EU8, EU9, EU10) at the Former Lake Ontario Ordnance Works (LOOW), Niagara County, NY, Volumes I-V. December.	0.1_2009
EA 2008c	EA Engineering, Science, and Technology, Inc. (EA) 2008c. Final Screening Level Ecological Risk Assessment of Selected Exposure Units Within the Former Lake Ontario Ordnance Works (LOOW), Niagara County, New York. December.	0.1_2009

TABLE 3-2 MASTER REFERENCE LIST

Citation		Update Number
ECC 2009	Environmental Chemical Corporation. 2009. Former Lake Ontario Ordnance Works, Underground Storage Tank Removal Site Closure, UST Removal Action Closure Report. May.	0.1_2009
EDR 2007	Environmental Data Resources, Inc. (EDR) 2007. EDR Data Map Area Study, Lake Ontario Ordnance Works, Lewiston NY 140192, Inquiry Number 01967213.4r. July.	0.1_2009
EE 1985	Ecology and Environment, Inc. 1985. Results of Geophysical Investigation and Sampling Program at Former Air Force Plant 68, Niagara County, New York. August.	0.1_2009
EE 1986	Ecology and Environment, Inc. 1986. Technical Operations Plan Phase II Confirmation Study Installation Restoration Program Air Force Plant No. 38, Town of Porter, New York. September.	0.1_2009
EE 1986b	Ecology and Environment, Inc. 1986. R&D Status Report, Air Force Plant 38, Porter, New York. December.	0.1_2009
EE 1987	Ecology and Environment, Inc. 1987. Site Characterization Report for Tennessee Gas Pipeline Easement in Lewiston, New York. June.	0.1_2009
EE 1988	Ecology and Environment, Inc. 1988. Installation Restoration Program Phase II Confirmation/Quantification Stage 1, Final Report (IRP Sites) for Air Force Plant 38, Porter, New York. April.	0.1_2009
EE 1988b	Ecology and Environment, Inc. 1988. Installation Restoration Program Phase II Confirmation/Quantification Stage 1, Air Force Plant 38, Porter, New York. April.	0.1_2009
EE 1988c	Ecology and Environment, Inc. 1988. Installation Restoration Program Interim Status Closure Actions for Resource Conservation Recovery Act Units Stage 2, Air Force Plant 38, Town of Porter, Niagara County, New York. August.	0.1_2009
EE 1992	Ecology and Environment Engineering, P.C. 1992. Engineering Investigations at Inactive Hazardous Waste Sites in the State of New York: Phase II Investigations, Town of Lewiston Landfill, Site No. 932076, Town of Lewiston, Niagara County. March.	0.1_2009
EQM 1999	Environmental Quality Management Inc 1999. Small Project Indefinite Delivery Type Contract Remediation Activities Final Report. March.	0.1_2009

TABLE 3-2 MASTER REFERENCE LIST

Citation		Update Number
ERT 2011	Earth Resources Technology, Inc. 2011. Final Site Inspection Report for the Lewiston-Porter Central School District at the Former Lake Ontario Ordnance Works (LOOW), Niagara County, New York. March.	1.2_2013
ERT 2011b	Earth Resources Technology, Inc. 2011. Final Remedial Investigation Report For Phase IV Remedial Investigation/Feasibility Study At The Former Lake Ontario Ordnance Works (LOOW) Niagara County, New York. October.	1.2_2013
ERT 2013	ERT, 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.	2.1-2015
ERT 2013b	ERT, 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.	2.1-2015
ERT 2014	ERT, 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.	2.1-2015
ERT 2014b	ERT, 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.	2.1-2015
ETC 1989	Earth Technology Corporation. 1989. Installation Restoration Program Interim Status Closure Actions for RCRA Units and the Removal of NON-RCRA Units and Materials, Air Force Plant 38, Balmer Road, Porter, New York 14131. 15 May.	0.1_2009
ETC 1990	Earth Technology Corporation. 1990. Installation Restoration Program, PCB Transformer Removal, Air Force Plant 38, Balmer Road, Porter, New York 14313. May.	0.1_2009
ETC 1991	Earth Technology Corporation. 1991. Installation Restoration Program, Phase II Confirmation/Quantification Studies, Interim Status Closure Activities for Non-RCRA Regulated Units, Air Force Plant 38, Balmer Road, Porter NY 14313. May.	0.1_2009

TABLE 3-2 MASTER REFERENCE LIST

Citation		Update Number
ETC 1991b	Earth Technology Corporation. 1991. Installation Restoration Program, Confirmation/Quantification Studies, Interim Status Closure Activities for Non-RCRA Regulated Units, Air Force Plant 38, Balmer Road, Porter, New York 14313. May.	0.1_2009
Foley 2000	Foley 2000. Letter from [REDACTED], P.E. to [REDACTED] Esquire: Phase II Remedial Investigation Component 2 Somerset Group Property Response to Comments from [REDACTED], Esquire. 20 November.	0.1_2009
Foley 2001	Foley 2001. Letter from [REDACTED], P.E. to [REDACTED]: Remedial Investigation Work Plan-Supplemental Comments on Addendum to the Work Plan for Phase I (i.e. Phase II) Remedial Investigation for the Lake Ontario Ordnance Works Component Two-Somerset Group Site. 11 January.	0.1_2009
Gardella et al. 2004	[REDACTED]. 2004. Sampling and Analysis of Soil Quality and Geographic Information Analysis of soil contamination on the Lewiston Porter Schools Campus. University of Buffalo Environment and Society Institute. March.	0.1_2009
Giardina 2010	Giardina, Paul, Chief of USEPA Region 2 Radiation and Indoor Air Branch. 2010. Email communication to the USACE and LOOW stakeholders dated 12 August 2010.	1.2_2013
Golder 1987	Golder Associates. 1987. Report on MW10-2S Investigation Plan, Model City TSD Facility, Model City, New York. October.	0.1_2009
Golder 1987b	Golder Associates. 1987. Final Report on SLF-12 Groundwater Monitoring Program, Model City, New York Facility. December.	0.1_2009
Golder 1988	Golder Associates. 1988. Interim Report on Well MW7-3S Investigation, Model City TSD Facility, Model City, New York. April.	0.1_2009
Golder 1988b	Golder Associates. 1988. MW10-2S well/boring investment plan. 1 September.	0.1_2009
Golder 1989	Golder Associates Inc. 1989. Interim Report on Wells BW-2S and BW-2D Investigation Model City TSDR Facility. August.	0.1_2009
Golder 1989b	Golder Associates Inc. 1989. Plan on Initial SWMU Investigation Area South of the PCB Warehouse Area Model City TSDR Facility. August.	0.1_2009

TABLE 3-2 MASTER REFERENCE LIST

Citation		Update Number
Golder 1989c	Golder Associates Inc. 1989. Initial SWMU Investigation Area South of the PCB Warehouse Area Model City TSDR Facility. August.	0.1_2009
Golder 1989d	Golder Associates Inc. 1989. Aerial Photographic Interpretation Report Model City TSD Facility Model City, New York. February.	0.1_2009
Golder 1989e	Golder Associates Inc. 1989. Interim Report Order on Wells BW-2S and BW-2D Investigation Model City TSDR Facility. August.	0.1_2009
Golder 1990	Golder Associates Inc. 1990. PCB Warehouse Investigation Model City TSDR Facility Model City, New York. April.	0.1_2009
Golder 1991	Golder Associates Inc. 1991. Interim Report on Syms Area Model City TSDR Facility, Volume I of III. January.	0.1_2009
Golder 1991b	Golder Associates Inc. 1991. Final Report on Phase II PCB Warehouse Investigation Model City TSDR Facility Model City, New	0.1_2009
Golder 1992	Golder Associates Inc. 1992. FAC Pond 4 Initial RCRA Facility Investigation and Phase II Investigation, Volumes I and II. April.	0.1_2009
Golder 1993	Golder Associates Inc. 1993. RCRA Facility Investigation Summary Report CWM Chemical Services, Model City TSDR Facility, Model City, New York. January.	0.1_2009
Golder 1996	Golder Associates Inc. 1996. Draft Addendum to Site-Wide Corrective Measures Study and SWMU-Specific Corrective Measures Study CWM Chemical Services, Inc, Model City, New York Facility. July.	0.1_2009
Golder 1997	Golder Associates Inc. 1997. Background Well BW02S Piezometer P1202S and Abandoned Railroad Bed Supplemental Investigation. October.	0.1_2009
GSA 2006	GSA 2006. Office of Real Property Disposal Fact Sheet: CERCLA Section 120(h). December. Accessed November 2007 at https://rc.gsa.gov/ResourceCenter/envi_facts.jsp	0.1_2009
ICF 1990	ICF Kaiser Engineers 1990. Letter to [REDACTED] from [REDACTED]y [REDACTED]n discussing findings of the RFI and RI conducted on WM property. 17 December.	0.1_2009

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ISSI 2004	ISSI Unexploded Ordnance, Inc. 2004. After Action Report, UXO Activities at the Waste Water Treatment Plant (WWTP) at the Former Lake Ontario Ordnance Works (LOOW) Site. June.	1.2_2013
ITFHW 1979	Task Force. 1979. Interagency Task Force on Hazardous Wastes, Draft Report on Hazardous Waste Disposal in Erie and Niagara Counties, New York. March.	0.1_2009
J.G. White 1942	J.G. White Engineering Corporation. 1942. As-builts of the Water, Sewer, Steam Lines at Lake Ontario Ordnance Works. April.	0.1_2009
JRB 1984	JRB Associates. 1984. Report to the Air Force: RCRA Closure Assessment of Air Force Plant 38. 21 May.	0.1_2009
JRB 1985	JRB Associates. 1985. Sampling and Analysis of Potential Areas of Contamination Ares of Contamination at AFP 38. February.	0.1_2009
Krehbiel 1978	Krehbiel Associates, Inc. 1978. Outfall Investigation, Town of Lewiston, Lewiston Master Sewer Improvement Area, Project. No. C-36-529. 1 November.	1.2_2013
Krehbiel 1979	Krehbiel Associates, Inc. 1979. Letter addressed to the New York State Department of Environmental Conservation Re: Lewston Master Sewer Improvement Area, Project No. C-36-529, Outfall Cleaning. 14 March.	1.2_2013
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LSRS 2012	LATA-Sharp Remediation Services, LLC (LSRS). 2012. Final Completion Report for Mitigation of Safety Hazards at the Lake Ontario Ordnance Works (LOOW) Office of Economic Adjustment (OEA) Wastewater Treatment Plant (WWTP), Lewiston, NY. March.	1.2_2013

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Citation		Update Number
LSRS 2011	LATA-Sharp Remediation Services, LLC (LSRS). 2011. Site Operations Plan for the Mitigation of Public Safety Hazards at the Former Lake Ontario Ordnance Works (LOOW) Waste Water Treatment Plant (WWTP) Project. 25 February.	1.2_2013
LU 2000	LU Engineers. 2000. Air Force Research Laboratory, Rome Research Site, Youngstown Research Facility, town of Porter, Niagara County New York, Environmental Baseline Survey. January.	0.1_2009
Mareinthal 1979	Mareinthal. 1979. Letter from [REDACTED], Deputy Assistant Secretary of Defense to [REDACTED], EPA Task Force, Response to Task Force Request for Information. December.	0.1_2009
Martin Marietta 1986	Martin Marietta. 1986. Comprehensive Radiological Survey of Off-Site Property O Niagara Falls Storage Site Lewiston, New York. May.	0.1_2009
Martin Marietta 1993	Martin Marietta Energy Systems, Inc. 1993. Draft Decision Document for the Youngstown Research Facility Model City, New York. August.	0.1_2009
Modern 1997	Modern Landfill Inc. (Modern). 1997. Fourth Quarter Report. January.	0.1_2009
Nablo 2008	Verbal communication with Mr. Bob Nablo, Town of Lewiston, Water Foreman. November 18.	0.1_2009
Niagara County DOH 1975	Niagara County DOH. 1975. Memorandum from Mr. Ernest Gedeon to New York State Department of Environmental Conservation, Region 9 Headquarters (Mr. William Friedman) regarding Case Report – Chem-Trol Pollution Services. 12 June.	0.1_2009
Niagara County DOH 1981	Niagara County Department of Health. 1981. Report of Investigation. July.	0.1_2009
Niagara County DOH 1989	Niagara County Department of Health. 1989. Report of Investigation, Interview with Carl Acome regarding Acome Landfill. July.	0.1_2009
Niagara County DOH 1989b	Niagara County Department of Health. 1989b. Memorandum from [REDACTED] regarding Acome landfill, Town of Lewiston. July.	0.1_2009

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Citation		Update Number
Niagara County DOH 2002	Niagara County Department of Health. 2002. Letter to Assistant Superintendent for Administrative Services, Lewiston-Porter Central School District from [REDACTED] E. Supervisory Public Health Engineer, Niagara County Department of Health, regarding review of samples collected from the SWDD on the school property. 18 June.	0.1_2009
Niagara County DOH 2005	Niagara County DOH. 2005. Letter from [REDACTED], P.E., Principal Public Health Engineer to [REDACTED], Lew-Port Central School District regarding drinking water quality radiological monitoring. 6 July.	0.1_2009
Niagara County Emergency Management Office 1987	Niagara County Emergency Management Office. 1987. Letter from M. W. Shanley, Director to J. J. Lombardi, Supervisor, Town of Lewiston, regarding radiological testing of an office area. 27 August.	1.2_2013
Niagara Gazette 1978a	Niagara Gazette. Porter official says leak stems from Chem-Trol. 7 January 1978.	0.1_2009
Niagara Gazette 1978b	Niagara Gazette. Chem-Trol source of green acid leak at industrial park. 8 January 1978.	0.1_2009
Niagara Gazette 1978c	Niagara Gazette. Resident inspector. 10 January 1978.	0.1_2009
Niagara Gazette 1978d	Niagara Gazette. Second solution posed to control Chem-Trol leaks. 10 January 1978.	0.1_2009
Niagara Gazette 1978e	Niagara Gazette. Spill could corrode steel. 18 January 1978.	0.1_2009
NUMEC 1968	Nuclear Materials and Equipment Corporation (NUMEC). 1968. Memorandum from Mr. Leonard P. Pepkowitz to U.S. Atomic Energy Commission regarding Water and Air Pollution Control, Prime Contact AT-(40-1)-3292. April.	0.1_2009
NYANG 1974	New York Army National Guard. 1974. Environmental Assessment for the Establishment of an Army National Guard Week-End Training Site (WETS) and Storage Compound at Air Force Plant 38 Youngstown, New York. November.	0.1_2009
NYSATF 1981	New York State Assembly Task Force on Toxic Substances. 1981. The Federal Connection: A History of U.S. Military Involvement in the Toxic Contamination of Love Canal and the Niagara Frontier Region. January.	0.1_2009

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NYS COH 1974	New York State Commissioner of Health. 1974. Letter to Town of Lewiston Town Clerk from Hollis Ingrahm, M.D. NY State commissioner of Health, regarding acquisition of Waste Water Treatment Plant land by the Town of Lewiston. June.	0.1_2009
NYS DEC 1978	New York State Department of Environmental Conservation. 1978. Memorandum from [REDACTED] regarding Chem-Trol Discharge, January 5 to 9, 1978. 30 January.	0.1_2009
NYS DEC 1978b	New York Department of Environmental Conservation. 1978b. Memorandum from [REDACTED] regarding Legal Referral – Chem-Trol Pollution Services Inc., Niagara County. January.	0.1_2009
NYS DEC 1978c	New York State Department of Environmental Conservation. 1978c. Letter to [REDACTED] of Chem-Trol Pollution Services ordering the severance of abandoned lines that exit Chem-Trol property. 12 January.	0.1_2009
NYS DEC 1978d	New York State Department of Environmental Conservation. 1978d. letter to Chem-Trol Pollution Services ordering severance of abandoned lines and other remedial actions. 9 February.	0.1_2009
NYS DEC 1981	New York State Department of Environmental Conservation. 1981. NYS DEC Memorandum regarding the review of documents submitted by the Assembly Committee regarding [REDACTED]'s motion to reopen SCA Phase II Hearing. 11 February.	0.1_2009
NYS DEC 1982	New York Department of Environmental Conservation. 1982. Site Investigation of the Town of Lewiston Landfill. April.	0.1_2009
NYS DEC 1982b	New York State Department of Environmental Conservation. 1982b. NYS DEC Memorandum regarding the sampling of former TNT lines for material of explosive potential. 10 November.	0.1_2009
NYS DEC 1983	New York State Department of Environmental Conservation. 1983. NYS DEC Memorandum regarding the analysis of samples collected from former TNT lines for material of explosive potential. 8 March.	0.1_2009
NYS DEC 1991	New York State Department of Environmental Conservation. 1991. Phase I Report for J.T. Salvage Yard. April.	0.1_2009

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Citation		Update Number
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NYSDEC 2011	New York State Department of Environmental Conservation. 2011. Letter to [REDACTED] of USACE regarding the State's review of the "Final Site Inspection Report for the Lewiston-Porter Central School District at the Former Lake Ontario Ordnance Works (LOOW), Niagara County New York" (March 2011) and the "Site Inspection of the Lewiston-Porter Central School District Property Former Lake Ontario Ordnance Works (LOOW), Niagara County New York" (May 2011). 19 July.	1.2_2013
NYSDOH 2008	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.	1.2_2013
NYSDOH 1974	New York State Department of Health. 1974. Commissioners Order in the Matter of Certain Lands to be Acquired by or Transferred to the Town of Lewiston, Niagara County, State of New York. August.	
ORAU 1983	Oak Ridge Associated Universities. 1983. Comprehensive Radiological Survey Off-Site Property Q, Niagara Falls Storage Site, Lewiston, New York, Oak Ridge, Tennessee, July.	0.1_2009
ORNL 1986	Oak Ridge National Laboratory. 1986. Comprehensive Radiological Survey of Off-Site Property O, NFSS, Lewiston, NY. May.	0.1_2009
ODUSD 2001	ODUSD. 2001. Management Guidance for the Defense Environmental Restoration Program. September.	0.1_2009
Parry 1979	[REDACTED] State University of New York at Buffalo. 1979. The Lake Ontario Ordnance Works 1940-1980, Legacy of Government Mismanagement. July.	0.1_2009
PEER 1984	PEER Consultants. 1994. Site Inspection Report for Youngstown and Ontario Research Facilities Rome Laboratory Griffiss Air Force Base New York. August.	0.1_2009
PEI 2004	PEI 2004. Letter Report submitted to Lewiston-Porter Central School District regarding soil sampling/testing program at the school campus. 27 October.	0.1_2009

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PEI 2007	PEI 2007. Soils Management Plan: Lewiston-Porter Schools Campus Youngston, Niagara County, New York. March.	0.1_2009
Radian 2000	Radian 2000. Demobilization and Closure Report for the Interim Removal Action, TNT Pipeline and Chemical Waste Sewer Lines, Former LOOW, Lewiston/Porter, NY. February.	0.1_2009
REI 1994	Rust Environment & Infrastructure. 1994. Interim Corrective Measures Study Well BW-2S and P12-2S. 1 March.	0.1_2009
REI 1995	Rust Environment & Infrastructure. 1995. Site-Wide Corrective Measures Study, Model City TSD Facility, Volumes I, II and III. January.	0.1_2009
Rust 1994	Rust 1994. Interim Measures at BW02S and P1202S – Detailed Design, Model City TSDR Facility, Model City, New York. July.	0.1_2009
Rust 1995	Rust Environment and Infrastructure 1995. Site-Wide Corrective Measures Study, Model City TSD Facility. Volumes I-III. January.	0.1_2009
SAIC 2002	Science Applications International Corporation. 2002. Final Gamma Walkover Survey Report, Lewistown-Porter School Property. 6 February.	1.2_2013
SAIC 2007	Science Applications International Corporation. 2007. Baseline Risk Assessment Report for the NFSS. December.	0.1_2009
SAIC 2007b	Science Applications International Corporation. 2007. Remedial Investigation Report for the NFSS. December.	0.1_2009
SAIC 2011	Science Applications International Corporation. 2011. Remedial Investigation Report Addendum for the Niagara Falls Storage Site. April.	1.2_2013
SciTech 1993	SciTech Services Inc. 1993. Historical documents provided by [REDACTED]. 8 January.	0.1_2009

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Citation		Update Number
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Smith 2004	Peter.J.Smith and Company, Inc. 2004. A Comprehensive Plan for the Town of Porter, Connecting Our Past with the Future. August.	0.1_2009
Storch Engineers 1987	Storch Engineers. 1987. Nike Battery NF-03. September.	0.1_2009
Storch Engineers 1991	Storch Engineers/USACE. 1991. General Scope of Work for Tank Removal at Nike Battery NF-03, Lewiston, New York. June.	0.1_2009
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TEC 2002	US Army Topographic Engineering Center (TEC). 2002. Historic Photographic Analysis Report, Former Lake Ontario Ordnance Works. September.	0.1_2009
Technical Support Office 1978	Technical Support Office. 1978. Trip and Visit Report: Lake Ontario Ordnance Works, Model City, NY. December.	0.1_2009
Tetra Tech 2009	Tetra Tech. 2009. Results of Site Investigation and Drum Removal Vicinity Property G, Niagara Falls Storage Site, Lewiston NY. January.	0.1_2009
Town of Lewiston WPCC 1999	Town of Lewiston Water Pollution Control Center. 1999. Letter to EA Engineering, Science, and Technology from ██████████, Administrator/Chief Operator regarding modifications made to the 30-inch outfall line. June.	0.1_2009
Town of Porter 1978	Town of Porter 1978. Letters to the Honorable John J. LaFalce, U.S. Congress, and ██████████ C. Beck, USEPA regarding USEPA involvement in supervising operations at Chem-Trol Pollution Services. 15 February.	0.1_2009
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URS 2000	URS Griener Corporation. 2002. Town of Lewiston Comprehensive Plan, Draft Environmental Impact Statement. November.	0.1_2009
USACE 1986	USACE 1986. Defense Environmental Restoration Program For Formerly Used Defense Sites Revised Finding and Determination of Eligibility, Lake Ontario Ordnance Works, FUDS Property Number C02NY0025, Lewiston and Porter, Niagara County, New York.	0.1_2009
USACE 2002	USACE 2002. Formerly Utilized Sites Remedial Action Program Fact Sheet. February. Accessed 8-19-08 from: http://www.lrb.usace.army.mil/fusrap/nfss/nfss-fs-schoolbackground-2002-02.pdf	0.1_2009
USACE 2003	USACE 2003. Environmental Quality Former Utilized Sites Remedial Action Program (FUSRAP)-Site Designation, Remediation Scope, and Recover Costs. August.	0.1_2009
USACE 2004	USACE 2004. Environmental Quality Formerly Used Defense Sites (FUDS) Program Policy. ER200-3-1. May.	0.1_2009
USACE 2004b	USACE 2004b. Small Bermed Clearing Supplemental Investigation Summary Report. May.	0.1_2009
USACE 2006 ^(a)	USACE 2006. Formerly Utilized Sites Remedial Action Program Fact Sheet. September. Accessed 1-22-08 from: http://www.lrb.usace.army.mil/fusrap/docs/fusrap-fs-general-2006-09.pdf	0.1_2009
USACE 2007	USACE 2007. Key Findings of the Niagara Falls Storage Site Remedial Investigation Report (NFSS RIR). December. Accessed 1-22-08 from: http://www.lrb.usace.army.mil/fusrap/nfss/index.htm	0.1_2009
USACE 2007b	USACE 2007b. Formerly Utilized Sites Remedial Action Program Fact Sheet. Niagara Falls Storage Site. Radiological Investigation of Underground Utility (UU) Lines on the former Lake Ontario Ordnance Works (LOOW) property. October.	1.2_2013
USACE 2008	USACE 2008. Defense Environmental Restoration Program For Formerly Used Defense Sites Revised Finding and Determination of Eligibility, Lake Ontario Ordnance Works, FUDS Property Number C02NY0025, Lewiston and Porter, Niagara County, New York.	0.1_2009

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Citation		Update Number
USACE 2008b	USACE 2008b. Defense Environmental Restoration Program For Formerly Used Defense Sites Property Survey Summary Sheet, Lake Ontario Ordnance Works, FUDS Property Number C02NY0025, Lewiston and Porter, Niagara County, New York.	0.1_2009
USACE 2008c	USACE 2008c. Defense Environmental Restoration Program For Formerly Used Defense Sites BD/DR Project Summary Sheet, Lake Ontario Ordnance Works, FUDS Property Number C02NY0025, Lewiston and Porter, Niagara County, New York.	0.1_2009
USACE 2008d	USACE 2008d. Defense Environmental Restoration Program For Formerly Used Defense Sites PRP/HTRW Project Summary Sheet, Lake Ontario Ordnance Works, FUDS Property Number C02NY0025, Lewiston and Porter, Niagara County, New York.	0.1_2009
USACE 2008e	USACE 2008e. Defense Environmental Restoration Program For Formerly Used Defense Sites CON/HTRW Project Summary Sheet, Lake Ontario Ordnance Works, FUDS Property Number C02NY0025, Lewiston and Porter, Niagara County, New York.	0.1_2009
USACE 2008f	USACE 2008f. Defense Environmental Restoration Program For Formerly Used Defense Sites MMRP (Conventional) Project Summary Sheet, Lake Ontario Ordnance Works, FUDS Property Number C02NY0025, Lewiston and Porter, Niagara County, New York.	0.1_2009
USACE 2008g	USACE 2008g. Defense Environmental Restoration Program For Formerly Used Defense Sites MMRP (Chemical Warfare Materiel) Project Summary Sheet, Lake Ontario Ordnance Works, FUDS Property Number C02NY0025, Lewiston and Porter, Niagara County, New York.	0.1_2009
USACE 2008h	USACE 2008h. FUSRAP Niagara Falls Storage Site 2007 Environmental Surveillance Technical Memorandum. September.	0.1_2009
USACE 2009	USACE 2009. Minutes from the 27May 2009 meeting between the USACE and the Lewiston-Porter Central School District Board of Education.	1.2_2013
USACE 2010	USACE 2010. Defense Environmental Restoration Program for Formerly Used Defense Sites Archives Search Report, Lake Ontario Ordnance Works. 17 September.	1.2_2013
USACE 2011	Site Inspection of the Lewiston-Porter School District Property, Former Lake Ontario Ordnance Works (LOOW), Niagara County, New York. May.	1.2_2013

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Citation		Update Number
USACE 2012	USACE 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.	2.1-2015
USACE 2014	USACE 2014. Environmental Quality-Formerly Utilized Sites Remedial Action Program. ER200-1-4. August.	2.1-2015
USAGC 2009	U.S. Army Geospatial Center (USAGC) 2009. Niagara Falls Storage Site Historical Photographic Analysis, Lewistown Township, New York. Final. September.	1.2_2013
USACHPPM 1994	U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) 1994. Site Inspection No. 38-26-1335-94. September.	0.1_2009
USATHAMA 1979	US Army Toxic and Hazardous Materials Agency. 1979. Final Report New York Contamination Survey. January.	0.1_2009
USATHAMA 1981	USATHAMA. 1981. Final Report on Records Search on LOOW. February.	0.1_2009
USAF 1992	U.S. Air Force. 1992. Letter from Mr. G. Kim Wincop, Assistant Secretary of the Air Force regarding the Transfer of Air Force Plant No. 38, Youngstown, New York, to the Department of Army. August.	0.1_2009
USDOA 1942	US Department of Army (USDOA), War Department. 1942. Memorandum from Major General Thomas M. Robins, Assistant Chief of Engineers regarding Acquisition of Flowage Easements Along Four Mile Creek for the Lake Ontario Ordnance Works, New York. November.	0.1_2009
USDOA 1944	US Department of Army (USDOA), War Department. 1944. Memorandum from Major John L. Ebaugh, Assistant to the Air Chemical Office, to Chief Chemical War Services regarding Stock Piles of Incendiary Bombs. April.	0.1_2009
USDOA 1948a	USDOA, Ammunition Branch. 1948a. Headquarters Lake Ontario Ordnance Works, Niagara Falls, New York, Historical Report No. 2 (covering period from January 1, 1943 to March 31, 1943). October.	0.1_2009
USDOA 1948b	USDOA, Ammunition Branch. 1948b. Headquarters Lake Ontario Ordnance Works, Youngstown, New York, Historical Report No. 1 (covering period from July 1, 1939 to December 31, 1942). October.	0.1_2009

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Citation		Update Number
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USDOA 1949b	USDOA, Ammunition Branch. 1949b. Headquarters Lake Ontario Ordnance Works, Niagara Falls, New York, Historical Report No. 5 (covering period from 1 October 1943 to 31 December 1943). November.	0.1_2009
USDOA 1949c	USDOA, Ammunition Branch. 1949c. Headquarters Lake Ontario Ordnance Works, Niagara Falls, New York, Historical Report No. 4 (covering period from 1 July 1943 to 30 September 1943). November.	0.1_2009
USDOA 1949d	USDOA, Ammunition Branch. 1949d. Headquarters Lake Ontario Ordnance Works, Niagara Falls, New York, Historical Report No. 3 (covering period from 1 April 1943 to 30 June 1943). November.	0.1_2009
USDOE 1997	US Department of Energy. 1997. Investigation Report for Property G Drums. August.	0.1_2009
USDOE 1980	US Department of Energy (USDOE). 1980. A Background Report and Evaluation of Resurvey Requirements for the Former Atomic Energy Commission Portion of the Lake Ontario Ordnance Works. August.	0.1_2009
USDOE 2010	US Department of Energy (USDOE). 2010. Niagara Falls Storage Site Vicinity Properties, New York: Review of Radiological Conditions at Six Vicinity Properties and Two Drainage Ditches. October.	1.2_2013
USDOE 2012	US Department of Energy (USDOE). 2012. Assessment of Historical Knolls Atomic Power Laboratory Waste Storage Locations, Niagara Falls Storage Site, FUSRAP Site, Lewiston, New York. February.	1.2_2013
USEHA 1986	U.S. Environmental Health Agency. 1986. Hazardous Waste Study No. 37-26-0786-87, Investigation of Possible Soil Contamination Ransomville Range, New York National Guard, Youngstown, New York. May.	0.1_2009
USEPA 1995	US Environmental Protection Agency. 1995. Acknowledgement of Notification of Hazardous Waste Activity. August.	0.1_2009
USEPA 2007	USEPA 2007a. USEPA Superfund website 10-24-07, http://www.USEPA.gov/superfund/policy/cercla.htm	0.1_2009

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Citation		Update Number
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USEPA 2007c	USEPA 2007c. USEPA website 10-25-07, http://www.USEPA.gov/fedfac/documents/final_fuds_policy_with_ltr_head.htm	0.1_2009
Wehran 1978	Wehran Engineering (Wehran). 1978. Drawings SPCC Location of A.E.C. Acid Lines, Chem-Trol Pollution Services, Inc. Model City, New York.	0.1_2009
Weston 1993	Weston. 1993. Preliminary Assessment of the Army National Guard Facility, Youngstown Weekend Training Site, Youngstown, New York. November.	0.1_2009
Weston 1996	Weston. 1996. Remedial Design for Interim Removal Actions Operable Units 1 and 2, Former LOOW, Lewiston, Porter NY, Work Plan, Final. October.	0.1_2009
Weston 1997	Weston 1997. Remedial Design for Interim Removal Actions OU 1 and 2, Former LOOW-Preliminary Remedial Design Investigation (PRDI) Report. May.	0.1_2009
Weston 1998	Weston 1998. Phase I Interim Removal Action Components 1, 2, 3 TNT Pipeline and Chemical Waste Sewer. August.	0.1_2009

(a) As of Update 2.1-2015, the USACE 2006 Fact Sheet not available at the USACE website. Instead, please see reference USACE 2014.

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4. KEY USACE FINDINGS AND RECOMMENDATIONS

Based on the grouping parameters and hierarchy discussed in Section 1.4.1, there are currently 33 parcel groupings/PMAPs. However, one parcel group has no parcels currently assigned to the parcel group, based on the decision tree and hierarchy described in Figure 1-2 and Section 1.4.1. Each parcel group has been given a parcel group designation for database identification as presented in Table 4-1. The geographic distribution of parcels in the different parcel groups is presented in Figure 4-1.

Table 4-2 summarizes the status of each parcel group with regard to FUDS projects. The status is based upon review of available data and DoD activities and impacts as detailed in the parcel group PMAPs.

With respect to HTRW projects, there are two parcel groups ineligible for inclusion into a HTRW project because they were either still owned by the DoD or were transferred after October 1986. One parcel group does not include individual parcels, and a status was not assigned. One parcel group is no longer eligible for further evaluation because the U.S. resolved all CERCLA liability through Judicial Consent Decree. Hazards at 27 parcel groups have been evaluated sufficiently for the USACE to reach decisions of NDAI for HTRW; potential HTRW hazards are present at the remaining two parcel groups and are being addressed in active/ongoing HTRW projects. HTRW project status for the parcels is presented in Table 4-2 and Figure 4-2.

The CON/HTRW project is viewed as closed by the NYSDEC, and closure within the FUDS process is pending. Two parcel groups had eligible CON/HTRW hazards that have been evaluated and resolved. Three parcels are ineligible for investigation, and the remaining 27 parcel groups have no identified CON/HTRW hazards and no action is required (NDAI Category I). CON/HTRW project status for the parcels is presented in Table 4-2 and Figure 4-3.

No MMRP project has been authorized for the LOOW FUDS. For all parcels, one of the following applies: no MMRP hazards have been identified (NDAI Category I), or the parcels were ineligible for inclusion into a FUDS project. MMRP project status for the parcels is presented in Table 4-2.

There were 30 parcel groups that were ineligible for consideration for a BD/DR project, including the group with no assigned parcels. The remaining three parcel groups were eligible for a BD/DR project, but no eligible hazards were identified. Therefore the status of these parcel groups is listed as NDAI – Category I. BD/DR project status is presented in Table 4-2.

The two parcel groups that did not meet the definition of a FUDS were ineligible for inclusion into a PRP project. One parcel group is no longer eligible for a PRP project because the U.S. resolved all CERCLA liability through Judicial Consent Decree (identified in Table 4-2 as “closed-PRP”). There were no areas of both DoD and non-DoD HTRW hazards identified for 13 of the parcel groups, resulting in a response complete (NDAI-Category I status). In 16 parcel groups, areas of confirmed or potential impact from both DoD and non-DoD activity were identified, and the non-DoD entity must initiate action for the USACE to address these areas. PRP project status for the parcels is presented graphically in Figure 4-4.

Regulatory concurrence on closure has been obtained from NYSDEC for the CON/HTRW project. Concurrence on closure has not yet been obtained for any of the HTRW hazards; therefore, concurrence on closure has not yet been obtained for all hazards within any one parcel group with one exception. A settlement agreement was reached between the Somerset Group and the United States (as represented by the US Department of Justice) under which the United States government has no further CERCLA liability (including response actions under DERP FUDS) at the site (Syms vs. United States 2008). A Project Closeout Memorandum will be prepared by the USACE to document the decision to conclude all DERP FUDS activities for this property.

Based on information gained by the USACE to date, NDAI declaration statements may be produced and submitted for 28 parcel groups categorized as response complete as listed in Table 4-3. NDAI declaration statements may also be produced for the two parcel groups that are not FUDS. The remaining parcel groups are either in need of a response action or are included in an ongoing response action and will require funding for completion of the closure strategy. Required funding is parcel group specific and may be estimated from the required response action tasks presented in Section 11 of each PMAP. The individual PMAPs should be consulted for details on each area of DoD use and potential impacts within the parcel group. However, Table 4-4 has been included to present a broad overview of the areas of DoD use, the parcel grouping(s) that the use area appears in, and a summary of current USACE decision on status for the individual area. Overall status is based on the parcel group as a whole and the sum conclusions from all DoD use areas in the parcel group. Therefore, the PMAP and Table 4-2 should be referenced for parcel group status. Figure 4-5 illustrates the LOOW developed area where the majority of these DoD use-areas were located.

TABLE 4-1 SUMMARY OF PARCEL GROUPS, MANAGEMENT ACTION PLAN
UPDATE 2.1_2015

Parcel Group Database Code	Parcel Grouping Decision Pathway Abbreviation
01: PostOct86Trans/ SthprtRailTrnLLC-P1	FUDS Ineligible - Post 10/17/86 Transfer-Southport Rail Transfer LLC. POC: [REDACTED] -P1
01: USA-P1-DoD-WETS	FUDS Ineligible/DOD-Owned/United States Of America - P1-DoD-WETS
02: ChemWstMngmnt - P1	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: Chemical Waste Management Inc. – P1
02: LwstnTown - P2	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: Town Of Lewiston - P2
02: LwstnTown - P4	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: Town Of Lewiston - P4
02: ModernAffCo - P2	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: Modern Affiliated Companies - P2
02: PorterTown - P2	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: Town Of Porter - P2
02: SomersetGrp - P1	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: Somerset Group Inc - P1
02: USA_LakeOntOrd - P1	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: US Government (Lake Ont. Ord) - P1
03:SpecCons-Occidental	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Special Consideration: Occidental
03:SpecCons-School	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Special Consideration: School
04-1: SupprtFclyLOOW Administrative Offices	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/Support Facility/LOOW Administrative Offices
04-1: SupprtFclyLOOW Slurry Pond	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/Support Facility/LOOW Slurry Pond
04-1: SupprtFclyLOOW Transportation Center	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/Support Facility/LOOW Transportation Center

TABLE 4-1 SUMMARY OF PARCEL GROUPS, MANAGEMENT ACTION PLAN
UPDATE 2.1_2015

Parcel Group Database Code	Parcel Grouping Decision Pathway Abbreviation
04-2: Group R	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/30-Inch Outfall
04-3: Group P	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/42-inch Intake
04-4: Group N	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/4-MileCreek
04-5: Group L	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/Central Drainage Ditch
04-6: Group K	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/Southwest Drainage Ditch
04-8: Group I	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/6MileCreek
04-7: Group J	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/12MileCreek
04-9: TEC Group B	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/TEC Aerial Anomaly/Small Bermed Clearing (SBC)
04-9: TEC Group C	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/TEC Aerial Anomaly/disturbed ground/scar
04-9: TEC Group D	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/TEC Aerial Anomaly/material/mounded material
05: LandUse Group A01	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/No DOD Impact/Land Use: Residential
05: LandUse Group A02	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/No DOD Impact/Land Use: Industrial
05: LandUse Group A03	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/No DOD Impact/Land Use: Agricultural/Rural
05: LandUse Group A04	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/No DOD Impact/Land Use: Commercial/Municipal/Community Service
05: LandUse Group A05	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/No DOD Impact/Land Use: Undeveloped/parks/rec/wildlife

TABLE 4-1 SUMMARY OF PARCEL GROUPS, MANAGEMENT ACTION PLAN
UPDATE 2.1_2015

Parcel Group Database Code	Parcel Grouping Decision Pathway Abbreviation
06: FormerDOD_RealProp	FUDS Eligible/Outside LOOW/Former DOD Real Property/LOOW Freshwater Intake Pump House
07-1: Group Q	FUDS Eligible/Outside LOOW/Former DOD Easement/30-Inch Outfall
07-2: Group O	FUDS Eligible/Outside LOOW/Former DOD Easement/42-inch Intake
07-3: Group M	FUDS Eligible/Outside LOOW/Former DOD Easement/4-Mile Creek

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TABLE 4-2 SUMMARY OF STATUS AND FUNDING REQUIREMENTS FOR LOOW FUDS PROJECTS

Parcel Group Database Code	Parcel Grouping Decision Pathway Abbreviation	HTRW Project and Funding Status			CON/HTRW Project and Funding Status			MMRP Project and Funding Status			BDDR Project and Funding Status			PRP Project and Funding Status		
		Project Status	Funding ¹	NDAI ²	Project Status	Funding ¹	NDAI ²	Project Status	Funding ¹	NDAI ²	Project Status	Funding ¹	NDAI ²	Project Status	Funding ¹	NDAI ²
01: PostOct86Trans/ SthprtRailTrnLLC - P1	FUDS Ineligible - Post 10/17/86 Transfer-Southport Rail Transfer LLC. POC: [REDACTED] -P1	Ineligible	Funding Not Required	No	Ineligible	Funding Not Required	No	Ineligible	Funding Not Required	No	Ineligible	Funding Not Required	No	Ineligible	Funding Not Required	No
01: USA-P1-DoD-WETS	FUDS Ineligible/DOD-Owned/United States Of America - P1-DoD-WETS	Ineligible	Funding Not Required	No	Ineligible	Funding Not Required	No	Ineligible	Funding Not Required	No	Ineligible	Funding Not Required	No	Ineligible	Funding Not Required	No
02: ChemWstMngmnt - P1	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: Chemical Waste Management Inc. - P1	Response Complete NDAI – Cat. III and PRP (01)	Funding Not Required	No	Response Complete NDAI – Cat. IV	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Inactive	Funding Not Required	No
02: LwstnTown - P2	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: Town Of Lewiston - P2	Response Complete NDAI – Cat. II (01)	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No
02: LwstnTown - P4	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: Town Of Lewiston - P4	³ Response Complete NDAI - Cat. III (01) and Active/Ongoing (10)	Funding Not Required (01) & Required (10)	No	Response Complete NDAI – Cat. IV	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Inactive	Funding Not Required	No
02: ModernAffCo - P2	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: Modern Affiliated Companies - P2	Response Complete NDAI - Cat. III and PRP (01)	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Inactive	Funding Not Required	No
02: PorterTown - P2	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: Town Of Porter - P2	Response Complete NDAI – Cat. I (01)	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No
02: SomersetGrp - P1	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: Somerset Group Inc - P1	Response Complete NDAI – Cat. III and PRP (01)	Funding Not Required	No	Closed - PRP	Funding Not Required	No	Closed - PRP	Funding Not Required	No	Ineligible	Funding Not Required	No	Closed - PRP	Funding Not Required	No
02: USA_LakeOntOrd - P1	FUDS Eligible/Within LOOW/LOOW Developed Zone/ContiguousParcel/, Owner: US Government (Lake Ont. Ord) - P1 (NFSS)	Response Complete NDAI – Cat. I (01)	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No
03:SpecCons-Occidental	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Special Consideration: Occidental	³ Response Complete NDAI - Cat. III (01) and Active/Ongoing (11)	Funding Not Required (01) & Required (11)	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Inactive	Funding Not Required	No
03:SpecCons-School	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Special Consideration: School	Response Complete NDAI - Cat. III (01)	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Inactive	Funding Not Required	No
04-1: SupprtFclyLOOW Administrative Offices	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/Support Facility/LOOW Administrative Offices	Response Complete NDAI - Cat. III (01) and Response Complete NDAI - Cat. II (12)	Funding Not Required (01) & Required (12)	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Inactive	Funding Not Required	No
04-1: SupprtFclyLOOW Slurry Pond	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/Support Facility/LOOW Slurry Pond	Response Complete NDAI - Cat. III (01) and Response Complete NDAI - Cat. II (12)	Funding Not Required (01) & Required (12)	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Inactive	Funding Not Required	No
04-1: SupprtFclyLOOW Transportation Center	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/Support Facility/LOOW Transportation Center	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No
04-2: Group R	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/30-Inch Outfall	Response Complete NDAI - Cat. III (01) and Response Complete NDAI - Cat. II (12)	Funding Not Required (01) & Required (12)	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Inactive	Funding Not Required	No
04-3: Group P	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/42-inch Intake	Response Complete NDAI - Cat. I (01)	Funding Not Required (01)	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Inactive	Funding Not Required	No
04-4: Group N	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/4-MileCreek	Response Complete NDAI - Cat. III (01) and Response Complete NDAI - Cat. II (12)	Funding Not Required (01) & Required (12)	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Inactive	Funding Not Required	No
04-5: Group L	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/Central Drainage Ditch	Response Complete NDAI - Cat. III (01)	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Inactive	Funding Not Required	No

TABLE 4-2 SUMMARY OF STATUS AND FUNDING REQUIREMENTS FOR LOOW FUDS PROJECTS

Parcel Group Database Code	Parcel Grouping Decision Pathway Abbreviation	HTRW Project and Funding Status			CON/HTRW Project and Funding Status			MMRP Project and Funding Status			BDDR Project and Funding Status			PRP Project and Funding Status		
		Project Status	Funding ¹	NDAI ²	Project Status	Funding ¹	NDAI ²	Project Status	Funding ¹	NDAI ²	Project Status	Funding ¹	NDAI ²	Project Status	Funding ¹	NDAI ²
04-6: Group K	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/Southwest Drainage Ditch	Response Complete NDAI - Cat. III (01) and Response Complete NDAI - Cat. II (12)	Funding Not Required (01) & Required (12)	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Inactive	Funding Not Required	No
04-7: Group J ⁴	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/12-Mile Creek ⁴	Not applicable. Due to the parcel grouping hierarchy presented in Section 1.4, there are no parcels currently assigned to the parcel group.														
04-8: Group I	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/6MileCreek	Response Complete NDAI - Cat. III (01)	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Inactive	Funding Not Required	No
04-9: TEC Group B	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/TEC Aerial Anomaly/SBC	Response Complete NDAI - Cat. II (01) and Response Complete NDAI - Cat. II (12)	Funding Not Required (01) & Required (12)	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No
04-9: TEC Group C	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/TEC Aerial Anomaly/disturbed ground/scar	Response Complete NDAI - Cat. I and PRP (01) and Response Complete NDAI - Cat. II (12)	Funding Not Required (01) & Required (12)	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Inactive	Funding Not Required	No
04-9: TEC Group D	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/Potential DOD Impact/TEC Aerial Anomaly/material/ mounded material	Response Complete NDAI - Cat. I (01) and Response Complete NDAI - Cat. II (12)	Funding Not Required (01) & Required (12)	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No
05: LandUse Group A01	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/No DOD Impact/Land Use: Residential	Response Complete NDAI – Cat. I (01)	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No
05: LandUse Group A02	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/No DOD Impact/Land Use: Industrial	Response Complete NDAI – Cat. I (01)	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No
05: LandUse Group A03	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/No DOD Impact/Land Use: Agricultural/Rural	Response Complete NDAI – Cat. I (01)	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No
05: LandUse Group A04	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/No DOD Impact/Land Use: Commercial/Municipal/Community Service	Response Complete NDAI – Cat. I (01)	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No
05: LandUse Group A05	FUDS Eligible/Within LOOW/LOOW Undeveloped Zone/No DOD Impact/Land Use: Undeveloped/parks/rec/wildlife	Response Complete NDAI – Cat. I (01)	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No
06: FormerDOD_RealProp	FUDS Eligible/Outside LOOW/Former DOD Real Property/LOOW Freshwater Intake Pump House	Response Complete NDAI – Cat. I (01)	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No
07-1: Group Q	FUDS Eligible/Outside LOOW/Former DOD Easement/30-Inch Outfall	Response Complete NDAI - Cat. III and PRP (01)	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Inactive	Funding Not Required	No
07-2: Group O	FUDS Eligible/Outside LOOW/Former DOD Easement/42-inch Intake	Response Complete NDAI – Cat. I (01)	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No
07-3: Group M	FUDS Eligible/Outside LOOW/Former DOD Easement/4-Mile Creek	Response Complete NDAI – Cat. I (01)	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Response Complete NDAI – Cat. I	Funding Not Required	No	Ineligible	Funding Not Required	No	Inactive	Funding Not Required	No

¹ For projects with a status of NDAI and Funding Required, the funding is needed to document project closure (e.g., complete a project declaration statement), not for additional investigation or environmental response.

² NDAI = No DoD Action Indicated. Response in column indicates whether there has been regulatory concurrence on NDAI Project Declaration Statements.

³ Remedial Investigation results indicated that additional response action was necessary, but for administrative reasons, this work was transferred from Project 01 to either Project 10 or 11. Cat III is listed to document that Project 01 is closed, but additional actions are being performed under either Project 10 or 11.

⁴ Parcels along Twelve Mile Creek were targeted for inclusion into parcel group 04-7: Group J. However, due to the hierarchy used in placing parcels into parcel groups, this group currently has no parcels. Information highlighted in yellow indicates changes from Management Action Plan Update 1.2_2013.

TABLE 4-3 PARCEL GROUPS RECOMMENDED FOR NDAI PROJECT DECLARATION STATEMENTS AND PURSUIT OF REGULATORY CLOSURE

Parcel Group Database Code	HTRW Project Status	CON/HTRW Project Status	MMRP Project Status	BDDR Project Status	PRP Project Status
	Project Status	Project Status	Project Status	Project Status	Project Status
01: PostOct86Trans/SthprtRailTrnLLC-P1	Ineligible	Ineligible	Ineligible	Ineligible	Ineligible
01: USA-P1-DoD-WETS	Ineligible	Ineligible	Ineligible	Ineligible	Ineligible
02: ChemWstMngmnt - P1	Response Complete NDAI – Cat. III and PRP	Response Complete NDAI – Cat. IV	Response Complete NDAI – Cat. I	Ineligible	Inactive
02: LwstnTown - P2	Response Complete NDAI – Cat. II	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
02: ModernAffCo - P2	Response Complete NDAI – Cat. III and PRP	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
02: PorterTown - P2 ¹	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I
02: SomersetGrp - P1 ²	Response Complete NDAI – Cat. III and PRP	Closed - PRP	Closed - PRP	Ineligible	Closed - PRP
02: USA_LakeOntOrd - P1	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I
03: SpecCons-School	Response Complete NDAI – Cat. III	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
04-1: SupprtFclyLOOW Administrative Offices	Response Complete NDAI - Cat. II and III	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
04-1: SupprtFclyLOOW Slurry Pond	Response Complete NDAI - Cat. II and III	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
04-1: SupprtFclyLOOW Transportation Center	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
04-2: Group R	Response Complete NDAI - Cat. II and III	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
04-3: Group P	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
04-4: Group N	Response Complete NDAI - Cat. II and III	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
04-5: Group L	Response Complete NDAI – Cat. III	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
04-6: Group K	Response Complete NDAI - Cat. II and III	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
04-8: Group I	Response Complete NDAI – Cat. III	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
04-9: TEC Group B	Response Complete NDAI - Cat. II	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
04-9: TEC Group C	Response Complete NDAI - Cat. I, II, and PRP	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive
04-9: TEC Group D	Response Complete NDAI – Cat. I and II	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
05: LandUse Group A01 ¹	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
05: LandUse Group A02 ¹	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
05: LandUse Group A03 ¹	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
05: LandUse Group A04 ¹	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
05: LandUse Group A05 ¹	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
06: FormerDOD_RealProp	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I
07-1: Group Q	Response Complete NDAI – Cat. III and PRP	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive

TABLE 4-3 PARCEL GROUPS RECOMMENDED FOR NDAI PROJECT DECLARATION STATEMENTS AND PURSUIT OF REGULATORY CLOSURE

Parcel Group Database Code	HTRW Project Status	CON/HTRW Project Status	MMRP Project Status	BDDR Project Status	PRP Project Status
	Project Status	Project Status	Project Status	Project Status	Project Status
07-2: Group O	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Response Complete NDAI – Cat. I
07-3: Group M	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Response Complete NDAI – Cat. I	Ineligible	Inactive

¹Parcels in these parcel groups do not have any FUDS eligible hazards. The conclusion of Response Complete - NDAI Cat. I is based on the findings of the INPR/Preliminary Assessment efforts.

²A settlement agreement was reached between the Somerset Group and the United States (as represented by the U.S. Department of Justice) under which the U.S. government has no further CERCLA liability (including response actions under DERP-FUDS) at the site (Syms vs. United States 2008). A Project Closeout Memorandum will be prepared by the USACE to document the decision to conclude all DERP-FUDS activities for this property.

Inactive = In regard to a PRP project, “inactive” indicates that the parcel group has areas of potential combined DoD and non-DoD impacts, but a project to address the hazards has not been initiated.

NDAI = No DoD Action Indicated.

Information highlighted in yellow indicates changes from Management Action Plan Update 1.2_2013.

TABLE 4-4 SUMMARY OF AREAS WITH KNOWN OR SUSPECTED DOD ACTIVITY AND/OR IMPACTS ON PROPERTIES ELIGIBLE FOR ENVIRONMENTAL RESPONSE UNDER DERP-FUDS¹

Area/AOC Name	Parcel Group/PMAP	Area Description and DoD Uses	DoD Contaminants Confirmed	Included in HHRA/SLERA? Exposure Unit?	Non-DoD Activities or Non-DoD Contaminants Confirmed	USACE Decisions Under DERP-FUDS
FORMER LOOW DEVELOPED AREA (BY MAJOR LANDOWNER/PARCEL GROUP)²						
Waste Management LLC						
Existing Nitration House Area	02: WMLLC-P1	Mono-nitration house, fortifier house, and bi-trinitration house for the former LOOW production line 5. Conduit from the former acid fume recovery building and two pits also exist.	Possibly: COPCs in soil, groundwater, and sludge (associated with underground utilities).	EU3 (under-ground utilities included in EU10)	Current landowner has initiated groundwater remediation in the area.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Formerly Existing Nitration Houses, Lines 1-4	02: WMLLC-P1	Former LOOW TNT production lines 1-4.	Not investigated because structures have been removed by current landowner and these nitration lines are in areas actively utilized by WM.	No	Current landowner removed former DoD structures and actively uses these areas for transportation, storage, treatment, and disposal of hazardous wastes.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Formerly Existing Nitration Houses, Line 6	02: WMLLC-P1	Former LOOW TNT production line 6 in vicinity of former AFP-68 Process Areas 8 and 20	Possibly: see line items for Process Areas 8 and 20.	EU1 (under-ground utilities included in EU10)	See line items for Process Areas 8 and 20.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.

TABLE 4-4 SUMMARY OF AREAS WITH KNOWN OR SUSPECTED DOD ACTIVITY AND/OR IMPACTS ON PROPERTIES ELIGIBLE FOR ENVIRONMENTAL RESPONSE UNDER DERP-FUDS¹

Area/AOC Name	Parcel Group/PMAP	Area Description and DoD Uses	DoD Contaminants Confirmed	Included in HHRA/SLERA? Exposure Unit?	Non-DoD Activities or Non-DoD Contaminants Confirmed	USACE Decisions Under DERP-FUDS
Former AFP-68 Process Area 2 (Chlorination Unit)	02: WMLLC-P1	Area used for production of boron trichloride for AFP-68.	Possibly: COPCs in soil and groundwater, and in sludge and wastewater associated with underground utilities. RI results indicated possible multiple sources of GW contaminants, one of which may be upgradient of Area 2.	EU1 (under-ground utilities included in EU10)	No non-DoD confirmed contaminants for soil. Possible non-DoD up gradient source of groundwater impact.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Former AFP-68 Process Area 20 (Product Handling Unit)	02: WMLLC-P1	Area used for drumming/loading HEF-2 and HEF-3 for AFP-68, located in vicinity of former TNT Production Line 6. Consists of tank farm, drum storage area, and railroad loading platform.	Possibly: COPCs in soil and groundwater and in sludge and wastewater associated with underground utilities. RI results indicated possible multiple sources of GW contaminants, one of which may be upgradient of Area 2.	EU1 (under-ground utilities included in EU10)	WM used area for storage of equipment. Area was also used by predecessors of WM to store containers. PCBs reported in this area.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.

TABLE 4-4 SUMMARY OF AREAS WITH KNOWN OR SUSPECTED DOD ACTIVITY AND/OR IMPACTS ON PROPERTIES ELIGIBLE FOR ENVIRONMENTAL RESPONSE UNDER DERP-FUDS¹

Area/AOC Name	Parcel Group/PMAP	Area Description and DoD Uses	DoD Contaminants Confirmed	Included in HHRA/SLERA? Exposure Unit?	Non-DoD Activities or Non-DoD Contaminants Confirmed	USACE Decisions Under DERP-FUDS
Former AFP-68 Process Areas 4, 7, 8, and 11	02: WMLLC-P1	AFP-68 areas formerly used for gas synthesis, pyrolysis, alkylation, and nitrogen production. Area consists of several concrete pads with drains, an open three story structure within Area 11, sumps, blast walls, control buildings, and tank cradles.	Possibly: COPCs in soil and groundwater, and in sludge and wastewater associated with underground utilities.	EU1 (under-ground utilities included in EU10)	WM used Process Areas 7 and 8 for storage of equipment. Area 4 was used to stockpile soil.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Former AFP-68 Process Area 10 (Hydrogen Production)	02: WMLLC-P1	This Process Area was used to produce hydrogen for AFP-68. Existing structures include control bldg., in-ground sewage pump, dry well and overhead supports.	Possibly: COPCs in soil and sludge associated with utilities. COPCs in soil primarily associated with small pellets located on surface.	EU2 (under-ground utilities included in EU10)	No non-DoD activity or non-DoD contaminants confirmed.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Former AFP-68 Process Area 14 (Steam Plant)	02: WMLLC-P1	Area used for steam generation and fuel oil storage for AFP-68. Area consists of former steam plant structures and bermed fuel oil storage area.	Possibly: One pesticide in groundwater sample collected between Areas 14 and 16. PCBs in soil in vicinity of AST earthen berm and pipe stickup.	No	WM used the building for storage and dismantled and relocated the AST.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.

TABLE 4-4 SUMMARY OF AREAS WITH KNOWN OR SUSPECTED DOD ACTIVITY AND/OR IMPACTS ON PROPERTIES ELIGIBLE FOR ENVIRONMENTAL RESPONSE UNDER DERP-FUDS¹

Area/AOC Name	Parcel Group/PMAP	Area Description and DoD Uses	DoD Contaminants Confirmed	Included in HHRA/SLERA? Exposure Unit?	Non-DoD Activities or Non-DoD Contaminants Confirmed	USACE Decisions Under DERP-FUDS
Former AFP-68 Process Area 16 (Refrigeration Plant)	02: WMLLC-P1	Refrigeration area used by AFP-68 to produce cooling water. Area consists of large 35-foot high steel and block building.	Possible DoD impact: One pesticide in groundwater sample collected between Areas 14 and 16. PCBs in soil in vicinity of AST earthen berm and pipe stickup.	No	WM used the building for storage of vehicles and equipment	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Former AFP-68 Process Area 18S (Tank Farm)	02: WMLLC-P1	Area used by AFP-68 for storage of dispersion oil, methanol, cyclohexane, and pentane.	No: COPCs not identified.	No	No non-DoD activity or non-DoD contaminants confirmed.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Former AFP-68 Process Area 22 (Water Supply & Treatment)	02: WMLLC-P1	AFP-68 fresh water treatment plant consisting of a water treatment plant, concrete water storage lagoon and pump house.	No: COPCs not identified except in sludge and wastewater (see AFP-68 Chemical Waste Lift Stations).	No	WM used the water supply pond for storage of wastewater.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Former AFP-68 Process Area 24 (Sanitary Sewage & Waste Disposal Unit)	02: WMLLC-P1	Area used by AFP-68 for wastewater treatment.	No: COPCs specific to DoD use not identified.	No	WM used the acid neutralization lagoon and the oil/water separator for storage of wastewater. PCBs and VOCs reported within and adjacent to the lagoons.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.

TABLE 4-4 SUMMARY OF AREAS WITH KNOWN OR SUSPECTED DOD ACTIVITY AND/OR IMPACTS ON PROPERTIES ELIGIBLE FOR ENVIRONMENTAL RESPONSE UNDER DERP-FUDS¹

Area/AOC Name	Parcel Group/PMAP	Area Description and DoD Uses	DoD Contaminants Confirmed	Included in HHRA/SLERA? Exposure Unit?	Non-DoD Activities or Non-DoD Contaminants Confirmed	USACE Decisions Under DERP-FUDS
AFP-68 Chemical Waste Lift Stations and Lines	02: WMLLC-P1	Chemical waste sumps installed and used by AFP-68.	Possibly: COPCs in sludge and wastewater.	No	Area 24 acid neutralization lagoon and oil water separator used by WM. There was connectivity between lagoons and underground lines. Chemical waste lines discharged to these structures.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Trash Pit	02: WMLLC-P1	Trash/burn pit used to dispose of materials from AFP-68. Pit is approximately 30 to 40 feet in diameter.	Possibly: COPCs in soil and shallow groundwater.	EU4 (HHRA only, ecological risk assessment not performed due to lack of suitable habitat)	WM installed leachate lines through the area.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Wooded Area (North of H Street)	02: WMLLC-P1	None.	No.	No	No non-DoD activity or non-DoD contaminants confirmed.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Area A	02: WMLLC-P1	Drum disposal area for approximately 30 drums. Drums are likely from AFP-68.	Possibly: COPCs in soil and liquid perched in burial area.	No	No non-DoD activity or non-DoD contaminants confirmed.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Area B	02: WMLLC-P1	Disposal/burn area for AFP-68	Possibly: COPCs in soil, sediment, surface water, and groundwater.	No	SCA (predecessor of WM) performed removal action in area to address soils.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.

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Area/AOC Name	Parcel Group/PMAP	Area Description and DoD Uses	DoD Contaminants Confirmed	Included in HHRA/SLERA? Exposure Unit?	Non-DoD Activities or Non-DoD Contaminants Confirmed	USACE Decisions Under DERP-FUDS
Area C	02: WMLLC-P1	Drum disposal trench used by AFP-68 containing approximately 200 to 300 drums and high-pressure cylinders.	Possibly: COPCs in soil and groundwater, and presence of buried drums and gas cylinders.	EU4 (HHRA only, ecological risk assessment not performed due to lack of suitable habitat)	No non-DoD contaminants confirmed except: Underground utility lines (addressed separately) and an area in the vicinity of well P1202S (on the western boundary of Area C) where current landowner has initiated groundwater remediation for VOCs.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Area North of C	02: WMLLC-P1	Ground scarring observed in 1960-1963 aerial photos.	Possibly: DoD-specific chemical in soil (boron).	No	Storage of containers and soil by WM.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Area D	02: WMLLC-P1	Area identified by Olin personnel as a possible disposal area of AFP-68.	No: Area not evaluated.	No	Secure landfill (SLF)-12 has been constructed on top of Area D. In addition, current landowner has initiated groundwater remediation at well P1202S.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Former Navy Interim Production Pilot Plan (IPPP)	02: WMLLC-P1	A borane fuels plant, similar in scope to AFP-68.	No	No	Area used for leachate testing, laboratory testing, and stockpiling soil with COPCs.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.

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Vicinity Property G/Castle Garden Disposal Area	02: WMLLC-P1	An area of ground disturbance is visible in aerial photographs taken during DoD ownership.	Possibly. COPCs (metals) in soil.	No	Area is located adjacent to two facultative ponds.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project. Further Investigation possible under FUSRAP.
Vicinity Property G Drum Area	02: WMLLC-P1	The area contained drums that were partially remediated by DOE in 1986.	Possibly: COPCs in soil	No	Area is located adjacent to two facultative ponds and has been used by WM for stockpiling of soil.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project. Further Investigation possible under FUSRAP.
Waterline Construction Areas	02: WMLLC-P1	Areas of abandoned LOOW underground lines in vicinity of construction of WM water line.	Possible. DoD-related chemical constituents identified by WM LLC in groundwater.	No	WM removed an UST from WCA 1, WCAs 2-4 are located along roads in area heavily used by WM.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Other FUSRAP Areas on WM property (VPs G, E, and E-prime)	02: WMLLC-P1	Includes soil beneath CWM facultative ponds 1 and 2, soil beneath CWM pond 6, soil beneath CWM Tanks 64 and 65, Rochester Burial Area, Castle Garden Burial Area.	Limited investigation performed in VP G.	No	Some areas beneath facultative ponds and WM tanks.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project. Additional evaluation may be performed under FUSRAP.
Former AFP-68 Process Area 29	02: WMLLC-P1	Office building for the former AFP-68.	No	No	WM has used the building.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Former AFP-68 Process Area 35	02: WMLLC-P1	Former AFP-68 dispensary.	No	No	WM has used the building.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Former AFP-68 Process Area 39	02: WMLLC-P1	Former AFP-68 cafeteria.	No	No	WM has used the building.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.

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LOOW Box Factory	02: WMLLC-P1	Building constructed and used by LOOW for construction of wooden boxes for shipment of TNT. Building was also used by the Air Force.	Investigation not performed due to use and potential impact by non-DoD owner.	No	WM used the building to store PCBs and solvents.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
WM Piezometer P1202S	02: WMLLC-P1	Area of groundwater impact from VOCs.	Not investigated because WM initiated remedial activities.	No	WM initiated groundwater remedial activities for VOCs.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
WM Background Well BW-2S	02: WMLLC-P1	Area of groundwater impact from VOCs.	Not investigated because WM initiated remedial activities.	No	WM initiated groundwater remedial activities for VOCs.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Control Area of NIKE Base	02: WMLLC-P1	Area used by DoD for NIKE Base support of launch/missile silo area. Control area comprised of barracks, radar, control buildings.	Not investigated due to possible impacts from non-DoD site use.	No	WM used area as Facultative Pond 4.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project. USTs removed under a CON/HTRW project.
WM Well 10-2S	02: WMLLC-P1	Area of groundwater impact from VOCs.	Not investigated because WM initiated remedial activities.	No	WM initiated groundwater remedial activities for VOCs.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Suspected Phosgene Cylinder Disposal Area	02: WMLLC-P1	Historical documentation indicates area was placarded as phosgene area. Location of area is not known.	No	No	No non-DoD activity or non-DoD contaminants confirmed.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.

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Surface Drainages	02: WMLLC-P1	Multiple man-made and one natural surface water drainages that received discharge from storm sewers and AFP-68 wastewater lines.	Possible chemical constituents in sediment and surface water.	No	CDD was remediated by DOE for radiological impacts; impact to drainages from PCBs and possibly other COPC from other owners/operators.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
TNT Waste Sewer	02: WMLLC-P1	Waste sewer installed and used by former LOOW to convey TNT wash water to WWTP.	Possibly COPCs in the lines and surrounding soil.	No	Some portions of the line have been excavated and sealed by WM.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
TNT Waste Sewer NTCRA Soil Piles	02: WMLLC-P1	Soil piles remain on site from interim removal action of TNT waste line.	Soil placed in stockpiles during NTCRA.	No	No non-DoD activity or non-DoD contaminants confirmed.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Underground Utilities	02: WMLLC-P1	Throughout LOOW, AFP-68, the Navy IPPP, and the NIKE Base. TNT waste lines; acid waste lines; drains, pits, and sumps; sanitary sewer lines; storm water lines; wastewater lines, cooling and potable water lines; and lines of unknown identity/use.	Possibly, COPCs present in various media associated with most line types (sludge, bedding water, wastewater, subsurface soil, surface soil).	EU10	Portions of underground lines were used by WM	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Small Bermed Clearings - Aerial Anomalies	02: WMLLC-P1	Aerial anomalies with physical characteristics resembling former open burn pits used for disposal of explosives and ordnance.	No	No	No non-DoD activity or non-DoD contaminants confirmed.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.

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Other Aerial Anomalies	02: WMLLC-P1	Several aerial photographic anomalies from the timeframe of DoD use appear on WM property. All aerial anomalies are not specifically listed here.	None confirmed. Investigation ongoing.	No	Several historic aerial anomalies were located where current WM structures are standing.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
CON/HTRW Eligible Containerized Potential Hazards (see PMAP)	02: WMLLC-P1	Five tanks confirmed at NIKE Base. Tanks were removed. Suspected Navy IPPP tanks were confirmed as not present.	No	NA	No non-DoD activity or non-DoD contaminants confirmed.	Tanks have been evaluated and removed under a CON/HTRW project.
WM Process Area Underground Storage Tank 1	02: WMLLC-P1	Underground storage tank located north of M Street.	Not investigated due to non-DoD activity.	NA	WM initiated remedial activities (they removed the tank).	No further action performed within CON/HTRW or HTRW.
UST South of WM PCB Warehouse	02: WMLLC-P1	UST south of the PCB Warehouse	Not investigated due to non-DoD activity.	NA	WM initiated remedial activities (they removed the tank).	No further action proposed within DERP-FUDS HTRW or CON/HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Former LOOW Gas Station UST	02: WMLLC-P1	UST located near main gate of WM facility associated with former LOOW gas station.	Not investigated due to non-DoD activity.	NA	WM initiated remedial activities (they removed the tank).	No further action proposed within DERP-FUDS HTRW or CON/HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Other ASTs and USTs	02: WMLLC-P1	Various tanks to support LOOW and AFP-68. See Table 4.	See PMAP			

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Town of Lewiston						
LOOW Wastewater Treatment Plant Vicinity Shops	02: LWSTNTOWN-P4	The area formerly consisting of a paint shop, fabrication shop, tool house, electrical shop, and two unloading platforms constructed in the vicinity of the WWTP for LOOW. This area was investigated in EA 1999 and EA 2002.	No	Yes. EU6. calculated human health and ecological risk was within acceptable range	Storage of radiological residues	No further DERP-FUDS action recommended based upon results of the HHRA and SLERA.
LOOW Wastewater Treatment Plant (Final Mixing Tank [removed], TNT Wet Wells, Discharge Point, Acid Neutralization Facilities, Sanitary Sewer Treatment Facility) and other support structures.	02: LWSTNTOWN-P4	The WWTP was constructed for the LOOW. Subsequent to LOOW, it was used by AFP-68, AFP-38, the Navy IPPP, the NIKE Base, the Boron-10 Production Plant, Carborundum, and minimally by the Town of Lewiston. The main sanitary sewer, acid waste sewer, and TNT waste sewer lines of the former LOOW entered the WWTP. This area was investigated in Acres 1992, EA 1999, EA 2002, ERT 2011b, and ERT 2014. The underground utility lines were investigated in EA 2008.	No DoD-specific contaminants have been confirmed. However, PCBs present in the Acid Neutralization Building were the subject of a FS (ERT 2014) and total chromium, lead, and mercury were detected at concentrations that suggest excavated sludge/sediment might be classified as hazardous waste.	Yes; as part of EU10 (underground utilities) and as EU7 (WWTP).	WWTP received contaminants from non-DoD sources.	Non-DoD-specific hazards have been confirmed. The USACE may authorize and initiate the PRP/HTRW evaluation to resolve DoD environmental liability in accordance with Engineer Regulation 200-3-1.

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Niagara River Fresh Water Intake and Pump House	02: LWSTNTOWN-P4	Property parcel on Niagara River consisting of Niagara River water intake well and pump house constructed for LOOW. Also used by AFP-68. Reconnaissance of property was performed in Phase I RI.	No	No	No non-DoD activity or non-DoD contaminants confirmed.	No further action within DERP-FUDS HTRW.
Niagara River Discharge Line from 30-in. Outfall	02: LWSTNTOWN-P4	Property parcel on Niagara River consisting of a head house and discharge lines to the Niagara River from the 30-in. outfall originating at the former LOOW WWTP. A reconnaissance was performed during the Phase I RI (1998).	No	Yes (as part of EU10). Calculated human health risk was within acceptable risk range.	30-in. discharge line received contaminants from non-DoD sources.	No further action within DERP-FUDS HTRW.
Underground Utilities	02: LWSTNTOWN-P4	Former DoD TNT waste lines; acid waste lines; drains, pits, and sumps; sanitary sewer lines; wastewater lines, and lines of unknown identity/use are located on and discharge to the WWTP.	Possibly: COPCs in soil and in sludge and wastewater associated with underground lines.	EU10	WWTP underground waste lines received contaminants from non-DoD sources.	Underground lines proposed for further action (feasibility study) within DERP-FUDS HTRW project
UST West of Pump House	02: LWSTNTOWN-P4	UST installed during LOOW operations	Possibly. Tank was identified in 2008 and was removed as part of a CON/HTRW project.	No	No non-DoD activity or non-DoD contaminants confirmed.	Tank has been evaluated and removed under a CON/HTRW project.
LOOW Receiving Area	02: LWSTNTOWN-P2	Warehouses, railroad, and support facilities for receipt of materials and equipment during operation of LOOW.	No	No	Currently used by Town of Lewiston.	No further action within DERP-FUDS HTRW.

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Modern Affiliated Companies (MAC)						
Incinerator	02: MODERN AFFCO-P2	Former LOOW incinerator was located in the area. Currently consists of the main driveway for Modern Disposal refuse carriers. This area was investigated in 1998 (EA 1999).	No	No: EU9, initial screen against risk-based criteria indicated no COPC	Is located in an area actively used by MAC	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Classification Yard	02: MODERN AFFCO-P2	Rail yard area constructed for LOOW for incoming materials.	No	No	Is located in an area actively used by MAC	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Administration Area	02: MODERN AFFCO-P2; 04-1:SUPPRTFCLTY-LOOW ADMINISTRATIVE OFFICES	Former LOOW Administration Area consisted of parking areas, office buildings, infirmary.	No	No	No non-DoD activity or non-DoD contaminants confirmed.	No further action within DERP-FUDS HTRW.
Ransomville Test Annex (RTA)	02: MODERN AFFCO-P2	Used for troposcatter antenna.	No	No	No non-DoD activity or non-DoD contaminants confirmed.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Town of Porter Property						
Water Tower Site	02: PORTERTOWN-P2	A 3.4-acre parcel containing a water tower built during AFP-38.	No	No	Town uses the tower for water storage.	No further action within DERP-FUDS HTRW.

TABLE 4-4 SUMMARY OF AREAS WITH KNOWN OR SUSPECTED DOD ACTIVITY AND/OR IMPACTS ON PROPERTIES ELIGIBLE FOR ENVIRONMENTAL RESPONSE UNDER DERP-FUDS¹

Area/AOC Name	Parcel Group/PMAP	Area Description and DoD Uses	DoD Contaminants Confirmed	Included in HHRA/SLERA? Exposure Unit?	Non-DoD Activities or Non-DoD Contaminants Confirmed	USACE Decisions Under DERP-FUDS
Niagara Falls Storage Site (NFSS)						
Former LOOW WWTP Vicinity Shops Area (North of Bldg. 401)	02: USA_LAKEONTORD-P1	A pipe shop, machine shop, welding shop, storehouse, and office located in the vicinity of the LOOW WWTP. This area was investigated in EA 1999. Portions of the area have also been investigated under FUSRAP.	Possibly. Further evaluation being conducted under FUSRAP RI/FS.	Included in NFSS FUSRAP HHRA and SLERA	Predecessors of DOE utilized NFSS for storage.	No further action within DERP-FUDS HTRW because potential contaminants are being evaluated under the FUSRAP.
LOOW Acid Concentration Area	02: USA_LAKEONTORD-P1	Former LOOW acid concentration area consisting of a sellite manufacturing area, acid production and concentration area, ammonia oxidation area, shop buildings, pump house, condenser units, and compressor houses. This area was investigated in 1998 (EA 1999). Portions of the area have also been investigated under FUSRAP.	Possibly. Further evaluation being conducted under FUSRAP RI/FS.	Included in NFSS FUSRAP HHRA and SLERA	Predecessors of DOE utilized area for storage.	No further action within DERP-FUDS HTRW because potential contaminants are being evaluated under the FUSRAP.
LOOW Shop Area (South of O-Street)	02: USA_LAKEONTORD-P1	Former LOOW area consisting of a millwright shop, service and change house, oil and paint storage building, acetylene tanks, storehouses, gas station with UST, garage/parking area, laundry, lab, office, and locomotive house (718). This area was investigated in 1998 (EA 1999). Portions of the area have also been investigated under FUSRAP.	Possibly. Further evaluation being conducted under FUSRAP RI/FS.	Included in NFSS FUSRAP HHRA and SLERA	Predecessors of DOE utilized area for storage.	No further action within DERP-FUDS HTRW because potential contaminants are being evaluated under the FUSRAP.

TABLE 4-4 SUMMARY OF AREAS WITH KNOWN OR SUSPECTED DOD ACTIVITY AND/OR IMPACTS ON PROPERTIES ELIGIBLE FOR ENVIRONMENTAL RESPONSE UNDER DERP-FUDS¹

Area/AOC Name	Parcel Group/PMAP	Area Description and DoD Uses	DoD Contaminants Confirmed	Included in HHRA/SLERA? Exposure Unit?	Non-DoD Activities or Non-DoD Contaminants Confirmed	USACE Decisions Under DERP-FUDS
Former LOOW Boiler Building (Building 401)	02: USA_LAKEONTORD-P1	Building used to generate steam. Also used for Boron-10 plant at later date. There is historical evidence of a UST for oil storage. This area has been investigated under FUSRAP.	Possibly. Further evaluation being conducted under FUSRAP RI/FS.	Included in NFSS FUSRAP HHRA and SLERA	Predecessors of DOE utilized area for storage.	No further action within DERP-FUDS HTRW because potential contaminants are being evaluated under the FUSRAP.
Drainages	02: USA_LAKEONTORD-P1	Various manmade drainages constructed in support of LOOW.	Possibly. Further evaluation being conducted under FUSRAP RI/FS.	Included in NFSS FUSRAP HHRA and SLERA	Predecessors of DOE utilized area for storage.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
Underground Utilities	02: USA_LAKEONTORD-P1	Various underground utilities constructed to support LOOW	Possibly. Further evaluation being conducted under FUSRAP RI/FS.	Included in NFSS FUSRAP HHRA and SLERA	Predecessors of DOE utilized area for storage.	No further action within DERP-FUDS HTRW because potential contaminants are being evaluated under the FUSRAP.
PARCEL GROUPS IN UNDEVELOPED AREA OF LOOW WARRANTING SPECIAL CONSIDERATION						
Occidental Chemical Corporation Property						
Probable Storage Area	03: SPECIALCONS-OCCIDENTAL	A disturbed area visible on the 1942 aerial photograph. Reconnaissance revealed empty 55-gal drums, terra cotta pipe, asbestos shingles, etc. The area was investigated in EA 2002 and ERT 2013b.	Yes (2,4,6-trinitrotoluene in soil). Lead in soil has also been identified as a contaminant, although DoD activities have not been confirmed as the source of the lead.	EU8	No significant non-DoD activities have been confirmed. Lead in soil has been identified as a contaminant, although the activities resulting in the presence of elevated lead concentrations have not been confirmed.	Evaluation of the area is on-going in a feasibility study being conducted within a DERP-FUDS HTRW project.

TABLE 4-4 SUMMARY OF AREAS WITH KNOWN OR SUSPECTED DOD ACTIVITY AND/OR IMPACTS ON PROPERTIES ELIGIBLE FOR ENVIRONMENTAL RESPONSE UNDER DERP-FUDS¹

Area/AOC Name	Parcel Group/PMAP	Area Description and DoD Uses	DoD Contaminants Confirmed	Included in HHRA/SLERA? Exposure Unit?	Non-DoD Activities or Non-DoD Contaminants Confirmed	USACE Decisions Under DERP-FUDS
Ponds	03: SPECIALCONS-OCCIDENTAL	Ponds with no visible impact from DoD. One pond was investigated as part of the Phase II RI for LOOW (EA 2002), and two ponds were investigated as part of a property-specific RI (ERT 2013b).	No	Data generated for the property-specific RI (ERT 2013b) were evaluated in risk assessments.	No non-DoD activity or non-DoD contaminants confirmed.	No further action within DERP-FUDS HTRW.
30-inch Outfall Line	03: SPECIALCONS-OCCIDENTAL	A portion of the 30-in discharge line from the former LOOW WWTP traverses this parcel group.	COPCs identified in the line as a whole, not necessarily in the portion that traverses this parcel group	Yes (as part of EU10). Calculated human health risk was within acceptable range.	Line was used to discharge waste- water from WWTP. WWTP received wastewater from non-DoD sources.	No further action within DERP-FUDS HTRW.
Small Bermed Clearings (SBCs)	03: SPECIALCONS-OCCIDENTAL	Anomalies identified on aerial photographs taken during timeframe of DoD use.	No	No	No non-DoD activity or non-DoD contaminants confirmed.	No further action within DERP-FUDS HTRW.
Other Aerial Anomalies	03: SPECIALCONS-OCCIDENTAL	Ground disturbances, mounds, and other features (excluding SBCs) discovered in aerial photographs taken during the timeframe of DoD use.	No	No	No non-DoD activity or non-DoD contaminants confirmed.	No further action within DERP-FUDS HTRW.
Lewiston Porter Central School District Campus						
Underground lines (30 in. outfall line)	03: SPECIALCONS-SCHOOL	A portion of the 30-in discharge line from the former LOOW WWTP traverses this parcel group.	COPCs identified in the line as a whole, not necessarily in the portion that traverses this parcel group	Yes (as part of EU10). Calculated human health risk was within acceptable range.	Line was used to discharge waste water from WWTP. WWTP received wastewater from non-DoD sources.	No further action within DERP-FUDS HTRW.

TABLE 4-4 SUMMARY OF AREAS WITH KNOWN OR SUSPECTED DOD ACTIVITY AND/OR IMPACTS ON PROPERTIES ELIGIBLE FOR ENVIRONMENTAL RESPONSE UNDER DERP-FUDS¹

Area/AOC Name	Parcel Group/PMAP	Area Description and DoD Uses	DoD Contaminants Confirmed	Included in HHRA/SLERA? Exposure Unit?	Non-DoD Activities or Non-DoD Contaminants Confirmed	USACE Decisions Under DERP-FUDS
Aerial Anomalies	03: SPECIALCONS-SCHOOL	Ground disturbances, mounds, and other features (excluding SBCs) discovered in aerial photographs taken during the timeframe of DoD use.	No	No	No non-DoD activity or non-DoD contaminants confirmed.	No further action within DERP-FUDS HTRW.
Southwest Drainage Ditch (SWDD)	03: SPECIALCONS-SCHOOL	Manmade drainage constructed in support of LOOW.	No	No	SWDD may have received contaminants from various point and non-point sources.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.

TABLE 4-4 SUMMARY OF AREAS WITH KNOWN OR SUSPECTED DOD ACTIVITY AND/OR IMPACTS ON PROPERTIES ELIGIBLE FOR ENVIRONMENTAL RESPONSE UNDER DERP-FUDS¹

Area/AOC Name	Parcel Group/PMAP	Area Description and DoD Uses	DoD Contaminants Confirmed	Included in HHRA/SLERA? Exposure Unit?	Non-DoD Activities or Non-DoD Contaminants Confirmed	USACE Decisions Under DERP-FUDS
VARIOUS OTHER AREAS OF SUSPECTED DoD USE AND/OR IMPACT IN UNDEVELOPED AREA (BY AOC)						
Underground Utilities	Various, including: 02: LWSTNTOWN-P4; 02: USA_LAKEONTORD-P1; 02: WMLLC-P1; 03: SPECIALCONS-SCHOOL; 03: SPECIALCONS-OCCIDENTAL; 04-1: SUPPRTFCLTY-LOOW ADMINISTRATIVE OFFICES; 04-2: GROUP R; 04-3: GROUP P; 06: FORMERDoD_REALPROP-LOOW 30-IN. OUTFALL DISCHARGE; 06: FORMERDoD_REALPROP-LOOW FRESHWATER INTAKE PUMP HOUSE; 07-1: GROUP Q.	Several underground utilities were constructed to support LOOW and subsequent DoD facilities (e.g., AFP-68) that operated after the closing of LOOW. These included: sanitary, acid waste, chemical waste, TNT waste, and storm sewer lines; a 30-in. diameter discharge line from the former LOOW WWTP to the Niagara River; general wastewater lines; a 42-in. diameter fresh water intake line from the Niagara River; and various water distribution lines. These traverse multiple current property owners.	Possibly. COPCs were identified in several line types.	Yes. EU10	Various non-DoD entities used portions of some of the underground lines.	The USACE decision on the path forward is parcel group and line type specific, and is presented in individual PMAPs. To summarize decision: -Lines on Town of Lewiston properties were evaluated in RIs and a FS under DERP-FUDS HTRW projects. Non-DoD specific hazards were confirmed. The USACE may authorize and initiate a PRP/HTRW project. -Lines on WM LLC property are proposed for no further action under HTRW due to possible non-DoD contamination; these hazards are eligible for evaluation under the PRP/HTRW project. -The 30-in. outfall line, which traverses several parcel groups, is proposed for no further action because calculated human health risk was within the acceptable risk range. -Water lines are proposed for no further action due to no suspected impact. -Some lines (the TNT waste lines, and portions of the chemical and acid waste lines) have undergone interim removal actions and are proposed for further evaluation to gain CERCLA closure.

TABLE 4-4 SUMMARY OF AREAS WITH KNOWN OR SUSPECTED DOD ACTIVITY AND/OR IMPACTS ON PROPERTIES ELIGIBLE FOR ENVIRONMENTAL RESPONSE UNDER DERP-FUDS¹

Area/AOC Name	Parcel Group/PMAP	Area Description and DoD Uses	DoD Contaminants Confirmed	Included in HHRA/SLERA? Exposure Unit?	Non-DoD Activities or Non-DoD Contaminants Confirmed	USACE Decisions Under DERP-FUDS
Surface Water Drainages	Various, including: 01: 02: Modern AffCo - P2; 02: USA_LakeOntOrd - P1; 02: WMLLC - P1; 02: LWSTN TOWN-P4; 03:SpecCons-School; 04-1: SupprtFcly LOOW Administrative Offices; 04-1: SupprtFcly LOOW Slurry Pond; 04-3: Group P; 04-4: Group N; 04-5: Group L; 04-6: Group K; 04-8: Group I; and 07-3: Group M.	Natural (4-Mile Creek, 6-Mile Creek, and 12-Mile Creek) and manmade drainages constructed to support LOOW.	Possibly. Some DoD marker compounds have been reported in some surface water and sediment samples in some drainages.	No	Drainages throughout LOOW received contamination from various non-DoD sources.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.

TABLE 4-4 SUMMARY OF AREAS WITH KNOWN OR SUSPECTED DOD ACTIVITY AND/OR IMPACTS ON PROPERTIES ELIGIBLE FOR ENVIRONMENTAL RESPONSE UNDER DERP-FUDS¹

Area/AOC Name	Parcel Group/PMAP	Area Description and DoD Uses	DoD Contaminants Confirmed	Included in HHRA/SLERA? Exposure Unit?	Non-DoD Activities or Non-DoD Contaminants Confirmed	USACE Decisions Under DERP-FUDS
Aerial Photographic Anomalies - Small Bermed Clearings (SBCs)	Various: 02: LwstnTown - P2; 02: WMLLC - P1; 03:SpecCons-Occidental; 04-1: SupprtFcly LOOW Administrative Offices; 04-1: SupprtFcly LOOW Slurry Pond; 04-2: Group R; 04-5: Group L; 04-6: Group K; 04-8: Group I; 04-9: TEC Group B	Small bermed clearings visible in aerial photographs taken during the time frame of DoD use.	No	No	No contaminants confirmed.	No further action proposed within DERP-FUDS HTRW.

TABLE 4-4 SUMMARY OF AREAS WITH KNOWN OR SUSPECTED DOD ACTIVITY AND/OR IMPACTS ON PROPERTIES ELIGIBLE FOR ENVIRONMENTAL RESPONSE UNDER DERP-FUDS¹

Area/AOC Name	Parcel Group/PMAP	Area Description and DoD Uses	DoD Contaminants Confirmed	Included in HHRA/SLERA? Exposure Unit?	Non-DoD Activities or Non-DoD Contaminants Confirmed	USACE Decisions Under DERP-FUDS
Other Aerial Photographic Anomalies	Various: 02: LwstnTown - P2; 02: LwstnTown - P4; 02: Modern AffCo - P2; 02: USA_LakeOntOrd - P1; 02: WMLLC - P1; 03:SpecCons-Occidental; 03:SpecCons-School; 04-1: SupprtFcly LOOW Administrative Offices; 04-1: SupprtFcly LOOW Slurry Pond; 04-2: Group R; 04-3: Group P; 04-4: Group N; 04-6: Group K; 04-9: TEC Group B; 04-9: TEC Group C; 04-9: TEC Group D	Ground disturbances, mounded materials, and other features (excluding SBCs) visible in aerial photographs taken during the time frame of DoD use.	No	No	No non-DoD activity or non-DoD contaminants confirmed.	No further action proposed within DERP-FUDS HTRW.
LOOW Transportation Center	04-1: SupprtFcly LOOW Transportation Center	An area formerly comprised of garages and other facilities to support transportation needs for LOOW.	No	No	No contaminants confirmed.	No further action proposed within DERP-FUDS HTRW.
LOOW Slurry Pond	04-1: SupprtFcly LOOW Slurry Pond	A pond constructed to support the LOOW freshwater treatment plant. The pond received salts from the treatment of fresh water.	No	No	No non-DoD activity or non-DoD contaminants confirmed.	No further action proposed within DERP-FUDS HTRW.

TABLE 4-4 SUMMARY OF AREAS WITH KNOWN OR SUSPECTED DOD ACTIVITY AND/OR IMPACTS ON PROPERTIES ELIGIBLE FOR ENVIRONMENTAL RESPONSE UNDER DERP-FUDS¹

Area/AOC Name	Parcel Group/PMAP	Area Description and DoD Uses	DoD Contaminants Confirmed	Included in HHRA/SLERA? Exposure Unit?	Non-DoD Activities or Non-DoD Contaminants Confirmed	USACE Decisions Under DERP-FUDS
Acome Landfill	04-9: TEC Group C	A small privately owned landfill. A reconnaissance conducted during the Phase I RI revealed municipal waste.	No	No	Area used for disposal of municipal wastes.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.
J. T. Salvage and Recycling	04-9: TEC Group B	A salvage yard located north of Balmer Rd.	No	No	Area used as an auto salvage yard.	No further action proposed within DERP-FUDS HTRW. Area is eligible for inclusion in the PRP/HTRW project.

¹ AOCs on properties not eligible or no longer eligible for environmental response under DERP-FUDs are not listed on this table. This includes AOCs on the Somerset Group Inc. property (no longer eligible due to Judicial Consent Decree), property transferred after 17 Oct. 1986, and the DoD owned Weekend Training Site/Youngstown Local Training Area property.

² Areas of known and suspected DoD use and impact are listed specifically for parcels/parcel groups located within the former LOOW Developed Area (for example, WM LLC, Town of Lewiston, etc.).

Acronyms are defined in the document.

NA = Not applicable

Reference PMAPs for additional detail on identified DoD uses, impacts, investigations, PRP impacts, and decisions.

Information highlighted in yellow indicates changes from Management Action Plan Update 1.2_2013.

Legend

FORMER LOOW BOUNDARY WITH EASEMENTS

PARCEL GROUPS

01: POSTOCT86TRANS/STHPRTAILTRNLLC-P1 (FUDS INELIGIBLE)

01: USA-P1-DOD-WETS (FUDS INELIGIBLE)

02: LWSTNTOWN - P2 (TOWN MAINTENANCE)

02: LWSTNTOWN - P4 (FORMER LOOW WWTP)

02: MODERNAFFCO - P2 (MAC)

02: PORTERTOWN - P2 (TOWN OF PORTER)

02: SOMERSETGRP - P1

02: USA_LAKEONTORD - P1 (NFSS)

02: WMLLC - P1 (CWM, LLC)

03:SPECCONS-OCcidental

03:SPECCONS-SCHOOL

04-1: SUPPRTFCLTYLOOW ADMINISTRATIVE OFFICES

04-1: SUPPRTFCLTYLOOW SLURRY POND

04-1: SUPPRTFCLTYLOOW TRANSPORTATION CENTER

04-2: GROUP R (30-IN. OUTFALL)

04-3: GROUP P (42-IN. INTAKE)

04-4: GROUP N (4-MILE CREEK)

04-5: GROUP L (CDD)

04-6: GROUP K (SWDD)

04-8: GROUP I (6-MILE CREEK)

04-9: TEC GROUP B (AERIAL ANOMALY - SBC)

04-9: TEC GROUP C (AERIAL ANOMALY - DISTURBED GROUND)

04-9: TEC GROUP D (AERIAL ANOMALY - MOUNDED MATERIAL)

05: LANDUSE GROUP A01 (RESIDENTIAL - NO DOD IMPACT)

05: LANDUSE GROUP A02 (INDUSTRIAL - NO DOD IMPACT)

05: LANDUSE GROUP A03 (AG/RURAL - NO DOD IMPACT)

05: LANDUSE GROUP A04 (COMMERCIAL/MUNICIPAL - NO DOD IMPACT)

05: LANDUSE GROUP A05 (UNDEVELOPED - NO DOD IMPACT)

06: FORMERDOD_REALPROP (PUMP HOUSE)

07-1: GROUP Q (30-IN. OUTFALL EASEMENT)

07-2: GROUP O (42-IN. INTAKE EASEMENT)

07-3: GROUP M (4-MILE CREEK EASEMENT)

30-INCH OUTFALL LINE

42-INCH INTAKE LINE

10-INCH WATER LINE

STREAMS

ROADS

NOTE: SEE TABLE ES-1 FOR DEFINITIONS OF PARCEL GROUP CODES.

MAP PROJECTION IS NEW YORK STATE PLANE NAD83 FEET

PARCEL IDENTIFICATION AND BOUNDARY DATA PROVIDED BY

NIAGARA COUNTY TAX PARCEL IDENTIFICATION DATABASE (2010).

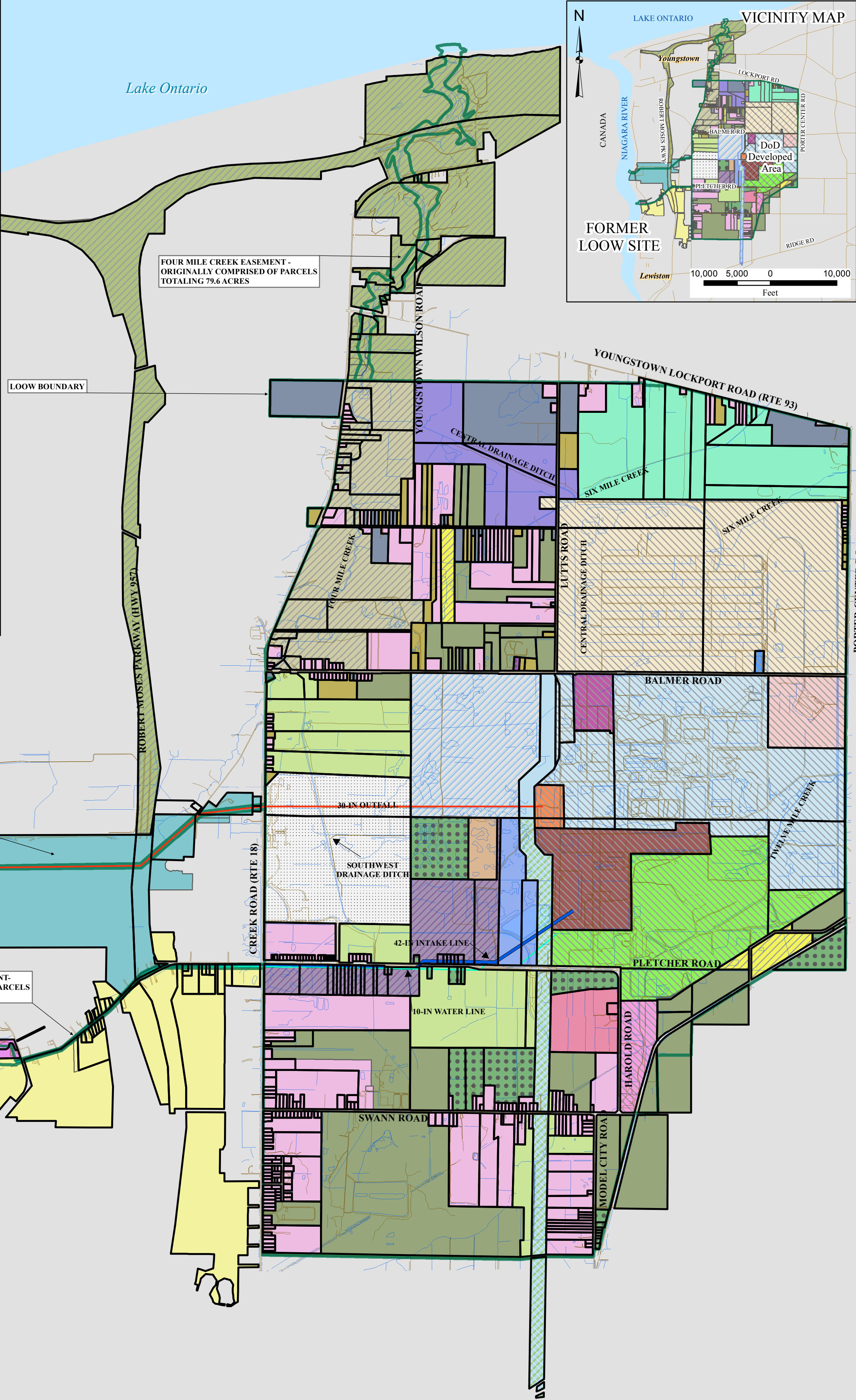
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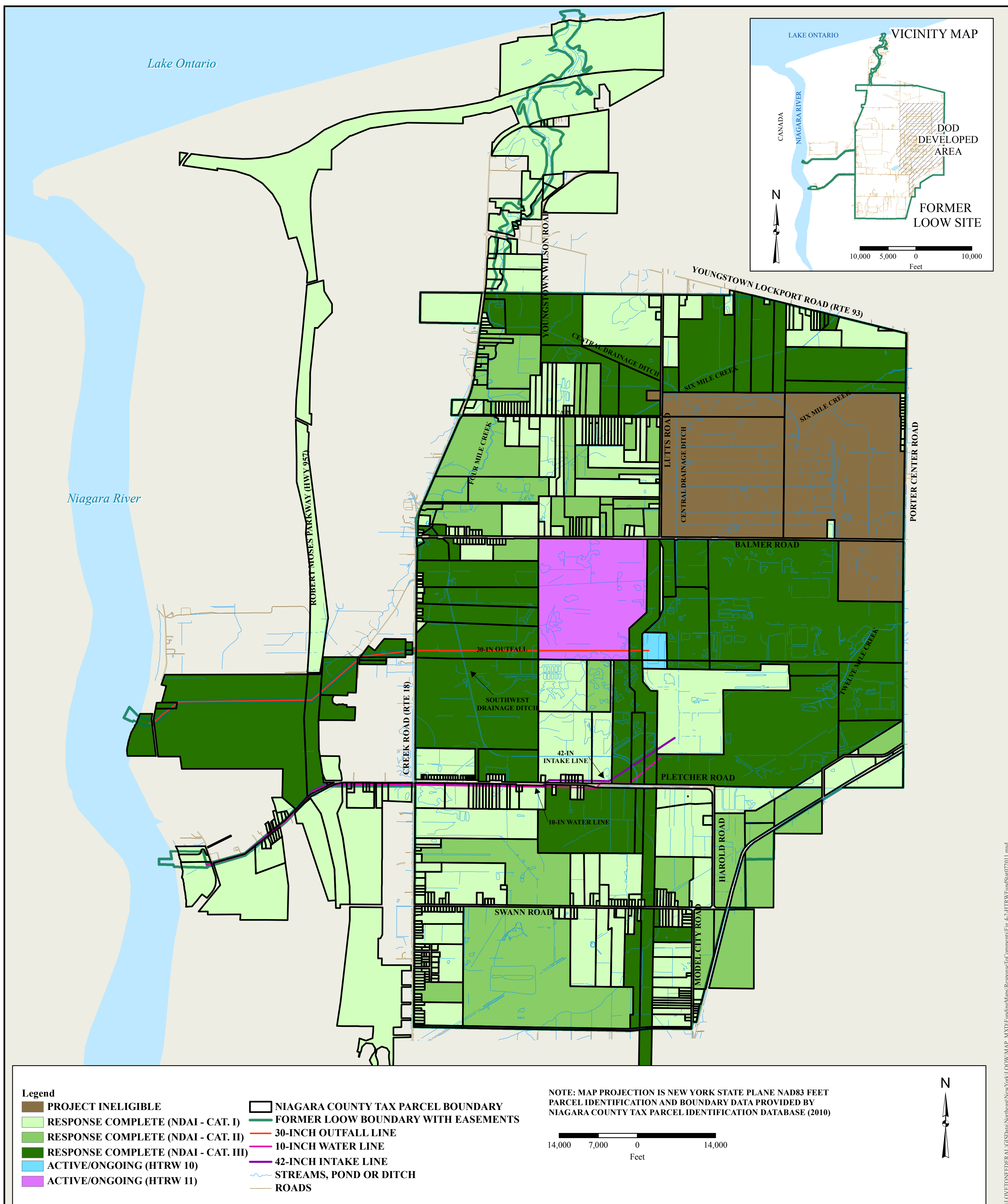
N



LAKE ONTARIO ORDNANCE WORKS
NIAGARA COUNTY, NEW YORK

FIGURE 4-1
SUMMARY OF PMAP PARCEL GROUPING

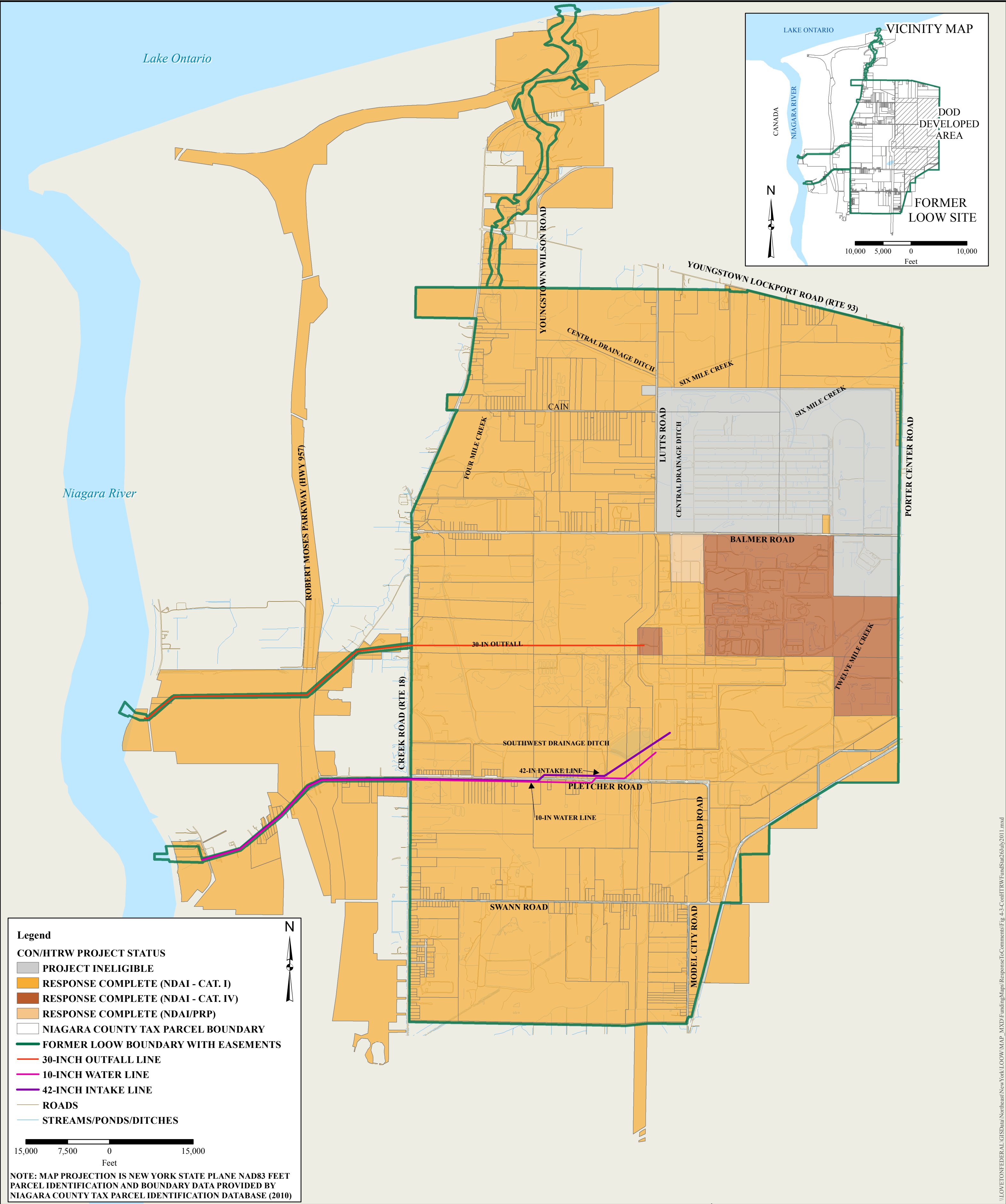
\\lovetonfederal\GIS\Northeast\NewYork\LOOW\MAP - MXD\Fig 4-1-SummaryParcelGrouping.mxd



LAKE ONTARIO ORDNANCE WORKS
NIAGARA COUNTY, NEW YORK

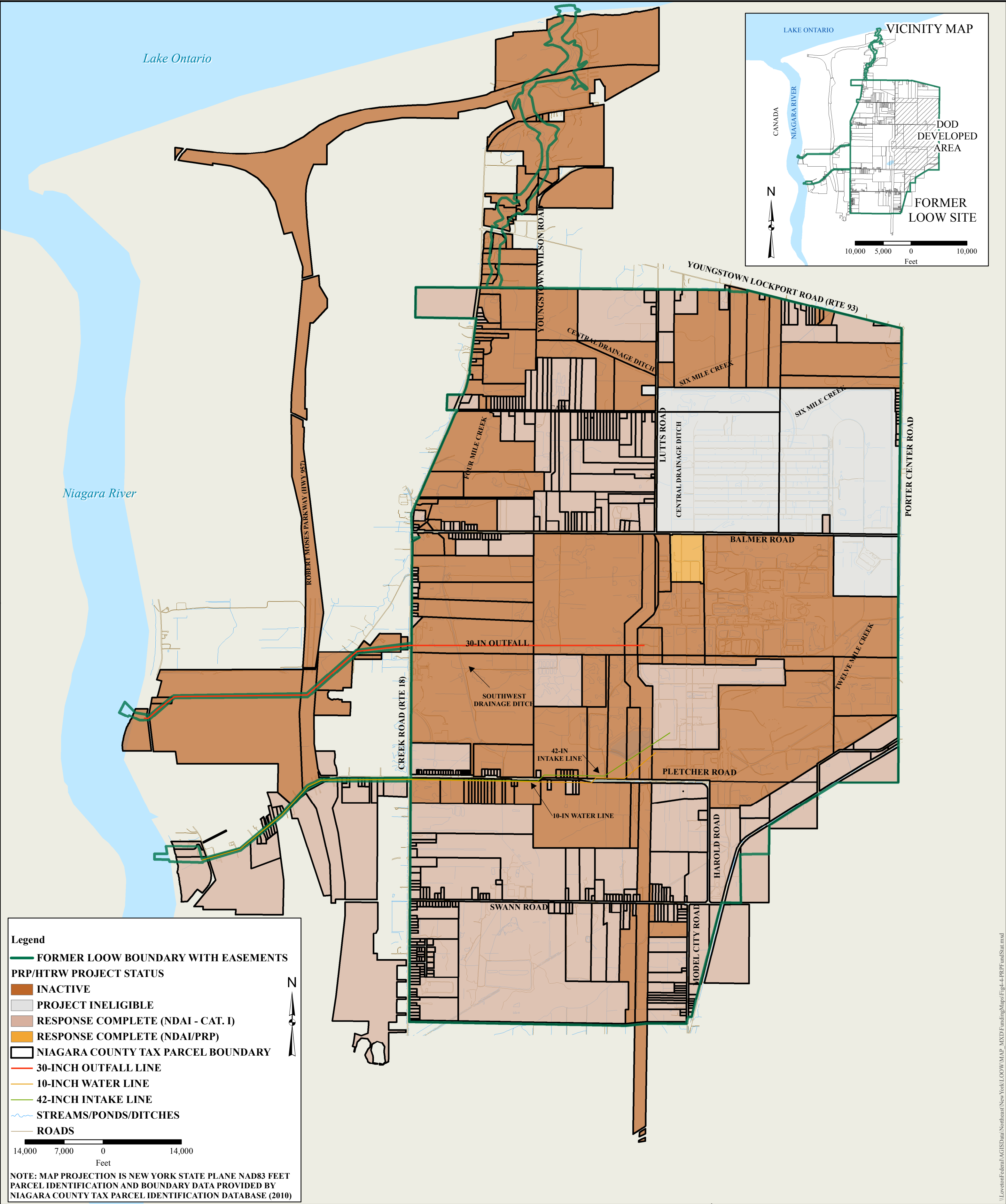
FIGURE 4-2
HTRW PROJECT STATUS

LOVETONFEDERAL\GISData\NewYork\LOOW\MAP_MXD\FundingMaps\ResponseToComments\Fig 4-2-HTRWFundStat072011.mxd



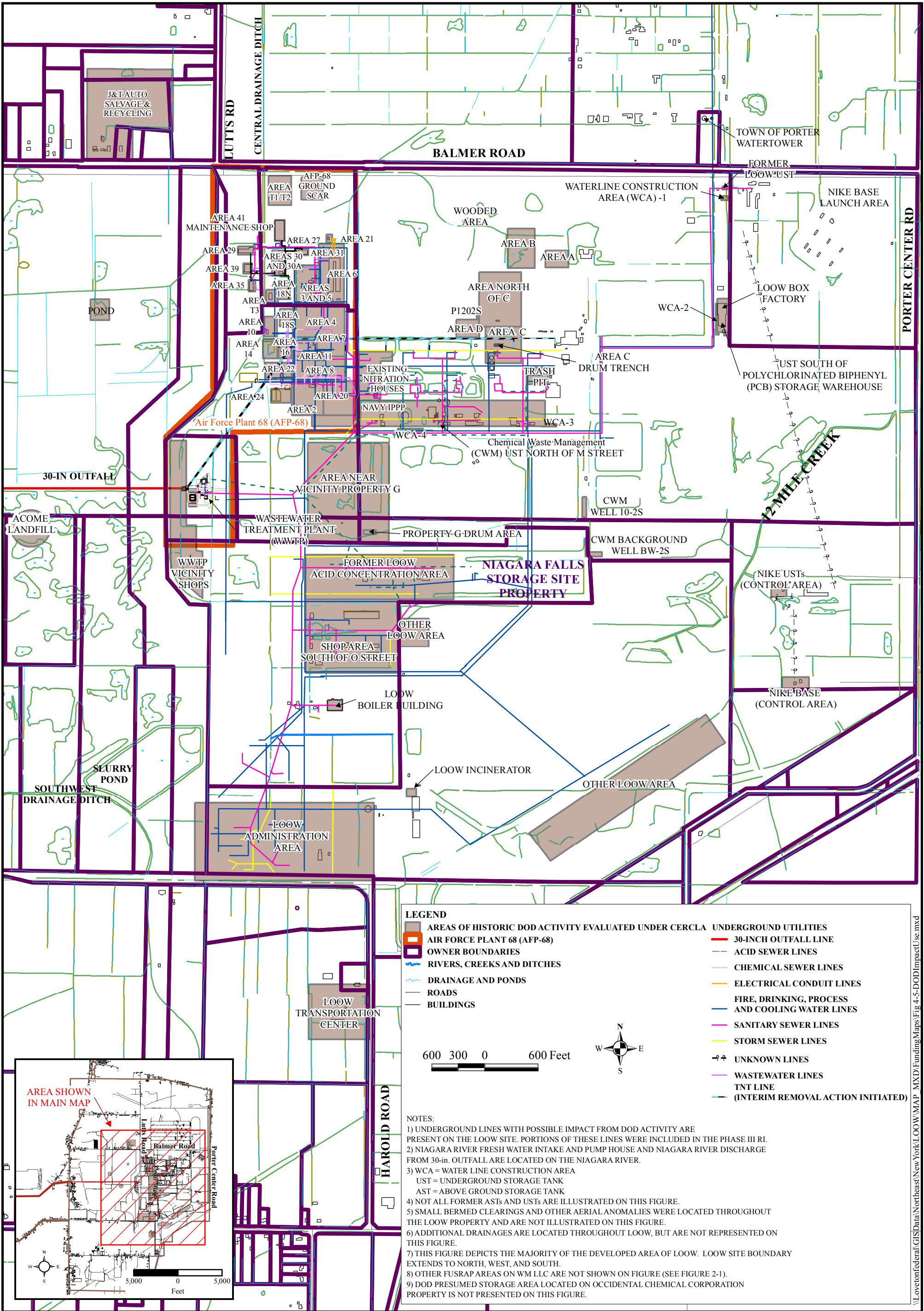
LAKE ONTARIO ORDNANCE WORKS
NIAGARA COUNTY, NEW YORK

FIGURE 4-3
CON/HTRW PROJECT STATUS



LAKE ONTARIO ORDNANCE WORKS
NIAGARA COUNTY, NEW YORK

FIGURE 4-4
PRP-HTRW PROJECT STATUS



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5. UTILIZATION OF THE MANAGEMENT ACTION PLAN GOING FORWARD

This Management Action Plan should be considered a “living document” and treated as tool for the PM and PDT involved in the LOOW FUDS environmental response.

5.1 PM AND PDT UTILIZATION

Table 5-1 presents a road map for what issues the PM/PDT may be able to utilize in the Management Action Plan and PMAP, and where that information can be found.

5.2 MANAGEMENT ACTION PLAN UPDATES

The Management Action Plan should be updated regularly, with reissue of those PMAPs that incurred significant change in strategy or status from the previous submittal. A database has been created to assist in tracking the status and eligibility of the parcels included in each PMAP parcel group and can be utilized to generate a significant portion of each PMAP executive summary.

Regular updates may occur to the following:

- Parcel listing – as parcels are subdivided and merged, the number of, as well as the parcel tax identification, will change. The information can be captured in the database developed for the Management Action Plan. The database will also capture the revisions made, such that the “root” or parent parcel number can be tracked through subsequent updates. Changes in real property tax boundaries were not identified for this update (2.1_2015). Parcel data in this version of the document were obtained from the Niagara County Department of Real Property Tax in 2010. However, a review of parcel ownership was completed using the Niagara County On-Map online GIS tool, available at <http://gis2.erie.gov/GC/NiagaraCountyNY/default.aspx>. No significant changes in property ownership were identified.
- Land use – as each town updates land use and zoning, this information should be updated in the database developed for the Management Action Plan. Note that land use and zoning is changed infrequently. Also, where there has been no known impact from DoD activities, PMAP parcel groups are based upon land use. Re-grouping of parcels and reissue of PMAPs due to changes in land use or zoning alone will be at the discretion of the USACE PM, but may not be warranted.
- The master reference list should be updated if additional information regarding DoD impacts is uncovered. Update number should be documented on the reference list.
- The Management Action Plan should be updated to re-summarize significant findings (in Section 4) and present the updated master reference list. The update number and date should be documented on the Management Action Plan cover pages.

- PMAPs – only those PMAPs with significant changes need to be updated. Depending upon occurrences in the prior year(s), updates may include additions or deletions to eligible hazards, updates to response strategy, updates to project status, inclusion of project declaration statements and documentation of regulatory concurrence on key decisions, and PMAP parcel group specific comments. The update number and date should be documented on the PMAP cover pages and executive summary.
- Stakeholder Input Response Summary – updates may include comments on previous versions of the Management Action Plan or individual PMAPs. The update number and date should be captured on the first page of the response summary.

TABLE 5-1 UTILIZATION OF MANAGEMENT ACTION PLAN

Potential Use	Section Of Map
Present a single concise forum for presenting the USACE authority (responsibility and limitations) to stakeholders for environmental response under DERP FUDS.	See Section 2 of Management Action Plan.
Document basic, pertinent information regarding DoD use of the property.	See Sections 6.1 and 7.1 of each PMAP for DoD use and impacts, respectively, for each parcel group.
Document basic, pertinent information regarding use of the property by others.	See Sections 6.2 and 7.2 of each PMAP for non-DoD activities and impacts, respectively, for each parcel group.
Document and record key USACE decisions for PMAP group with regard to property and project eligibility.	See Sections 8 and 9 within each PMAP for property and project eligibility, respectively, for each parcel group.
Present the proposed response strategy for eligible projects required for each PMAP group.	See Section 10 of each PMAP as well as the table(s) referenced in Sections 10 and 11.
Present the current status with regard to DERP FUDS project execution for each PMAP property group.	See Section 11 of each PMAP as well as the table(s) referenced in Sections 10 and 11.
Present at forum to document Project Declaration Statements.	Project and property declaration statements should be incorporated into Section 11 of each PMAP.
Develop a tool for gaining and documenting regulatory concurrence of Project Declaration Statements of NDAI.	Each PMAP (or the Management Action Plan, in its entirety) may be used as the vehicle for regulatory concurrence on key USACE decisions. Each PMAP should have the documentation (with pertinent references) required to support the decision. Regulatory concurrence shall be documented in Section 11 of each PMAP.
Document key stakeholder issues.	Stakeholder Response Summary (Appendix A to Management Action Plan).
Document new information regarding possible DoD impacts to PMAP parcel groups.	Newly acquired information with regard to potential DoD impacts may be incorporated into Sections 6.1 and 7.1 of each PMAP. If warranted, the impacted parcel(s) may be removed from the PMAP parcel group and designated a “special consideration” parcel for development of a new PMAP to document the impacts, FUDS eligible hazards and project eligibility, the environmental response strategy, and the status of response.
Provide the USACE PM a tool to plan funding and personnel resources to update the Project Management Plan.	See critical path forward in Section 11.2 of each PMAP.

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