

Draft Onondaga Lake Natural Resource Damage Assessment Restoration Plan and Environmental Assessment Addendum



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Prepared for:

United States Fish and Wildlife Service
New York State Department of Environmental Conservation

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LIST OF ACRONYMS AND ABBREVIATIONS

BTEX	benzene, toluene, ethylbenzene, and xylene
CD	Consent Decree
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	Contaminant of Concern
DAP	Damage Assessment Plan
DOI	United States Department of the Interior
EPA	United States Environmental Protection Agency
ft ²	Feet squared
HCP	Healing and Caretaking Plan
Honeywell	Honeywell International, Inc.
NEPA	National Environmental Policy Act
NPL	National Priorities List
NRDAR	Natural Resource Damage Assessment and Restoration
NYSDEC	New York State Department of Environmental Conservation
OEC	Onondaga Earth Corps
PAH	polycyclic aromatic hydrocarbons
RFP	Request for Proposals
RP/EA	Restoration Plan and Environmental Assessment
SOW	Statement of Work
TEK	Traditional Ecological Knowledge
Trustees	United States Fish and Wildlife Service and New York State Department of Environmental Conservation
USC	United States Code
USFWS	United States Fish and Wildlife Service

EXECUTIVE SUMMARY

For decades, mercury and other hazardous substances were released into Onondaga Lake in New York, its tributaries, and associated uplands. Natural resources (e.g., surface water, sediments, invertebrates, fish, amphibians, reptiles, birds, and mammals) have been exposed to and adversely affected by these contaminants. As part of the natural resource damage assessment and restoration (NRDAR) process, the Trustees (the United States Fish and Wildlife Service and the New York State Department of Environmental Conservation) completed a Final Restoration Plan and Environmental Assessment (RP/EA) in 2017 in accordance with 43 CFR §§ 11.82 and 11.93 to inform the public as to the types and scale of restoration actions that were planned to compensate for contaminant-related injuries to natural resources.

In the 2017 RP/EA, the Trustees selected a Preferred Restoration Alternative that identified restoration techniques including habitat creation, restoration, and enhancement; habitat preservation; and recreational enhancement. The 2017 RP/EA included a suite of specific restoration projects associated with the restoration categories identified, and the 2018 Onondaga Lake Consent Decree (CD) included attached Statements of Work (SOWs) for these nineteen projects. The 2018 CD also included funds for additional projects to be identified by the Trustees. These funds are maintained in an Onondaga Lake Future Project Fund (Future Project Fund).

This addendum to the 2017 RP/EA informs the public on the status of restoration of injured natural resources and solicits comments from the public regarding project revisions under the Preferred Restoration Alternative. Project updates are provided for projects identified in the 2017 RP/EA and described in the 2018 CD, as well as for projects proposed by the public and funded through the Future Project Fund. Fourteen of the projects selected under the Preferred Restoration Alternative in the 2017 RP/EA, and described in the 2018 CD, have been revised. The Trustees have and will continue to implement restoration projects under the Preferred Restoration Alternative established in the 2017 RP/EA.

CHAPTER 1 | INTRODUCTION

1.1 PURPOSE OF THIS ADDENDUM

Mercury and other hazardous substances released into Onondaga Lake, its tributaries, and associated uplands in New York State injured natural resources (e.g., surface water, sediments, invertebrates, fish, amphibians, reptiles, birds, and mammals) through decades of exposure. As part of the natural resource damage assessment and restoration (NRDAR) process, the Trustees (United States Fish and Wildlife Service and New York State Department of Environmental Conservation) completed a Final Restoration Plan and Environmental Assessment (RP/EA) in 2017 in accordance with 43 CFR §§ 11.82 and 11.93. The 2017 RP/EA informed the public of the types and scale of restoration actions that were planned to compensate for environmental contaminant-related injuries to natural resources under the Preferred Restoration Alternative established in the 2017 RP/EA (IEc 2017).

This addendum to the 2017 RP/EA informs the public on the status of restoration of injured natural resources and solicits comments from the public regarding project revisions. Project updates are provided for specific projects identified in the 2017 RP/EA, and for projects proposed by the public and funded with settlement funds. There are project revisions for 14 projects specifically identified and selected under the Preferred Restoration Alternative in the 2017 RP/EA. The Trustees have and will continue to implement restoration projects under the Preferred Restoration Alternative selected in the 2017 RP/EA. The process for submittal of additional restoration project proposals is ongoing.

1.2 TRUSTESHIP AND COMPLIANCE WITH OTHER AUTHORITIES

This Draft RP/EA Addendum has been prepared for the Onondaga Lake Trustees. Under Federal law, the Trustees are authorized to act on behalf of the public to assess and recover natural resource damages, and to plan and implement actions to restore, replace, rehabilitate, or acquire the equivalent of injured natural resources and resource services lost due to the release of hazardous substances (42 U.S.C. § 9601 *et seq.*; Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); 43 CFR Part 11; the Federal Water Pollution Control Act (33 U.S.C. § 1251 *et seq.*); Subpart G of the National Contingency Plan (40 CFR § 300.600 *et seq.*); and Executive Order 12580 (52 Fed. Reg. 2923 (January 23, 1987)), as amended by Executive Order 12777 (56 Fed. Reg. 54757 (October 19, 1991)). The Onondaga Lake Trustee Council consists of the United States Department of the Interior (DOI), as represented by the U.S. Fish and Wildlife Service (USFWS), and the State of New York as represented by the New York State Department of Environmental Conservation (NYSDEC). Trustees may modify an existing Restoration Plan as becomes necessary as the restoration proceeds. Modifications will be made available for public review for at least 30 days (43 CFR § 11.93(c)).

Restoration activities described in this document are conducted in compliance with all applicable Federal, state, and local regulations. These regulations include CERCLA and other Federal laws subject to the National Environmental Policy Act (NEPA; 42 U.S.C. § 4321 *et seq.*), and the regulations guiding its implementation at 40 CFR Parts 1500 through 1517. Federal natural resource and environmental laws and regulations considered during the development of this Draft

RP/EA Addendum include, but are not limited to: the Endangered Species Act of 1973; the Migratory Bird Treaty Act; the National Historic Preservation Act; the Archaeological Resources Protection Act; the Fish and Wildlife Coordination Act of 1934; the U.S. Fish and Wildlife Mitigation Policy of 1981; Executive Order 11990 on Wetlands; Executive Order 11988 on Floodplains; Executive Order 12580 on Superfund; and the Information Quality Act of 2001.

1.3 BACKGROUND

Hazardous wastes from industrial facilities, including Honeywell International, Inc. (Honeywell) and its predecessor companies, were discharged into Onondaga Lake from approximately 1881 to 1986 (USEPA/NYSDEC 2005). These releases contained a suite of contaminants, including large quantities of mercury. This extensive contamination led the State of New York to file a lawsuit in 1989 against Allied-Signal, Inc. (Honeywell's predecessor in interest) pursuant to CERCLA and state law seeking remediation, response costs, and natural resource damages. Subsequently, the U.S. Environmental Protection Agency (EPA) placed Onondaga Lake and related areas on the National Priorities List (NPL) on December 16, 1994. In addition, several sites have been listed as "sub-sites" of the Onondaga Lake NPL site, including the Onondaga Lake Bottom, Honeywell Wastebeds 1-8, Honeywell Geddes Brook/Ninemile Creek, Honeywell LCP Bridge Street, Honeywell Semet Residue Ponds, Honeywell Wastebed B/Harbor Brook, Honeywell Willis Avenue, the Town of Salina Landfill, General Motors - former Inland Fisher Guide facility/Ley Creek Deferred Media, the General Motors Ley Creek Dredgings, and the Niagara Mohawk – Hiawatha Boulevard sites (Figure 1). Together, the Onondaga Lake NPL site and designated "sub-sites" are referred to as the Site. Industrial activities associated with the Site are discussed in greater detail in the 1996 Damage Assessment Plan (DAP) (Normandeau Associates 1996) and the 2012 DAP Addendum (IEc 2012). Other sources of contamination to the Lake include the Onondaga County Metropolitan Syracuse Wastewater Treatment Plant (Metro facility), the Crucible Materials Corporation (via Tributary 5A), and the former Oil City petroleum facilities (USEPA/NYSDEC 2005).

Pre-remedy contaminant loads to the lake were primarily derived from Honeywell sites on the lake perimeter as well as in its vicinity, with surface water and groundwater pathways delivering much of the associated contamination to the lake. These sites include the Main Plant, which produced soda ash and a variety of benzene products (1884-1986); the Willis Avenue Plant, which manufactured chlor-alkali products and chlorinated benzenes (1918-1977); and the Bridge Street Plant, which produced chlor-alkali products and hydrogen peroxide (1953-1988) (NYSDEC/TAMS 2002).

Dense non-aqueous phase liquid plumes at the Willis Avenue and Wastebed B/Harbor Brook sites also conveyed contaminants of concern (COCs) to the lake. These COCs include, but are not limited to, mercury, BTEX (benzene, toluene, ethylbenzene, and xylene) compounds, chlorinated benzenes, naphthalene, and other polycyclic aromatic hydrocarbons (PAHs), other metals (e.g., lead, chromium, cadmium), and ionic wastes. Honeywell's historical waste discharges to the lake resulted in the significant accumulation of contaminated material in the southwest corner of Onondaga Lake. This "in-lake waste deposit" was estimated to be approximately 11 yards thick. Studies documented the ongoing re-release of contamination from the in-lake waste deposit area, adding to the contaminant load in the Onondaga Lake system (NYSDEC/TAMS 2002).

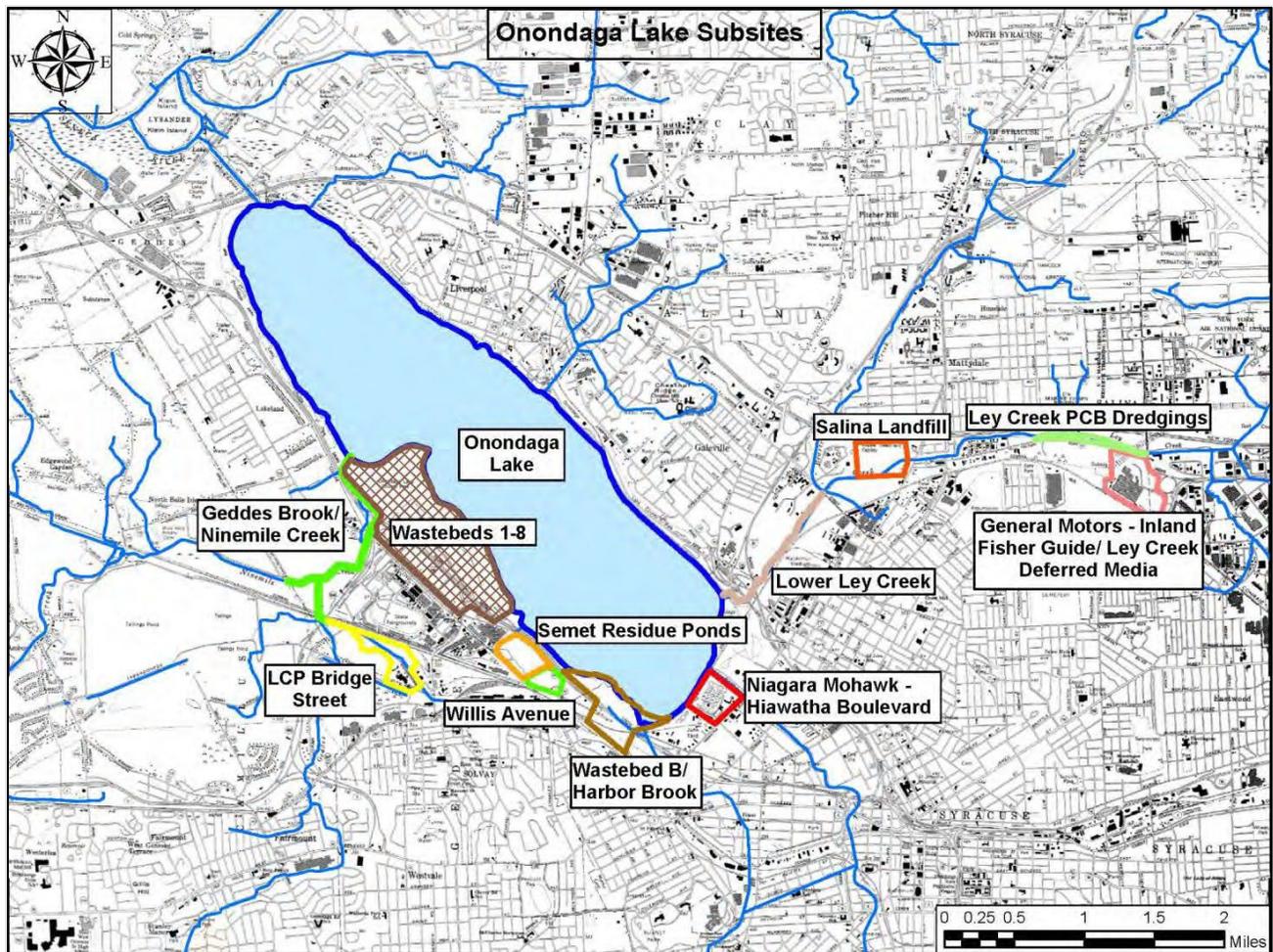


Figure 1. Map illustrating the Onondaga Lake NPL Site and “sub-sites.”

1.4 SETTLEMENTS

As described in the 2017 RP/EA, the Trustees received NRDAR settlement funds from the General Motors bankruptcy in 2012. These funds, with accrued interest, total approximately \$2,620,000 and are maintained in an Onondaga Lake Future Project Fund. On March 14, 2018, the DOI and the State of New York settled a natural resource damage claim valued at over \$26 million with Honeywell and Onondaga County, New York, for the Onondaga Lake NPL Site. The 2018 Onondaga Lake Consent Decree (CD) outlined 19 specific restoration projects and included \$5,000,000 in additional funding, maintained in the Onondaga Lake Future Project Fund, for Trustee sponsored natural resource restoration projects. The Trustees have and will continue to implement restoration projects under the Preferred Restoration Alternative established in the 2017 RP/EA. A process for submittal of restoration proposals is presented in Section 2.3.1.

1.5 PUBLIC PARTICIPATION

Public participation and review are integral parts of the restoration planning process. The Trustees have coordinated with the public throughout this NRDAR and continue to encourage

active public participation. Comments regarding the Draft RP/EA Addendum, specifically the revisions to the 14 restoration projects identified in the 2017 RP/EA, may be submitted during the 30-day comment period following the release of this document. The deadline for submitting written comments on the Draft RP/EA Addendum is specified on the Trustees' website: www.fws.gov/media/onondaga-lake-nrdar. Interested individuals, organizations, and agencies may submit comments in one of the following ways:

1. Submit comments electronically to:

FW5ES_NYFO@fws.gov

2. Mail or hand deliver comments to:

Amy Roe
U.S. Fish and Wildlife Service
3817 Luker Road
Cortland, NY 13045

Comments will not be accepted by fax or in any other manner than those specified above. Copies of the Draft RP/EA Addendum and other documents are available at:

www.fws.gov/media/onondaga-lake-nrdar.

The Trustees will review and consider comments received during the public comment period prior to finalizing the Draft RP/EA Addendum.

Trustees have maintained records documenting the information considered and actions taken during this NRDAR process. These records are available on www.fws.gov/media/onondaga-lake-nrdar. Physical copies of the records are also available for review by interested members of the public by contacting the USFWS at the above address. Arrangements must be made in advance to review or obtain copies of these records by contacting the office listed above. Access to and copying of these records is subject to all applicable laws and policies, including, laws and policies relating to copying fees and the reproduction or use of any material that is copyrighted.

1.6 ADMINISTRATIVE RECORD

An administrative record is a catalog of all documents the Trustees relied upon to develop and make decisions related to the NRDAR. The Onondaga NRDAR administrative record, including this Draft RP/EA Addendum, is maintained by the USFWS.

CHAPTER 2 | DISCUSSION OF RESTORATION ALTERNATIVES

The Trustees evaluated restoration alternatives using specific criteria (identified in the CERCLA NRDA regulations and the 2017 RP/EA) and selected a Preferred Restoration Alternative that compensates the public for natural resource injuries and related service losses associated with contamination in the Onondaga Lake assessment area. Using site-specific restoration criteria, and consistent with the restoration planning guidance in the DOI NRDA regulations (42 CFR § 11.82(a)) and NEPA (42 U.S.C. § 4321, et seq., and the regulations guiding its implementation at 40 CFR Part 1500), the Trustees rejected a No Action/Natural Recovery alternative and selected a Preferred Restoration Alternative described in Section 2.1 below. Project updates are provided for specific projects described in the 2018 CD in Section 2.2, and updates are provided for projects proposed by the public and funded with settlement funds in Section 2.3. The Trustees have implemented, and will continue to implement, restoration projects under the Preferred Restoration Alternative established in the 2017 RP/EA.

2.1 SUMMARY OF PREFERRED ALTERNATIVE

The Preferred Restoration Alternative, “Restoration That Satisfies Site-Specific Criteria,” is expected to generate natural resource services similar to services that the injured habitat would have provided but for site-related contamination. Projects described in this Section of the 2017 RP/EA include habitat creation, habitat restoration, habitat preservation, and recreational improvements. Habitat creation involves the establishment of natural plant and animal associations in localities where they do not exist, or previous occurrences were modified to the extent they are no longer present. Habitat restoration or enhancement includes improvement of degraded habitat, ideally returning the area to conditions that better approximate “natural” conditions. Habitat preservation involves preservation of habitat that would otherwise be developed or degraded. Habitats may be preserved through land acquisition, land donations, land transfers, conservation easements, or deed restrictions. Recreational improvement projects include new or improved recreational fishing and/or boating opportunities within the Onondaga Lake watershed, as well as other habitat-related recreational activities (e.g., swimming, walking, hiking, and birdwatching).

Natural resources potentially benefitted by these habitat restoration projects include surface water, sediments, aquatic invertebrates, fish, birds, turtles, amphibians, and mammals. Projects implemented under the Preferred Restoration Alternative increase habitat quality and quantity, promote habitat connectivity, create new public use opportunities, improve existing public use options, and benefit Trust natural resources within the injured ecosystem. Available settlement funds, restoration opportunities, and restoration costs influence the final scale and scope of implemented projects.

The Trustees identified a suite of restoration projects in the Preferred Restoration Alternative (Exhibit 4-1 and Exhibit 4-2, 2017 RP/EA) that encompassed all project types described above. The 2017 RP/EA indicated final restoration project details would be included in work plans at a date closer to project implementation. The 2018 CD included attached detailed Statements of Work (SOWs) for 19 specific restoration projects identified in the 2017 RP/EA and included \$5,000,000 for additional projects to be identified by the Trustees. These funds are maintained in an Onondaga Lake Future Project Fund which also includes the 2012 General Motors bankruptcy

settlement. The Trustees routinely select, and fund relevant restoration projects identified through a request for proposals (RFP) process detailed in Section 2.3.1.

2.2 UPDATES ON PROJECTS IDENTIFIED IN 2017 RP/EA AND 2018 CD

Nineteen projects were identified in the 2017 RP/EA and described in the 2018 CD. The 2017 RP/EA identifies ten ecological restoration projects and nine recreational restoration projects associated with the Preferred Restoration Alternative. The 2018 CD includes obligations by Honeywell International Inc. for the 19 specific restoration projects in accordance with the 2017 RP/EA. This Section summarizes the 19 identified restoration projects and describes any project changes from those described in the 2017 RP/EA and the 2018 CD. Project narratives are divided into two categories: projects implemented as described in the 2017 RP/EA and the 2018 CD, and projects revised from their initial description.

2.2.1 PROJECTS IMPLEMENTED AS DESCRIBED IN THE 2017 RP/EA AND 2018 CD (SOW PROJECTS)

This Section provides the public an update on the progress of 5 of the 19 restoration projects identified in the 2017 RP/EA and described in the 2018 CD. These projects have been implemented as previously described. The numbering scheme and project names utilized below are established in the 2018 CD.

1. MAPLE BAY IN-LAKE HABITAT ENHANCEMENT PROJECT

Improvements to 38 Acres of In-Lake Shoreline and Shallow Water Habitat

Restoration of approximately 38 acres of Onondaga Lake shoreline and the shallow water habitat included substrate enhancements, shallow water wetland plantings, seedings, and structures, shoreline invasive species control efforts, and native plantings. The shoreline and shallow water enhancement work was completed by Honeywell in 2021. Annual project monitoring and maintenance for five consecutive years is underway by Honeywell. Habitat conservation shall be achieved by Onondaga County in accordance with Paragraphs 35-36 of the 2018 CD and includes recording a certified copy of the CD to the county-owned parcel and maintaining the project through 2062.

4. ADDITIONAL IN-LAKE HABITAT CREATION PROJECT

Installation of Additional In-Lake Habitat Structures (Cobble Piles and Boulders) to Lake Bottom

This project was completed by Honeywell in 2018; all requirements in accordance with the 2017 RP/EA and 2018 CD have been completed. The Onondaga Lake habitat structures include cobble piles and boulders, porcupine and log cribs, cobble and gravel reefs, and anchored root wads. Post-installation monitoring of the structures was completed in 2018 and documented immediate use by fish.

6. NATIVE GRASSLANDS RESTORATION PROJECT

Creation of 100 Acres of Native Grasslands Bird Habitat

The project consists of the creation of approximately 105 acres of native grassland bird habitat on Wastebeds 13 and 15, previously referred to as settling basins, with approximately 55 acres located on Wastebed 13 and approximately 50 acres located on Wastebed 15. The

implementation phase on Wastedbed 13 was completed in 2017 and the implementation phase on Wastedbed 15 began in 2019, with implementation of 32 acres performed as of 2023. The remainder of grassland habitat implementation will occur as individual sections of Wastedbed 15 are closed and capped. Annual project monitoring and maintenance for five consecutive years is underway by Honeywell and mowing will continue for 30 years consistent with the 2018 CD.

11. ERIE CANAL TRAIL PROJECT

Creation of 3.2-Mile Extension of the Erie Canal Trailway to Connect with Onondaga County West Lake Recreation Trail; Provision of Additional Parking for Trail Users

In 2021, Honeywell completed construction of the 3.2-mile Erie Canal Trailway and parking area, from Reed Webster Park in Camillus to the Onondaga County West Lake Recreational Trail parking area. Routine maintenance for a minimum of five consecutive years is underway by Honeywell. Onondaga County will maintain the portion of the Erie Canal Trail located at County West Lake Recreational Trail parking area for 25 years, consistent with the 2018 CD.

12. SOUTHWEST SHORE RECREATION TRAIL PROJECT

Extension of Recreation Trail Segment from the Visitor Center to Harbor Brook

Construction of the approximate 1.2-mile paved recreation trail along the southwestern shoreline of Onondaga Lake, from near the Onondaga Lake Visitor Center to the Harbor Brook area, was completed by Honeywell in 2020. Onondaga County will maintain the trail for 25 years, consistent with the 2018 CD.

2.2.2 PROJECTS REVISED FROM 2017 RP/EA AND 2018 CD (SOW PROJECTS)

Section 2.2.1 describes projects selected in the 2017 RP/EA and described in the 2018 CD that have been implemented as initially described. Fourteen projects described in the 2018 CD have been revised from their initial description. The numbering scheme and project names utilized below are established in the 2018 CD and the project descriptions have been updated to reflect revisions.

2. MAPLE BAY ONSHORE HABITAT ENHANCEMENT PROJECT

Conservation of 102 Acres of Habitat; Enhancements to 24 Acres of Wetlands; Vernal Pool Creation

The Maple Bay Onshore Habitat Enhancement Project consists of work to enhance the onshore habitat through wetland enhancements, vernal pool creation, invasive species control and native plant establishment, and acquisition of approximately 8-10 acres of property contiguous to the Restoration Project area. The onshore habitat enhancement work was completed in 2023 by Honeywell followed by annual project monitoring and maintenance for five consecutive years. The vernal pool creation component (5,000 square feet, ft²) was completed in 2023 and was increased by an additional 5,000 ft² as approved by the Trustee Council on December 1, 2021 and March 18, 2022 to compensate for the lack of suitable vernal pool habitat in the Northwest Shoreline Onshore Enhancement Project area. The required 10,000 ft² of vernal pool habitat for the Northwest Shoreline Onshore Enhancement Project was added to the vernal pool habitat at Maple Bay (Project 2) and Hudson Farms (Project 8), with 5,000 ft² of vernal pool creation in each project area. The culvert installation component of the wetland enhancements, described in the SOW for the Maple Bay Onshore Habitat Enhancement Project, was revised after permit consistency review by New York State. It was determined that an additional 500 ft² of vernal

pool habitat creation was more beneficial than the planned culvert and the 500 ft² of vernal pool habitat creation was selected as an alternative wetland habitat enhancement component for Project 2, as approved by the Trustee Council on March 18, 2022. The acquisition of approximately 8-10 acres was resolved via Trustee Council Resolution 2019-1 as the owners of the identified contiguous properties were unwilling to sell at a commercially reasonable price. In lieu of the proposed acquisition at Maple Bay, an additional 22 acres were acquired as part of the Wetland Conservation Project (Project 5). Habitat conservation shall be achieved by Onondaga County in accordance with Paragraphs 35-36 of the 2018 CD and includes recording a certified copy of the CD to the county-owned parcel and maintaining the project through 2062.

3. NORTHWEST SHORELINE ONSHORE ENHANCEMENT PROJECT

Conservation of 90 Acres of Habitat; Enhancements to 16.5 Acres of Wetlands; Vernal Pool Creation

The Onondaga Lake Northwest Shoreline Onshore Enhancement Project includes work to conserve approximately 90 acres of habitat, and to enhance onshore habitat through wetland enhancements, vernal pool creation, invasive species control, and native plant establishment. The onshore habitat enhancement work was completed in 2023 by Honeywell followed by annual project monitoring and maintenance for five consecutive years. The vernal pool creation component was revised as approved by the Trustee Council on December 1, 2021 and May 18, 2022 to compensate for the lack of suitable vernal pool habitat in the Northwest Shoreline Onshore Enhancement Project area with the required 10,000 ft² of vernal pool habitat added to the vernal pool habitat at Maple Bay (Project 2) and Hudson Farms (Project 8), with 5,000 ft² additional vernal pool creation in each project area. Habitat conservation shall be achieved by Onondaga County in accordance with Paragraphs 35-36 of the 2018 CD and includes recording a certified copy of the CD to the county-owned parcel and maintaining the project through 2062.

5. WETLAND CONSERVATION PROJECT

Acquisition and Conservation of 200 Acres of Wetlands

In 2019, Honeywell completed acquisition of a total of 226 acres of wetlands in the Onondaga Lake area in accordance with the 2018 CD for habitat conservation. Twenty-two acres were added to the acquisition of 200 acres for the Wetland Conservation Project via Trustee Council Resolution 2019-1 in lieu of the approximately 8-10 acres that could not be acquired contiguous to Maple Bay (Project 2) and 4 acres were also added as the acreage could not be acquired near the Hudson Farms Project area (Project 8). The total 226 acres were divided into two areas, Wetland Conservation Areas 1 and 2, 135 acres and 91 acres, respectively. Honeywell transferred Wetland Conservation Area 2 to the Nature Conservancy in 2021 and transferred Wetland Conservation Area 1 to The Wetland Trust in 2022, each subject to a deed restriction and Stewardship Agreement. All requirements in accordance with the 2017 RP/EA and 2018 CD for the Wetland Conservation Project have been completed.

7. NINEMILE CREEK CORRIDOR ECOLOGICAL ENHANCEMENT PROJECT

Conservation of 100 Acres of Habitat; Enhancements to 4 Acres of Floodplain Forest, 5 Acres of Wetlands

The Ninemile Creek Corridor Ecological Enhancement Project comprises approximately 100 acres of floodplain habitat and includes approximately 1.1 miles of Ninemile Creek and 0.4 miles of Geddes Brook. The project includes enhancements to a forested and wetland corridor abutting Ninemile Creek, including approximately 4 acres of floodplain forest and 5 acres of wetlands

(adjacent to the Geddes Brook wetlands). Implementation of the floodplain forest and wetland enhancements was completed in 2022 and annual project monitoring and maintenance for five consecutive years is underway by Honeywell. The Trustees have directed Honeywell to convey fee title to The Wetland Trust, subject to a deed restriction and Stewardship Agreement, which is anticipated to be completed by March 14, 2024. This project is being implemented as described in the 2018 CD except that the implementation deadline was extended beyond the original deadline of March 2023.

8. HUDSON FARMS ECOLOGICAL ENHANCEMENT PROJECT

Conservation of 117 Acres of Habitat, Enhancements to 32 Forested and 24 Wetland Acres, Creation of Vernal Pools

The Hudson Farms Ecological Enhancement Project includes habitat conservation of 117 acres, forest enhancement, vernal pool creation, wetland enhancement, and property acquisition. The Trustees have directed Honeywell to convey fee title to The Wetland Trust, subject to a deed restriction and Stewardship Agreement, which is anticipated to be completed by March 14, 2024. The forest and wetland enhancements were completed in 2022 and annual project monitoring and maintenance for five consecutive years is underway by Honeywell. Vernal pool creation was completed in 2023 and increased by 5,000 ft² as approved by the Trustee Council on December 1, 2021, to compensate for the lack of suitable vernal pool habitat in the Northwest Shoreline Onshore Enhancement Project. The required 10,000 ft² of vernal pool habitat was added at Maple Bay (Project 2) and Hudson Farms (Project 8), with 5,000 ft² added in each project area. The acquisition of 2 acres of land adjacent to Hudson Farms could not be completed as described in the 2018 CD. In lieu of the approximately 2 acre acquisition at Hudson Farms, an additional 4 acres were added under Wetland Conservation (Project 5) via Trustee Council Resolution 2019-1.

9. INVASIVE SPECIES CONTROL AND HABITAT PRESERVATION PROJECT

15-Year Program Funding to Implement Invasive Species Control in the Onondaga Lake Watershed

This project consists of Honeywell paying a maximum of \$3,000,000 to the Trustees over 15 years (\$200,000/year) for the Trustees to implement invasive species control on approximately 1,700 acres of wetlands, lake/river littoral zone, and riparian zone habitats within the Onondaga Lake watershed. In December 2022, Honeywell advanced final payment completing their obligations as documented in Trustee Council Resolution 2022-3. The Trustees prepared an Invasive Species Management Plan in 2020 and will proceed with implementation as soon as practicable.

10. TULLY RECREATIONAL AREA AND NATURE PRESERVE PROJECT

Creation of Approximately 1,023 Acres of Nature Preserve and Natural Resource Restoration Area; Install Streambank Enhancements; Establish Opportunities for Compatible Cultural, Educational, and Recreational Public Use

The Onondaga Nation has agreed to accept and hold fee title to an approximately 755-acre South Forest nature preserve and an approximately 268-acre North Forest nature preserve (together referred to herein as “the Preserve”) as a third party pursuant to the 2018 CD, and to assume responsibility for protecting, restoring, healing, and caretaking the properties comprising the Preserve consistent with Trustee Council Resolution 2022-1. The Preserve falls within the ancestral territory of the Onondaga Nation and includes relatively pristine sections of Onondaga

Creek. The Onondaga Nation has a profound cultural, spiritual, and ecological connection to Onondaga Lake and its headwaters in Onondaga Creek, including the Preserve lands. In recognition of this connection, the Trustees acknowledge that the final name(s) given to the Preserve will likely be chosen by the Onondaga Nation. The Preserve encompasses diverse habitats with a variety of natural resource restoration potentials and opportunities for cultural, educational, and recreational public uses compatible with conservation and restoration of wetlands, forests, streambanks, and native flora and fauna.

Pursuant to the 2018 CD, Honeywell is responsible for implementation of the streambank enhancements. These enhancements—including live stake plantings, small tree and shrub plantings, and bare root plantings—were completed in 2020. Annual project monitoring and maintenance is underway and will continue through 2025 (five consecutive years). Removal of above-grade plugged brine wells that are not being used as subsidence monuments was completed in November 2019.

The Trustees are directing Honeywell to convey fee title to the Preserve to the Onondaga Nation, subject to a deed restriction consistent with the 2018 CD, acceptable to the Trustees, and approved by the New York State Attorney General. The deed restriction will be designed to “protect wetlands, uplands, and stream habitat, protect fish and wildlife habitat and the ecological value of the land, provide open space protection, protect scenic and natural features, and to allow compatible outdoor recreational and educational uses,” as directed by the 2018 CD. Specifically, these purposes are protecting, restoring, healing, and caretaking of: wetlands, uplands, and streams; habitat for birds, fish, and other wildlife; the ecological value of the land; open space; scenic and natural features; compatible outdoor recreational and educational uses by the public; and cultural and spiritual connections between the Onondaga Nation and the land. Existing agricultural leases to family farms within the Preserve may continue at the discretion of the Onondaga Nation. Honeywell will not convey any separate fishing rights for the Preserve. The Onondaga Nation, in consultation with the Trustees, will manage any public fishing or hunting within the Preserve.

The Onondaga Nation will develop a Healing and Caretaking Plan (HCP) (previously referred to by the Trustees as a Restoration Management Plan in Trustee Council Resolution 2022-1) in consultation with the Trustees. The HCP will reflect Traditional Ecological Knowledge (TEK); the Onondaga Nation’s cultural, spiritual, and educational practices; and science. The HCP will describe the process for determining the healing, caretaking, and stewardship needs of the Preserve; developing appropriate TEK-based healing, caretaking, and stewardship goals and methods; and identifying opportunities to develop cultural, educational, and recreational public uses that are compatible with conservation, restoration, and stewardship of the Preserve.

The Trustees and the Onondaga Nation have observed minor subsidence hazards in a portion of the Preserve and believe that these subsidence hazards may indicate potential geologic instability. Due to potential geologic instability, and healing and caretaking needs, public access to the Preserve may be limited to marked trails. The HCP will provide for monitoring of potential geological instability in the Preserve to ensure that public access provided is safe.

The HCP will also discuss potential restoration projects to be considered by the Onondaga Nation, possibly including:

- 1) Re-establishment of a sustainable native Brook Trout fishery in Onondaga Creek.
- 2) Assessment and re-establishment of culturally and ecologically significant native vegetation and habitats.
- 3) Development and implementation of a forest stewardship plan in accord with TEK.
- 4) Restoration and protection of areas of cultural and spiritual significance and/or areas critical for cultural, spiritual, educational, and traditional practices.

The Onondaga Nation may modify the HCP over time, as needed, to reflect its evolving understanding of the Preserve lands and changing conditions on the Preserve lands. In addition, the Onondaga Nation will determine whether proposed cultural, educational, and recreational public uses are compatible with TEK healing/restoration, conservation, and stewardship of the Preserve. These modifications and determinations will be made in consultation with the Trustees.

Honeywell will not construct the six parking lots described in the 2018 CD. Instead, Honeywell will pay the Trustees the value of these six parking lots (calculated as the total cost to construct them) and these funds will be re-allocated to recreational and/or ecological restoration projects within the Preserve.

The Onondaga Nation and the Trustees recognize the value of the Fellows Falls area of the Tully Valley to the public and are committed to working with the community to develop safe, ecologically compatible public access to Fellows Falls.

13. DEEPWATER FISHING PIER PROJECT

Purchase and Installation of Floating Fishing Pier, Gangway and Path Construction connecting to Southwest Shore Recreation Trail

The Deepwater Fishing Pier was installed in May 2023 along the southwest shore of Onondaga Lake, adjacent to the Southwest Shore Angler parking area (Project 14). This project was implemented as described in the 2018 CD except that the implementation deadline was extended beyond the original deadline of March 2023. The project provides angler access to deeper waters (greater than 50 feet) in Onondaga Lake. Onondaga County will maintain the pier for 25 years, consistent with the 2018 CD.

14. SOUTHWEST SHORE ANGLER ACCESS PROJECT

Provision of Public Fishing Access and Parking Lot

The Project was completed in 2020 and included approximately 1.2 miles of public fishing access and a new paved parking area, instead of gravel as required in the 2018 CD. The area is directly accessible from the Southwest Shore Recreation Trail (Project 12). Onondaga County will maintain the angler access area for 25 years from implementation of the project, consistent with the 2018 CD.

15. VISITOR CENTER TRANSFER AND BOAT LAUNCH AMENITIES PROJECT

Construction of Boat Launch Amenities, Transfer of the Visitor Center

Honeywell has maintained the Onondaga Lake Visitor Center from the Effective Date of the CD (March 14, 2018) for recreational purposes and group meetings. In 2020, Honeywell installed potable water at the Visitor Center, constructed a picnic area northeast of the Visitor Center, and installed a cold-water rinse station adjacent to the NYSDEC boat launch to assist in invasive species control efforts. Honeywell will transfer ownership of the Visitor Center to New York

State by March 14, 2024. This project is being implemented as described in the 2018 CD except that the implementation deadline was extended beyond the original deadline of March 2023.

16. NINEMILE CREEK AND HUDSON FARMS FISHING ACCESS PROJECT

Provision of Public Fishing Rights Along 6.8 Miles of Streambanks, Provision of Three Parking Facilities

Public access for Ninemile Creek and Hudson Farms consists of New York State acquiring public fishing rights over approximately 6.8 miles of streambank, which is to be completed by March 14, 2024. This project is being implemented as described in the 2018 CD except that the location of the new gravel angler parking lot was shifted slightly to the east, and the implementation deadline for the project as a whole was extended beyond the original deadline of March 2023. The project also consists of establishing associated improvements for recreational anglers, including:

- 1) Construction of a new gravel angler parking lot near the intersection of Armstrong Road and Airport Road, completed in 2022;
- 2) Continued access to the parking area at the Hudson Farms property, to be transferred to The Wetland Trust by March 14, 2024; and
- 3) Re-opening, in 2018, of the canoe launch located at the Pumphouse Road parking area for a minimum of 5 years.

17. OUTLET JETTY ENHANCEMENT PROJECT

Improve Outlet Jetties for Angler and Pedestrian Access

This project was completed in October 2023 and consists of improvements to the Onondaga Lake outlet jetties and walking paths to enhance recreational opportunities for anglers and pedestrians. This project was implemented as described in the 2018 CD except that the implementation deadline was extended beyond the original deadline of March 2023. Onondaga County will maintain the walking paths and jetties for 25 years, consistent with the 2018 CD.

18. BOAT LAUNCH PROJECT

Property Acquisition and Installation of a Public Boat Launch

The project was completed in 2019 and consisted of the acquisition of 1.92 acres along the Seneca River, located at 3664 Hayed Rd, Lysander, NY, and development as a public boat launch. Although the 2018 CD required the construction of a double boat ramp, a single launch boat ramp via Trustee Council Resolution 2019-3. After completion of the public boat launch, the property was transferred to the State of New York, consistent with the 2018 CD. All requirements in accordance with the 2017 RP/EA and 2018 CD for the Boat Launch Project have been completed.

19. PUBLIC FISHING ACCESS PROJECT

Property Acquisition and Development for Parking Access; Provision of Funding for Public Fishing Rights along 3.4 Miles of Streambanks

The project consisted of acquiring property and public fishing rights, subject to the Trustees' approval, for use as angler parking and access to 3.4 miles of streambank. After a suitable property could not be located for parking, the Trustees and Honeywell agreed to use property acquired by NYSDEC, along Ninemile Creek and located on Warners Road in the Town of Camillus. Honeywell constructed the angler parking in November 2022. In 2018, Honeywell

paid \$86,172 for NYSDEC to acquire public fishing rights in the Onondaga Lake Watershed on approximately 3.4 miles that are not owned by Honeywell. NYSDEC is evaluating potential locations for the acquisition of public fishing rights.

2.3 UPDATE ON PROJECTS IDENTIFIED BY TRUSTEES AND FUNDED BY FUTURE PROJECT FUND

The 2017 RP/EA identified a Preferred Restoration Alternative that created an Onondaga Lake Future Project Fund, and the 2018 CD designated separate funds to be used for Trustee-sponsored projects. On a biannual basis, the Trustees review and fund relevant restoration projects identified through an RFP process detailed in Section 2.3.1. This Section provides the public with updates on projects previously sponsored through this process. The Trustees have sponsored 13 restoration projects with ecological and recreational components totaling \$5,878,125 from the 2018 settlement and the 2012 General Motors bankruptcy settlement funds. Approximately \$1,969,000 remain in the 2012 General Motors bankruptcy settlement, also included in the Onondaga Lake Future Project Fund, and are available for future projects.

1. ERIE CANAL TREE PLANTING – VILLAGE OF SOLVAY

Planting of native trees along the Erie Canal Trail and Belle Isle Road, within the Village of Solvay Right-of-Way, was completed in 2023. The Village of Solvay proposed this project as both ecological and recreational. Project proponents recognize trees as an important aesthetic and psychological amenity, providing shelter, permanence, and a sense of place. Trees also provide canopy cover and habitat for wildlife.

2. OTISCO LAKE SHORELINE PROTECTION – FINGER LAKES LAND TRUST

Funding was provided to support the acquisition, restoration, and protection of 35 acres of wetland, stream, and shoreline habitat along Otisco Lake. After restoration, the property was conveyed to Onondaga County as a new County Park in June 2022.

3. ONONDAGA LAKE BOAT LAUNCH RESTROOMS – NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Installation of public restrooms adjacent to the new boat launch at the Onondaga Lake Visitor Center on Onondaga Lake is anticipated to be completed in 2024.

4. ONONDAGA CREEK GREENWAY – CITY OF SYRACUSE

Restoration is underway along Onondaga Creek in the City of Syracuse to restore the forested riparian buffer and increase views of the creek from the Onondaga Creekwalk. Syracuse Department of Parks, Recreation & Youth Programs partnered with Onondaga Earth Corps (OEC) for the vegetation management and planting associated with this project. OEC's mission is to empower youth to be active participants in creating positive change for their communities and the environment. OEC was formed to:

- Help youth understand the relationship between people and the urban ecosystem
- Engage youth in hands-on community and environmental service-learning projects
- Train youth for future jobs and careers in environmental fields
- Empower youth by developing their leadership abilities that help them analyze situations, solve problems, and implement strategies to improve their communities.

5. ONONDAGA CREEK CANOE/KAYAK LAUNCH – CITY OF SYRACUSE

Funding was provided for the construction of a canoe/kayak launch on the west side of Onondaga Creek at Kirk Park to improve creek access and navigability through the removal of downed and impediment trees. Project design and public input occurred in 2022 and 2023 and construction is anticipated for completion in 2024.

6. WETLAND/FOREST PROTECTION AND RESTORATION – THE WETLAND TRUST

Restoration underway consists of wetland and forest habitat adjacent to habitat preservation and restoration areas implemented by Honeywell (Project 5, Wetland Conservation, and Project 8, Hudson Farms Ecological Enhancement) and the associated acquisition of 217 acres for preservation.

7. AMBOY DAM REMOVAL – NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION / U.S. FISH AND WILDLIFE SERVICE

Funding was provided for the removal of the perpendicular face of Amboy Dam on Ninemile Creek, in the Town of Camillus, NY, and replacement with a series of instream grade control structures. Replacement of the dam with the proposed step-pool grade control structures will facilitate upstream fish passage in Ninemile Creek, allow for safe, unobstructed canoe/kayak navigation through the dam site, and eliminate a human safety hazard that the current dam poses. Project design is underway, and implementation is anticipated for 2024.

8. COMMON TERN RAFTS – RIVEREDGE ASSOCIATES

This project will provide managed stable nesting habitat for the New York State threatened Common Tern (*Sterna hirundo*) in the form of floating nesting habitat islands. Once colonies are established, regular monitoring will be conducted during the breeding season to ensure tern nesting success. In addition to direct biological benefits to Common Terns, this project will contribute to public awareness of the needs of threatened species along with waterbirds, shorebirds, and waterfowl at Onondaga Lake. Outreach and education efforts in cooperation with partners such as the Onondaga Lake Conservation Council, Onondaga Audubon, and others, will focus on the importance and benefits of environmental remediation followed by wildlife restoration. Project design is underway, and implementation is anticipated for 2024.

9. PLEASANT VALLEY/ONONDAGA CREEK WATERSHED PROTECTION – CENTRAL NEW YORK LAND TRUST

Restoration of wetland, grassland, and forest habitat is underway including acquisition and preservation of 203 acres involving a tributary to the West Branch of Onondaga Creek. The project also involves public recreational opportunities including hiking, cross-country skiing, bird watching, and a youth educational program. The property is adjacent to additional Central New York Land Trust habitat preservation and restoration areas and resulted in the creation of the 321-acre Pleasant Valley Preserve.

10. SYRACUSE INNER HARBOR KAYAK/CANOE LAUNCH – CITY OF SYRACUSE

Funding was provided for the construction of a kayak/canoe launch on the Inner Harbor of Onondaga Lake to improve access to Onondaga Creek and Onondaga Lake. Project design and public input occurred in 2022 and construction was completed in 2023.

11. ERIE CANAL TREE PLANTING PHASE 2 – VILLAGE OF SOLVAY

Additional funding was approved for Phase II of native tree planting within the Village of Solvay Right-of-Way along the Erie Canal Trail to the intersection of Belle Isle Road and Mathews Avenue. This second phase of tree planting was completed in 2023.

12. WATERSHED INVASIVE SPECIES PREVENTION/BOAT CLEANING STATIONS – NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

In 2022, two aquatic invasive species boat cleaning stations were funded and installed at Otisco Lake and Onondaga Lake public boat launches. Prevention of aquatic invasive species introduction is critical to restoring and maintaining native species and quality habitat.

13. OPEN SPACE PROTECTION – THE WETLAND TRUST

Additional funding was approved for acquisition of undeveloped areas located adjacent to habitat preservation and restoration areas implemented by Honeywell (Project 5, Wetland Conservation, and Project 8, Hudson Farms Ecological Enhancement) and The Wetland Trust (Project 6, Onondaga Lake Future Project Fund, Wetland/Forest Protection and Restoration). Protection of additional properties located adjacent to protected properties will prevent further loss of habitat and degradation of existing protected habitats and increase protected habitat connectivity.

2.3.1 UPDATE ON FUTURE PROJECT FUND

The Onondaga Lake Future Project Fund accepts proposals for potential restoration projects on a biannual basis. Funding is derived from the 2012 settlement and the 2018 CD. The remaining funds available for Trustee sponsored natural resource restoration projects total approximately \$1,969,000. Trustee solicitation and implementation of restoration projects is ongoing. Interested parties must complete a two-step process to submit a funding proposal consistent with the 2017 RP/EA and the 2018 CD. Information and instructions for applying for project funds may be found at the Onondaga Lake NRDAR website: www.fws.gov/media/onondaga-lake-nrdar.

CHAPTER 3 | CONCLUSION

Natural resources at the Onondaga Lake were injured through decades of exposure to mercury and other hazardous substances. Natural resource Trustees pursued a Natural Resource Damage Assessment to quantify natural resource injuries at Onondaga Lake and identify restoration actions to compensate the public. The 2017 RP/EA selected, and the 2018 CD described, nineteen restoration projects in addition to establishing a Future Project Fund to review restoration project proposals on a biannual basis. This 2024 Draft RP/EA Addendum to the 2017 RP/EA informs the public about the status of these previously identified restoration projects, both implemented as previously described (Section 2.2.1) and revised (Section 2.2.2), as well as projects identified through the Future Project Fund nomination process (Section 2.3). This 2024 Draft RP/EA Addendum may be modified, in accord with 43 CFR § 11.93(c), with public review and comment. The restoration projects described in the 2018 CD may be further revised upon written agreement between the Trustees and Defendants; additional restoration planning, and environmental compliance will be completed if necessary. Comments regarding this Draft RP/EA Addendum, including revisions to 14 restoration projects identified in the 2017 RP/EA, may be submitted during the public comment period (Section 1.5).

REFERENCES

- IEc (Industrial Economics, Incorporated). 2012. Onondaga Lake Natural Resource Damage Assessment Plan Addendum. Final. Prepared for U.S. Department of the Interior Fish and Wildlife Service, New York State Department of Environmental Conservation, and Onondaga Nation.
- IEc (Industrial Economics, Incorporated). 2017. Onondaga Lake Natural Resource Damage Assessment Restoration Plan and Environmental Assessment. Final. Prepared for U.S. Department of the Interior Fish and Wildlife Service and New York State Department of Environmental Conservation.
- Normandeau Associates. 1996. Onondaga Lake Natural Resource Damage Assessment Plan. Report Prepared for New York State Department of Environmental Conservation.
- NYSDEC/TAMS (New York State Department of Environmental Conservation and TAMS Consultants, Incorporated). 2002. Onondaga Lake Remedial Investigation Report. Syracuse, NY.
- USEPA/NYSDEC (United States Environmental Protection Agency and New York State Department of Environmental Conservation). 2005. Record of Decision. Onondaga Lake Bottom Subsite of the Onondaga Lake Superfund Site, Syracuse, NY.

APPENDIX A | THREATENED AND ENDANGERED SPECIES OF ONONDAGA COUNTY

Table A1. List of Federally and State protected species potentially occurring at or in the vicinity of Onondaga Lake NPL Site in Onondaga County, NY. Federally protected species data from U.S. Fish and Wildlife Service (USFWS) Information, Planning, and Conservation System (www.ipac.ecosphere.fws.gov/) generated on December 21, 2023. State protected species data from New York State Department of Environmental Conservation (NYSDEC).

GROUP	COMMON NAME	SCIENTIFIC NAME	STATE PROTECTION STATUS	FEDERAL PROTECTION STATUS
Mammals	Indiana Bat	<i>Myotis sodalis</i>	Endangered	Endangered, Critical Habitat
	Northern Long-eared Bat	<i>Myotis septentrionalis</i>	Threatened	Endangered
Birds	Black Tern	<i>Chlidonias niger</i>	Endangered	None
	Peregrine Falcon	<i>Falco peregrinus</i>	Endangered	None
	Short-eared Owl	<i>Asio flammeus</i>	Endangered	None
	Bald Eagle	<i>Haliaeetus leucocephalus</i>	Threatened	None
	Common Tern	<i>Sterna hirundo</i>	Threatened	None
	Henslow's Sparrow	<i>Ammodramus henslowii</i>	Threatened	None
	Least Bittern	<i>Ixobrychus exilis</i>	Threatened	None
	Northern Harrier	<i>Circus cyaneus</i>	Threatened	None
	Pied-billed Grebe	<i>Podilymbus podiceps</i>	Threatened	None
	Sedge Wren	<i>Cistothorus platensis</i>	Threatened	None
	Upland Sandpiper	<i>Bartramia longicauda</i>	Threatened	None
Reptiles	Bog Turtle	<i>Glyptemys muhlenbergii</i>	Endangered	None
	Eastern Massasauga	<i>Sistrurus catenatus catenatus</i>	Endangered	Threatened
	Blanding's Turtle	<i>Emydoidea blandingii</i>	Threatened	None
	Timber Rattlesnake	<i>Crotalus horridus</i>	Threatened	None
Fish	Lake Chubsucker	<i>Erimyzon sucetta</i>	Threatened	None
	Lake Sturgeon	<i>Acipenser fulvescens</i>	Threatened	None
	Longear Sunfish	<i>Lepomis megalotis</i>	Threatened	None
Mollusks	Green Floater	<i>Lasmigona subviridis</i>	None	Proposed Threatened, Critical Habitat
Insects	Monarch Butterfly	<i>Danaus plexippus</i>	None	Candidate

GROUP	COMMON NAME	SCIENTIFIC NAME	STATE PROTECTION STATUS	FEDERAL PROTECTION STATUS
Flowering Plants	American Waterwort	<i>Elatine americana</i>	Endangered	None
	Angled Spikerush	<i>Eleocharis quadrangulata</i>	Endangered	None
	Bear's-foot	<i>Smallanthus uvedalius</i>	Endangered	None
	Broad-lipped Twayblade	<i>Listera convallarioides</i>	Endangered	None
	Button-bush Dodder	<i>Cuscuta cephalanthi</i>	Endangered	None
	Calypso	<i>Calypso bulbosa</i> <i>var. americana</i>	Endangered	None
	Carey's Smartweed	<i>Persicaria careyi</i>	Endangered	None
		<i>Carex haydenii</i>	Endangered	None
	Cooper's Milkvetch	<i>Astragalus neglectus</i>	Endangered	None
	Cranefly Orchid	<i>Tipularia discolor</i>	Endangered	None
	Eastern Prairie Fringed Orchid	<i>Platanthera leucophaea</i>	Endangered	None
	Fairy Wand	<i>Chamaelirium luteum</i>	Endangered	None
	Field Dodder	<i>Cuscuta campestris</i>	Endangered	None
	Glomerate Sedge	<i>Carex aggregata</i>	Endangered	None
	Golden Puccoon	<i>Lithospermum caroliniense</i> <i>var. croceum</i>	Endangered	None
	Goosefoot Corn-salad	<i>Valerianella chenopodiifolia</i>	Endangered	None
	Hair-like Sedge	<i>Carex capillaris</i>	Endangered	None
	Heart Sorrel	<i>Rumex hastatulus</i>	Endangered	None
	Hooker's Orchid	<i>Platanthera hookeri</i>	Endangered	None
	Kentucky Coffee Tree	<i>Gymnocladus dioicus</i>	Endangered	None
	Large Twayblade	<i>Liparis liliifolia</i>	Endangered	None
	Lindley's Aster	<i>Symphotrichum ciliolatum</i>	Endangered	None
	Marsh Valerian	<i>Valeriana uliginosa</i>	Endangered	None
	Michigan Lily	<i>Lilium michiganense</i>	Endangered	None
Northern Bog Violet	<i>Viola nephrophylla</i>	Endangered	None	
Northern Wild Comfrey	<i>Cynoglossum virginianum</i> <i>var. boreale</i>	Endangered	None	

GROUP	COMMON NAME	SCIENTIFIC NAME	STATE PROTECTION STATUS	FEDERAL PROTECTION STATUS
Flowering Plants	Nuttall's Tick-trefoil	<i>Desmodium nuttallii</i>	Endangered	None
	Orange Fringed Orchid	<i>Platanthera ciliaris</i>	Endangered	None
	Possum-haw	<i>Viburnum nudum</i> <i>var. nudum</i>	Endangered	None
	Puttyroot	<i>Aplectrum hyemale</i>	Endangered	None
	Salt-meadow Grass	<i>Leptochloa fusca</i> <i>ssp. fascicularis</i>	Endangered	None
	Sartwell's Sedge	<i>Carex sartwellii</i>	Endangered	None
	Scarlet Indian-paintbrush	<i>Castilleja coccinea</i>	Endangered	None
	Scirpus-like Rush	<i>Juncus scirpoides</i>	Endangered	None
	Scotch Lovage	<i>Ligusticum</i> <i>scothicum ssp.</i> <i>scothicum</i>	Endangered	None
	Sea Purslane	<i>Sesuvium maritimum</i>	Endangered	None
	Seaside Crowfoot	<i>Ranunculus</i> <i>cymbalaria</i>	Endangered	None
	Sheathed Pondweed	<i>Stuckenia filiformis</i> <i>ssp. occidentalis</i>	Endangered	None
	Shining Bedstraw	<i>Galium concinnum</i>	Endangered	None
	Short's Sedge	<i>Carex shortiana</i>	Endangered	None
	Slender Marsh-pink	<i>Sabatia</i> <i>campanulata</i>	Endangered	None
	Small White Ladyslipper	<i>Cypripedium</i> <i>candidum</i>	Endangered	None
	Small Whorled Pogonia	<i>Isotria medeoloides</i>	Endangered	None
	Small Yellow Ladyslipper	<i>Cypripedium</i> <i>parviflorum var.</i> <i>parviflorum</i>	Endangered	None
	Small's Knotweed	<i>Polygonum</i> <i>aviculare ssp.</i> <i>buxiforme</i>	Endangered	None
	Southern Twayblade	<i>Listera australis</i>	Endangered	None
Spiny Water-nymph	<i>Najas marina</i>	Endangered	None	
Spreading Chervil	<i>Chaerophyllum</i> <i>procumbens</i>	Endangered	None	

GROUP	COMMON NAME	SCIENTIFIC NAME	STATE PROTECTION STATUS	FEDERAL PROTECTION STATUS
Flowering Plants	Sticky False Asphodel	<i>Triantha glutinosa</i>	Endangered	None
	Stiff Tick-trefoil	<i>Desmodium obtusum</i>	Endangered	None
	Straight-leaf Pondweed	<i>Potamogeton strictifolius</i>	Endangered	None
	Swamp Smartweed	<i>Persicaria setacea</i>	Endangered	None
	Sweet Coltsfoot	<i>Petasites frigidus var. palmatus</i>	Endangered	None
	Sweet-scented Indian-plantain	<i>Hasteola suaveolens</i>	Endangered	None
	Tall Bellflower	<i>Campanulastrum americanum</i>	Endangered	None
	Virginia False Gromwell	<i>Onosmodium virginianum</i>	Endangered	None
	Virginia Three-seeded Mercury	<i>Acalypha virginica</i>	Endangered	None
	White Basswood	<i>Tilia americana var. heterophylla</i>	Endangered	None
	Wild Sweet-william	<i>Phlox maculata ssp. maculata</i>	Endangered	None
	Woodland Bluegrass	<i>Poa sylvestris</i>	Endangered	None
	Big Shellbark Hickory	<i>Carya laciniosa</i>	Threatened	None
	Brown Bog Sedge	<i>Carex buxbaumii</i>	Threatened	None
	Cork Elm	<i>Ulmus thomasi</i>	Threatened	None
	Creeping Sedge	<i>Carex chordorrhiza</i>	Threatened	None
	Dragon's Mouth Orchid	<i>Arethusa bulbosa</i>	Threatened	None
	Drummond's Rock-cress	<i>Boechera stricta</i>	Threatened	None
	Dwarf Glasswort	<i>Salicornia bigelovii</i>	Threatened	None
	Farwell's Water-milfoil	<i>Myriophyllum farwellii</i>	Threatened	None
	Glaucous Sedge	<i>Carex glaucoidea</i>	Threatened	None
	Golden-seal	<i>Hydrastis canadensis</i>	Threatened	None
	Great Plains Flatsedge	<i>Cyperus lupulinus ssp. lupulinus</i>	Threatened	None
	Knotted Spikerush	<i>Eleocharis equisetoides</i>	Threatened	None
	Lake-cress	<i>Rorippa aquatica</i>	Threatened	None

GROUP	COMMON NAME	SCIENTIFIC NAME	STATE PROTECTION STATUS	FEDERAL PROTECTION STATUS
Flowering Plants	Little-leaf Tick-trefoil	<i>Desmodium ciliare</i>	Threatened	None
	Marsh Arrow-grass	<i>Triglochin palustre</i>	Threatened	None
	Midland Sedge	<i>Carex mesochorea</i>	Threatened	None
	Mountain Death Camas	<i>Anticlea elegans ssp. glaucus</i>	Threatened	None
	Nodding Pogonia	<i>Triphora trianthophora</i>	Threatened	None
	Northern Bog Aster	<i>Symphyotrichum boreale</i>	Threatened	None
	Ohio Goldenrod	<i>Oligoneuron ohioense</i>	Threatened	None
	Pink Wintergreen	<i>Pyrola asarifolia ssp. asarifolia</i>	Threatened	None
	Purple Cress	<i>Cardamine douglassii</i>	Threatened	None
	Ram's-head Ladyslipper	<i>Cypripedium arietinum</i>	Threatened	None
	Red Pigweed	<i>Chenopodium rubrum</i>	Threatened	None
	Reflexed Sedge	<i>Carex retroflexa</i>	Threatened	None
	Rock-cress	<i>Draba arabisans</i>	Threatened	None
	Rough Avens	<i>Geum virginianum</i>	Threatened	None
	Saltmarsh Aster	<i>Symphyotrichum subulatum var. subulatum</i>	Threatened	None
	Schweinitz's Sedge	<i>Carex schweinitzii</i>	Threatened	None
	Seabeach Amaranth	<i>Amaranthus pumilus</i>	Threatened	None
	Seaside Bulrush	<i>Bolboschoenus maritimus ssp. paludosus</i>	Threatened	None
	Seaside Gerardia	<i>Agalinis maritima var. maritima</i>	Threatened	None
	Seaside Plantain	<i>Plantago maritima var. juncoides</i>	Threatened	None
	Showy Aster	<i>Eurybia spectabilis</i>	Threatened	None
	Slender Blue Flag	<i>Iris prismatica</i>	Threatened	None
	Small Bur-reed	<i>Sparganium natans</i>	Threatened	None
Small Floating Bladderwort	<i>Utricularia radiata</i>	Threatened	None	
Smooth Bur-marigold	<i>Bidens laevis</i>	Threatened	None	

GROUP	COMMON NAME	SCIENTIFIC NAME	STATE PROTECTION STATUS	FEDERAL PROTECTION STATUS
Flowering Plants	Stargrass	<i>Aletris farinosa</i>	Threatened	None
	Swamp Lousewort	<i>Pedicularis lanceolata</i>	Threatened	None
	Terrestrial Starwort	<i>Callitriche terrestris</i>	Threatened	None
	Troublesome Sedge	<i>Carex molesta</i>	Threatened	None
	Twin-leaf	<i>Jeffersonia diphylla</i>	Threatened	None
	Wild Pink	<i>Silene caroliniana</i> <i>ssp. pensylvanica</i>	Threatened	None
	Woodland Agrimony	<i>Agrimonia rostellata</i>	Threatened	None
	Yellow Giant-hyssop	<i>Agastache nepetoides</i>	Threatened	None
	Yellow Wild Flax	<i>Linum sulcatum</i>	Threatened	None
Conifers	Creeping Juniper	<i>Juniperus horizontalis</i>	Endangered	None
Ferns and Fern Allies	Climbing Fern	<i>Lygodium palmatum</i>	Endangered	None
	Common Moonwort	<i>Botrychium lunaria</i>	Endangered	None
	Mingan Moonwort	<i>Botrychium minganense</i>	Endangered	None
	Prairie Dunewort	<i>Botrychium campestre</i>	Endangered	None
	Rugulose Grape Fern	<i>Botrychium rugulosum</i>	Endangered	None
	Blunt-lobe Grape Fern	<i>Botrychium oneidense</i>	Threatened	None
	Hart's-tongue Fern	<i>Asplenium scolopendrium</i> var. <i>americanum</i>	Threatened	Threatened
	Marsh Horsetail	<i>Equisetum palustre</i>	Threatened	None