

Arkport Dam

Master Plan

Draft Submittal
May 2024



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May 2024

For:

Arkport Dam
Arkport Dam Road
Arkport, NY 14807

Prepared by:

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ARKPORT DAM MASTER PLAN

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FINDING OF NO SIGNIFICANT IMPACT

Environmental Assessment for the Arkport Dam Master Plan Steuben County, New York

In accordance with the National Environmental Policy Act of 1969 (NEPA), including guidelines in 33 Code of Federal Regulations (CFR), Part 230 (Procedures for Implementing NEPA), the Baltimore District of the U.S. Army Corps of Engineers (USACE), has assessed the potential impacts of the 2024 Arkport Dam Master Plan (2024 Master Plan). The Arkport Dam Project was authorized and constructed for the primary purposes of flood risk management originating on the Canisteo River, a tributary of the Chemung, which flows into the Susquehanna River. Implementation of the Arkport Dam Master Plan and proposed land use designations must recognize and be compatible with the primary project missions of flood risk management.

USACE manages project lands in accordance with land use classifications that have been determined in the 2024 Master Plan for the project lands. Thus, land use classifications are fundamental to project lands management. Land use classifications (see Table S-1) provide for development and resource management consistent with authorized purposes and other Federal laws. The 2024 Master Plan provides a comprehensive description of Arkport Dam, a discussion of factors influencing resource management and development, a synopsis of public involvement and input into the planning process, and descriptions of existing development.

Under the No Action Alternative, USACE would take no action, which means no new resource analysis or land use reclassifications would occur.

The Proposed Action includes adopting the 2024 Master Plan to reflect designation of land management and land uses, USACE regulations, guidance, and coordination with the public. The 2024 Master Plan refines land classifications to meet authorized project purposes and current resource objectives. This includes a mix of natural resource and recreation management objectives that are compatible with regional goals established by stakeholders and USACE during the master planning process, recognize outdoor recreation trends, and are responsive to public comment. The purpose of the Proposed Action is to ensure that the conservation and sustainability of the land, water, and recreational resources at Arkport Dam comply with applicable environmental laws and regulations and to maintain quality land for future use. The 2024 Master Plan is intended to serve as a comprehensive land management plan for the next 15 to 25 years and is needed to update the Arkport Dam Master Plan in accordance with January 2013 updates to the Engineer Regulation (ER) 1130-2-550 and Engineering Pamphlet (EP) 1130-2-550.

Table S-1 identifies the required land and water surface classification changes associated with the Proposed Action.

Table S-1: Proposed Land Use Classifications at Arkport Dam.

Classification	2024 Master Plan (acres)	Classification Description
Project Operations	47	This classification category includes all project land required for the structure, operation, administration, or maintenance of the project and which all must be maintained to carry out the authorized purposes of flood risk management, water supply, and water quality.
Multiple Resource Management Land		
Low Density Recreation	274	Management of this land classification calls for maintaining a healthy, ecologically adapted vegetative cover to reduce erosion and improve aesthetics, while also supporting low impact recreational opportunities such as bank fishing, hiking, wildlife viewing, and access to the shoreline. Hunting may also be allowed in select areas that are a reasonable and safe distance from high density recreational areas, dam operations, and adjacent residential properties. The new land classification criteria exclude vegetation and wildlife management areas, leaving only areas with minimal development to support passive recreation use (i.e., primitive camping, hunting, trails, wildlife viewing, etc.)
Total	321*	

**Mapping for the Master Plan update has been compiled using the best information available and is believed to be accurate. Previous project boundaries are based on original acquisition real estate deed records and mapping. Due to improved mapping technologies, minor discrepancies exist when comparing prior project boundaries and proposed land classification acreages. The original project boundary is approximately 326 ac. Non-Federal roads are not included in total acreage.*

USACE chose the Proposed Action because it would meet regional goals associated with good stewardship of land and water resources and allow for continued use and development of project lands without violating national policies or public laws.

USACE used the Environmental Assessment (EA) and comments received from other agencies to determine whether the Proposed Action requires the preparation of an Environmental Impact Statement (EIS). This included assessment of all environmental, social, and economic factors that are relevant to the recommended alternative considered in this assessment. The EA determined no impact would occur to the following resources: water resources, soils, biological resources, air quality, greenhouse gasses and climate, noise, geology, cultural resources, groundwater, wild and scenic rivers, utilities, hazardous materials and waste, socioeconomics and environmental justice, and traffic and transportation.

Conclusion

Based on the summary of effects evaluated in the EA, I have determined that the Proposed Action alternative, which I have selected, will not have a significant effect on the natural and human environment. For this reason, no Environmental Impact Statement is required.

Date

Estee S. Pinchasin

Colonel, U.S. Army

Commander and District Engineer

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1 INTRODUCTION

1.1 Project Authorization

Arkport Dam was authorized by the Flood Control Act of June 22, 1936, and amended by the Flood Control Act of June 28, 1938. Construction of the dam was initiated in May of 1937 and the dam was operationally complete in 1939. The New York State Flood of 1935 was devastating to the communities of the Upper Canisteo Valley including Arkport, Hornell, and Canisteo, and led to construction of the Arkport Dam. This project is normally a dry dam; however, water is impounded after heavy rains. Arkport Dam is operated by the United States Army Corps of Engineers (USACE), Baltimore District. Associated infrastructure, as well as all land acquired for the dam and reservoir, are federally owned and are administered by USACE.

1.2 Project Purpose

The primary purpose of Arkport Dam is to provide flood risk management to downstream communities along the Canisteo River including Arkport, Hornell, and Canisteo by storing water during major storm events. The project controls a drainage area of 31 square miles, which is 20 percent of the Canisteo River watershed. The project area has limited recreational value, but offers hunting, fishing, hiking, and snowmobiling opportunities.



Arkport Dam and Reservoir.

1.3 Purpose and Scope of Master Plan

The purpose of this document is to develop the Arkport Dam Master Plan and Environmental Assessment (EA). The Arkport Dam Master Plan, also referred to as the “Master Plan” or “Plan”, is the strategic land use management document that guides the comprehensive management and development of all natural and cultural resources throughout the life of the project. It is the basic document guiding USACE responsibilities pursuant to Federal Laws to preserve, conserve, restore, maintain, and develop the project lands, waters, and associated resources.



This new Master Plan is required per Engineer Regulation (ER) 1130-2-550 and Engineering Pamphlet (EP) 1130-2-550. USACE is also required to prepare the appropriate National Environmental Policy Act (NEPA) documentation to support the Master Plan.

This document presents an evaluation of the assets, needs, and potentials of Arkport Dam. This Plan reflects changes that have occurred to the project site, in the region, and in USACE policy in the 84 years since the Arkport Dam became operational. It provides a management framework that balances the stewardship of natural resources with the primary project purpose of flood risk management. Implementation of the Master Plan must recognize and be compatible with the primary project mission of flood risk management.

The Master Plan is a working document that will guide the use and development of the natural and constructed resources on USACE fee-owned lands for an estimated 15 to 25-year period (2024 to 2049). The Master Plan articulates USACE responsibilities pursuant to federal laws to preserve, conserve, restore, maintain, manage, and develop the land, water, and associated resources. It is a dynamic and flexible tool designed to address changing conditions. The Master Plan focuses on carefully crafted, resource-specific goals and objectives.

Details of design, management and administration, and program implementation are not intended to be addressed within the scope of a master plan. They are fully addressed in the Arkport Dam Operational Management Plan (OMP). Additionally, master plans are not intended to address the specifics of regional water quality, shoreline management, or water level management. Therefore, this Plan does not address these issues.

The master planning process encompassed a series of interrelated and overlapping tasks involving the examination and analysis of past, present, and future environmental and socioeconomic conditions and trends. Utilizing a generalized conceptual framework, the process, as intended, focused on four primary components as follows:

- Regional and ecosystem needs,
- Project resource capabilities and suitability,
- Expressed public interests that are compatible with the Arkport Dam's authorized purposes, and
- Environmental sustainability elements.

This Master Plan includes a programmatic EA, which has been prepared in accordance with NEPA and other applicable environmental laws and executive orders, the Council on Environmental Quality's current NEPA implementing regulations, and USACE Engineer Regulation 200-2-2: Procedures for Implementing NEPA. The EA is a separate document that informs this Master Plan and is in Appendix G.

1.4 Description of Project and Watershed

Arkport Dam is located on the Canisteo River, approximately one mile upstream of the village of Arkport, New York and eight miles upstream of Hornell, New York in Steuben County. The Canisteo River is a tributary of the Tioga River within the Susquehanna River watershed. The Canisteo River empties via the Tioga River into the Chemung River, and eventually into the Susquehanna River (Figure 1-1). Almond Lake is located approximately 8 miles south of Arkport Dam. Although Almond Dam is not directly downstream of the Arkport Dam, releases from both dams meet at the confluence of Canacadea Creek the Canisteo River at Hornell (USACE 2021).

Arkport Dam maintains a dry reservoir of 190 acres including all lands in the vicinity up to the spillway crest elevation of 1,304 feet. In previous versions of the Master Manual for Reservoir Regulation Almond Lake and Arkport Dam, elevations were referenced as the National Geodetic Vertical Datum of 1929 (NGVD 29) (USACE, 2006). In 2009, the USACE began a Comprehensive Evaluation of Project Datum (CEPD). The CEPD effort was specifically intended to ensure that project elevations and datum are



properly and accurately referenced to nationwide spatial reference systems used by other Corps Districts as well as federal, state, and local agencies. To that end, a new project benchmark was established and linked to the 1988 North American Vertical Datum (NAVD88). All elevations in this report are in NAVD88 unless otherwise noted.

The project area is a flood management dam, though its reservoir does not normally retain water for recreational use and is dry for most of the year. The watershed above the dam site drains an area of 31 square miles. The watershed is roughly three miles in width and nine miles in length. Elevations in the watershed range from 2,252 feet at the northern edge of the watershed to 1,302 feet in the channel at the bottom of the dam. The watershed consists of well-wooded hill sides, crop and livestock agriculture, and sparse residential areas. The surrounding project lands have limited recreational value, but do include recreational activities, such as fishing, hunting, snowmobiling, and hiking. Figure 1-2 is a site map of the Arkport Dam study area.



Figure 1-1 Regional Vicinity

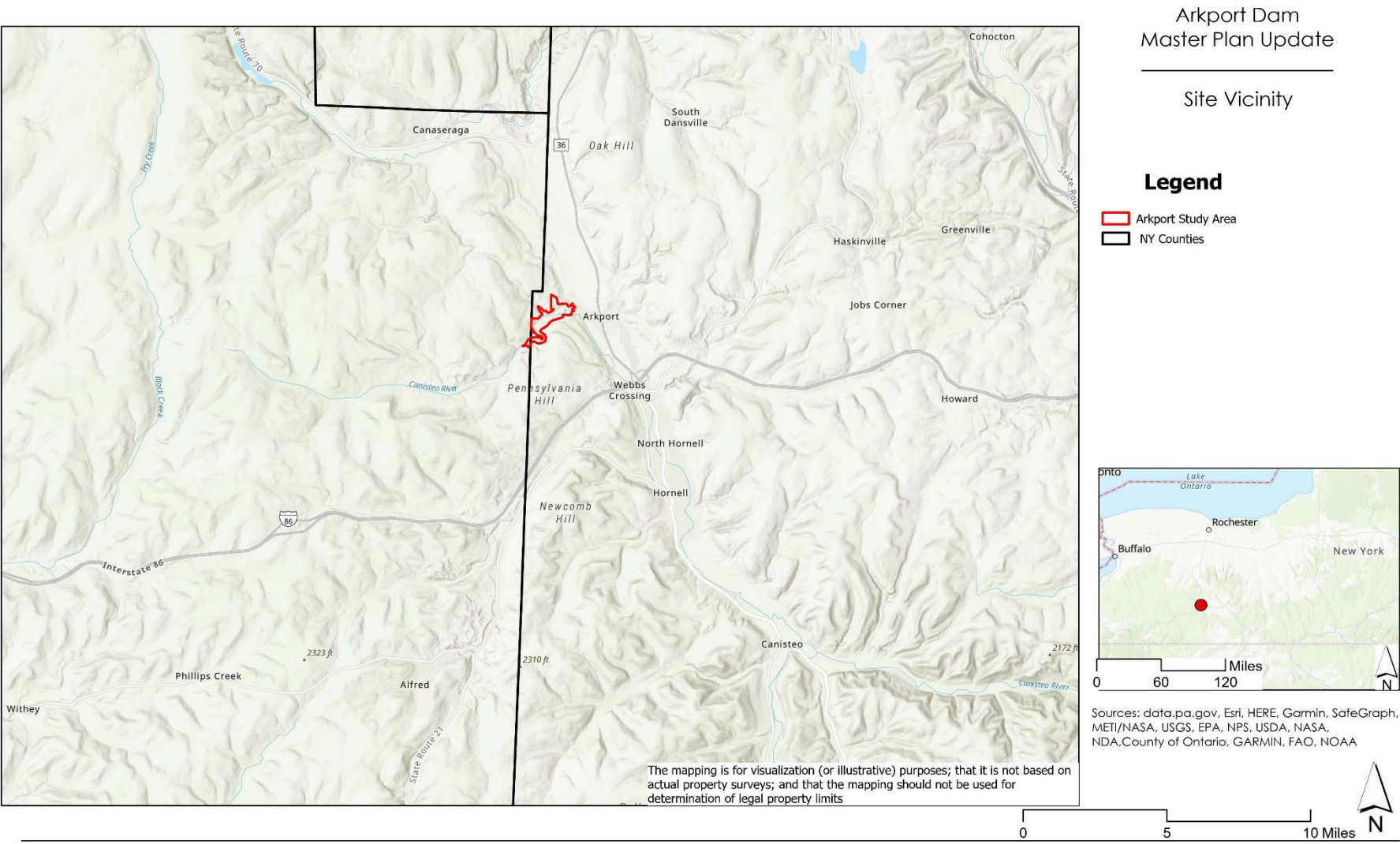
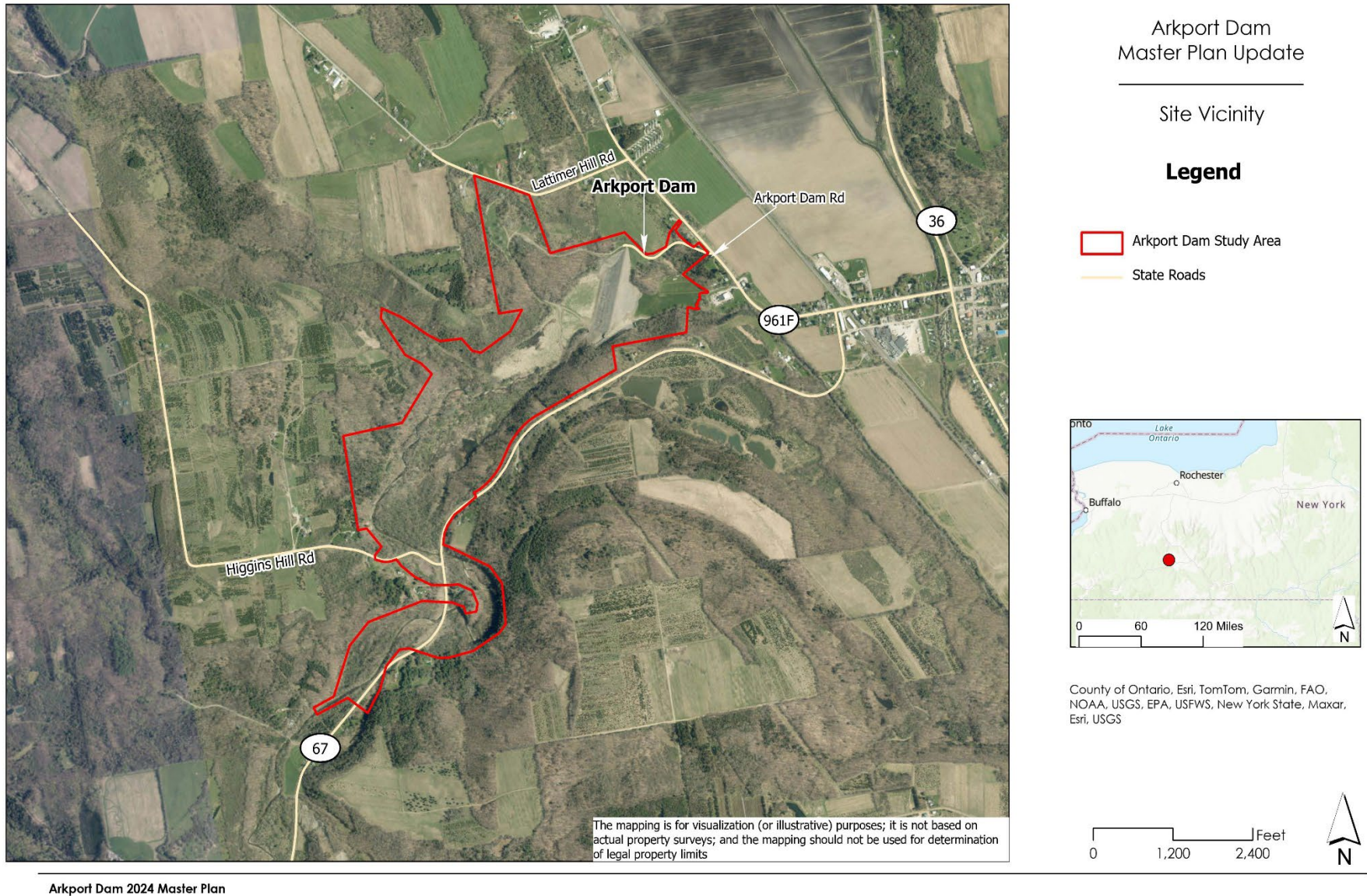


Figure 1-2 Site Vicinity

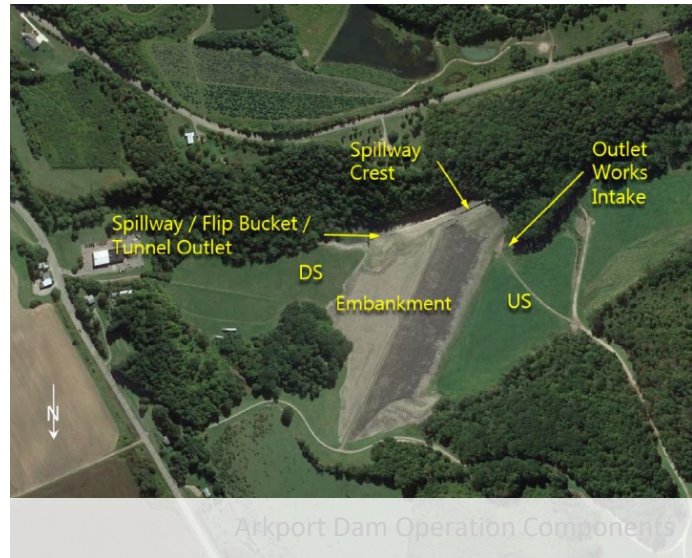


1.5 Description of Reservoir

Arkport Dam's reservoir impounds water during and immediately following large storm events. With an area of 190 acres, it has the storage capacity of 7,950-acre feet of water when filled to the spillway crest. When the water reaches the maximum designed water surface elevation, the reservoir can store a maximum of 10,830-acre feet (USACE, 2006). Except during intense storm events, the reservoir stores no water and is composed of mainly grassed vegetation, which is maintained throughout the year.

1.6 Embankment/Dam

Arkport Dam is constructed of a rolled earth-filled embankment that is 1,200 feet long and is approximately 113 feet above the streambed. The base width is 730 feet, the top width is 25 feet, and the top elevation of the dam is 1,323 feet project construction datum (PCD), which provides a freeboard of 5.8 feet above the spillway. A total of 339 acres were acquired for the construction of the Arkport Dam. The current project area is approximately 321 acres (USACE, 2006).



1.7 Spillway

The spillway is a side-channel type and is located to the right of the abutment. It consists of an approach channel, ogee weir, and discharge channel which discharges into a flip-bucket stilling basin. The spillway crest length is 160 feet and has an elevation of 1,304 feet NAVD88 (1,304 feet PCD). The design discharge capacity of the spillway is 29,100 cubic feet per second (cfs). Spillway flow occurred on 23 June 1972 and the maximum pool elevation reached was 1,304 feet NAVD88 (1,304 feet PCD) (USACE, 2021).



1.7.1 Flood Control Outlet Works

The outlet works consist of an ungated outlet located at the end of a 660-foot concrete tunnel that passes beneath the spillway. The reinforced concrete of the outlet pipe is composed of a 13-foot inlet containing an 8-foot diameter tunnel, which narrows to 4 feet in diameter at the outlet, located at the base of the spillway. With the dam being ungated, the water flow is based on the overall pressure inside the outlet tunnel. The discharge through the conduit, when the lake level is at spillway crest, is 1,040 cfs (USACE,

2006).

1.7.2 Flood Control Outlet Works Stilling Basin

This structure is located at the downstream end of the tunnel to prevent damage by erosion and to provide a transition from the outlet tunnel to the streambed. Upon the discharged water entering the stilling basin, flow is impeded by a concrete apron that prevents scouring from occurring when transitioning from the stilling basin to the streambed. The structure consists of a concrete wall lining and floor slab that is placed against a rock wall surface and the stream bed (USACE, 2021).

1.8 Project Access

Allegheny County Road 961F, running between Hornell, New York to the south and Canaseraga, New York to the north serves this area. Interstate 86 is four miles south of the dam and provides access from east to west. To the north of the dam Interstate 390 is within 12 miles of the dam and provides access from the northern portion of the state. Either interstate requires the use of State Route 36, which connects to State Route 961F in Arkport, New York. Route 961 runs northwesterly on the downstream side of the dam and intersects Arkport Dam Road, which is the main access road to the dam.

1.9 Pertinent Prior Reports and Related Studies

Listed below are the primary design documents and reports associated with the initial construction and land acquisition, as well as relevant related studies and reports to the Master Plan update. The references list found in Appendix B contains the full annotation for each report or study.

- Arkport Dam Susquehanna River Basin- Canisteo River Emergency Action Plan (EAP)
- Almond Lake & Arkport Dam Operation and Maintenance Manual (O&M)
- Master Manual for Reservoir Regulation Almond Lake and Arkport Dam Susquehanna River Basin Canacadea River Upper Basin

1.10 Pertinent Project Information

Table 1-1 provides pertinent information regarding existing storage capacity and Table 1-2 provides pertinent information regarding acreages of land use classifications at Arkport Dam. Land classification acreage is estimated using Geographic Information Systems (GIS) data (USACE, 2021).

Table 1-1: Arkport Dam Pertinent Data Table

Drainage Area	Sq. mi	% Controlled by Dam
Canisteo River at Arkport Dam	30.5	100.00%
Canisteo River at Hornell	159	19.20%
Canisteo River at West Cameron	340	9.00%
Elevations (feet above mean sea level)	Elevation	
Top of dam	1,323.0 feet	
Reservoir, flood control (spillway crest)	1,304.0 feet	
Maximum pool	1,317.0 feet	
Dam	Description	
Type	Rolled Earth Filled Embankment	
Length	1,200 feet	
Maximum height above streambed	113 feet	
Spillway	Description	
Type	Side Channel with Ogee Weir	
Location	Right abutment	
Crest Length	160 feet	
Type weir	Uncontrolled Ogee	
Outlet works	Description	
Type	Ungated Channel	
Location	Right Abutment	
Length (entrance to outlet portal)	1,000 feet	
Tunnel	8.0 Foot Diameter with 4.33 Foot Diameter Nozzle	
Reservoir	Area	
Wetted area at elevation 1,304 (Spillway crest)	192 ac	
Wetted area at elevation 1,317 (maximum pool)	242 ac	
Storage		
Maximum pool (elevation 1,317 feet)	10,830 acre-feet	
Flood control pool (elevation 1,304 feet)	7,950 acre-feet	
Total storage (elevation 1,323 feet)	24,980 acre-feet	
Lands acquired		
Acquired for project	339 ac	
Current Real Estate	326 ac*	

Source: (United States Army Corps of Engineers, Baltimore District (USACE), 2021)

Note: Feet is represented as NAVD88+0.22=ft PCD

* Mapping for the Master Plan update has been compiled using the best information available and is believed to be accurate. Previous project boundaries are based on original acquisition real estate deed records and mapping. Due to improved mapping technologies, minor discrepancies exist when comparing prior project boundaries and proposed land classification acreages. The original project boundary is approximately 326 ac.

Table 1-2 Proposed Land Classifications at Arkport Dam

Land Classifications	Acres
Project Operations	47
Multiple Resource Management	
Low Density Recreation	274
Total	321*

** Mapping for the Master Plan update has been compiled using the best information available and is believed to be accurate. Previous project boundaries are based on original acquisition real estate deed records and mapping. Due to improved mapping technologies, minor discrepancies exist when comparing prior project boundaries and proposed land classification acreages. The original project boundary is approximately 326 ac. Non-Federal roads are not included in total acreage.*

2 EXISTING CONDITIONS & ANALYSIS

2.1 Physiographic Setting

2.1.1 Ecological Setting

Arkport Dam is located within the U.S. Environmental Protection Agency's (EPA) Glaciated Low Allegheny Plateau IV ecoregion and the North Allegheny Plateau level III ecoregion covering a large portion of South-Central New York. The Glaciated Low Allegheny Plateau ecoregion is a vast area that is a dissected plateau with rolling hills and narrow to wide valleys that contain successional hardwoods (e.g., red maple [*Acer rubrum*], black cherry [*Prunus serotina*]) forests, cultivated and animal-operation agricultural land, and rural residential areas. This region contains a few natural lakes, and the streams are known to flood and scour (Library of Congress, n.d.).

2.1.2 Climate

Arkport Dam area has an average annual temperature between 37-and 59-degrees Fahrenheit and average annual precipitation of 31.48 inches. The greatest monthly precipitation occurs from June through September. Most snowfall in the area occurs between December and February, with the area receiving on average 41 inches of snowfall a year (Climate Data, n.d.).

2.1.3 Topography, geology, and soils

Arkport Dam is located within the Glaciated Low Allegheny Plateau section of the Northern Allegheny Plateau region, which is characterized by rolling hills, open valleys, and low mountains that contain some exposed bedrock and Pleistocene glacial till. Elevations range from 900 to 2,515 feet above sea level. The underlying rock types include Devonian shale, siltstone, sandstone, and conglomerate (Library of Congress, n.d.).

The reservoir is in a narrow valley with steep slopes surrounded by high ridges that are heavily forested. The valley floor upstream of project area is moderately wooded and consists primarily of livestock farms and residential areas. The surrounding area is densely forested, mountainous, and is located west of the residential town of Arkport, New York.

In the immediate area, adjacent to Arkport Dam, soils are primarily mapped as gentle slope silt loam soils, such as Middlebury silt loam (Mp), Tioga silt loam (Tg), to very steep gravelly soils, such as Howard Alton (HtD) and, Lordstown Arnot (LRF). Upstream of Arkport Dam on the valley floor bordering the Canisteo River, soils are mapped primarily as Fluvaquents and Ochrept soils, which are characterized as frequently flooded and consist of an alluvial material, such as, silt loam or a gravelly sandy loam soil.

Additional predominant soil types within the Arkport Dam property lines include gravelly loam soils (that are gently to moderately graded slopes which include, Howard gravelly loam [HoB]) and previously disturbed soils (that are designated as Cut and Fill Land [CF]). Additional soil types can be found in Table 2-1.

Within the study area, 0.6 percent of soils are considered New York Farmland of Statewide importance, including Hornell-Fremont (HfC) Mardin shannery silt loam (MdB), and Volusia channery silt loam (Vob). Additionally, 34.8 percent of soils in the area of interest (AOI) are categorized as Prime Farmland, including Tioga loam (3A), Chenango channery silt loam

(Ch) Howard gravelly loam (HoB), Howard-Madrid complex (HrB), Middlebury silt loam (Mp) and Tioga silt loam (Tg). (NRCS, n.d.).

Table 2-1 Soils at Arkport Dam

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI	Prime/Unique Farmland Status
3A	Tioga loam, occasionally flooded, 0 to 3 percent slopes	2.3	0.70%	All areas are prime farmland
8A	Middlebury silt loam, 0 to 3 percent slopes	9.7	3.00%	All areas are prime farmland
125D	Howard gravelly loam, 15 to 25 percent slopes	1.2	0.40%	Not prime farmland
125F	Howard gravelly loam, 35 to 60 percent slopes	0.4	0.10%	Not prime farmland
BBE	Bath soils, steep	5.5	1.70%	Not prime farmland
CF	Cut and fill land	30.2	9.40%	Not prime farmland
Ch	Chenango channery silt loam, fan	2.8	0.90%	All areas are prime farmland
FL	Fluvaquents and Ochrepts	47.3	14.60%	Not prime farmland
GP	Gravel pits	12	3.70%	Not prime farmland
HfC	Hornell-Fremont silt loams, 6 to 12 percent slopes	2.1	0.60%	Farmland of statewide importance
HoB	Howard gravelly loam, undulating	27.4	8.50%	All areas are prime farmland
HoC	Howard gravelly loam, rolling	10	3.10%	Not prime farmland

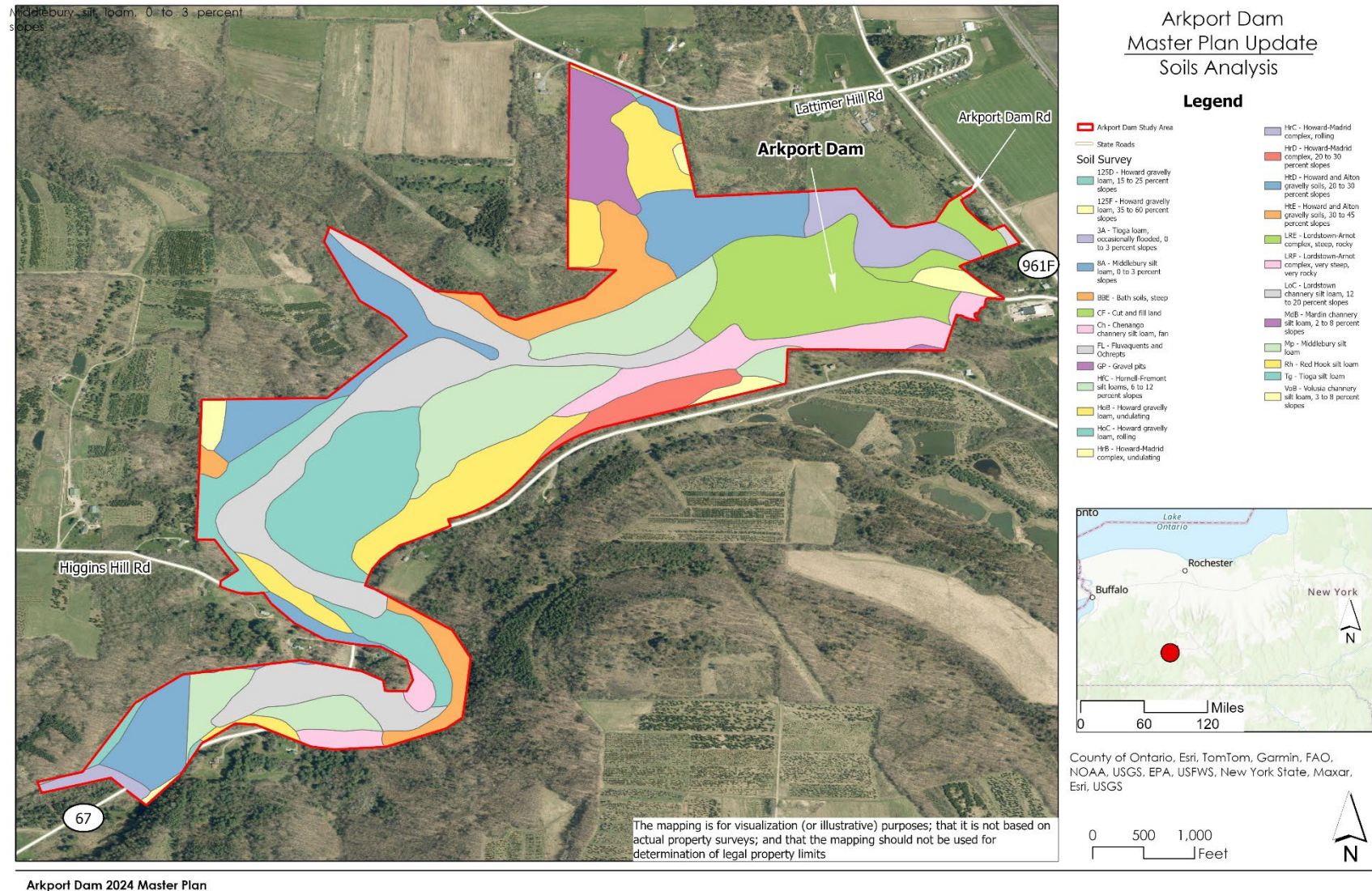
Table 2-2 Soils of Arkport Dam Continued

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI	Prime/Unique Farmland Status
HrB	Howard-Madrid complex, undulating	4.5	1.40%	All areas are prime farmland
HrC	Howard-Madrid complex, rolling	10.3	3.20%	Not prime farmland
HrD	Howard-Madrid complex, 20 to 30 percent slopes	6.9	2.10%	Not prime farmland
HtD	Howard and Alton gravelly soils, 20 to 30 percent slopes	33.8	10.50%	Not prime farmland
HtE	Howard and Alton gravelly soils, 30 to 45 percent slopes	14.1	4.40%	Not prime farmland
LoC	Lordstown channery silt loam, 12 to 20 percent slopes	0.5	0.10%	Not prime farmland
LRE	Lordstown-Arnot complex, steep, rocky	5.3	1.60%	Not prime farmland
LRF	Lordstown-Arnot complex, very steep, very rocky	16.2	5.00%	Not prime farmland
MdB	Mardin channery silt loam, 2 to 8 percent slopes	0.3	0.10%	Farmland of statewide importance
Mp	Middlebury silt loam	41.8	13.00%	All areas are prime farmland
Rh	Red Hook silt loam	3.4	1.00%	Prime farmland if drained
Tg	Tioga silt loam	33.3	10.30%	All areas are prime farmland
VoB	Volusia channery silt loam, 3 to 8 percent slopes	1.6	0.50%	Farmland of statewide importance
Totals for Arkport Study Area		323*	100%	

Source: (United States Department of Agriculture, Natural Resources Conservation Service (NRCS), n.d.)

*Non-Federal roads were included in the total acreage

Figure 2-1 Soil Analysis



2.1.4 Hydrology and Groundwater

The Arkport Dam is located on the Canisteo River and approximately 1 mile upstream from Arkport NY, and 8 miles upstream from Hornell, NY. The dam is located within the Upper Susquehanna River Basin (HUC # 020501) and within the Tioga Subbasin (HUC # 02050104). The Arkport Dam watershed is approximately 31 square miles and is approximately 19.2 percent of the Canisteo River at Hornell, New York and 9 percent of the drainage area of the Canisteo River at West Cameron, New York (USACE, 2006). There are no significant structures located upstream of the Arkport Dam, however there are flood risk management structures that are located downstream of the dam. These systems are located at Hornell (earth levees, check dams), Canisteo (earth levee and check dam), and Addison (levee) (USACE, 2021).

2.2 Ecoregion and Natural Resources Analysis

2.2.1 Vegetation

According to the U.S. Forest Service (USFS), the Southwest Highlands of New York are characterized mainly as forest. Nearly 60 percent of the forests in the Southwest Highlands of New York consist of maple, beech, and birch. The primary species within this group is red maple (*Acer rubrum*), sugar maple (*Acer saccharum*), white ash (*Fraxinus americana*) and black cherry (*Prunus serotina*). Other forest groups present in the Southwest Highlands of New York are classified as oak/hickory and pine forests that include white pine (*Pinus strobus*), red pine (*Pinus resinosa*), and jack pine (*Pinus banksiana*) (USDA, 2019).

Between 2012 and 2017, the overall forests of New York have gained approximately 250,000 acres but lost approximately 390,000 acres, mainly due to agriculture, for a net decrease of approximately 0.3 percent. The surrounding area of Arkport Dam has seen minor change of forest gain or loss. In 2019, New York has an estimated total of 18,622,212 acres of forest land with 74 percent being owned privately. Federal and State-owned forests account for approximately 26 percent of New York forests and some that are located within the Southwest Highlands are Klipnocks, Bully Hill, and Canacadea State Forests, which are in the proximity of Arkport Dam (USDA, 2019).

2.2.2 Wetlands

Braided channels can be found throughout the watershed as well as relatively small forested/scrub-shrub and emergent wetlands. Wetlands are common in the flat-bottom valley of the project area, mostly upstream of Arkport Dam. Within the project area, 15 freshwater emergent, freshwater forested/scrub shrub, and pond wetlands occur, totaling approximately 101 acres, or 31 percent of the Project's land area (USFWS, 2022a) (Table 2-3).

Table 2-3 Wetland Areas at Arkport Dam

Wetland Type	Acres	Percent of AOI
Freshwater Emergent Wetland	3	1%
Freshwater Forested/Shrub Wetland	44	14%
Freshwater Pond	2	1%
Riverine	52	16%
Total	101	31%
Area of Interest	326*	

Source: (United States Fish & Wildlife Service (USFWS), 2022)

* Mapping for the Master Plan update has been compiled using the best information available and is believed to be accurate. Previous project boundaries are based on original acquisition real estate deed records and mapping. Due to improved mapping technologies, minor discrepancies exist when comparing prior project boundaries and proposed land classification acreages. The original project boundary is approximately 326 ac.

2.2.3 Fish and Wildlife Resources

Arkport Dam is remote and supports many habitat types, including wetlands, grassy areas, fields, edges, and a variety of forest types and therefore attracts several species of wildlife. Mammalian wildlife found on project lands include black bear (*Ursus americanus*), white-tailed deer (*Odocoileus virginianus*), bobcat (*Lynx rufus*), fisher (*Martes pennant*), grey squirrel (*Sciurus carolinensis*), grey fox (*Urocyon cinereoargenteus*), and red fox (*Vulpes vulpes*). Common avian species include a variety of songbirds and woodpeckers, as well as common game species including wild turkey (*Meleagris gallopavo*) and ruffed grouse (*Bonasa umbellus*).



Eastern Wild Turkey



White-Tailed Deer

With Arkport Dam being considered a dry dam, there is little recreational fishing. However, trout is a popular game fish in the upper portions of the Canisteo River. On average, approximately 2,700 yearling (8-9 inches) and 400 two-year-old (12-15 inches) brown trout (*Salmo trutta*) are stocked downstream of the dam annually. Other sport fish species in the Canisteo River are smallmouth bass (*Micropterus dolomieu*), largemouth bass (*Micropterus salmoide*), and walleye (*Sander vitreus*). The Canisteo River also supports other species,

including sunfish species such as bluegill (*Lepomis macrochirus*), brown bullhead catfish (*Ameiurus nebulosus*), and common carp (*Cyprinus carpio*) (NYSDEC, 2022).

2.2.4 Threatened and Endangered Species

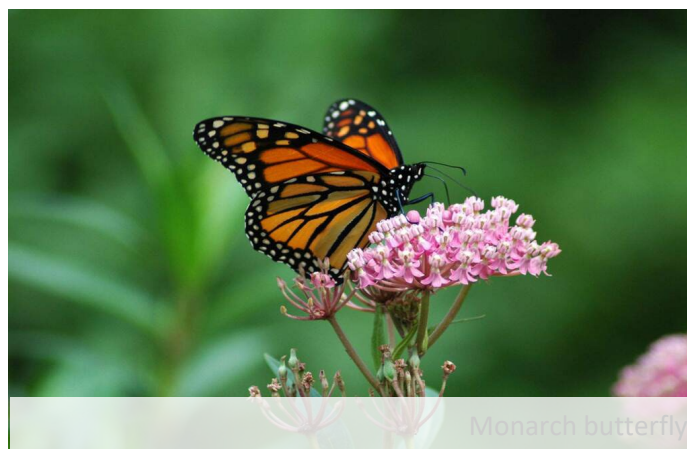
Federally listed species

Within the January 2024 USFWS Information for Planning and Consultation (IPac) tool, the Northern Long-eared bat (*Myotis septentrionalis*) is the only federally listed threatened or endangered species that is known to exist within the project area. However, the Green Floater clam (*Lasmigona subviridos*) is identified as a proposed threatened species. The Monarch Butterfly (*Danaus plexippus*) was the only candidate species identified within the project area. The project area does not contain any critical habitat of either species.



Northern long-eared bats are medium sized bats (about 3-4 inches in length) associated with mature, interior forest environments. Unlike most other bats, the Northern Long-eared bat forages along wooded hillsides and ridgelines – not above valley-bottom streams and along the edges of riparian forests. The species is listed as threatened throughout its range, primarily due to impacts of white-nose syndrome. Populations at northern long-eared bat hibernation sites have declined by 99 percent since the discovery of white-nose syndrome. Forest fragmentation and conversion are also major threats to the species due to its' association with large blocks of mature forest (USFWS, n.d.(c)).

Green floaters are small freshwater mussels with olive green ovate trapezoidal shaped shells that are typically less than 2.2 inches (USFWS, 2023 (b)). Green floaters are one out of approximately 300 freshwater mussels native to United States waters that have experienced drastic declines over the last century. Declines of the population are result of fragmentation and degradation of aquatic habitats due to agricultural runoff, mining wastes, development, and dam construction.



Currently, green floaters are found in seven states including New York (USFWS, 2023(a)). Arkport Dam does not overlap with any critical habitat of the green floater (Appendix G). Monarch butterflies are one of the most recognizable species in North America. Each year monarch butterflies migrate from Canada to their overwintering sites located in the mountains of central Mexico or coastal California. The monarch butterfly is currently

considered a candidate species due to habitat loss at their overwintering sites. The habitat loss in Mexico is due to conversion of grasslands to agriculture and urban development, while in California it is caused by unsuitable management of the overwintering groves and drought. Throughout their habitat range, exposure to insecticides has also hindered the population (USFWS, n.d.(b)).

New York State Threatened & Endangered Species

According to the Division of Fish and Wildlife, New York Heritage Program, there are no state-listed animals, plants, or significant communities, within or in the immediate vicinity of the project area (See Appendix G).

2.2.5 Invasive Species

Invasive species are defined as non-native species whose introduction into an ecosystem is likely to cause environmental, human, or economic harm. Non-native species may not be affected by existing predators, disease, or other limiting factors in their introduced range and therefore may thrive and outcompete native species. Non-native invasive species are, therefore, often difficult and expensive to manage. Arkport Dam and associated lands are experiencing several terrestrial invasive species, some of which are actively managed by Arkport Dam operators. Invasive and nuisance species found within the project area are described in the following sections.

2.2.5.1 Plants

The most abundant and managed invasive plant species that can be found in the project vicinity is Japanese knotweed (*Polygonum cuspidatum*). Arkport Dam operators actively manage this species with mowing and herbicide applications. Other species that are common in the New York region are Japanese barberry (*Berberis thunbergii*), Multiflora rose (*Rosa multiflora*), Garlic mustard (*Alliaria petiolata*) and Japanese stiltgrass (*Microstegium vimineum*).

2.2.5.2 Insects

Currently, the project area has few problems with nonnative invasive insect pests; however, invasive insects have caused damage in the past and are likely to cause damage in the future. Emerald ash borer (*Agrilus planipennis*) has been destructive to the North American ash species (*Fraxinus* sp.) for many years throughout New York, including in Steuben County. As of the summer of 2022, the only counties in the state of



New York that have not been identified with emerald ash borer were Essex, Hamilton, and Lewis (NYSDEC, n.d.). Other common and/or emerging invasive pests, such as the hemlock woolly adelgid (*Adelges tsugae*), are confirmed to be present nearby in Steuben County but have not yet become a problem on project lands (USDAFS, 2022).

2.2.5.3 Birds

Both invasive and native nuisance bird species are present in the project area. The European starling (*Sturnis vulgaris*) was introduced to Central Park, New York City in 1890 and is now a common resident of both urban and rural areas in the United States. European starlings outcompete native cavity nesting species by evicting already established nests. (APHIS, 2017). Starlings are present in the project area but are not actively managed.

2.2.6 Water Quality

The watershed is composed of several small tributaries with the largest being 4.5 square miles (USACE, 2006). The reservoir area is mostly meadow land that is surrounded by moderately steep hill sides that are well-forested. The overall water quality of the Canisteo River, which flows through Arkport Dam, is generally fair to good but is labeled as unassessed by New York State Water Quality (New York State Water Quality, n.d.). The Canisteo River contains alkaline water with a moderate nutrient load. Overall, sedimentation is not an issue (USACE, 2006). In 2021, the Susquehanna River Basin Commission (SRBC) conducted a Water Quality Strategy Survey. The study classified the Upper Canisteo River as high-water quality, non-impaired biology, and excellent in habitat categories (SRBC, 2021).

2.3 Cultural Resources

2.3.1 Prehistoric (paleontology)

Precontact history in New York can generally be divided into three periods: the Paleoindian Period (14,000 to 8,000 Before Common Era (BCE)), the Archaic Period (8,000 to 1,500 BCE), and the Woodland Period (1,000 BCE to CE 1600). Both the Archaic and Woodland Periods are sub-divided into Early, Middle, and Late sub-periods.

The Paleoindian Period featured a highly mobile settlement pattern among inhabitants who practiced seasonal migrations and foraging strategies. Extant Paleoindian cultural material typically follow major river systems as fertile valleys and coastal plains were seen as attractive subsistence areas for early populations.

The Archaic Period is further divided into three sub-periods: the Early Archaic Period (8,000 to 6,000 BCE), the Middle Archaic Period (6,000 to 3,000 BCE), and the Late Archaic Period (3,000 to 1,500 BCE). The Archaic Period is also characterized by mobile hunter-gatherer groups practicing seasonal migrations and foraging patterns; however, there is an increased use of uplands and terraces by the end of the Archaic Period. After the Archaic Period there is what is referred to as the Transitional Period (1,500 to 1,000 BCE) that is characterized by the use of soapstone bowls, the precursors to fired ceramics used during the subsequent Woodland Period.

The Woodland Period is further divided into three sub-periods: the Early Woodland Period (1,000 BCE to 100 CE), the Middle Woodland Period (100 CE to CE 900), and the Late Woodland Period (CE 900 to 1600). The Woodland Period is characterized by the use of clay-fired ceramics and an increasing reliance on horticulture and agriculture through time. As noted by Ritchie 1994, the two main cultures associated with the Late Woodland in western New York were the Owasco (CE 1000 to 1300) and the Iroquois (CE 1300 to Present). Sites associated with the Owasco are primarily found in the upland regions of drainage basins and

waterways. Iroquois sites are characterized by fortified settlements and longhouse structures along high terraces overlooking waterways.

2.3.2 Historic

Although Steuben County was formed in the last decade of the eighteenth century, its establishment and settlement by Europeans is rooted in the results of the American Revolution and subsequent land speculations. As the British Empire faced defeat, they ceded their land claims and territory in western New York, along with those lands already inhabited by their Haudenosaunee allies. New York and Massachusetts claimed the territory, but ultimately agreed to a settlement in 1786 through the Treaty of Hartford. This stipulated that New York gained sovereignty and jurisdiction over the territory, but Massachusetts retained the preemptive right to buy Tribal lands or sell this right to a third party (American Ancestors, 2000).

In 1788, Oliver Phelps, Nathaniel Gorham, and their associates purchased Massachusetts's preemptive right to approximately six million acres of land subject to Tribal land title. They proceeded to negotiate with Seneca representatives for a clear land title of the entire tract; however, they were only able to purchase approximately two million acres east of the Genesee River where the modern-day Arkport Dam is located. Over the next three years Gorham and Phelps defaulted on their remaining payments and sold their preemptive right to lands west of the Genesee River, but their original purchase and negotiations with Haudenosaunee allowed for the settlement of Steuben County (American Ancestors, 2000; McKelvey, 1939).

Steuben County was established in 1796 from land previously within Ontario County. Steuben County was named after Friedrich Wilhelm Augustin, Baron von Steuben, a German-Prussian general who served under George Washington during the American Revolution. County histories note that early American settlement was routed from Pennsylvania along the Susquehanna and Chemung Rivers. Demonstrating rapid population growth, Steuben County featured a population of 1,788 in 1800 and 62,965 by 1855 (French 1860). Roberts (1891) notes that the completion of the New York & Erie Railroad in 1850 helped spur population growth, especially in Hornellsville, where the company routed the railroad's corridor.

Prior to the construction of the Arkport Dam, the landscape west of Arkport was predominately rural and mountainous with historic settlement along a road that once roughly paralleled the Canisteo River. A review of historic maps shows multiple dwellings within the vicinity of the Arkport Dam, including those belonging to "R. Weaver," "L. Woolever," and "D.C. Ward" in 1853 and to "G. Davenport," "P. Reznor," "W. Higgins," and "L. Higgins" by 1873 (Levy et al. 1857; Beers, 1873). Dwellings such as these are an indication of the continuous and advantageous settlement along and use of the Canisteo River.

Following a record flood in 1935, Congress included dam authorizations in the landmark Flood Control Act of 1936 (Public Law 74-738, 74th Congress, 2nd Session), as amended by the Flood Control Act of 1938. The specific local purpose of the project authorization was to construct flood control measures for the protection of Hornell, Canisteo, and Addison as well as reducing flood heights at other localities on the Canisteo and Chemung Rivers. The Arkport Dam was operationally complete in 1939 at a federal cost of \$1,910,000 (USACE, 2022).

2.3.3 Previous Investigations at Arkport Dam

No cultural resources surveys have been conducted within the Arkport Dam project area.

2.3.4 Recorded Cultural Resources

No cultural resources have been previously identified within the Arkport Dam project area.

2.3.5 Long-Term Objectives for Cultural Resources

The objectives below are listed to provide goals for complying with National Historic Preservation Act (NHPA) Sections 106 and 110, Engineering Regulation 1130-2-540, and Engineering Pamphlet 1130-2-540. These regulations and guidance documents establish and help guide stewardship and preservation programs for USACE operations projects such as Arkport Dam.

- Identify and inventory historic properties within the project area as funds permit; and,
- Increase public awareness and education of the history of the Arkport Dam, regional histories, archaeological studies, etc. through interpretive displays, pamphlets, presentations, or other methods as appropriate; and,
- Draft and finalize a Cultural Resources Management Plan that would provide a comprehensive program to direct historic preservation activities and objectives, as appropriate; and,
- Prevent unauthorized or illegal excavation of sites and removal of artifacts from project lands; and,
- Maintain compliance with Sections 106 and 110 of the NHPA, the Archaeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act.

2.4 Demographic and Economic Resources

2.4.1 Current Demographics, Economics, Trends and Analysis

The zone of interest (ZOI) for the socio-economic analysis of Arkport Dam consists of only Steuben County, New York. With Arkport Dam being designed as a dry dam, there are limited recreational opportunities available to the public. Thus, Arkport Dam predominantly serves the local community of Steuben County, but the area is open to the public and could also be used by transient travelers or other residents.

2.4.2 Population

According to the 2020 American Community Survey (ACS) 5-year population estimate projections, the total population for the ZOI in 2020 was 95,843 down from 98,724 in 2010. The population in the ZOI is approximately 0.5 percent of the total population of New York (19,514,849 people) in 2020. From 2010 to 2030, the population in the ZOI is expected to decrease to 91,632, an annual growth decrease of -0.4 percent per year. Table 2-4 exhibits the population estimates and projections for the ZOI. The distribution of the population among gender, as shown in Table 2-5 is approximately 49.9 percent male and 50.1 percent female within the ZOI, compared to 48.5 percent male and 51.5 percent female in all of New York.

Figure 2-2 represents the population age structure in Steuben County, the ZOI and New York. The median ages in Steuben County and New York is 42.9 years and 39 years respectfully. The age structure is somewhat inverted for all three geographical areas (e.g., low birth rate and aging population), suggesting contraction of the population.

As shown in Figure 2-3, the overwhelming majority of the ZOI population is white, with minority races making up only 6 percent of the total population. Approximately 2 percent of the ZOI population identified as Hispanic or Latino (of any race), and 0.1 percent identified as American Indian of the Cherokee, Chippewa, Navajo, or Sioux tribal groupings (Census Bureau, n.d.).

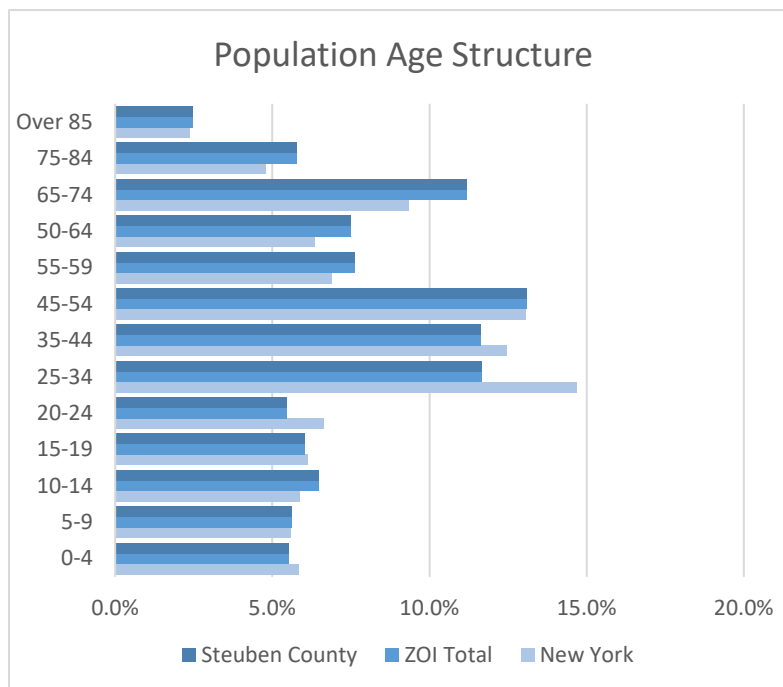
Table 2-4 Population Estimates and 2030 Projections

County/State	2010 Estimate		2020 Estimate		Projection in 2030 Estimate		Growth rate
	Number	% of ZOI	Number	% of ZOI	Number	% of ZOI	
New York	19,229,752	-	19,514,849	-	20,604,030	-	0.36%
Steuben	98,724	100.0%	95,843	100.0%	91,632	100.0%	-0.36%
ZOI Total	98,724		95,843		91,632		-0.36%
Sources: US Census Bureau (2010 and 2020 Estimates); Cornell University Program and Applied Demographics (2030 Estimates)							

Table 2-5 Population Estimates by Gender

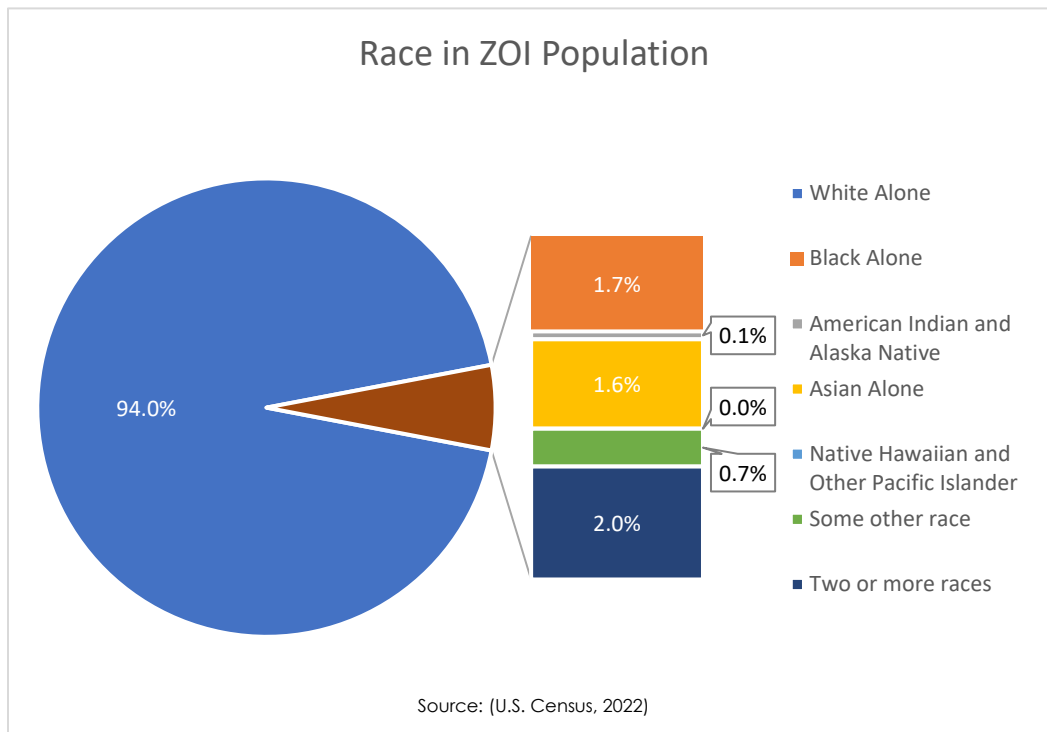
County/State	Population (K)	
	Female	Male
New York	10,040.7	9,474.2
Steuben	47.8	48.0
ZOI Total	47.8	48.0
Source: US Census Bureau (2022)		

Figure 2-2 2022 Percent of Population by Age Group in Steuben County, Zone of Interest and State



Source: (U.S. Census, 2022)

Figure 2-3 2022 Population Percentages by Race



2.4.3 Education and Employment

In the ZOI, 35.5 percent of the population aged 25 and older has obtained a high school diploma or equivalent. Approximately 16.6 percent have some college education but no degree, 14.5 percent have an associate degree, 12.5 percent have a bachelor's degree, 12.1 percent have a graduate degree or professional certification, 5.9 percent have a 9th to 12th grade education, and 2.9 percent have less than a 9th grade education.

The largest employment industry in the ZOI is educational services, and health care and social assistance at approximately 25.9 percent; followed by 18.9 percent in manufacturing; 10.9 percent in retail; and 7.7 percent in arts, entertainment, and recreation, and accommodation and food services. All other industries make up 36.6 percent of employment. The civilian labor force unemployment rate within the ZOI is 3.4 percent, similar to the 3.6 percent 2022 unemployment rate for all of New York.

2.4.4 Households and Income

There are approximately 40,100 households in the ZOI and 7,417,224 in New York. The median household income in the ZOI (\$49,111 USD) is lower than the New York overall income (\$71,117 USD). Approximately, 8 percent of people living within the ZOI are below the poverty level, compared to 10 percent in all New York.

2.5 Recreation Facilities, Activities, and Needs

2.5.1 Zone of Influence

The ZOI for Arkport Dam consists of only Steuben County, New York. The reason for this is due to the limited recreational value Arkport Dam provides and generally, only local residents utilize the recreational benefits of the dam.

2.5.2 Recreation Facilities

Although the primary function of Arkport Dam is flood risk management, the project area provides a few recreational opportunities. There is no formal recreational facility, but the project area is used by hunters, bird watchers, wildlife viewers, and snowmobilers. Each fall, hunters use the Arkport Dam property for small game, including squirrels and rabbits, as well as large game hunting that includes black bear and white-tailed deer. Wildlife viewers and bird watchers can freely walk around the project area exploring the reservoirs open meadow, forested hill sides, and the waters of the Canisteo River. During the winter months snowmobilers use the Dam's access roads as trails. None of these recreation activities are managed by USACE employees.

2.5.3 Recreation Carrying Capacity

Currently, there are no plans to actively limit the current access to the public for the limited recreational use that the Arkport Dam provides. USACE staff provides road maintenance and mowing of vegetation.

2.6 Pertinent Public Laws

2.6.1 Federal Laws

Public Law 59-209, Antiquities Act, 1906. The first Federal law established to protect what are now known as "cultural resources" on public lands. It provides a permit procedure for investigating "antiquities" and consists of two parts: An act for the Preservation of American Antiquities and Uniform Rules and Regulations.

Public Law 74-292, Historic Sites Act, 1935. Declares it to be a national policy to preserve for (in contrast to protecting from) the public, historic (including prehistoric) sites, buildings, and objects of national significance. This act provides both authorization and a directive for the Secretary of the Interior, through the National Park Service, to assume a position of national leadership in the area of protecting, recovering, and interpreting national archeological historic resources. It also establishes an "Advisory Board on National Parks; Historic Sites, Buildings, and Monuments, a committee of eleven experts appointed by the Secretary to recommend policies to the Department of the Interior".

Public Law 78-534, Flood Control Act, 1944. Section 4 of the act as last amended in 1962 by Section 207 of Public Law 87-874 authorizes USACE to construct, maintain, and operate public parks and recreational facilities in reservoir areas and to grant leases and licenses for lands, including facilities, preferably to Federal, State or local governmental agencies.

Public Law 85-624, Fish and Wildlife Coordination Act, 1958. This act, as amended in 1965, sets down the general policy that fish and wildlife conservation shall receive equal consideration with other project purposes and be coordinated with other features of water resource development programs. Opportunities for improving fish and wildlife resources and adverse

effects on these resources shall be examined along with other purposes that might be served by water resources development.

Public Law 86-717, Forest Conservation, 1960. This act provides for the protection of forest and other vegetative cover for reservoir areas under this jurisdiction of the Secretary of the Army and the Chief of Engineers.

Public Law 87-874, Rivers and Harbors Act, 1962. This act authorizes the construction, repair, and preservation of certain public works on rivers and harbors for navigation, flood control, and for other purposes.

Public Law 88-578, Land and Water Conservation Fund Act, 1965. This act established a fund from which Congress can make appropriations for outdoor recreation. Section 2(2) makes entrance and user fees at reservoirs possible by deleting the words "without charge" from Section 4 of the 1944 Flood Control Act as amended.

Public Law 89-90, Water Resources Planning Act, 1965. This act established the Water Resources Council and gives it the responsibility to encourage the development, conservation, and use of the Nation's water and related land resources on a coordinated and comprehensive basis.

Public Law 91-190, National Environmental Policy Act (NEPA), 1969. NEPA declared it a national policy to encourage productive and enjoyable harmony between man and his environment, and for other purposes. Specifically, it declared a "continuing policy of the Federal Government to use all practicable means and measures...to foster and promote the general welfare, to create conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans." Section 102 authorized and directed that, to the fullest extent possible, the policies, regulations and public law of the United States shall be interpreted and administered in accordance with the policies of the Act.

Public Law 92-500, Federal Water Pollution Control Act Amendments, 1972. The Federal Water Pollution Control Act of 1948 (PL 845, 80th Congress), as amended in 1956, 1961, 1965 and 1970 (PL 91- 224), established the basic tenet of uniform State standards for water quality. Public Law 92-500 strongly affirms the Federal interest in this area. "The objective of this act is to restore and maintain the chemical, physical and biological integrity of the Nation's waters."

Public Law 93-291, Archeological Conservation Act, 1974. The Secretary of the Interior shall coordinate all Federal survey and recovery activities authorized under this expansion of the 1960 act. The Federal construction agency may transfer up to one percent of project funds to the Secretary with such transferred funds considered non-reimbursable project costs.

Public Law 94-422, Amendment of the Land and Water Conservation Fund Act, 1965. Expands the role of the Advisory Council. Title 2 - Section 102a amends Section 106 of the Historical Preservation Act of 1966 to say that the Council can comment on activities which will have an adverse effect on sites either included in or eligible for inclusion in the NRHP.

Public Law 99-662, The Water Resources Development Act, 1986. Provides the conservation and development of water and related resources and the improvement and rehabilitation of the Nation's water resources infrastructure.

2.6.2 Executive Orders (EO)

EO 11514, Protection and Enhancement of Environmental Quality – EO 11514 requires federal agencies to provide leadership in protecting and enhancing the quality of the Nation's environment to sustain and enrich human life.

EO 11593, Protection and Enhancement of Cultural Environment – EO 11593 requires federal agencies to administer the cultural properties under their control in a spirit of stewardship and trusteeship for future generations.

EO 11990, Protection of Wetlands – EO 11990 requires federal agencies to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in executing federal projects.

EO 11988, Floodplain Management – This EO directs federal agencies to evaluate the potential impacts of proposed actions in floodplains.

EO 12898, Environmental Justice – This EO directs federal agencies to achieve environmental justice to the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review. Agencies are required to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

EO 13045, Protection of Children from Health Risks & Safety Risks – This EO directs federal agencies to evaluate environmental health or safety risks that may disproportionately affect children.

EO 13112, Invasive Species – This EO directs federal agencies to evaluate the occurrence of invasive species, the prevention for the introduction of invasive species, and measures of their control to minimize the economic, ecological, and human health impacts.

EO 13175, Consultation and Coordination with Indian Tribal Governments – This EO reaffirms the federal government's commitment to tribal sovereignty, self-determination, and self-government by ensuring agencies consult with Indian tribes and respect tribal sovereignty as they develop policy on issues that impact Indian communities.

EO 13186, Migratory Bird Habitat Protection – Sections 3a and 3e of EO 13186 direct federal agencies to evaluate the impacts of their actions on migratory birds, with emphasis on species of concern, and inform the USFWS of potential negative impacts on migratory birds.

EO 13508, Chesapeake Bay Protection and Restoration – This EO directs federal agencies to implement best management practices to restore and maintain the health of the Chesapeake Bay.

2.6.3 State Laws

State of New York, Environmental Conservation Law (ECL). This law established the New York State Department of Environmental Conservation (NYSDEC) and authorizes all of its programs.

State of New York, ECL, Article 6, State Smart Growth Public Infrastructure Policy Act. This article supports maximizing the social, economic, and environmental benefits from public infrastructure development through minimizing unnecessary costs of sprawl development.

State of New York, ECL, Articles 11 & 13, Fish and Wildlife Law. This act prohibits the taking, wounding, killing, selling, or buying of any protected fish or other wildlife species.

State of New York, ECL, Article 16, Flood Control. This article declares that the state participates in the federal flood control program.

State of New York, ECL, Article 17, Water Pollution Control Act. This article safeguards the waters of the state from pollution by preventing any new pollution and abating pre-existing pollution.

State of New York, ECL, Article 49, Protection of Natural and Man-made Beauty. This article gives NYSDEC the power to develop, assist, and encourage policies and programs that preserve and enhance the natural and man-made beauty of the state

3 RESOURCE OBJECTIVES

3.1 Introduction

The purpose of the Master Plan is to establish the guidelines for sustainable stewardship of natural and recreational resources managed directly and indirectly on USACE owned lands. The resource objectives and goals are consistent with the authorized project purposes, Federal laws and directives, regional needs, resource capabilities, and take public input into consideration. The goals presented in the plan express the overall desired end state of the cumulative land at Arkport Dam. The resource objectives specify task-oriented actions necessary to achieve the plan goals.

Overarching USACE management goals and environmental operating principles are presented in the following sections. Specific project wide and Arkport Dam resource objectives are presented in Section 3.3.

3.2 Management Goals

The following goals are the priorities for consideration when determining management objectives and development activities. Implementation of these goals is based upon time, manpower, and budget. The objectives provided in this chapter are established to provide high levels of stewardship to USACE managed lands and resources, while still providing a high level of public service. These goals will be pursued using a variety of mechanisms such as: assistance from volunteer efforts, hired labor, contract labor, permit conditions, remediation, and special lease conditions. It is the intention of Arkport Dam staff to provide a realistic approach to the management of all resources.

Project Management Goals:

- Goal A - Provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes.
- Goal B - Protect and manage project natural and cultural resources through sustainable environmental stewardship programs.
- Goal C - Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining project natural resources.
- Goal D - Recognize the unique qualities, characteristics, and potentials of the project.
- Goal E - Provide consistency and compatibility with national objectives and other state and regional goals and programs.

In addition to the goals, USACE management activities are guided by USACE-wide Environmental Operating Principles (EOPs) as follows:

- Strive to achieve environmental sustainability. An environment maintained in a healthy, diverse, and sustainable condition is necessary to support life.

- Recognize the interdependence of life and the physical environment. Proactively consider environmental consequences of USACE programs and act accordingly in all appropriate circumstances.
- Seek balance and synergy among human development activities and natural systems by designing economic and environmental solutions that support and reinforce one another.
- Continue to meet corporate responsibility and accountability under the law for activities and decisions under our control, which may impact human health and welfare and the continued viability of natural systems.
- Seek ways and means to assess and mitigate cumulative impacts to the environment; consider the environment in employing a risk management and systems approach to the full life cycle of our projects and processes.
- Build and share an integrated scientific, economic, and social knowledge base that supports a greater understanding of the environment and impacts of our work in a collaborative manner.
- Employ an open, transparent process that respects the views of individuals and groups interested in USACE activities; listen to them actively and learn from their perspective in the search to find innovative win-win solutions to the nations' problems, that also protect and enhance the environment.

3.3 Resource Objectives

Resource objectives are defined as clearly written statements that respond to identified issues and that specify measurable and attainable activities for resource development and/or management of the lands and waters under USACE jurisdiction. The objectives stated in this master plan support the Plan's goals, USACE EOPs, and applicable national performance measures. The objectives in this master plan are intended to provide project benefits, meet public needs, and foster environmental sustainability for Arkport Dam to the greatest extent possible.

3.3.1 Project-Wide Objectives

- Mitigate potential flood damage to Arkport and Hornell New York due to flooding of the Canisteo River.
- Execute environmental stewardship activities on project lands to sustain natural and cultural resources.

3.3.2 Recreation Area Objectives

Arkport Dam accommodates a small number of recreational opportunities to the local region. Recreational benefits of the project area include hunting of large and small game species, snowmobiling, and viewing wildlife. The majority of Arkport Dam recreational benefits are utilized during the fall and winter months. There is no management designated to aid in the function of these recreational activities.

4 LAND CLASSIFICATION

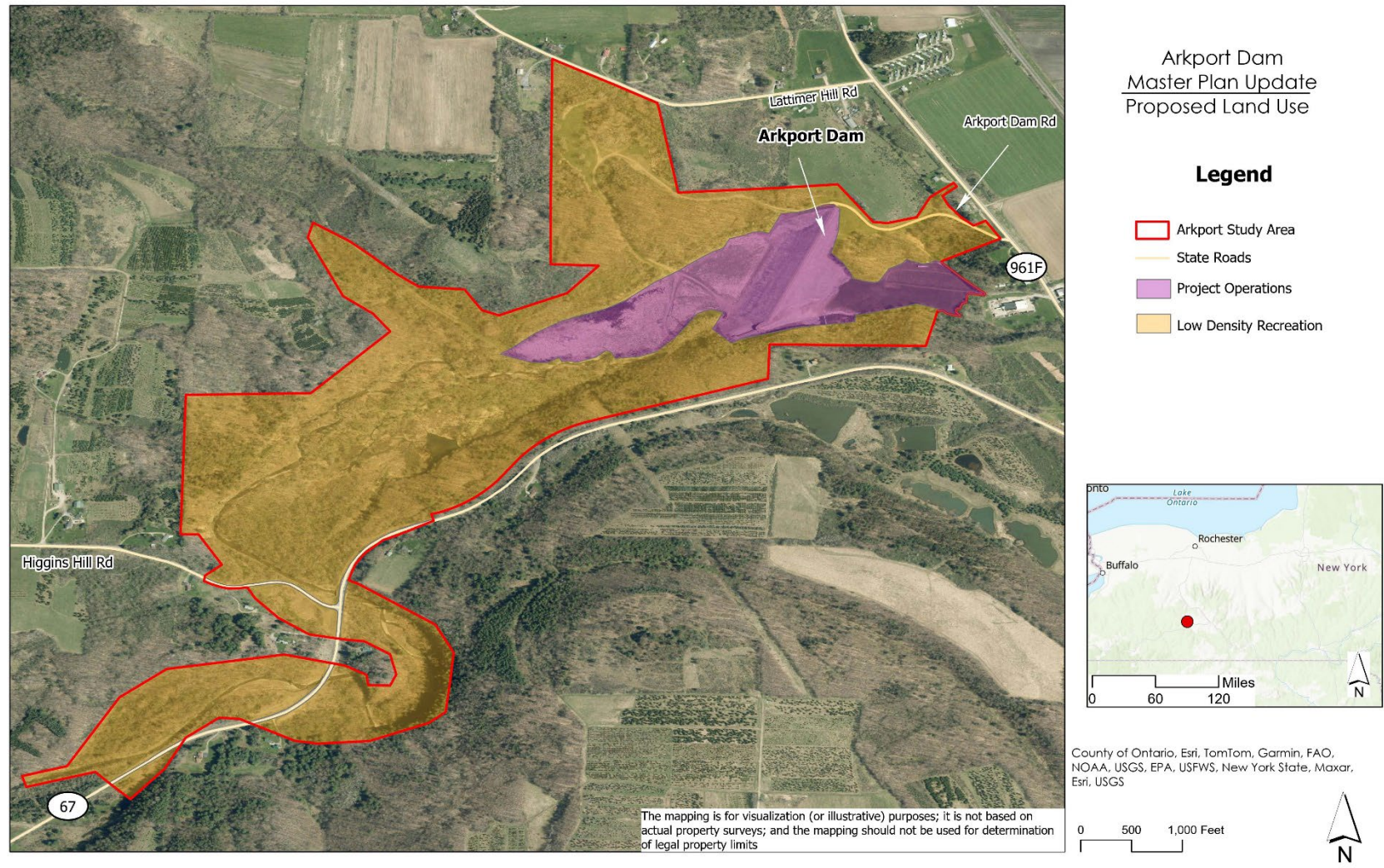
4.1 Land Allocation

All project lands, for USACE water resource development projects, are allocated by USACE into one of four categories, in accordance with the congressionally authorized purpose for which the project lands were acquired. There are four possible categories of allocation identified in USACE regulations, including Operations, Recreation, Fish and Wildlife, and Mitigation. There is no history of any land allocation categories applied to Arkport Dam.

4.2 Land Classification

The objective of classifying project lands is to identify how a given parcel of land shall be used now and in the foreseeable future. Land classification is a central component of this plan, and once a particular classification is established, any significant change to that classification would require a formal process including public review and comment. Ongoing and planned management practices for each classification are outlined in Chapter 5 – Resource Plan. Land Classification indicates the primary use for which project lands are managed. There are 3 categories of classification identified in USACE regulation EP 1130-2-550, Chapter 3, relevant to the Arkport Dam, including: Project Operations, Multiple Resource Management Lands, and Water Surface. Figure 4-1 exhibits the land classifications at Arkport Dam, and Table 4-1 presents the acreage per land classification. Figure 4-2 illustrates the total land acreages, either in fee or under easement, for the site. Project Easements are also explained in Section 4.4.

Figure 4-1 Proposed Land Classifications



Arkport Dam 2024 Master Plan

Figure 4-2 Real Estate

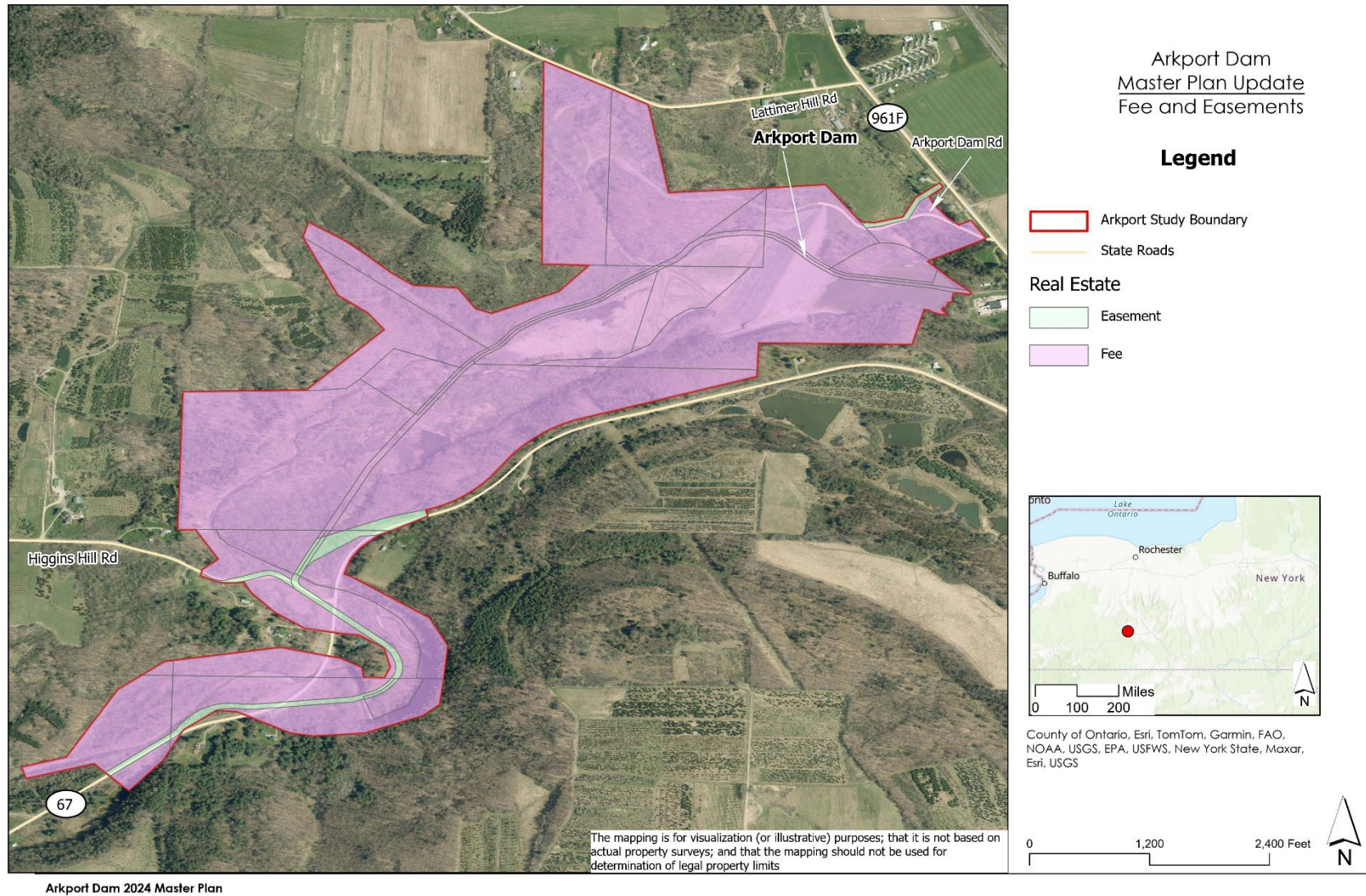


Table 4-1 Proposed Land Classification Acreage

Designated Land Classifications	Acres
Project Operations:	47
Low Density Recreation	274
Total	321*

* Mapping for the Master Plan update has been compiled using the best information available and is believed to be accurate. Previous project boundaries are based on original acquisition real estate deed records and mapping. Due to improved mapping technologies, minor discrepancies exist when comparing prior project boundaries and proposed land classification acreages. The original project boundary is approximately 326 ac. Non-Federal roads are not included in total acreage.

4.3 Project Operations

This classification category includes all project land required for the structure, operation, administration, or maintenance of the project and must be maintained to carry out the authorized purposes of flood risk management, water supply, and water quality. Approximately 47 acres at Arkport Dam are allocated to project operations, including the dam, control tower, operations offices, and maintenance facilities. Other operational units include the spillway, restricted access roads, and utility rights of way.

4.4 Multiple Resource Management

This classification category identifies the predominant use of an area with the understanding that other compatible uses can occur within the area. This classification is divided into three sub-classifications identified as: Low Density Recreation, Vegetative Management, and Future Recreation. A given tract of land may be classified using one or more of these sub-classifications. There are approximately 274 acres of land that are under this classification. The land classification maps (Figure 4-1) reflect the predominant sub-classification. The following identifies the amount contained in each sub-classification of Multiple Resource Management Lands.

Low-density recreation are lands with minimal development or infrastructure that support passive public recreation use, like fishing, hunting, wildlife viewing, or hiking. As all Federally owned lands except those required for Project Operations are designated for recreational use, the approximate 274 acres of low-density recreation areas on project lands include all other Federally owned lands not designated as Operations or Vegetative Management.

4.5 Estate and Acquisition Policy

Real Estate acquisition in the reservoir area includes approximately 318 acres acquired in fees. Easement lands include all lands for which USACE holds an easement interest but not fee title. These could describe a situation in which USACE agreed to easement rights on fee title property or pursued easement rights on land outside the original fee simple purchase. Arkport Dam holds flowage easement interests on approximately 9 acres of land. No Operation or Conservation Easement classifications are designated in the project area.

Outgrants are a real estate instrument that authorizes a private or public entity, that is not the USACE, to access Federally controlled property for non-mission related purposes (Table 4-2).

Table 4-2 Arkport Dam Outgrants

Grantee	Description
New York Dept of Public Works	Road
Arkport Joint Fire District	Renewal of 14-298-Training
Bell Telephone of PA	Telephone Facilities
New York State Electric & Gas Corp	Electric Lines
Steuben County	Road
Local Resident	Road
New York State Electric & Gas Corp	Transmission
New York State Electric & Gas Corp	Use of Land for 33KV Electric Powerline
Allegany County Federation of Snowmobilers, INC	.23 acre use of Established Snowmobile Trails
US Department of Interior	Electric Lines to Geological Survey Gaging Station

5 RESOURCE PLAN

5.1 Resource Plan Overview

This chapter sets forth a resource plan describing, in broad terms, how each land classification within the Master Plan will be managed. All management goals described in Section 3.2 apply to each land classification, but the primary goal(s) for each classification is listed below for emphasis. Refer to Section 3.3 for a listing of resource objectives applicable to each management goal.

Management of all lands, recreation facilities and related infrastructure must take into consideration the effects of pool fluctuations associated with the authorized flood risk management mission. Management actions are dependent on congressional appropriations, the financial capability of lessees and other key stakeholders, and the contributions of labor and other resources by volunteers. The land classifications and applicable goals for each classification for Arkport Dam include the following:

Table 5-1 Land Classification & Applicable Management Goals

Land Classification	Goals*
Project Operations	A, E
Multiple Resource Management Lands for:	
• Low Density Recreation	C, E
• Vegetative Management	B, E

* See Section 3.2

Goal D is not supported by this project

5.2 Project Operations

This land is associated with the dam and spillway structures that are operated and maintained for the purpose of fulfilling the flood risk management mission of Arkport Dam. There are approximately 47 acres of lands under this classification, all of which are managed by USACE. There are currently no future projects associated with this land classification.

5.3 Multiple Resource Management Lands

Multiple Resource Management Lands (MRML) are, as the name implies, lands that serve multiple purposes, but that are sub-classified and managed for a predominant use. The following paragraphs describe the various sub-classifications of these lands at Arkport Dam, the number of acres in each sub-classification, and the management plan for these lands.

Management of low-density recreation lands will continue to maintain a healthy, ecologically adapted vegetative cover to reduce erosion and improve aesthetics while also supporting low impact recreational opportunities. The public may use these lands for bank fishing, hiking, wildlife viewing, and hunting. Hunting is allowed in select areas that are a reasonable and safe distance from dam operations, and adjacent residential properties. There is currently 274 acres of Low-Density Recreation at Arkport Dam.

6 TOPICS, ISSUES, CONSIDERATIONS

6.1 Competing Interests on Natural Resources

Arkport Dam was authorized to provide flood risk management to the village of Arkport and the city of Hornell. Arkport Dam offers limited recreational benefits. Within the region there are other areas that provided recreational benefits including Almond Dam. For this reason, there are no competing interests of natural resources that Arkport Dam provides.

6.2 Utilities

Arkport Dam includes civil outgrants for electric and telephone lines. Transmission lines of the New York State Electric and Gas Corporation are suspended above the project boundary and are located east of the dam, while local electric and phone lines are located west of the dam embankment. Telephone lines are owned by Verizon PA LLC (Previously known as Bell Telephone of PA Company).

6.3 United States Geological Survey (USGS) Stations

Arkport Dam boundary contains two USGS water gauges. Site 01521000 (Arkport Reservoir Near Arkport NY), installed in 1951, is located within the reservoir, upstream of the dam embankment and reports water surface elevations on a 15-minute interval. Site 01521500 (Canisteo River at Arkport NY), installed in 1937, is located downstream of the dam and currently reports discharge and water level on a 15-minute interval. Data can be located at waterdata.usgs.gov.

6.4 Fire Department Training

Arkport and Hornell Fire Departments utilize the downstream area below the dam for training purposes. A house trailer located on the property, is used for ladder and air pack trainings. During these trainings, smoke canisters are used to simulate authentic scenarios and there are active fire trainings at this facility. Fire departments also take advantage of the Canisteo River to conduct stream pump trainings. In the event of a medical emergency in the village of Arkport, the training area can be used as a landing zone for helicopter medical evacuation.

7 PUBLIC AND AGENCY COORDINATION

USACE policy guidance in ER 1120-2-550, Change 7, January 30, 2013, and EP 1130-2-550, Change 5, January 30, 2013, requires thorough public involvement and agency coordination throughout the master plan revision process including any associated environmental assessment process. The following milestones provide a brief look at the overall process of revising the Arkport Dam Master Plan:

- June 21, 2022, the planning team visited Arkport Dam where initial introductions, site orientation, a site tour, and concept discussions took place.
- MONTH, DATE, Draft Master Plan and EA Submittal (Public Review)
- MONTH, DATE A Public Review-Town Hall Meeting was held at MONTH DATE. This meeting was intended to give stakeholders the opportunity to discuss the Draft Master Plan with the project team and USACE representatives.
- Final Master Plan and EA Submittal

[This section will be updated in subsequent submittals to provide an accurate description of all review milestones and public engagement initiatives]

8 SUMMARY OF RECOMMENDATIONS

8.1 Summary Overview

The preparation of the Arkport Dam Master Plan follows the USACE master planning guidance in ER 1130-2-550 and EP 1130-2-550, both dated 13 January 2013. Three major requirements set forth in the new guidance include (1) the preparation of contemporary Resource Objectives, (2) Classification of project lands using the newly approved classification standards, and (3) the preparation of a Resource Plan describing in broad terms how the land in each of the land classifications will be managed into the foreseeable future. The study team followed this guidance to prepare a master plan that will improve environmental quality and foster a management philosophy conducive to existing and projected staff levels at Arkport Dam. Factors considered in the plan were identified through discussions with project representatives, USACE, and the public. This Master Plan will ensure the long-term sustainability of natural resources associated with Arkport Dam.

8.2 Land Classification Proposals

During the development of the 2024 Arkport Dam Master Plan, there was no previous Master Plan located to be referenced. As such, land classifications were designated based on current land management and land classification definitions from Chapter 3 of the USACE master planning guidance EP 1130-2-550 as described in Section 4. A summary of land classification justifications is provided in Table 8-1. A summary of land classification designations and descriptions is provided in Table 8-2.

Table 8-1 Proposed Land Classifications

Land Classifications	Totals (acres)	Justification
Project Operations:	47	Policy Compliance
Low Recreation	274	Policy Compliance

Table 8-2 Proposed Land Classifications at Arkport

Classification	2024 Master Plan (acres)	Classification Description
Project Operations	47	This classification category includes all project land required for the structure, operation, administration, or maintenance of the project and must be maintained to carry out the authorized purposes of flood risk management, water supply, and water quality.
Multiple Resource Management Land		
Low Density Recreation	274	Management of this land classification calls for maintaining a healthy, ecologically adapted vegetative cover to reduce erosion and improve aesthetics, while also supporting low impact recreational opportunities such as bank fishing, hiking, wildlife viewing, and access to the shoreline. Hunting may also be allowed in select areas that are a reasonable and safe distance from high density recreational areas, dam operations, and adjacent residential properties. The new land classification criteria exclude vegetation and wildlife management areas, leaving only areas with minimal development to support passive recreation use (i.e., primitive camping, hunting, trails, wildlife viewing, etc.).
Total	321*	

**Mapping for the Master Plan update has been compiled using the best information available and is believed to be accurate. Previous project boundaries are based on original acquisition real estate deed records and mapping. Due to improved mapping technologies, minor discrepancies exist when comparing prior project boundaries and proposed land classification acreages. The original project boundary is approximately 326 ac. Non-Federal roads are not included in total acreage.*

9 Appendices

Appendix A: Acronyms and Abbreviations

Acronym	Definition
2024 Master Plan	2024 Arkport Dam Master Plan
3A	Tioga loam
ACS	American Community Survey
AOI	Area of Interest
CEPD	Comprehensive Evaluation of Project Datum
CEQ	Council on Environmental Quality
CF	Cut and Fill land
CFR	Code of Federal Regulations
cfs	cubic feet per second
Ch	Chenango channery silt loam
EA	Environmental Assessment
EO	Executive Order
EP	Engineering Pamphlet
ER	Engineer Regulation
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
GIS	Geographical Information System
HfC	Hornell-Fremont
HoB	Howard gravelly loam
HrB	Howard-Madrid complex
HtD	Howard-Alton
IPaC	Information, Planning, and Consultation
LRF	Lordstown Arnot
MdB	Mardin shannery silt loam
Mp	Middlebury silt loam
MRML	Multiple Resource Management Lands
NEPA	National Environmental Policy Act
NFIP	The National Flood Insurance Program
NOAA	National Oceanic and Atmospheric Administration's
NRCS	Natural Resources Conservation Service
PCD	Project Construction Datum
ROI	Region of Influence
SRBC	Susquehanna River Basin Commission
Tg	Tioga silt loam
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service

Vob
ZOI

Volusia channery silt loam
Zone of Interest

Appendix B: References

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Appendix C: Kick-Off Meeting Minutes

Appendix D: Public Notices and Pertinent Newspaper Articles

Appendix E: Public Comments and USACE Response

Appendix F: Land Classification and Recreational Asset Maps

Appendix G: NEPA Documentation