

US Army Corps of Engineers Baltimore District

DRAFT FINDING OF NO SIGNIFICANT IMPACT AND ENVIRONMENTAL ASSESSMENT FOR ALMOND LAKE 2024 MASTER PLAN

ALMOND LAKE STEUBEN COUNTY, NEW YORK

May 2024

This Environmental Assessment follows the Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act dated July 2020 for 40 Code of Federal Regulations (CFR) Parts 1500-1508, and the National Environmental Policy Act implementing Regulation Revisions dated May 2022, which amended 40 CFR Parts 1502, 1507, and 1508.

Prepared by:

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FINDING OF NO SIGNIFICANT IMPACT Environmental Assessment for the Almond Lake 2024 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 environmental and social impacts of the 2024 Almond Lake Master Plan (hereafter, "2024 Master Plan"). The Almond Dam (hereafter "Almond Lake Project", "Almond Lake", or "Project") was first authorized by the Flood Control Act of June 22, 1936, Public Law #738, 74th Congress, as amended by the Flood Control Act of June 28, 1938, Public Law #761, 75th Congress, 3rd Session, and further described in House Document #702, 77th Congress, 2nd Session. The project was included in the Definite Project for Flood Protection, Upper Susquehanna River Basin and approved by the Chief of Engineers on October 13, 1939. Sometime later, the location and design of the dam and appurtenances were established, and construction of the dam, spillway, and outlet started in June 1946 and was completed in June 1949. The total project cost was \$5,760,000. The original Almond Lake Master Plan was approved in September 1964 and an environmental assessment of the project area was completed in March 1974. A subsequent master plan, dated April 1977, was prepared in accordance with the requirements of Engineer Regulation (ER) 1120-2-400, dated November 1, 1971. The 1977 Master Plan Update (1977 Master Plan) superseded and supplemented the master plan of 1964.

The Almond Lake Project was authorized and constructed for the primary purpose of flood risk management for the downstream reach of the Canisteo River, Canacadea Creek, the Tioga River between the confluence of Canisteo River and its confluence with the Cohocton River, and the Chemung River. The secondary purpose of the project is to provide a resource base for outdoor recreational pursuits. Implementation of the 2024 Master Plan and proposed land use changes must recognize and be compatible with the primary project mission of flood risk management and the secondary purpose of recreation.

The 2024 Master Plan will provide guidance for stewardship of natural resources and management for long-term public access to, and use of, the natural resources at Almond Lake, including the land classification of the USACE-managed lands. Land classifications are established in the 2024 Master Plan and are fundamental to project land management. Land 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 Almond Lake, a discussion of factors influencing resource management and development, new resource management objectives, a synopsis of public involvement, and input into the planning process, descriptions of existing development, and considerations of future development activities.

Under the No Action Alternative, USACE would take no action and continue the operation and management of the project as outlined in the 1977 Master Plan. No new resource analysis or land reclassifications would occur.

ENVIRONMENTAL ASSESSMENT FOR THE ALMOND LAKE 2024 Master Plan

The Proposed Action includes adopting the 2024 Master Plan to reflect changes in land management classifications, land uses, USACE regulations and guidance that have occurred since the 1977 Master Plan, 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 action is to update the Almond Lake Master Plan. The action is needed as required by ER 1130-2-550 and Engineering Pamphlet (EP) 1130-2-550. The 2024 Master Plan is intended to serve as a comprehensive land and recreation management plan for the next 15 to 25 years and is needed to update the Almond Lake Master Plan in accordance with January 2013 updates to ER and EP 1130-2-550.

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

Classification	2024 Master	Description
	Plan (acres)	
Project Operations	107.21	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 purpose of flood risk management.
High Density Recreation	39.6	Lands are currently developed for intensive recreational activities for the visiting public and include boat launches, day-use areas, and campgrounds. This land classification has been developed to support concentrated visitation and use of the recreational facilities they host. The High-Density recreation area at Almond Lake is Kanakadea Park operated by Steuben County.
Multiple Resourc	e Managemen	t Land
Low Density Recreation	382.1	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, hunting, hiking, wildlife viewing, and for 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.).
Agriculture ²	26.1	Land classified as agriculture is outleased to a private citizen for agriculture use. In the 1977 Master Plan, "lands available for outlease" is utilized as a land classification.

Table S-0-1: Proposed Land Classifications at Almond Lake

Classification	2024 Master Plan (acres)	Description
		According to the 1977 Master Plan, the lands available for outlease are those parcels obtained for project operations but outleased for grazing or other agricultural purposes. According to USACE regulation EP 1130-2-550, Chapter 3, agriculture, or grazing use of project land may be an interim use to meet management objectives. USACE continues to outlease a portion of Almond Lake Project for agricultural purposes; therefore, this Master Plan update includes lands designated for agriculture. There are no future plans to expand or terminate the agriculture lease; however, if the lease were to be terminated, these lands would most likely be used as Low-Density Recreation.
Water Surface		
Restricted	0.3	Restricted water surface includes those areas where recreational boating is prohibited or restricted for project operations, safety, and security purposes. The Restricted water surface at Almond Lake includes a small area around the dam and intake tower. This area is normally marked with standard USCG regulatory buoys but other physical barriers may also be placed on the water in the future.
Open Recreation	135.1	Open Recreation area includes all water surface areas available for year-round or seasonal water-based recreational use. This area includes all water surface area other than "Restricted."
Total	690 ³	

¹Of the 107.2 acres classified under the land classification Project Operations, 17.6 acres include a restricted area. The land classification Restricted is only listed under Water Surface in EP 1130-2-550. Therefore, the restricted area within the land classification Project Operations is not labeled as a separate land classification but is discussed in this Master Plan.

²This is not a Master Plan Land Classification as described in EP 1130-2-550 but due to its inclusion in the 1977 Master Plan, it is also included in this Master Plan. Per EP 1130-2-550, agriculture or grazing use of project land may be an interim use to meet management objectives.

³Mapping 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.

USACE selected the Proposed Action because it would meet regional goals associated with good stewardship of land and water resources, meet regional recreation goals, 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

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Environmental Impact Statement (EIS). This included assessment of environmental, social, and economic factors that are relevant to the recommended alternative considered in this assessment. Based on the EA, it was determined that negligible impacts would occur to the following resources: air quality, greenhouse gases and climate, noise, geology, cultural resources, groundwater, utilities, socioeconomics and environmental justice, and traffic and transportation (see Section 3.6 of the EA). No impacts are anticipated on water and biological resources from the implementation of the Proposed Action. Minor impacts could occur to water resources, and minor to moderate impacts could occur to soils and biological resources during construction of future master planning projects (See Section 3 of the EA). Efforts would be made to reduce adverse impacts by using standard construction best management practices (BMPs) to reduce disturbance, soil erosion, and sedimentation into nearby surface waters and wetlands. Construction of impacts to sensitive species. These recommendations would occur during the time future projects are proposed and would include environmental reviews of each project.

The 2024 Master Plan Update would result in beneficial impacts to land use and recreation through the use of high density and low-density recreation land classifications as well as the restricted land classification. The land classifications identify recreation as the primary land use in the high density and low-density recreation areas. The classifications allow for future high- and low- density recreational development as appropriate in these land classification areas. Additionally, none/negligible impacts to water, soil, and biological resources would occur through establishment of the project operations, agriculture, and open recreation area land classifications.

Conclusion

All applicable laws, executive orders, regulations, and local government plans were considered in the evaluation of alternatives. Based on this report, the reviews by other federal, state and local agencies, Tribes, input of the public, and the review of my staff, it is my determination that the Proposed Action alternative would not cause significant adverse effects on the quality of the human environment; therefore, preparation of an Environmental Impact Statement is not required.

Date

Esther S. Pinchasin Colonel, U.S. Army Commander and District Engineer

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ACRONYMS AND ABBREVIATIONS

Acronym	Definition
2024 Master Plan	2024 Almond Lake Master Plan
BMPs	Best Management Practices
BOD	Biological Oxygen Demand
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
EA	Environmental Assessment
EAF	Environmental Assessment Form
EO	Executive Order
EP	Engineering Pamphlet
ER	Engineer Regulation
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
GIS	Geographical Information System
IPaC	Information, Planning, and Consultation
MP	Master Plan
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
	New York State Department of Environmental
NYSDEC	Conservation
NYSDOT	New York State Department of Transportation
NWI	National Wetlands Inventory
PCD	Project Construction Datum
Project	Almond Lake Project
ROI	Region of Influence
SME	Subject Matter Expert
SPDES	State Pollution Discharge Elimination System
STP	Sewage Treatment Plant
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
VERS	Visitor Estimation and Reporting System

1 INTRODUCTION

1.1 PROJECT BACKGROUND

The Almond Dam Project (hereafter "Almond Lake Project" or "Project") was authorized and constructed under the Flood Control Act of June 22, 1936, as amended by the Flood Control Act of June 28, 1938 for the purpose of flood risk management for the downstream reach of the Canisteo River, the Canacadea Creek, the Tioga River between the confluence of Canisteo River and its confluence with the Cohocton River, and the Chemung River. The secondary purpose of the project is to provide a resource base for outdoor recreational pursuits. Almond Lake is operated by the United States Army Corps of Engineers (USACE), Baltimore District and associated infrastructure, as well as all land acquired for the dam and reservoir, are federally owned and are administered by USACE (USACE, 2021).

The Master Plan for the project is the strategic land use management document that guides the comprehensive management and development actions related to project recreational, natural, and cultural resources throughout the life of the project. Implementation of the Master Plan and proposed land use changes must recognize and be compatible with the primary project mission of flood risk management.

The USACE produces and uses the Master Plan to guide the responsible stewardship of USACEadministered lands and resources for the benefit of present and future generations. The Master Plan presents an inventory and analysis of land resources, resource management objectives, land classifications, resource use plans for each land classification, current and projected park facility needs, an analysis of existing and anticipated resource use, and anticipated influences on overall project operation and management. Specific to the project, the Master Plan presents an evaluation of the assets, needs, and potential uses of the project reservoir and lands and provides direction for appropriate management, use, development, enhancement, protection, and conservation of the natural and man-made resources at the project. The Master Plan is guided by Engineer Regulation (ER) 1130-2-550 "Recreation Operations and Maintenance Policies," and Engineering Pamphlet (EP) 1130-2-550 "Recreation Operations provide for development and resource management consistent with authorized purposes and other federal Laws.

USACE is proposing adoption of a Master Plan at Almond Lake Project to reflect changes that have occurred to the project, in the region, in recreation trends, and in USACE policy since the original 1964 Master Plan and the subsequent Almond Lake Master Plan Update in 1977 (hereafter "1977 Master Plan") were published. This Environmental Assessment (EA) considers the potential impacts to the natural and human environment from the implementation of the 2024 Almond Lake Master Plan (hereafter "2024 Master Plan").

1.1.1 Project Location and Setting

Almond Lake is located in Hornellsville, Steuben County, New York. The Town of Hornell, and the confluence of Canacadea Creek and Canisteo River is located approximately 3.5 miles southeast and downstream of the dam. Almond Lake is also located on Canacadea Creek, which is a tributary to Canisteo River, which flows into Chemung River, which in turn, flows into the Susquehanna River. The confluence of the Chemung River and the Susquehanna River is

located approximately 90 miles downstream of Almond Lake, in Greens Landing, Pennsylvania.

All elevations cited in this EA, unless otherwise noted, are referenced to the original Project Construction Datum (PCD). The Almond Lake Project maintains a conservation pool at of approximately 135 acres (at an elevation of 1,260 feet PCD) and stores approximately 840 acre-feet of water. At the full flood control pool (spillway crest at elevation 1,300 PCD), the lake covers 492 acres and stores 13,397 acre-feet of water.

The area surrounding the project is characterized by gently rolling hillsides and numerous valleys. The Canacadea Creek Valley is broad and flat and rises gently from the valley floor. Areas upstream of the dam are primarily used for agriculture and dairy farming. The steeper slopes near the headwaters are primarily wooded or used for grazing. The lake and surrounding project lands are popular for boating, fishing, hunting, camping, and other outdoor recreation activities. A total of 690 acres of land were acquired in fee for the Almond Lake project. Permanent flowage easements were obtained on an additional 31 acres to allow for flood control storage.

1.1.2 Project History

The Almond Lake Project was first authorized by the Flood Control Act of June 22, 1936, Public Law #738, 74th Congress, as amended by the Flood Control Act of June 28, 1938, Public Law #761, 75th Congress, 3rd Session, and further described in House Document #702, 77th Congress, 2nd Session. The project was included in the Definite Project for Flood Protection, Upper Susquehanna River Basin and approved by the Chief of Engineers on October 13, 1939. Sometime later, the location and design of the dam and appurtenances were established, and construction of the dam, spillway, and outlet started in June 1946 and was completed in June 1949. The total project cost was \$5,760,211. The original Almond Lake Master Plan was approved in September 1964 and environmental assessment of the project area was completed in March 1974. The 1964 Master Plan was superseded and supplemented by the "Almond Lake Master Plan Update" in 1977 (1977 Master Plan). Almond Lake is a multipurpose water resources project constructed and operated by USACE, Baltimore District. The primary purpose is flood risk management, and the secondary purpose of the project is to provide a resource base for outdoor recreational activity.

The dam is constructed of rolled earth fill with a concrete-lined conduit, a concrete ogee weir and a natural rock saddle spillway. The main embankment of the dam has a top length of 1,260 feet with a crest width of 25 feet. A low dike section, extending 2,600 feet upstream from the main embankment, protects a railroad line and New York State Highway 21. The dike is constructed primarily of compacted impervious clay covered by large quarry stone. Outlet works consist of an intake structure, horseshoe-shaped conduit, stilling basin and outlet channel. Flow through the outlet works is controlled by three vertical slide gates. At spillway crest, elevation 1,300 feet PCD, the reservoir has a capacity of 13,397 acre-feet of water and covers 492 acres. The Canacadea Creek basin above the dam is fan-shaped and drains an area of 56 miles, which is about 36 percent of the Canisteo River drainage area above Hornell and 94 percent of the drainage of the Canacadea Creek (USACE, 1977).

1.2 PURPOSE AND NEED FOR THE ACTION

The purpose of the action is to update the Almond Lake Master Plan. The action is needed as required by ER and EP 1130-2-550. The 2024 Master Plan is intended to serve as a

comprehensive land and recreation management plan for the next 15 to 25 years, which reflects changes that have occurred in outdoor recreation trends, land use, population trends, USACE management policy, and wildlife habitat at the Project.

1.3 SCOPE OF THE EA

USACE prepared this EA pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations for implementing NEPA including the Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act dated July 2020 for 40 Code of Federal Regulations (CFR) Parts 1500-1508, and the National Environmental Policy Act implementing Regulation Revisions dated May 2022, which amended 40 CFR Parts 1502, 1507, and 1508; and the USACE implementing regulations, Policy and Procedures for Implementing NEPA, ER 200-2-2 (USACE 1988) to evaluate existing conditions and potential impacts of implementing the 2024 Master Plan. NEPA requires federal agencies to review potential environmental effects of federal actions that include the adoption of formal plans, such as master plans, approved by federal agencies upon which future agency actions will be based.

Alternatives considered within this EA focus on the proposed land classifications as presented in the 2024 Master Plan and the types of future development projects that could occur within the land classifications. The EA does not consider implementation of specific projects identified within the 2024 Master Plan during the master planning process as those projects are conceptual in nature, nor does it consider specific future development opportunities for leased areas. USACE would conduct further NEPA analysis on projects on USACE owned land identified within the 2024 Master Plan once funding is available and detailed project planning and design occur.

1.4 COORDINATION AND PUBLIC REVIEW

USACE coordinated with agencies, organizations, and members of the public with a potential interest in the Proposed Action during the development of the 2024 Master Plan and during preparation of this EA. Additionally, Appendix D and E of the Master Plan provide a record of coordination for the overall Master Plan, with this EA, and with project stakeholders, agencies, and the public.

Agency coordination was conducted by USACE with the USFWS through the Information, Planning, and Consultation online system (IPaC) to ensure compliance with Section 7 of the Endangered Species Act (ESA). The most recent IPaC report was provided on February 12, 2024. Review was also performed by USACE staff using NYSDEC online tools including the Environmental Assessment Form (EAF) Mapper and Nature Explorer. Consultation letters under Section 106 of the NHPA were sent to the State Historic Preservation Office (SHPO) and tribal nations on March 5, 2024. Coordination correspondence is included in Appendix A of the EA.

{This section will be updated as additional coordination and public review occur.}

2 PROPOSED ACTION AND ALTERNATIVES

2.1 DEVELOPMENT OF ALTERNATIVES

USACE identified alternatives considered within this EA as a part of the master planning process. This Chapter describes the master planning process, screening criteria for alternative development, and the alternatives carried forth for detailed analysis within this EA.

2.1.1 Master Planning Process

USACE guidance recommends the establishment of resource goals and objectives for the purposes of development, conservation, and management of natural, cultural, and manmade resources at a project location. Goals describe the desired end state of overall management efforts, whereas objectives are concise statements describing measurable and attainable management activities that support the stated goals. Goals and objectives are hierarchical guidelines for obtaining maximum public benefits while minimizing adverse impacts on the human environment and are developed in accordance with 1) authorized project purposes, 2) applicable laws and regulations, 3) resource capabilities and suitability, 4) regional needs, 5) other governmental plans and programs, and 6) expressed public desires.

The 2024 Master Plan establishes the following management goals for the Almond Lake:

- **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.

2.1.2 Screening Criteria

For an alternative to be considered viable, it must be compatible with the primary project mission of flood risk management. In addition, the alternative must meet management goals and objectives and USACE-wide Environmental Operating Principles. Based on these criteria, this EA evaluates the No Action Alternative and the Proposed Action Alternative.

2.2 ALTERNATIVE 1: NO ACTION

The No Action Alternative serves as a basis for comparison to the anticipated effects of the other action alternatives. Under the No Action Alternative, USACE would not adopt the 2024 Master Plan and continue the operation and management of the project as outlined in the 1977 Master Plan. No new land classifications would be designated. The No Action alternative would not meet the purpose and need for the action and would not be in compliance with current USACE regulations and guidance.

2.3 ALTERNATIVE 2: PROPOSED ACTION (PREFERRED ALTERNATIVE)

Under Alternative 2 or the Proposed Action Alternative, USACE would implement the 2024 Master Plan and associated changes in land management designations in compliance with USACE regulations and guidance. This alternative would revise the land classifications to updated USACE standards and include resource objectives that reflect current and projected needs compatible with regional goals. Required changes associated with the Proposed Action include reclassifications of land, classification of the water surface, and adoption of new resource management and recreation objectives. Figure 2-1 depicts the proposed new land classifications within the 2024 Master Plan. Table 2-1 quantifies the proposed land and water surface reclassifications and provides a description of the land classification, as applicable. The Proposed Action would update the 2024 Master Plan to be compliant with ER and EP 1130-2-550 and would meet the goals and objectives outlined in the 2024 Master Plan. Therefore, this alternative is the Preferred Alternative and will be carried forward as the Proposed Action.

Figure 2-1. Proposed Land Classifications



Classification	2024 Master	Description
	Plan (acres)	
Project Operations	107.21	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.
High Density Recreation	39.6	Lands are currently developed for intensive recreational activities for the visiting public and include boat launches, day-use areas, and campgrounds. This land classification has been developed to support concentrated visitation and use of the recreational facilities they host. The High Density recreation area at Almond Lake is Kanakadea Park operated by Steuben
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Multiple Resourc	e Managemen	TLANA
Low Density Recreation	382.1	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, hunting, hiking, wildlife viewing, and for 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.).
Agriculture ²	26.1	Land classified as agriculture is outleased to a private citizen for agriculture use. In the 1977 Master Plan, "lands available for outlease" is utilized as a land classification. According to the 1977 Master Plan, the lands available for outlease are those parcels obtained for project operations but outleased for grazing or other agricultural purposes. According to USACE regulation EP 1130-2-550, Chapter 3, agriculture, or grazing use of project land may be an interim use to meet management objectives. USACE continues to outlease a portion of Almond Lake for agricultural purposes, therefore, this Master Plan update includes lands designated for agriculture. There are no future plans to expand or terminate the agriculture lease; however, if the lease were to be terminated, these lands would most likely be used as Low Density Recreation.
Water Surface	1	
Restricted	0.3	Restricted water surface includes those areas where recreational boating is prohibited or restricted for project

Table 2-1. Proposed Land Classifications at Almond Lake

Classification	2024 Master	Description
	Plan (acres)	
		operations, safety, and security purposes. The Restricted water surface at Almond Lake includes a small area around the dam and intake tower. This area is normally marked with standard USCG regulatory buoys but other physical barriers may also be in placed on the water in the future.
Open Recreation	135.1	Open Recreation area includes all water surface areas available for year-round or seasonal water-based recreational use. This area includes all water surface area other than "Restricted."
Total	690 ³	

¹Of the 107.2 acres classified under the land classification Project Operations, 17.6 acres include a restricted area. The land classification Restricted is only listed under Water Surface in EP 1130-2-550. Therefore, the restricted area within the land classification Project Operations is not labeled as a separate land classification but is discussed in this Master Plan.

²This is not a Master Plan Land Classification as described in EP 1130-2-550 but due to its inclusion in the 1977 Master Plan, it is also included in this Master Plan. Per EP 1130-2-550, agriculture or grazing use of project land may be an interim use to meet management objectives.

³Mapping 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.

3 ENVIRONMENTAL SETTING AND CONSEQUENCES

3.1 INTRODUCTION

This chapter describes the natural and physical resources within and surrounding the Project and the potential impacts of the No Action Alternative and Proposed Action (Preferred Alternative) on each resource. The description of baseline data sources and an approach for analyzing impacts are discussed in Sections 3.1.1 and 3.1.2, respectively.

Several resources were determined not to be affected by the Proposed Action; therefore, a detailed analysis of these topics is not presented in this chapter. This chapter provides a discussion of resources analyzed within the EA, and a justification for those resources that were dismissed from further analysis.

3.1.1 Description of Baseline Data and Data Sources

The EA used the following types of data to characterize the affected environment of the project:

- Geographical Information System (GIS), including waters and wetlands inventory, floodplain mapping, and vegetation;
- Aerial photography (ESRI, Google Earth);
- Regional and local reports: including Natural Resources Conservation Service (NRCS) Soil Surveys and previous studies conducted at the project;
- Agency databases including USFWS, the U.S. Environmental Protection Agency (USEPA), and New York resource agencies;
- Information presented within the 2024 Master Plan; and
- Agency coordination.

3.1.2 Approach for Analyzing Impacts

Impacts (consequence or effect) can either be beneficial or adverse and either directly or indirectly relate to the action. Direct effects are caused by the action and occur at the same time and place (40 CFR § 1508.1(g) (2022)). Indirect effects are caused by the action and are later in time or further removed in distance but are still reasonably foreseeable (40 CFR § 1508.1(g)(2022)). The alternatives may create temporary (less than 1 year), short-term (up to 3 years), long term (3 to 10 years), or permanent effects.

Impacts on each resource can vary in degree or magnitude from a slightly noticeable change to a total change in the environment. This analysis classifies the intensity of impacts as beneficial, negligible, minor, moderate, or significant. The intensity thresholds are defined as follows:

- Beneficial Impacts would improve or enhance the resource;
- None/Negligible A resource would not be affected, or the effects would be at or below the level of detection, and changes would not be of any measurable or perceptible consequence;
- Minor Effects on a resource would be detectable, although the effects would be localized, small, and of little consequence to the sustainability of the resource. Mitigation measures, if needed to offset adverse effects, would be simple and achievable;

- Moderate Effects on a resource would be readily detectable, long-term, localized, and measurable. Mitigation measures, if needed to offset adverse effects, would be extensive and likely achievable; and
- Significant Effects on a resource would be obvious and long-term and would have substantial consequences on a regional scale. Mitigation measures to offset the adverse effects would be required and extensive, and success of the mitigation measures would not be guaranteed.

As stated in Section 1.3, Scope of the EA, the analysis focuses on the proposed land use classifications as presented in the 2024 Master Plan. USACE would conduct further NEPA analysis on projects once funding is available and detailed planning and design occur.

3.1.3 Level of Resource Area Analysis

All potentially relevant resource areas were initially considered for analysis in this EA. Consistent with NEPA implementing regulations and guidance, USACE focused the analysis on topics with the greatest potential for environmental impacts. This sliding-scale approach is consistent with NEPA (40 CFR § 1502.2(b)(2022)), under which impacts, issues, and related regulatory requirements are investigated and addressed with a degree of effort commensurate with their importance. Some resource topics are not discussed in this EA due to the lack of direct, indirect, and cumulative effects from the Proposed Action on the resource or because that resource is not located within the project. For example, the Chemung River Watershed in which the Almond Lake is located does not have federally designated Wild or Scenic Rivers, so this resource is not included in the analysis.

Potential direct and indirect effects of the No Action Alternative and the Proposed Action were analyzed relative to each environmental and socioeconomic resource. The existing conditions of each resource area within the Proposed Action's region of influence (ROI) was also analyzed. Through this analysis, it was determined that, for several resource areas, negligible or no effects would occur. This included air quality, greenhouse gases and climate, noise, geology, groundwater, cultural resources, utilities, hazardous materials and waste, socioeconomics and environmental justice, and traffic and transportation. Therefore, these resources were eliminated from further analysis. Additional detail is provided in Section 3.6.

3.2 WATER RESOURCES

3.2.1 Affected Environment

3.2.1.1 Surface Waters and Wetlands

The Almond Lake is located on Canacadea Creek, approximately 90 miles upstream of where the Chemung River (a tributary of Canisteo River, which is a tributary to Canacadea Creek) meets the North Branch Susquehanna River in Greens Landing, Pennsylvania. Almond Lake controls approximately 56 square miles, or 94 percent of the Canacadea Creek Watershed. The primary tributaries of Canacadea Creek include McHenry Valley Creek and Karr Valley Creek.

Approximately 4,086 miles of freshwater rivers and streams exist within the Chemung River Watershed and 23 significant freshwater lakes, ponds, and reservoirs totaling approximately 2,904 acres. Almond Lake is the third largest reservoir within the watershed followed by Waneta Lake and Lamoka Lake/Mill Pond (NYSDEC, 2023a). According to the USFWS National Wetlands Inventory (NWI) Mapper, a total of three freshwater emergent wetlands exists within the Almond Lake project area, along with twelve freshwater forested/scrub

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wetlands, one freshwater pond, twelve riverine (stream/river) systems, and five lacustrine (lake) systems totaling approximately 171.2 acres, or 24.8 percent of the project's land area (Table 3-1; USFWS, 2023).

		Percent of Project
Wetland Type	Acres	Area
Freshwater Emergent Wetland	3.6	0.5
Freshwater Forested/		
Shrub Wetland	31.0	4.5
Freshwater Pond	0.5	0.1
Riverine	30.2	4.4
Lake	106.0	15.4
Total	171.2	24.8
Project Area	690	

Table 3-1. Project area wetlands

3.2.1.2 Water Quality

Water quality on the Canacadea Creek is considered fair to good. The water is alkaline and carries a moderate nutrient load due to dairy farming activities in the basin. Occasionally, algae blooms occur in the reservoir which in turn inhibits light to penetrate below the surface, decreasing productivity. Water quality samples are collected one to three times per year by USACE staff. Most samples are collected in the summer and are usually collected at three stations, including one in the lake at the control tower, one at the inflow to the reservoir, and one at the outflow from the reservoir. The samples are tested for pH, temperature, dissolved oxygen, conductance, phosphate and ammonia. The data is analyzed by USACE staff and are utilized for real time reservoir operations and long-term assessments. Generally, there are no public health concerns as it pertains to water quality at the reservoir.

Conversely, sediment transport and accumulation at Almond Lake historically posed the most challenges to its operation. The high sediment yield of the basin is due to the highly erodible nature of the glacial till material in the region. Even moderate storms can generate sizeable sediment loads to the reservoir. The watershed receives about 35 inches of precipitation annually. The average yearly snowfall varies from about 54 inches at the dam to nearly 180 inches just west of the watershed due to lake-effect snow from the Great Lakes. The New York State Department of Environmental Conservation (NYSDEC) lists Canacadea Creek and its upper tributaries as "stressed" for aquatic life and recreation.

Aquatic life in the upper portions of Canacadea Creek is known to experience minor impacts due to siltation. There are some indications of nutrient enrichments as well. Coliform bacteria sampling was conducted by the Allegany County Health Department and Alfred University in the early 2000s. Although there did not appear to be an overall bacteria problem, there were occasional "spikes" especially near the Alfred Sewage Treatment Plant (STP), which is located approximately 8 miles directly southwest of Almond Lake, along Canacadea Creek. However, since the early 2000s, the STP underwent an upgrade to add denitrification and a UV disinfection system. The STP is currently meeting New York State Pollutant Discharge Elimination System (SPDES) effluent discharge limits and there are no reports of impacts related to the facility.

3.2.1.3 Floodplains

Floodplains are areas of land adjacent to rivers and streams that convey overflows during flood events. The Federal Emergency Management Agency (FEMA) defines a floodplain as any land area susceptible to being inundated by water from any source. FEMA prepares Flood Insurance Rate Maps (FIRMs) that delineate flood hazard areas, such as floodplains, for communities. These maps are used to administer floodplain regulations and to reduce flood damage. Typically, these maps indicate the locations of 100-year floodplains, which are areas with a 1 percent chance of flooding occurring in any single year. Executive Order (EO) 11988, Floodplain Management, states that actions by federal agencies are to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplain development wherever there is a practicable alternative.

The National Flood Insurance Program (NFIP) requires local jurisdictions to issue permits for all development in the 100-year floodplain. Development is broadly defined to include any human-made change to land, including grading, filling, clearing, dredging, extraction, storage, subdivision of land, and construction and improvement of structures and buildings. For any development to take place, all necessary permits must be obtained, which may include federal, state, and local permits. To be properly permitted, proposed development may not increase flooding or create a dangerous situation during flooding, especially on another person's property. If a structure is involved, it must be constructed to minimize damage during flooding. The NYSDEC is responsible for issuing floodplain development permits in New York.

The 100-year floodplain is primarily restricted to the immediate shores of Almond Lake and its tributaries. FEMA classifies this area as Zone AE (Steuben County, n.d.).

3.2.2 No Action – Environmental Consequences

Under the No Action Alternative, USACE would not implement the 2024 Master Plan and no new land classifications or future development projects within the proposed 2024 Master Plan would occur. The operation and management of Almond Lake and USACE lands would continue as outlined in the 1977 Master Plan. Although this alternative does not result in a 2024 Master Plan that meets current regulations and guidance, there would be no significant impacts to water resources on project lands.

3.2.3 Proposed Action – Environmental Consequences

The classifications required for the Proposed Action would result in negligible to minor adverse and beneficial water resource impacts. Table 3-2 summarizes potential effects to surface waters and wetlands from implementation of proposed land use classifications.

Classification	Potential for Impact
Project	None/Negligible Impact. This land use classification would designate
Operations	lands associated with the direct support for flood control operations, including dam and spillway structures. No substantial new projects are proposed within this land use
High Density Recreation	Beneficial impact. This land classification has been developed to support concentrated visitation and use of recreational facilities. Although no future projects are proposed at this time, future projects

 Table 3-2. Potential Water Resource Impacts from Land Use Classifications

Classification	Potential for Impact
	would occur within and adjacent to existing developed and intensively used areas, specifically to support recreation adjacent to or within water resources. The recreation area is located adjacent to a small tributary as well as along the shoreline of Almond Lake itself. Construction and operations of future master planning projects would use BMPs associated with prevention of erosion and control of stormwater runoff. This includes obtaining a National Pollution Discharge Elimination System (NPDES) permit for projects involving earth disturbances exceeding one acre. Surface waters and wetlands, if present, would be avoided or permitted through the Section 404 process. USACE would consider the presence of the 100-year floodplain in design and siting future master planning projects within floodplain areas.
Multiple Resource	Management Land
Low Density Recreation	None/Negligible Impact . This land use focuses on the lands with minimal development or infrastructure that support passive public recreational use, such as fishing, hunting, wildlife viewing, or hiking. There are no future projects for the existing low-density recreation lands
Agriculture	None/Negligible Impact . This is an interim use of a land classification to meet management objectives and there are no plans for expansion of the existing agriculture outlease. If the outlease were to be terminated, this land would continue to occur under the Low Density Recreation land classification which also has none/negligible impacts.
Water Surface	
Restricted	None/Negligible Impact. None/Negligible impact to water resources would occur.
Open Recreation Area	None/Negligible Impact. No change in water use is expected; therefore, no none/negligible impact would occur.

3.3 SOILS

3.3.1 Affected Environment

In the areas adjacent to Almond Lake, soils are primarily mapped as belonging to the Chenango channery silt loam (Ch), Fluvaquents and Ochrepts (FL), Alton gravelly fine sandy loam (AIA), Howard-Dunkirk complex (HpD), Middlebury silt loam (Mp), and Howard-Madrid complex, 20 to 30 percent slopes (HrD).

A variety of other soil types exist within the project boundary but mainly consist of sandy loam and silt loams with minor slopes. Some soil complexes exist that possess rocky or gravelly characteristics on very steep to steep slopes, including Lordstown-Arnot complex, very steep, very rocky (LRF), and Howard and Alton gravelly soils, 20 to 30 percent slopes (HtE) (see Table 3-3; USDA-NRCS, 2023).

Of the soils within the area of interest, 2.2 percent are considered New York Farmland of Statewide importance, including Collamer silt Ioam (CoC) and Dunkirk silt Ioam (DuC). Additionally, 40.6 percent of soils in the area are categorized as Prime Farmland, including Alton gravelly fine sandy Ioam, 0 to 3 percent slopes (AIA), Chenango channery silt Ioam

(Ch), Howard gravelly loam, undulating (HoB), Middlebury silt loam (Mp), Scio silt loam (Sc) and Tioga silt loam (Tg) (USDA-NRCS, 2023).

Table 3-3. Soils at Almond Lake

Map Unit Symbol	Map Unit Name	Acres in Project Area	Percent of Project Area	Prime/Unique Farmland Status
AIA	Alton gravelly fine sandy loam, 0 to 3 percent slopes	42.9	6.2%	All areas are prime farmland
CF	Cut and fill land	18.5	2.7%	Not prime farmland
Ch	Chenango channery silt Ioam, fan	165.9	24.0%	All areas are prime farmland
CoC	Collamer silt Ioam, rolling	2.6	0.4%	Farmland of statewide importance
DuC	Dunkirk silt loam, rolling	12.2	1.8%	Farmland of statewide importance
FL	Fluvaquents and Ochrepts	66.2	9.6%	Not prime farmland
HgD	Hornell and Fremont silt loams, 12 to 20 percent slopes	0.5	0.1%	Not prime farmland
HHE	Hornell and Fremont silt loams, 20 to 50 percent slopes	19.5	2.8%	Not prime farmland
НоВ	Howard gravelly loam, undulating	23.3	3.4%	All areas are prime farmland
HpD	Howard-Dunkirk complex, hilly	41.9	6.1%	Not prime farmland
HrD	Howard-Madrid complex, 20 to 30 percent slopes	26.6	3.9%	Not prime farmland
HtD	Howard and Alton gravelly soils, 20 to 30 percent slopes	17.4	2.5%	Not prime farmland
HtE	Howard and Alton gravelly soils, 30 to 45 percent slopes	8.5	1.2%	Not prime farmland
LRF	Lordstown-Arnot complex, very steep, very rocky	4.7	0.7%	Not prime farmland
Мр	Middlebury silt loam	36.8	5.3%	All areas are prime farmland
NgB	Niagara silt loam, 2 to 6 percent slopes	0.2	0.0%	Prime farmland if drained
Sc	Scio silt Ioam	2.0	0.3%	All areas are prime farmland
Tg	Tioga silt Ioam	9.9	1.4%	All areas are prime farmland
VoD	Volusia channery silt loam, 15 to 25 percent slopes	14.7	2.1%	Not prime farmland
W	Water	154.0	22.3%	Not prime farmland
Wn	Wayland soils complex, non-calcareous substratum, 0 to 3 percent slopes, frequently flooded	21.6	3.1%	Not prime farmland

3.3.2 No Action – Environmental Consequences

Under the No Action Alternative, USACE would not implement the 2024 Master Plan and no new land classifications or future development projects within the proposed 2024 Master Plan would occur. The operation and management of Almond Lake and USACE lands would continue as outlined in the 1977 Master Plan. Although this alternative does not result in a 2024 Master Plan that meets current regulations and guidance, there would be no significant impacts to soil resources on project lands.

3.3.3 Proposed Action – Environmental Consequences

The classifications required for the Proposed Action would result in negligible to minor adverse resource impacts, primarily within the High Density Recreation land classification. Use within these areas could directly impact soils through compaction and increased erosion potential due to recreational use. Table 3-4 summarizes potential effects to soil resources from implementation of proposed land use classifications.

Classification	Potential for Impact				
Project Operations	None/Negligible Impact. This land use classification would designate lands associated with the direct support for flood control				
	operations, including dam and spillway structures. No substantial				
	new projects are proposed within this land use.				
High Density Recreation	Minor impact . This land classification supports the existing use of the land and concentrates any future recreation projects into this existing developed and intensively used areas. Use within these areas could directly impact soils through compaction and increased erosion potential due to recreational use and loss of soils from future development projects. Potential impacts, however, would be concentrated within areas already developed intensively for recreation, and therefore no new losses to areas of Prime Farmland or Farmland of Statewide Importance are anticipated. Construction and operations of future master planning projects would use BMPs associated with prevention of and control of erosion. USACE would consider the potential for erosion and occurrence of Prime Farmland soils in design and siting future master planning projects. While high density recreation can impact soil resources, this land use classification limits future recreational				
	elsewhere on the property.				
Multiple Resource Mar	nagement Land				
Low Density Recreation	None/Negligible Impact . This land use focuses on the lands with minimal development or infrastructure that support passive public recreational use., such as fishing, hunting, wildlife viewing, or hiking. There are no future projects for the existing low-density recreation lands.				
Agriculture	None/Negligible Impact . This is an interim use of a land classification to meet management objectives and there are no plans for expansion of the existing agriculture outlease. If the outlease were to be terminated, this land would continue to occur				

Table 3-4. Potential Soil Resource Impacts from Land Use Classifications

Classification	Potential for Impact				
	under the Low Density Recreation land classification which also has				
	none/negligible impacts.				
Water Surface					
Restricted None/Negligible Impact. This land classification reflects new					
	classification criteria and reflects the current water use practices.				
	None/negligible impacts to soils would occur.				
Open Recreation	None/Negligible Impact. This land classification reflects new				
Area	classification criteria and no actual change in water use; therefore,				
	none/negligible impact to soils would occur.				

3.4 BIOLOGICAL RESOURCES

3.4.1 Affected Environment

3.4.1.1 Vegetation

Almond Reservoir supports many habitat types including wetlands, grassy areas, fields, edges, and a variety of forest types, which attract a variety of wildlife. According to the U.S. Forest Service (USFS), Steuben County is in the Southwest Highlands of New York, which is characterized by more forest than any other vegetative cover type (USDA Forest Service, 2020). Most of the forests in the Southwest Highlands of New York consist of red maple (Acer rubrum), sugar maple (Acer saccharinum), white ash (Fraxinus americana) and black cherry (Prunus serotina). See Table 3-5 for a list of common tree species located within the Southwest Highlands region of New York and the volume of each species within the region.

Species (Common Name)	Species (Latin Name)	Volume in Region (million feet ³) (2017)	Volume as a % of region (2017)	% Change in volume, 2007-2017
Red Maple	Acer rubrum	745	18	22.0
Sugar Maple	Acer saccharinum	633	15	2.0
White Ash Fraxinus american		428	10	13.7
Black Cherry Prunus serotina		311	7	20.8
Eastern Hemlock Tsuga canadensis		300	7	10.3
Northern Red Oak	Quercus rubra	280	7	8.2
Eastern White Pine	Pinus strobus	235	6	14.9
Quaking Aspen	Populus tremuloides	185	4	1.0
American Beech Fagus americana		182	4	0.8
American Basswood Tilia americana		104	2	-5.1
Regional Total		4,159	100	10.4

Table 3	8-5 Forest	Cover Types	and Volume	in the So	outhwest H	liahlands R	eaion of	New Y	(ork
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Source: USDA Forest Service (2020)

Between 2012 and 2017, the 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 0.3 percent (USDA Forest Service, 2020). The surrounding area of Almond Lake has seen little change of forest gain or loss. In 2019, New York has an estimated total of 18,622,212 acres of forest land with 73.5 percent being owned privately (USDA Forest Service, 2019). Federal and State-owned forests account for 26.5 percent of New York forests and some that are located within the Southwest Highlands are Klipnocky, Bully Hill, and Cancacadea State Forests which are in close proximate of Almond Lake.

Three types of wetlands are present throughout the Project and include freshwater emergent, forested/shrub, and freshwater pond systems (USFWS, 2023). Each wetland classification creates a unique ecosystem for specific types of wetland plants and wildlife. In addition, wetland vegetation provides several beneficial uses, which include enhancing water quality, filtering runoff, preventing localized erosion, and providing habitat and food sources for wildlife.

3.4.1.2 Wildlife and Fisheries

Almond Reservoir and the surrounding area has a diversity of habitat types that support a variety of wildlife. Mammalian wildlife found on Reservoir lands include black bear (Ursus americanus), white-tailed deer (Odocoileus virginianus), grey squirrel (Sciurus carolinensis), eastern wild turkey (Meleagris gallopavo) and groundhog (Marmota monax). Common avian species include a variety of waterfowl and wading birds, woodpeckers, and songbirds, as well as common game species.

Almond Reservoir hosts many fish species including largemouth bass (Micropterus salmoides), black crappie (Pomoxis nigromaculatus), brown bullhead (Ameiurus nebulosus), common carp (Cyprinus carpio), golden shiner (Notemigonus crysoleucas), pumpkinseed (Lepomis gibbosus), spottail shiner (Notropis hudsonius), white sucker (Catostomus commersonii), and yellow perch (Perca flavescens). The main fishery in Almond Reservoir consists of black crappie, common carp, largemouth bass, and yellow perch. Largemouth bass can range in size from 15 to 20 inches.

3.4.1.3 Threatened and Endangered Species

3.4.1.3.1 Federally Listed Species

As of 2024, the Northern long-eared bat (*Myotis septentironalis*) is the only federally listed threatened or endangered species that is known to exist within the project area (Appendix A). The Northern long-eared bat is listed as endangered. The Monarch butterfly (*Danaus plexippus*) was the only candidate species identified within the project area (Appendix A). 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, Northern long-eared bats forage along wooded hillsides and ridgelines instead of above valley-bottom streams and riparian forest edges. Populations at northern long-eared bat hibernation sites (e.g, caves and mines) have declined by 99 percent since the discovery of white-nose syndrome and it is now listed as endangered throughout all of its range. Forest fragmentation and conversion are also major threats to the species due to its association with large blocks of mature forest (USFWS n.d. - b)

The Monarch Butterfly is a candidate species and is not vet listed or proposed for listing. Consultation with USFWS under Section 7 of the Endangered Species Act is not required for candidate species. Adult monarch butterflies are large and conspicuous, with bright orange wings surrounded by a black border and covered with black veins. During the breeding season, monarchs lay their eggs on their obligate milkweed host plant and larvae emerge after two to five days. Larvae develop over a period of 9 to 18 days and then pupates into a chrysalis before emerging 6 to 14 days later as an adult butterfly. There are multiple generations of monarchs produced during the breeding season, with most adult butterflies living approximately two to five weeks; overwintering adults enter reproductive suspension and live six to nine months. In many regions where monarchs are present, monarchs breed year-round. Individual monarchs in temperate climates, such as eastern and western North America, undergo long-distance migration, and live for an extended period of time. In the fall, in both eastern and western North America, monarchs begin migrating to their respective overwintering sites. This migration can take monarchs distances of over 3,000 km and last for over two months. In early spring (February-March), surviving monarchs break diapause and mate at the overwintering sites before dispersing. The same individuals that undertook the initial southward migration begin flying back through the breeding grounds and their offspring start the cycle of generational migration over again. (USFWS n.d. - a).

3.4.1.3.2 New York State Threatened and Endangered Species

According to the NYSDEC screening tool, the Environmental Assessment Form (EAF) Mapper and the Nature Explorer, there are no records of rare, threatened, or endangered species in the project area (NYSDEC, 2023c; NYSDEC, 2023d).

3.4.1.3.3 Other Protected Species

Bald eagles (Haliaeetus leucocephalus), a previously federally and state-listed endangered species, were removed from the federal list in August 2007 but still retain a threatened status in the state of New York. This species is protected under the Bald and Golden Eagle Protection Act. According to Cornell Lab of Ornithology's Ebird.org (n.d.) and USACE staff, both immature and adult bald eagles were sighted at Almond Lake throughout 2022. During the site visit in 2022, both immature and adult bald eagles were sighted at Almond Lake throughout 2022. During the USACE staff.

3.4.1.4 Invasive and Nuisance 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 control. No aquatic invasive species are documented within the reservoir. Some of the invasive and nuisance species found at the project area are described in the paragraphs below.

The only non-native invasive plant species observed within the project vicinity includes Japanese knotweed (*Polygonum cuspidatum*), which is actively managed with mowing and spraying by the Kanakadea park staff. Most of the project lands are open, maintained grassy areas or recreational areas which minimizes the occurrence of invasive plant species.

Currently, the project area has few problems with nonnative invasive insect pests; however invasive insects have been damaging in the past and are likely to cause damage in the future. In the summer of 2021, elevated populations of Spongy moth (*Lymantria dispar dispar*) (formerly gypsy moth) caterpillars caused notable leaf damage across several New York counties, including Steuben. In New York, spongy moth caterpillars are known to feed on the

leaves of a large variety of trees such as oak, maple, apple, crabapple, hickory, basswood, aspen, willow, birch, pine, spruce, hemlock, and more. Oak is their preferred species. Spongy moths have "naturalized" in New York's Forest communities meaning they will always be present. Spongy moth populations are cyclical and fall into a 10–15-year pattern of rising and falling populations and are typically driven by predator-prey interactions (NYSDEC, 2023c). Other invasive insect pests found in surrounding regions that may affect the project area in the future include the hemlock wooly adelgid (Adelges tsugae) and the spotted lanternfly (Lycorma delicatula).

Both invasive and native nuisance bird species are present in the project area. The European starling (*Sturnus 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 birds occupying a cavity and using it for their own nests (USDA APHIS, 2017). Starlings are present in the project area but are not actively managed.

3.4.2 No Action – Environmental Consequences

Under the No Action Alternative, USACE would not implement the 2024 Master Plan and no new land classifications or future development projects within the proposed 2024 Master Plan would occur. The operation and management of Almond Lake and USACE lands would continue as outlined in the 1977 Master Plan. Although this alternative does not result in a 2024 Master Plan that meets current regulations and guidance, there would be no significant impacts to biological resources on project lands.

3.4.3 Proposed Action – Environmental Consequences

The classifications required for the Proposed Action would result in negligible to minor adverse resource impacts. Table 3-5 summarizes potential effects to biological resources based on the proposed changes to land use classifications.

Classification	Potential for Impact
Project Operations	None/Negligible Impact. This land use classification would designate lands associated with the direct support for flood control operations, including dam and spillway structures. No substantial new projects are proposed within this land use.
High Density Recreation	Minor impact. Land use within these areas could directly impact vegetation and wildlife habitat from recreational development and use. Potential impacts, however, would be concentrated within Kanakadea Park. The master plan does not propose any loss of forest due to recreational development. While intensive use may increase the potential for invasive species introduction and spread, maintaining a High Density Recreation area focuses management and control of invasive species in higher-use areas which would have the greater potential for presence of invasive species. Construction and operations of future master planning projects would use any BMPs associated with prevention of impacts to sensitive species as recommended during future separate environmental reviews of any future projects.
Multiple Resource M	anagement Land

Classification	Potential for Impact				
Low Density	None/Negligible Impact. This land use focuses on the lands with				
Recreation	minimal development or infrastructure that support passive public recreational use., such as fishing, hunting, wildlife viewing, or hiking. There are no future projects for the existing low-density recreation lands.				
Agriculture	None/Negligible Impact. This is an interim use of a land classification to meet management objectives and there are no plans for expansion of the existing agriculture outlease. If the outlease were to be terminated, this land would continue to occur under the Low Density Recreation land classification which also has none/negligible impacts				
Water Surface					
Restricted	None/Negligible Impact. This land classification reflects new classification criteria and reflects the current water use practices. None/negligible impacts to biological resources would occur.				
Open Recreation Area	None/Negligible Impact . This land classification reflects new classification criteria and no actual change in water use; therefore, none/negligible impact to biological resources would occur.				

3.5 LAND USE AND RECREATION

3.5.1 Affected Environment

Project lands not used for operation and maintenance of the Dam are leased to Steuben County, specifically the Department of Public Works, for the operation of Kanakadea Park. Kanakadea Park features various camping options with fire rings, grills, and hot showers. Additionally, the recreation area has hiking trails, a baseball/softball field, a sand volleyball court, a basketball court, playgrounds, horseshoe pits, pavilions, picnic sites with tables, a parking area, a boat launch for motorless boats, fishing areas, and a lake overlook area. Most of the recreation area is open year-round except camping which is from April through December and water access which is from April to October (Steuben County, 2023). Additionally, the entirety of the USACE owned property is used by the public for a variety of passive recreation such as hiking, hunting and trapping, and nature watching.

Currently, there are no plans for expansion of Kanakadea Park. There is no charge to enter the Park and rental rates are intentionally maintained at a reasonable and fair rate to provide opportunities for anyone to access the parks amenities. The recreation area objective for Kanakadea Park is to continue to provide equitable access to diverse recreational opportunities for the local region.

According to USACE's Visitor Estimation and Reporting Systems (VERS), during the period between October 2017 and September 2020, there were over 300,000 visitors to the Almond Lake property, with its heaviest visitation during early summer and early fall months. Almond Lake saw a steady decline in visitors from October 2017 to September 2021. From Fiscal Year 2021 to Fiscal Year 2022, there was an increase in visitors. The day users are the primary use type, but Almond Lake, specifically Kanakadea Park, does have substantial use of overnight camping areas in the spring and summer months.

3.5.2 No Action – Environmental Consequences

Under the No Action Alternative, USACE would not implement the 2024 Master Plan and no new land classifications or future development projects contained within the proposed 2024 Master Plan would occur. The operation and management of Kanakadea Park, Almond Lake, and USACE lands would continue as outlined in the 1977 Master Plan. Although this alternative does not result in a 2024 Master Plan that meets current regulations and guidance regarding land classifications, there would be no significant impacts to land use and recreation.

3.5.3 Proposed Action – Environmental Consequences

The reclassifications required for the Proposed Action would result in beneficial impacts to land use and recreation. Table 3-6 summarizes potential effects to land use and recreation based on the proposed changes to land classifications.

Classification	Potential for Impact			
Project Operations	None/Negligible Impact. This land use classification would			
	designate lands associated with the direct support for flood			
	control operations, including dam and spillway structures. No			
	new substantial projects are proposed within this land use.			
High Density Recreation	Beneficial Impact. This land classification recognizes lands currently developed for intensive recreational activities. It optimizes the siting of future High Density Recreation master planning projects and leaves other acreages available for other			
	recreation opportunities available.			
Multiple Resource Manag	jement			
Low Density Recreation	Beneficial Impact. This land classification focuses on areas suitable for supporting low-impact and passive recreational opportunities such as bank fishing, hiking, wildlife viewing, and for access to the shoreline. The land classification also provides a beneficial delineation between intensive recreation areas and passive recreation areas, thus, guiding future development and preserving large portions of the property.			
Agriculture	None/Negligible Impact . This is an interim use of a land classification to meet management objectives and there are no plans for expansion of the existing agriculture outlease. If the outlease were to be terminated, this land would continue to occur under the Low Density Recreation land classification which also has beneficial impacts.			
Water Surface				
Restricted	Beneficial Impact. Restricted water surface includes those areas			
	where recreational boating is prohibited or restricted for project			
	operations, safety, and security purposes. This classification			
	would aid in protecting recreational users on the lake.			
Open Recreation Area	None/Negligible Impact. This land classification reflects new			
	classification criteria and no actual change in water use;			

Table 3-7. Potential Land Use and Recreation Impacts from Proposed Land Classifications

Classification	Potential for Impact			
	therefore, none/negligible impact to biological resources would			
	occur.			

3.6 ADDITIONAL RESOURCES NOT ANALYZED IN THIS EA

Impacts on the following resources were determined to be negligible; therefore, these resources were not further analyzed in this EA.

3.6.1 Air Quality

Almond Lake is in Steuben County, which meets attainment for all criteria pollutants, therefore the Clean Air Act's General Conformity Rule does not apply. See 40 CFR 93.153(b) (conformity determinations required only in nonattainment or maintenance areas). Changes to land classifications under the Proposed Action would not affect air quality. Implementation of future master planning projects may generate temporary emissions from construction activities, including particulate matter and other criteria pollutants. Future development and increased recreational opportunities may also generate increased visitation and corresponding vehicle emissions. These impacts are outside the scope of this EA and will be evaluated under future EAs as funding becomes available to implement the future master planning projects. As a result, this resource is not further discussed in this EA.

3.6.2 Greenhouse Gases and Climate

Almond Lake Project falls within the National Oceanic and Atmospheric Administration (NOAA) Climate Division 30-01 (NOAA, n.d.). This area is characterized by a temperate climate, with average annual temperatures between 33- and 54-degrees Fahrenheit and an average annual precipitation of 37.36 inches. The greatest monthly precipitation occurs from June through September. Most snowfall in the area occurs between December and March, with the area receiving on average 55 inches of snowfall a year (U.S. Climate Data 2020). Changes to land classifications under the Proposed Action would not affect greenhouse gas emissions or climate. Potential greenhouse gas emissions and climate change impacts associated with the implementation of future master planning projects will be evaluated in future EAs associated with project development and are outside of the scope of this EA. As a result, this resource is not further discussed in this EA.

3.6.3 Geology and Topography

The project falls within the glaciated Allegheny Plateau where elevations can range from 500 to 600 feet in the north to more than 2,000 ft in the south. Numerous valleys and troughs are found within this province, and the plateau is underlain by a very thick layer of interbedded shales, siltstones, and soft sandstones, with exception to limestone areas in the northern province boundaries, and patches of conglomerate in the southwest corner of the State (NYSDOT, 2013). The terrain within the project is generally sloping with a rolling character. Half of the project's lands contain slopes between 2–8 percent and can be subject to inundation. Twenty-six percent of the project's lands contain slopes between 15-30 percent, while only 6 percent of the lands have greater than 30 percent slope. These lands make up most of the hillsides along the shoreline and upper slopes (USACE, 1977).

Changes to land classifications under the Proposed Action would not affect geology or topography. Construction activities associated with implementation of proposed future

projects will be evaluated for impacts to geology and topography in future EAs specific to individual development projects. As a result, this resource is not further discussed in this EA.

3.6.4 Groundwater

Changes to land classifications will not adversely affect the quality or availability of groundwater. Assessment of future master planning project's water use would be performed during detailed project-specific planning. As a result, this resource is not further discussed in this EA.

3.6.5 Noise

The project area is in a physical setting characterized as rural. In rural areas, most noise comes from transportation, farming operations, and other miscellaneous human and animal sources (Engineering Toolbox, n.d.). Changes to land classifications under the Proposed Action would not change the existing noise environment. Assessment of any future master planning project's impact on noise would be performed during detailed project-specific planning. As a result, this resource is not further discussed in this EA.

3.6.6 Cultural Resources

One cultural resource has been previously identified within the Almond Lake project area: the Almond Dam complex (USN 10117.000050). The Almond Dam complex is a mid-twentieth century (constructed in 1949) group of above-ground resources consisting of four structures and three buildings that operate to maintain the dam's flood control mission under the 1936 Flood Control Act. In 2021, The Almond Dam complex was determined eligible for the National Register of Historic Places (NRHP) under Criteria A and C (Boggs, 2021).

The potential for unidentified cultural resources within the project area remains moderate to high in undisturbed, low to moderately sloped areas within the Kanakadea Recreation Area or elsewhere within the Canacadea Creek floodplain. Almond Lake's location suggests the possibility for smaller precontact sites such as resource processing or procurement areas, or features associated with the historic dwellings that once dotted the landscape. There have not been any archaeological resources identified within the Almond Lake project area; however, this may be due to a lack of systematic and controlled survey rather than an actual absence of resources.

Consultation letters under Section 106 of the NHPA regarding this Master Plan update were sent to the SHPO and two tribal nations, the Seneca Nation and the Seneca-Cayuga Nation, on March 5, 2024. Coordination correspondence is included in Appendix A of the EA.

If specific project actions are proposed in the future, they will be subject to consultation and review under Section 106 of the NHPA. As a result, this resource area is not further discussed in this EA.

3.6.7 Utilities

Changes to land classifications under the Proposed Action would not affect utilities. An assessment of utilities associated with any future master planning projects would be performed during detailed project-specific planning. Therefore, utilities are not further discussed in this EA.

3.6.8 Hazardous Materials and Wastes

No known contaminated sites occur at the project area. Changes to land classifications under the Proposed Action would not affect hazardous materials and wastes. An assessment

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of hazardous materials and wastes associated with any future master planning projects would be performed during detailed project-specific planning. As a result, this resource area is not further discussed in this EA.

3.6.9 Socioeconomics and Environmental Justice

The Proposed Action would not result in any appreciable effects to the local or regional socioeconomic environment. The Climate and Economic Justice Screening Tool (CEQ) was evaluated, and the Almond Lake Project is not located in an environmental justice community(CEQ, n.d.). However, there are two census blocks containing environmental justice communities in the Town of Hornell located downstream of the Almond Lake Project. Additionally, the EPA' Environmental Justice Screening and Mapping Tool was referenced and there were no substantial environmental justice concerns within the census blocks for Almond Lake (EPA, n.d.). Changes to land classification would have no impact on socioeconomics or environmental justice. Impacts to socioeconomics and environmental justice associated with any future master planning projects would be performed during detailed project-specific planning. As a result, this resource area is not further discussed in this EA.

3.6.10 Traffic and Transportation

Changes to land classification would have no impact on traffic and transportation. Any temporary impacts from increased truck traffic during construction of future master planning projects would be assessed during detailed project-specific planning. As a result, this resource is not further discussed in this EA.

4 CUMULATIVE IMPACTS

As defined by CEQ, cumulative effects are those that "result from the incremental impact of the Proposed Action when added to other past, present, and reasonably foreseeable future actions, without regard to the agency (federal or non-federal) or individual who undertakes such other actions" (40 CFR § 1508.1(g) (2022)). Cumulative effects may accrue over time and/or in conjunction with other pre-existing effects from other activities in the area (40 CFR § 1508.1(g) (2022)); therefore, pre-existing impacts and multiple smaller impacts should also be considered.

NEPA regulations require the analysis of cumulative environmental effects of a Proposed Action, which may manifest only at the cumulative level. Cumulative effects can result from individually minor, but collectively significant, actions taking place over time. As noted above, cumulative effects are most likely to arise when a Proposed Action is related to other actions that could occur in the same location and at a similar time. The geographic scope or region of the cumulative effects analysis includes the county the project is located in (Steuben County) and its surrounding counties (Tioga, Potter, Allegany, Livingston, Ontario, Yates, Schuyler, Chemung counties). The temporal scope is 15 to 25-year timeframe.

The Proposed Action focuses solely on the implementation of the proposed land classifications presented in the 2024 Master Plan. This EA does not consider implementation of specific projects identified within the 2024 Master Plan during the master planning process, as those projects are conceptual in nature and are not reasonably foreseeable to be considered as part of this EA. Projects identified during the master planning process within the 2024 Master Plan would require separate NEPA analyses prior to construction.

4.1. CURRENT AND REASONABLY FORESEEABLE PROJECTS WITHIN THE ROI

This section identifies reasonably foreseeable projects that may have cumulative, incremental impacts in conjunction with the Proposed Action. Beyond the future master planning projects identified in the 2024 Master Plan, no other projects were identified within or near the Project area that would lead to cumulative impacts.

4.2 ANALYSIS OF CUMULATIVE IMPACTS

Impacts on each resource were analyzed according to how other actions and projects within the ROI might be affected by the No Action Alternative and Proposed Action. Impacts can vary in degree or magnitude from a slightly noticeable change to a total change in the environment. As discussed above, minimal growth and development are expected to continue near Almond Lake. No cumulative impacts from this administrative action on resources are expected when added to the impacts of activities associated with the Proposed Action or No Action Alternative or from the potential projects identified in the 2024 Master Plan

5 IRRETRIEVABLE AND IRREVERSIBLE COMMITMENT OF RESOURCES

NEPA requires that federal agencies identify "any irreversible and irretrievable commitments of resources which would be involved in the Proposed Action should it be implemented" (42 U.S. Code § 4332). An irreversible commitment of resources occurs when the primary or secondary impacts of an action result in the loss of future options for a resource. Usually, this is when the action affects the use of a nonrenewable resource, or it affects a renewable resource that takes a long time to renew. The impacts for this project from the reclassification of land or future master planning projects centered on recreation enhancement and development would not be considered an irreversible commitment because much of the land could be converted back to prior use at a future date. An irretrievable commitment of resources is typically associated with the loss of productivity or use of a natural resource (e.g., loss of production or harvest). No irreversible or irretrievable impacts are anticipated from implementation of the Proposed Action.

6 SUMMARY

Table 6-1 presents a summary of the environmental consequences by alternative analyzed in this EA. As discussed in Chapter 4, selection of the Proposed Action Alternative would not be anticipated to cause cumulative adverse impacts. Table 6-2 presents conservation measures recommended within Chapter 3.

Alternative	Impact Type*			Intensity of Impact			
	Beneficial	None/ Negligible	Negative	Minor	Moderate	Significant	
Water Resources							
No Action Alternative		Х					
Proposed Action Alternative	x	х		х			
Soil Resources	•						
No Action Alternative		Х					
Proposed Action Alternative		х	Х	х			
Biological Resources							
No Action Alternative		х					
Proposed Action Alternative		х	Х	х			
Land Use and Recreation							
No Action Alternative		Х	Х	Х			
Proposed Action Alternative	X						

*Impacts on resource categories are based on applicable land classifications changes. Section 3 describes anticipated impacts from changes to land classification under the Proposed Action alternative.

Table 6-2. Conservation Measures for Future Master Planning Projects

Measure	Resource Protected
Construction and operations of future master planning projects would use best management practices (BMPs) associated with prevention of erosion and control of stormwater runoff. This includes obtaining a National Pollution Discharge Elimination System (NPDES) permit for projects involving earth disturbances exceeding one acre.	Water and Soil
Surface waters and wetlands, if present, would be avoided or permitted through the Section 404 process.	Water
USACE would consider the presence of the 100-year floodplain in design and siting future master planning projects within floodplain areas.	Water
USACE would consider the potential for erosion and occurrence of Prime Farmland soils in design and siting future master planning projects.	Soil

Measure	Resource Protected
Construction and operations of future master planning projects would use BMPs associated with the prevention of impacts to sensitive species recommended by resource agencies during future environmental review of projects proposed in the 2024 Master Plan.	Biological
Impacts to sensitive receptors (e.g., adjacent residences and	Noise
campers) would be minimized as these activities would be restricted to	Environment
the daytime and would be temporary in nature	
If any human remains or cultural items are found within or adjacent to	Cultural
Almond Lake that may be demonstrably related to one of the	Resources
recognized tribal entities, then Public Law 101-601, the Native	
American Grave Protection and Repatriation Act, would be	
implemented and the affected group contacted.	

Table 6-3 summarizes the compliance of the proposed alternative with environmental protection statutes and other environmental regulations. Based on the evaluation of project impacts described in Section 3, there are no significant impacts from the proposed action, and a Finding of No Significant Impact (FONSI) has been prepared.

Federal Statutes	Level of Compliance
Anadromous Fish Conservation Act	N/A
Archeological and Historic Preservation Act	Full
Archeological Resources Protection Act	Full
Bald and Golden Eagle Act	Full
Clean Air Act	Full
Clean Water Act	Full
Comprehensive Environmental Response, Compensation and Liability Act	N/A
Endangered Species Act	Full
Farmland Protection Policy Act	Full
Federal Water Project Recreation Act	N/A
Fish and Wildlife Coordination Act	Full
Flood Control Act	Full
Land and Water Conservation Fund Act	N/A
Migratory Bird Treaty Act	Full
National Environmental Policy Act	Full
National Historic Preservation Act	Full
Noise Control Act	Full
Resource Conservation and Recovery Act	N/A
Rivers and Harbors Act	N/A
Safe Drinking Water Act	N/A
Solid Waste Disposal Act	N/A
Toxic Substances Control Act	N/A
Water Resources Planning Act	N/A
Watershed Protection and Flood Prevention Act	Full
Wetlands Conservation Act	N/A

 Table 6-3. Compliance of the Proposed Action with Environmental Protection Statutes and

 Other Environmental Requirements

Federal Statutes	Level of Compliance
Wild and Scenic Rivers Act	N/A
Executive Orders (EOs), Memoranda, etc.	
Environmental Justice (EO 14096)	Full
Protection and Enhancement of Environmental Quality (EO	Full
11514)	
Protection and Enhancement of Cultural Environment (EO 11593)	Full
Floodplain Management (EO 11988)	Full
Protection of Wetlands (EO 11990)	Full
Environmental Justice in Minority and Low-Income Populations	Full
(EO 12898)	
Protection of Children from Health Risks and Safety Risks (EO	Full
13045)	
Consultation and Coordination with Indian Tribal	Full
Governments (EO 13175)	
Indian Sacred Sites (EO 13007)	N/A
Invasive Species (EO 13112)	Full
Migratory Birds (EO 13186)	Full
Facilitation of Cooperative Conservation (EO 13175)	N/A
Chesapeake Bay Protection and Restoration (EO 13508)	Full
Tackling the Climate Crisis at Home and Abroad (EO 14008)	Full
Further Advancing Racial Equity and Support for Underserved	Full
Communities Through The Federal Government (EO 14091)	
Prime and Unique Farmlands (CEQ Memorandum, 11 Aug 80)	Full

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APPENDIX A PUBLIC AND AGENCY COORDINATION