Hodges Village Dam Master Plan

Thames River Basin

Worcester County, Massachusetts

June 2025

DRAFT REPORT



The Hodges Village Dam Master Plan was produced by the U.S. Army Corps of Engineers Regional Planning and Environmental Center (RPEC) for the New England District (NAE).





EXECUTIVE SUMMARY

Hodges Village Dam Master Plan U.S. Army Corps of Engineers Prepared by the Southwestern Division Regional Planning and Environmental Center (RPEC) June 2025

ES.1 PURPOSE

The Hodges Village Dam Master Plan (hereafter Plan or Master Plan) is a complete revision of the 1976 *Hodges Village Dam Master Plan*. The revision is a framework built collaboratively to guide appropriate stewardship of the U.S. Army Corps of Engineers (USACE) administered resources at Hodges Village Dam over the next 25 years. The 1976 Master Plan has served well past its intended 25-year planning horizon and does not reflect the growing population around the dam and regional recreation needs.

Hodges Village Dam was authorized in 1941 for flood control in conjunction with the other projects in the Thames River Basin. In addition to this primary mission, the project is managed to provide recreation opportunities and to protect and manage natural resources. The USACE has an inherent mission for environmental stewardship of project lands while working closely with stakeholders and partners to provide regionally important outdoor recreation opportunities.

During the 2025 Master Plan revision, Geographic Information System (GIS) and Light Detection and Ranging (LiDAR) mapping technologies were utilized to digitize the 1976 maps. Due to these more precise measurement technologies, discrepancies were found between the acreages documented in the 1976 plan and the recalculated acres. The 2025 Hodges Village Dam Master Plan revision reflects the recalculated 1976 Master Plan acres throughout the document. Both the 1976 and the 2025 acres may differ from the acres on record with the USACE New England District Real Estate Office or those documented within the Water Control Manual for Hodges Village Dam, which is maintained by the USACE New England District. Any water control management and real estate studies or transactions should be coordinated with the appropriate USACE offices.

The Master Plan and supporting documentation provide an inventory and analysis of goals, objectives, and recommendations for USACE lands and waters at Hodges Village Dam in Massachusetts with input from the public, stakeholders, and subject matter experts. The Master Plan is primarily a land use and outdoor recreation strategic plan that does not address the specific authorized purposes of flood risk management. Although water management is addressed in the 2001 Thames River Basin Water Control Manual, the Master Plan acknowledges that fluctuating water level for flood risk management can have a dramatic effect on outdoor recreation. The project location is shown within the Commonwealth of Massachusetts in Figure ES.1.



Figure ES.1 Vicinity Map of Hodges Village Dam

The mapping used for this Master Plan revision uses modern satellite imagery and GIS mapping, resulting in new acreage calculations. The 1976 Master Plan did not include the total acreage of land owned in fee nor did it identify land and water surface classifications. Using GIS measurements and accessible data, Hodges Village Dam has approximately 864 acres of federal land. Land disposals and additional purchases also contribute to the difference in acreage.

ES.2 PUBLIC INPUT

To ensure a balance between operational, environmental, and recreational activities, USACE obtained both public and agency input on the Master Plan. An Environmental Assessment (EA) was completed in conjunction with the Master Plan to evaluate the impacts of alternatives and can be found in Appendix B.

On August 1, 2024, a public open house was held at the Oxford Public Library in Oxford, Massachusetts to inform the public of the intent to revise the Master Plan. The public input period remained open for 30 days from August 1, 2024 to August 31, 2024. At the public information meeting a presentation was given that included the following topics:

- What is a Master Plan?
- What a Master Plan is Not
- Why Revise a Master Plan?
- Overview of the National Environmental Policy Act (NEPA) process
- Master Planning Process
- Instructions for submitting comments

The USACE received 9 comments from 3 members of the public for Hodges Village Dam. These comments and USACE responses can be found in Appendix E.

A second public open house will be held for the Hodges Village Dam Draft Master Plan revision. The purpose of this open house will be to provide attendees with information regarding the proposed Master Plan revision as well as to provide an opportunity to provide comments on the proposed plan. The open house will initiate a 30-day comment period where the public and stakeholders can provide comments on the Draft Master Plan. These comments will be reviewed and addressed as the USACE revises a final version of the Master Plan.

ES.3 RECOMMENDATIONS

The following land and water classification changes (detailed in Chapter 8) were a result of the inventory, analysis, synthesis of data, documents, and public and agency input. In general, most USACE land at Hodges Village Dam was reclassified either by a change in nomenclature required by regulation or changes needed to identify actual and projected use. Table ES.1 illustrates the original and revised land and water classifications, which includes an increase in Project Operations to include all areas used for operations and maintenance, a decrease in Low Density Recreation (from the obsolete classification Operations: Natural Area) changing most acres to Wildlife Management. Additionally, the revision designated a small amount of land under the Environmentally Sensitive Area classification for the preservation of sensitive environmental, cultural, and/or aesthetic resources.

Prior Land Classifications (1976)	Acres	Proposed Land Classifications (2025)	Acres	Net Difference
Project Operations	26	Project Operations (PO)	62	36
Operations: Recreation – Intensive Use Area	109	High Density Recreation (HDR)	15	(94)
Operations: Recreation – Low Density Area	729	Low Density Recreation (LDR)	_	(729)
_	-	Wildlife Management (WM)	784	784
_	_	Environmentally Sensitive Area (ESA)	3	3
TOTAL ACRES	864	TOTAL ACRES	864	-

Table ES.1	Change from	1976 Land	Classification	to 2025 L	and Classification
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* 1976 acres are approximate based on text descriptions of each area since the areas were not originally mapped.

The acreages of USACE fee owned land were measured using satellite imagery and GIS technology and LiDAR. The GIS software allows for more finely tuned measurements and, thus, stated acres vary from official land acquisition records and acreage figures published in the 1976 Master Plan. A more detailed summary of changes and rationale can be found in Chapter 8.

ES.4 PLAN ORGANIZATION

Chapter 1 of the Master Plan presents an overall introduction to Hodges Village Dam. Chapter 2 consists of an inventory and analysis of Hodges Village Dam and associated land resources. Chapters 3 and 4 lay out management goals, resource objectives, and land classifications. Chapter 5 is the resource management plan that identifies how project lands will be managed for each land use classification. This includes current and projected overall park facility needs, an analysis of existing and anticipated resource use, and anticipated influences on overall project operation and management. Chapter 6 details special topics that are unique to Hodges Village Dam. Chapter 7 identifies the public involvement efforts and stakeholder input gathered for the development of the Master Plan, and Chapter 8 gives a summary of the changes in land classification from the previous master plan to the present one. Finally, the appendices include information and supporting documents for this Master Plan revision, including Land Classification and Park Plate Maps (Appendix A).

An Environmental Assessment was developed with the Master Plan, which analyzed alternative management scenarios for Hodges Village Dam, in accordance federal regulations including the National Environmental Policy Act of 1969 (NEPA), as amended; regulations of the Council on Environmental Quality; and USACE regulations, including Engineer Regulation 200-2-2: Procedures for Implementing NEPA. The EA is a separate document that informs this Master Plan and can be found in its entirety in Appendix B. The EA evaluated two alternatives as follows: 1) No Action Alternative, which would continue the use of the 1976 Master Plan, and 2) Proposed Action, the adoption and implementation of this Master Plan. The EA analyzed the potential impact these alternatives would have on the natural, cultural, and human environments. The Master Plan is conceptual and broad in nature, and any action proposed in the Plan that would result in significant disturbance to natural resources or result in significant public interest would require additional NEPA documentation at the time the action takes place.

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CHAPTER 1 – INTRODUCTION

1.1 GENERAL OVERVIEW

Hodges Village Dam is located in the Town of Oxford, Worcester County, Massachusetts in the upper Thames River Basin. Hodges Village Dam is on the French River, 15 miles above its confluence with the Quinebaug River, 0.9 miles westnorthwest of the center of Oxford, and about 5 miles north of the center of Webster, Massachusetts. The project location is shown on Figure 1.1.



Figure 1.1 Hodges Village Dam Vicinity Map

The French River converges with the Quinebaug River before it joins the Shetucket River. The Shetucket converges with the Yantick River to form the Thames River in Norwich, Connecticut. The Thames River then drains into the Atlantic Ocean at Fishers Island Sound in New London, Connecticut.

The U.S. Army Corps of Engineers' New England District (formerly New England Division) built Hodges Village Dam in 1959 and continues to operate the project. The New England District manages Hodges Village Dam with five other dams and lakes in the Thames River Basin – Mansfield Hollow Lake, East Brimfield Lake, Westville Lake,

West Thompson Lake, and Buffumville Lake. Hodges Village Dam is operated and maintained in conjunction with Buffumville Lake.

The Master Plan is intended to serve as a comprehensive land and recreation management guide with an effective life of approximately 25 years. The focus of the plan is to guide the stewardship of natural and cultural resources and make provision for outdoor recreation facilities and opportunities on federal land associated with Hodges Village Dam. The Master Plan identifies conceptual types and levels of activities, but does not include designs, project sites, or estimated costs. All actions carried out by the USACE, other agencies, and individuals granted leases to USACE lands must be consistent with the Master Plan. The Master Plan does not address the flood risk management purpose of Hodges Village Dam.

The original Master Plan for Hodges Village Dam was written as a Master Plan for Recreation Resources Development (Design Memorandum) in 1976. There has not been a Master Plan revision completed since the original 1976 Master Plan which has served past the intended planning horizon of 25 years. In 1999, the USACE discontinued use of the Design Memorandum system as a means of organizing the many phases of civil works projects, therefore, the term "Design Memorandum" is not used in the title of this Master Plan revision. Furthermore, since Master Plans address a variety of land uses and classifications, the 1976 title "Master Plan for Recreation Resources Development" is not used and is simply titled Master Plan as described in EP 1130-2-550. In 2020, Hodges Village Dam and New England District staff began a revision of the Master Plan that was ultimately not completed.

National USACE missions associated with water resource development projects may include flood risk management, water supply, water quality, navigation, recreation, environmental stewardship, and hydroelectric power generation. Most of these missions serve to protect the built environment and natural resources of a region from the climate extremes of drought and floods. These multiple missions help to create a more resilient and sustainable region for the health, welfare, and energy security of its citizens. Mitigation, while not a formal mission at USACE projects, may be implemented to achieve the stewardship and recreation missions. Maintaining a healthy vegetative cover, including native grassland or tree cover where ecologically appropriate on Federal lands within the constraints imposed by primary project purposes, helps reduce stormwater runoff and soil erosion, mitigates air pollution, and moderate temperatures.

1.2 PROJECT AUTHORIZATION

The Rivers and Harbors Act of 1941 (also known as the Flood Control Act of 1941), Public Law 77-228, United States 77th Congress authorized Hodges Village Dam as part of the Thames River Basin flood control system consisting of six USACE-operated reservoirs and one local protection project.

The Flood Control Act of 1944, Public Law 78-534, United States 78th Congress, as amended, authorized the development and use of reservoirs for recreation and water conservation purposes.

1.3 PROJECT PURPOSE

The USACE initiated land acquisition and construction of the dam in June 1956 and completed it in October 1959, at a cost of \$4,425,000 in response to the national program to develop and improve existing natural water resources in the interest of flood control, water conservation, and recreational development. Hodges Village Dam is an integral part of the comprehensive Thames River Basin Flood Control Program. Working with the other five USACE reservoirs, Hodges Village Dam helps mitigate flood risk within the Thames River watershed in Massachusetts and Connecticut. This project primarily provides flood protection to Webster, Massachusetts and several small towns downstream along the French River to Putnam, Connecticut. Buffumville Lake coordinates with Hodges Village Dam in Oxford to provide optimum flood protection.

Three moderate floods in 1968, 1987, and 1993 have caused seepage damage at the downstream toe of the dam. The necessary repair of the damaged foundation drains, and other features were accomplished in 1968, 1990, and 1993 at a cost of \$1,647,000 collectively. Further remediation of the main dam and dikes 1 and 2 was completed in 1999 at a cost of nearly \$17,000,000.

Hodges Village Dam is a multi-purpose project with the missions of flood risk management, recreation, and natural resource management. Hodges Village Dam is operated and maintained by the New England District, North Atlantic Division of the USACE. Hodges Village Dam and Buffumville Lake are staffed by a Project Manager and three Park Rangers, who perform operation and maintenance and administrative duties.

In addition to these missions, the USACE has an inherent mission for environmental stewardship of project lands while working closely with stakeholders and partners to provide regionally important outdoor recreation opportunities. Other laws, including but not limited to Public Law 91-190, National Environmental Policy Act of 1969 (NEPA) and Public Law 86-717, Forest Cover Act, place emphasis on the environmental stewardship of Federal lands and USACE-administered Federal lands, respectively.



Photo 1.1 Elevated Water Level at Hodges Village Dam with 16-foot Pool in 2024 Source: USACE

1.4 PURPOSE AND SCOPE OF MASTER PLAN

In accordance with Engineering Regulation (ER) 1130-2-550, Recreation Operations and Maintenance Policies, Change 07, dated 30 January 2013 and Engineering Pamphlet (EP) 1130-2-550, Recreation Operations and Maintenance Guidance and Procedures, Change 05, dated 30 January 2013, most USACE water resources development projects having a federally owned land base require a Master Plan. The Master Plan works in tandem with the Operational Management Plan (OMP), which is the task-oriented implementation tool for the resource objectives and development needs identified in the Master Plan. This revision of the 1976 Master Plan aims to bring the Master Plan up to date to reflect current ecological, sociodemographic, and outdoor recreation trends that are impacting the project lands and water, as well as those anticipated to occur within the next 25 years.

The Hodges Village Dam Master Plan (hereafter Hodges Village Dam Master Plan, Master Plan, or just Plan) is the strategic land use management document that guides the efficient, cost-effective, comprehensive management, development, and use

of recreation, natural resources, and cultural resources throughout the life of the Hodges Village Dam project. It is a vital tool for responsible stewardship and sustainability of the project's natural and cultural resources for the benefit of present and future generations. The Master Plan guides and 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 resourcespecific goals and objectives. It ensures that equal attention is given to the economy, quality, and needs in the management of resources and facilities, and that goals and objectives are accomplished at an appropriate scale.

The master planning process encompasses a series of interrelated and overlapping tasks involving the examination and analysis of past, present, and future environmental, recreational, and socioeconomic conditions and trends. With a generalized conceptual framework, the process focuses on the following four primary components:

- Regional and ecosystem needs
- Project resource capabilities and suitability
- Expressed public interests that are compatible with Hodges Village's authorized purposes
- Environmental sustainability elements

It is important to note what the Master Plan does not address. The Master Plan does not address details of design, management and administration, and implementation. The Hodges Village Dam OMP instead covers these topics. In addition, the Master Plan does not address the specifics of regional water quality, shoreline management (a term used to describe primarily vegetation modification or permits by neighboring landowners), or water level management, nor does it address the operation and maintenance of prime project operations facilities such as the dam embankment, gate control outlet, and spillway. Additionally, the Master Plan does not address the flood control, water supply, and low flow augmentation purposes of Hodges Village Dam with respect to management of the water level in the river.

The previous Master Plan was sufficient for prior land use planning and management, but changes in outdoor recreation trends, regional land use, population, current legislative requirements, and USACE management policy have occurred over the past decades. Additionally, broader factors such as increasing fragmentation of wildlife habitat, national policies related to land management, climate change, and growing demand for recreational access and protection of natural and cultural resources affect Hodges Village Dam and the region in general. In response to these escalating pressures and trends, the USACE is implementing and adopting a full revision of the 1976 Hodges Village Dam Master Plan. The Master Plan revision will update land classifications and include new resource management goals and objectives.

1.5 BRIEF WATERSHED AND PROJECT DESCRIPTION

The Hodges Village Dam is located in the Town of Oxford, Massachusetts, in south-central Massachusetts on the French River in the Thames River Basin. The dam site is in close proximity to Hodges Village, sometimes known as Howarth Village, about 10 miles south of Worcester and 15 miles upstream from the French River's confluence with the Quinebaug River. At spillway crest elevation 501 National Geodetic Vertical Datum 1929 (NGVD29) Hodges Village Dam contains 13,250 acre-feet of storage, equivalent to 8.0 inches of runoff from the drainage area of 31.1 square miles. If filled to the spillway crest elevation the water surface covers an area of 740 acres with a maximum depth of 36 feet. Hodges Village Dam project fee and easement lands extend about 3 miles upstream from the dam itself. Hodges Village Dam is a dry bed reservoir and has no permanent or recreation pool.

The dam consists of an earth and rockfill embankment with concrete ogee spillway. The rolled earth embankment section of the dam is 2,050 feet in length with a maximum height of 55 feet. The top of the embankment at elevation 520 feet NGVD29 provides 14 feet of surcharge storage above spillway crest and 5 feet of freeboard. Slopes of the embankment are 1:2 on the downstream side and 1:2.5 on the upstream side. There are four earthen dikes which close saddles in the northeast corner of the reservoir perimeter. The dikes have a total length of 2,600 feet and maximum elevation of 520.0 feet NGVD29. The spillway, located on the right abutment adjacent to the dam, includes an approach channel, discharge channel and a 120-foot-long concrete ogee weir fixed crest at elevation 501 feet NGVD29 (35.5-foot stage).

The position of the wetlands in the watershed is crucial to their flood damage reduction function. In conjunction with other characteristics of the watershed – moderate, spread-out topography, large areas of highly permeable soil, natural swamps and mill ponds and a low river gradient – the floodwater storage capability of the numerous wetlands adjacent to the French River and its tributaries significantly slows runoff.

The two gates at Hodges Village are normally maintained at a two-foot opening. Discharges from the reservoir are governed by downstream river levels, the magnitude of the approaching water flows, and in some cases, snow conditions in the French River watershed. Flows from the reservoir are reduced whenever forecasts indicate the channel capacity of the French and/or Quinebaug Rivers would be excessive. During minor rises, changes will not be made to these settings unless instructed by the Reservoir Regulation Team (RRT), or unless the pool at the project reaches a stage of 5.0 feet and rising. The minimum release is never less than 15 cubic feet per second (cfs), except when inflow is less. Normal flow exiting Hodges Village Dam can take 8 to 10 hours to get to the Webster Gaging Station. After a major flood, it may take three to four weeks for the river to return to normal flows. The August 1955 flood was the highest water ever recorded on the French River. The storm associated with this flooding was the result of Hurricane Diane which was preceded one week earlier by 3 to 6 inches of rainfall from Hurricane Connie. The earlier storm left many natural storage areas filled and groundwater conditions ripe for runoff. Rainfall resulting from Hurricane

Diane, during August 17-20, 1955 amounted to 10-16 inches in the headwaters of the French River watershed.

The French River is a relatively flat, tame river typical of eastern Massachusetts. Much of the gently rolling countryside has reverted from former farmland to second growth forest. There is substantial development in the French River's watershed, which makes retaining and protecting the remaining riparian vegetation particularly important. Parcels owned in fee by the USACE provide the legal basis for federal management of recreation and natural resources. Acquired restrictive flowage easements prohibit the construction of habitable structures and, and other structures must be approved in writing by the USACE, so that modifications that may alter the drainage characteristics of the property or otherwise have a negative impact on the project's purpose for flood water retention can be denied. The property otherwise remains with the owner, with public access prohibited except by permission of the landowner.

1.6 PROJECT ACCESS

Hodges Village Dam lies within the town of Oxford, Massachusetts. The 2020 census recorded Oxford as having a population of 13,347. More information about local populations and demographics is described in Section 2.12. Hodges Village Dam is within easy driving distance from several large cities. Worcester, Massachusetts is about 9 miles northeast of Hodges Village Dam. Springfield, Massachusetts is about 37 miles from Hodges Village Dam. Boston, Massachusetts is 43 miles east-northeast from the dam. Hartford, Connecticut is about 47 miles southwest of Hodges Village Dam. Providence, Rhode Island is 30 miles southeast from Hodges Village Dam.

Several highways and tollways provide relatively easy access to Hodges Village Dam from major metropolitan areas. U.S. Interstate 395 provides access from Worcester and Boston from the north and east and Providence from the southwest and southeast. U.S. Interstate 84 also provides access for Hartford. U.S. Interstate 90 provides access from Springfield to the west and Boston to the east.

Local roads provide direct access to Hodges Village Dam from the major regional highways. Oxford Road (Charlton Street) provides access from Oxford and the western portions of Charlton. Massachusetts Highway 12 (Main St.) provides access at the northeast end of the project. Rocky Hill Road provides access from the east towards the trailhead at Rocky Creek Road Recreation Area. Other local roads provide varying degrees of access.

1.7 PRIOR DESIGN MEMORANDA AND PLANNING REPORTS

Design Memoranda (DM) and Project Reports approved and set forth design and development plans for all aspects of the project including the prime flood risk management facilities, real estate acquisition, road and utility relocations, reservoir clearing, and the master plan for recreation development and land management prior to 1999. The USACE prepared all DMs for Hodges Village in 1956. These DMs include Hydrology and Hydraulics, Geology and Soils, Embankment Design, Structural Design, and Structural Computation. The USACE completed the Master Plan for Recreation Resources Development in 1976. A list of the DMs for Hodges Village is listed in Table 1.1. Table 1.2 contains USACE manuals and reports related to Hodges Village Dam.

DM No.	Design Memoranda Title	Date Approved
1	Hydrology	Jul 1956
2	Relocations	Dec 1956
3	General Design	Jul 1956
3	(Supplemental No.1) Detailed Design	Feb 1956*
4	Real Estate – Part 1	Nov 1956
4	Real Estate – Part 2	Mar 1957
5	Geology and Soils	Feb 1957*
6	Reservoir Management (cancelled)	N/A
7	Concrete and Aggregates	Apr 1957*

Table 1.1 Hodges Village Dam Design Memoranda

* date issued

Table 1.2 Manuals and Reports for Hodges Village Dam

Subject	Date Approved
Thames River Basin – Master Water Control Manual	October 2001
Hodges Village Dam Water Quality Evaluation	February 2008
Operational Management Plan, Hodges Village Dam	June 1998

1.8 PERTINENT PROJECT INFORMATION

Table 1.3 provides general pertinent information for Hodges Village Dam. Table 1.4 provides pertinent data regarding key reservoir elevations and storage capacity at Hodges Village.

Table 1.3 General Pertinent Information for Hodges Village Dam

Location	
Basin	Thames River
Stream	French River
River Mile	15 miles upstream of its confluence with the Quinebaug River
County	Oxford

State/Commonwealth	Massachusetts
Drainage Area	
Above Dam	31.1 square miles
Dam	
Туре	Rolled earth fill with rock slope protection
Length	2,140 feet
Height	54.5 feet
Top Width	22 feet
Spillway	
Туре	Chute spillway, concrete ogee weir
Crest Elevation	501.0 NGVD29 feet
Crest Length	125 feet
Design Discharge	25,800 cfs
Outlet Works	2 rectangular concrete conduits 5'wide x 6'high and 206' long capable of 1,760 cfs maximum discharge capacity
Real Estate Acquisition	
Fee Purchase	Elevation 479.0 feet NVGD (873 acres)
Flowage Easement*	Varies, up to elevation 504.0 feet NVGD (264 acres)

* See Section 4.2.5 for more information about Flowage Easement Land.

Table 1.4 Pertinent Data for Hodges Village Dam

Reservoir Feature	Elevation (feet, NGVD29)	Stage (feet)	Surface Area (acres)	Capacity (acre-feet)	Capacity (inches of runoff)
Invert Elevation	465.5	0.0	0	0	0.0
Spillway Crest	501.0	35.5	740	13,250	8.0
Maximum Surcharge (Design Criteria)	515.1	49.6	_	_	_
Top of Dam	520.0	53.5	-	-	_

CHAPTER 2 – PROJECT SETTING AND FACTORS INFLUENCING MANAGEMENT AND DEVELOPMENT

2.1 HYDROLOGY

2.1.1 Surface water

Hodges Village Dam is located along the French River in the upper Thames River Basin. This basin begins with the Thames River tidal estuary in New London, Connecticut, and extends northward through the eastern third of Connecticut. At Norwich, the river divides into two smaller rivers, the Quinebaug and the Yantic. The Quinebaug sub-basin drains over 50 percent of the Thames basin and covers predominantly its eastern half. Part of this subbasin formed by the French River and the upper Quinebaug, extends into the southeastern corner of Hampden County and the southwestern corner of Worcester County, Massachusetts.

Surface waters are categorized by hydrologic units. Hydrologic units are classified by the United States Geologic Survey (USGS) using a Hydrologic Units Code (HUC) system. As shown in Figure 2.1, the units are classified from largest HUC with a two-digit region (i.e., the Mid-Atlantic Region), encompassing the largest area, to a twelve-digit sub-watershed HUC. Hodges Village Dam is classified by sub-watersheds as follows:

- 01 (HUC 2: Region) New England Region
- 0110 (HUC 4: Sub-region) Connecticut Coastal
- 011000 (HUC 6: Basin) Connecticut Coastal
 - Thames River lies within eastern portion of Connecticut Coastal Basin.
 Quinebaug River lies within the Thames River watershed.
- 01100001 (HUC 8: Sub-basin) Quinebaug River
- 0110000102 (HUC 10: Watershed) French River
- 011000010203 (HUC 12: Sub-watershed) Middle French River



Figure 2.1 Hydrology (HUC 6, 8, 10, 12) Map for Hodges Village Dam (USGS, 2023)

2.1.1 Ground water

The groundwater at Hodges Village Dam is limited to New England crystallinerock aquifers. Igneous and metamorphic rocks, primarily gneiss and schist, characterize the aquifers in Massachusetts. Well depths of 100-400 feet are common, with the potential for some wells exceeding 1,000 feet before reaching water. Groundwater generally yields 1-20 gallons per minute but can exceed 300 gallons per minute. Groundwater is generally suitable for most uses but may corrode pipes and appliances. The nearest major aquifer is the northernmost portion of sandstone Early Mesozoic Basin Aquifers, approximately 26 miles to the west. The USGS maintains a groundwater monitoring stations within the region, with one located approximately 10 miles from Hodges Village Dam. This station is in a local stratified deposits-type aquifer in the broader sand and gravel aquifers (glaciated regions) type. This station reports an average annual depth to water between 2.97 feet and 3.99 feet. However, the Commonwealth of Massachusetts does indicate this station is on an aquifer of significance. A medium yield aquifer lies underneath portions of Oxford to the east of the project. This medium yield aquifer contains two high yield areas capable of producing over 300 gallons per minute. A smaller medium yield aquifer with a single high yield area also occurs directly north of the Oxford-area aquifer. Overall, some groundwater resources are available in the area. Areas outside of the aquifers mapped by the USGS and the state wells may have low yields. In the scattered local and larger regional aquifers, wells may have higher yields. Groundwater resources should not affect the management of Hodges Village Dam lands and resources. The USGS map shown in Figure 2.2 shows the groundwater mapped around Hodges Village Dam.



Figure 2.2 Groundwater Map for Hodges Village Dam (USGS, 2007, 2023)

2.2 SEDIMENTATION AND SHORELINE EROSION

2.2.1 Sedimentation

There are no sedimentation monuments installed at any dams within the Thames River Basin. As sedimentation occurs at any impounded waterway, the district staff has utilized bathymetric data to estimate sedimentation within Hodges Village Dam and monitor the effects on flood control. There are several soil conservation structures in the Thames River Basin that help to reduce sedimentation, but none within the Hodges Village Dam-French River watershed. There are also sedimentation structures associated with the nearby quarry to reduce sediment runoff from quarry operations.

2.2.2 Shoreline Erosion and Downstream Erosion

There have been two open-pit gravel mining operations adjacent to the Hodges Village Dam project area since the dam was constructed. The Town of Oxford owns and excavates land on the east side of the river just above the dam. A private company operates a full scale quarry near the north end of the project. These mining operations do have unavoidable adverse effects on the project area that create aesthetic, vegetative, erosion, and siltation problems, in addition to higher noise and dust pollution levels. Additionally, a forest management plan prepared by USACE in 1981aims to use vegetation cover to prevent and control soil erosion within the project fee area.

2.3 WATER QUALITY

The Massachusetts Surface Water Quality Standards designate water quality criteria required for the designated uses of surface water. These standards allow for the protection of the chemical, physical, and biological integrity of the Nation's waters pursuant to the Clean Water Act. The French River, including the Hodges Village Reservoir, is designated as Class B Warm Water (MassDEP, 2024). Class B waters are designated fish, aquatic life, and wildlife habitat. Allowed uses in Class B waters include recreation, treated water supply, irrigation, agriculture, and industrial cooling and process uses. There are established Water Quality Standards for Class B Waters for the following: dissolved oxygen, temperature, pH, bacteria, solids, color and turbidity, oil and grease, and taste and odor.

Massachusetts Department of Environmental Protection (MassDEP)'s Watershed Planning Program conducts water quality testing for surface waters throughout the state. No recent sampling has occurred, although prior MassDEP sampling has occurred within the federal fee boundary (MassDEP, 2024). MassDEP's 2022 Integrated Water Quality Report lists French River as impaired for mercury in fish tissue. This impairment is known to affect fish consumption within French River (Table 2.1).

Table 2.1 MassDEP 2022 Integrated Water Quality Report Data for French River (MassDEP, 2023b)

Waterbody	Impairment	Source	Affected Use Category
French River Watershed	Non-Native Aquatic Plants	Introduction of Non-native Organisms (Accidental or Intentional)	Fish and other Aquatic Life and Wildlife
French River	Mercury in Fish Tissue	Atmospheric Deposition; Unknown	Fish Consumption

2.4 AIR QUALITY

The U.S. Environmental Protection Agency (EPA) has set National Ambient Air Quality Standards (NAAQS) for six principal pollutants. These include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter, and lead. An area is considered to be in attainment if it is meeting or below a given safe standard set by the EPA for the criteria pollutant.

The MassDEP protection monitors air quality to determine compliance with NAAQS. The Massachusetts's 2022 Air Quality Report determined that the Commonwealth of Massachusetts is currently in attainment for all six principal pollutants (MassDEP, 2023c).

2.5 CLIMATE AND GREENHOUSE GASES

2.5.1 Climate

Climatic regions are described using Köppen Climate Classifications (KCCs) and represented by three letters, according to their main climate group, precipitation, and temperature. Hodges Village Dam has a KCC of Dfa, which is described as a humid continental climate (Belda et al., 2014; NOAA, 2023). A humid continental climate can be broadly described as having four distinct seasons with large seasonal temperature differences, warm to hot summers, and cold, snowy winters. The Northeast region of the United States experiences extreme heat, flooding, droughts, and poor air quality (U.S. Global Change Research Program (USGCRP) 2023), as well as an increase in extreme precipitation events and more severe and long-lasting heatwaves.

The National Weather Service provides climatic data for weather stations through the Applied Climate Information System. The average monthly climate data was obtained using the Buffumville Lake weather station, which is in close proximity to Hodges Village Dam. Figure 2.3 includes the average precipitation for each month, as well as the average minimum, maximum, and daily average temperatures for each month.



Figure 2.3 Average Monthly Climate Buffumville Lake, Massachusetts, 1991-2020 (NOAA, 2024)

2.5.2 Greenhouse Gases (GHG)

The EPA Facility Level Information on Greenhouse Gases Tool (FLIGHT) provides data on large emitters of GHGs. EPA records show that there are 13 GHG contributors located in Worcester County, MA, all of which had reported emissions for year 2022 (EPA, 2024a). Table 2.2 describes these GHG contributors in Worcester County, Massachusetts. GHG emissions quantities are reported by the EPA in metric tons of Carbon Dioxide equivalent (CO2e). The subpart column describes the type of industry the emitting facility participates in.

Table 2.2 EPA Facility Level Information on Greenhouse Gases Tool (FLIGHT)Facilities in Worcester County, MA (EPA, 2024a)

Facility Name	City	Total Reported Emissions (mt CO ₂ e)	Sector*
Blackstone Power Generation LLC	Blackstone	1,046,845	C, D
Millenium Power	Charlton	444,270	C, D
Wheelabrator Millbury Inc.	Millbury	215,640	С
Eversource Gas	Westwood	94,434	NN, W
UMass Medical School	Worcester	85,142	С
Milford Power, LLC	Milford	70,583	C, D
Saint-Gobain Abrasives and Saint- Gobain Ceramics & Plastics, Inc.	Worcester	51,947	С
Fitchburg Westminster Landfill Recycling Center	Westminster	34,008	C, HH
TGP Station 264	Charlton	32,158	C, W
Newark America	Fitchburg	28,659	С
Wyman-Gordon Company	North Grafton	24,177	С
Southbridge Recycling & Disposal Park	Southbridge	5,528	C, HH
Martone Landfill & Gas Generating Facility	Barre	1,503	HH

*Subpart Codes: D – Electricity Generation; C – General Stationary Fuel Combustion Sources; HH – Municipal Solid Waste Landfills; NN – Suppliers of Natural Gas and Natural Gas Liquids; W – Petroleum and Natural Gas Systems

2.6 TOPOGRAPHY, GEOLOGY, AND SOILS

2.6.1 Topography

The French River watershed is part of the same physiographic province known as the Appalachian Highlands, an ancient range of igneous and metamorphic rock forming the mountains and hills of much of the northeastern United States. In recent geological time, this rugged landscape was blanketed by glaciers which covered all of New England. The southward movement of the ice sheet and subsequent melting left the area with a layer of glacial debris called till, a mixture of gravel, sand, silt and clay. The result of this glacial activity is a landscape of gently rolling hills and wide valleys.

The terrain at Hodges Village Dam can be generally described as hilly with moderate relief. North of the project, the French River flows through a generally narrow valley flanked by high steep-sided hills. Within and below the project, the valley widens and is partially lined with terraces. When filled to capacity, the reservoir would inundate two ponds and large areas of marsh and swamp. The Hodges Village Dam project area ranges in elevation from 470 feet NGVD29 along the French River to 737 feet NGVD29 on Rocky Hill in the northwestern corner of the property. The French River is formed by the confluence of several small brooks in Leicester, Massachusetts and flows in a southerly direction. The river has a total fall of 618 feet along its 28-mile length, and within the fee-owned project area, the average gradient is about 8 feet per mile. This grade is gentler than the river's average grade because of the swampy lowland nature of the project. The French River maintains an active flow in the northern part of the reservoir area but is generally impounded by beaver dams in the southern three quarters of its stretch thus producing slow moving currents.

2.6.2 Geology

The bedrock underlying the project area is chiefly granite rock and phyllite. North of the dam, the French River flows through a valley with a narrow flood plain. Ravines separate flat areas and have small ponds and wetlands. In and below the reservoir area the valley widens. This area is overlain with ice-contact stratified drift and alluvium. These coarse-grained materials are good sources of gravel and were actively mined in two pit locations within the project area and continue to be mined on lands immediately adjacent to the project area. The soil in the parts of the French River valley is underlain by ice-contact stratified drift and is well-drained but nutrient deficient. The alluvium is well-drained, except in the swamp deposits and small wetlands scattered throughout the region.

The bedrock in the valley of the French River is overlain mostly by deposits from which finer particles have been removed by the action of glacial melt-waters, leaving sands and gravels. The bedrock in two areas is mantled by glacial till, unsorted material dropped by the glacier. One is a prominent, unnamed hill that lies between the eastern edge of the dam and the town center of Oxford. The second is Rocky Hill, lying on the west side of the project area. The till here is thin, and outcrops and small areas of boulder talus occur at several places on the hill.

2.6.3 Soils

Several different soils are present on the property. The lower margins of Rocky Hill and the entire unnamed hill contain Canton fine sandy loam. The ridges and the upper slopes of Rocky Hill bear soils of the Chatfield-Hollis-rock outcrop complex, which consist of thin soils with numerous bedrock exposures. Most of the upland areas on glacial outwash support soils of the Merrimac-Hinckley-Windsor group. These are relatively coarse, mostly sandy loams and fine sands, and are highly permeable, and are classified as excessively or somewhat excessively drained. They also tend to be low in nutrients. Smaller upland areas are mapped as Sudbury fine sandy loam, a welldrained soil that usually develops in outwash plains and on-stream terraces. Wetland soils include soils of the Scarboro and Walpole group and especially Freetown Muck. These are very poorly drained soils of outwash plains, stream terraces and glacial lakes. The organic content of the soils is high and the layer of muck is often several feet deep.

The non-irrigated land capability classification from the Natural Resource Conservation Service (NRCS) shows there are 8 possible general classifications (Class I through Class VIII), but only 6 occur at Hodges Village Dam. The erosion hazards and plant cultivation limitations for use increase as the class number increases. Class I has few limitations, whereas Class VIII has many. The NRCS Web Soil Survey provided the soil class data for project lands in Table 2.3. This data a standard component of natural resources inventories on USACE lands. This data, however, is not recorded in the USACE Natural Resource Management system (NRM).

Soil Class	Acreage
Class I	0
Class II	250
Class III	21
Class IV	49
Class V	251
Class VI	128
Class VII	120
Class VIII	19

Table 2.3 Soil Classifications at Hodges Village Dam

(Source: NRI Level I Inventory)

There are three distinct soil series identified in the project area. The western shore is dominated by Canton Fine Sandy Loam. The eastern shoreline is dominated by Windsor Loamy Fine Sand and stretches of Merrimac Fine Sandy Loam.

The descriptions of the soils and land capability classifications below demonstrate the relative general potential for project lands. The NRCS maintains detailed information on all soil types surrounding Hodges Village Dam in various websites and datasets.

• <u>Class I</u> soils have slight limitations that restrict their use.

• <u>Class II</u> soils have moderate limitations that reduce the choice of plants or require moderate conservation practices.

• <u>Class III</u> soils have severe limitations that reduce the choice of plants or require special conservation practices, or both.

• <u>Class IV</u> soils have very severe limitations that restrict the choice of plants or require very careful management, or both.

• <u>Class V</u> soils have little or no hazard of erosion but have other limitations, impractical to remove, that limit their use mainly to pasture, range, forestland, or wildlife food and cover.

• <u>Class VI</u> soils have severe limitations that make them generally unsuited to cultivation and that limit their use mainly to pasture, range, forestland, or wildlife food and cover.

• <u>Class VII</u> soils have very severe limitations that make them unsuited to cultivation and that restrict their use mainly to grazing, forestland, or wildlife.

• <u>Class VIII</u> soils and miscellaneous areas have limitations that preclude their use for commercial plant production and limit their use to recreation, wildlife, or Water Supply or for aesthetic purposes.



Figure 2.4 Soil Classification Map (NRCS, 2023)

2.6.4 Prime Farmland

Section 1541(b) of the Farmland Protection Policy Act (FPPA) of 1980 and 1995, 7 U.S.C. 4202(b) requires federal and state agencies, as well as projects funded with federal funds, to (a) use the criteria to identify and take into account the adverse effects of their programs on the preservation of farmland, (b) consider alternative actions, as appropriate, that could lessen adverse effects, and (c) ensure that their programs, to the extent practicable, are compatible with state and units of local government and private programs and policies to protect farmland. The prime farmland soils are mapped in Figure 2.5.



Figure 2.5 Prime Farmland Soils Map (NRCS, 2023)

2.7 NATURAL RESOURCE ANALYSIS

2.7.1 Fish and Wildlife Resources

Fish and wildlife occurring at Hodges Village Dam are typical of Worcester County. Table 2.4 through Table 2.8 provide lists of common birds, reptiles, amphibians, mammals, and fish species potentially present at Hodges Village Dam (USACE, 1998; MassWildlife, 2024c).

Common Name	Scientific Name
Coyote	Canis latrans
American beaver	Castor canadensis
Virginia opossum	Didelphis virginiana
North American porcupine	Erethizon dorsadum
Southern flying squirrel	Glaucomys volans
River otter	Lontra canadensis
Bobcat	Lynx rufus
Groundhog	Marmota monax
Striped skunk	Mephitis mephitis
American mink	Mustela vison
White-tailed deer	Odocoileus virginianus
Muskrat	Ondatra zibethicus
Fisher	Pekania pennanti
White-footed mouse	Peromyscus leucopus
Raccoon	Procyon lotor
Eastern gray squirrel	Sciurus carolinensis
Eastern cottontail	Sylvilagus floridanus
New England cottontail	Sylvilagus transitionalis
Eastern chipmunk	Tamias striatus
Red squirrel	Tamiasciurus hudsonicus
Grey fox	Urocyon cinereoargenteus
Black bear	Urus americanus
Red fox	Vulpes vulpes
Meadow jumping mouse	Zapus hudsonius

Table 2.4 Common Mammal Species Potentially Present at Hodges Village Dam

Table 2.5 Common Bird Species Occurring around Hodges Village Dam

Common Name	Scientific Name
Common redpoll	Acanthis flammea
Cooper's hawk	Accipiter cooperii
Wood duck	Aix sponsa
Mallard	Anas platyrhynchos
American black duck	Anas rubripes
Great blue heron	Ardea herodias
Tufted titmouse	Baeolophus bicolor
Cedar waxwing	Bombycilla cedrorum
Canada goose	Branta canadensis
Great horned owl	Bubo virginianus
Northern cardinal	Cardinalis cardinalis
American crow	Corvus brachyrhynchos

Common Name	Scientific Name
Blue jay	Cyanocitta cristata
Mute swan	Cygnus olor
Downy woodpecker	Dryobates pubescens
Gray catbird	Dumetella carolinensis
Rusty blackbird	Euphagus carolinus
American kestrel	Falco sparverius
House finch	Haemorhous mexicanus
Purple finch	Haemorhous purpureus
Bald eagle	Haliaeetus leucocephalus
Evening grosbeak	Hesperiphona vespertina
Baltimore oriole	Icterus galbula
Dark-eyed junco	Junco hyemalis
Hooded merganser	Lophodytes cucullatus
Red-bellied woodpecker	Melanerpes carolinus
Wild turkey	Meleagris gallopavo
Common merganser	Mergus merganser
Osprey	Pandion haliaetus
House sparrow	Passer domesticus
Rose-breasted grosbeak	Pheucticus Iudovicianus
Pine grosbeak	Pinicola enucleator
Rufous-sided towhee	Pipilo erythrophthalmus
Black-capped chickadee	Poecile atricapillus
Common grackle	Quiscalus quiscala
Eastern phoebe	Sayornis phoebe
American woodcock	Scolopax minor
Myrtle warbler	Setophaga coronata
Eastern bluebird	Sialia sialis
White-breasted nuthatch	Sitta carolinensis
Yellow-bellied sapsucker	Sphyrapicus varius
Pine siskin	Spinus pinus
American goldfinch	Spinus tritis
Common starling	Sturnus vulgaris
Brown thrasher	Toxostoma rufum
Mourning dove	Zenaida macroura

Table 2.6 Common Amphibian Species around Hodges Village Dam

Common Name	Scientific Name
Spotted salamander	Ambystoma maculatum
Marbled salamander	Ambystoma opacum
American toad	Anaxyrus americanus
Common Name	Scientific Name
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Northern two-lined salamander	Eurycea bislineata
Four-toed salamander	Hemidactylium scutatum
Gray treefrog	Hyla versicolor
American bullfrog	Lithobates catesbeianus
Green frog	Lithobates clamitans
Pickerel frog	Lithobates palustris
Northern leopard frog	Lithobates pipiens
Wood frog	Lithobates sylvaticus
Eastern newt	Notophthalmus viridescens
Eastern red-backed salamander	Plethodon cinereus
Spring peeper	Pseudacris crucifer

Table 2.7 Common Reptile Species around Hodges Village Dam

Common Name	Scientific Name
Snapping turtle	Chelydra serpentina
Painted turtle	Chrysemys picta
Spotted turtle	Clemmys guttata
North American racer	Coluber constrictor
Wood turtle	Glyptemys insculpta
Eastern hog-nosed snake	Heterodon platirhinos
Milksnake	Lampropeltis triangulum
Northern watersnake	Nerodia sipedon
Eastern musk turtle	Sternotherus odoratus
Dekay's brownsnake	Storeria dekayi
Common ribbon snake	Thamnophis sauritus sauritus
Common gartersnake	Thamnophis sirtalis

Table 2.8 Fish Species Likely to Occur at Hodges Village Dam

Common Name	Scientific Name
Yellow bullhead	Ameiurus natalis
Brown bullhead	Ameiurus nebulosus
White sucker	Catostomus commersonii
Northern pike	Esox lucius
Chain pickerel	Esox niger
Red-breast sunfish	Lepomis auritus
Pumpkinseed	Lepomis gibbosus
Bluegill	Lepomis macrochirus
Largemouth bass	Micropterus salmoides
White perch	Morone americana
Golden shiner	Notemigonus crysoleucas

Common Name	Scientific Name
Rainbow trout	Oncorhynchus mykiss
Yellow perch	Perca flavescens
Black crappie	Pomoxis nigromaculatus
Blacknose dace	Rhinichthys atratulus
Brook trout	Salvelinus fontinalis

2.7.2 Vegetative Resources

Vegetation in the Southern New England Coastal Plains and Hills includes deciduous forests, mesic forests, swamps, and some mixed and evergreen forests. Land uses for this ecoregion include deciduous forest, urban, suburban, rural residential land, hay/pasture, cropland, mixed and evergreen forest, woody wetlands, public state forest, and state park lands (Griffith, et al., 2009).

Appalachian oak-pine forests are the dominant forest types in this ecoregion. Various combinations of hardwood species may include red oak (*Quercus rubra*), white oak (*Quercus alba*), scarlet oak (*Quercus coccinea*), black oak (*Quercus velutina*), chestnut oak (*Quercus montana*), white pine (*Pinus strobus*), red maple (*Acer rubrum*), pignut hickory (*Carya glabra*), shagbark hickory (*Carya ovata*), and mockernut hickory (*Carya tomentosa*). Different variations may occur on upper slopes, on shallow dry rocky soils, and on mid-slopes (Griffith, et al., 2009). Before the arrival of chestnut blight (*Cryphonectria parasitica*), the American chestnut (*Castanea dentata*) was one of the dominant tree species across the ecoregion.

A forest inventory was conducted in 1981 to classify forest types occuring at Hodges Village Dam. The predominant forest types include white pine-red oak-white ash (*Fraxinus americana*) forests and white oak-red oak-hickory forests. The white pine-red oak-white ash is the largest forest type with species representative of Appalachian oak-pine forests. The white oak-red oak-hickory forest type includes similar species such as shagback hickory (*Carya ovata*), pignut hickory (*Carya glabra*), and butternut (*Juglans cinerea*) (USACE, 1998).

Forested swamps may include red maple (*Acer rubrum*), green ash (*Fraxinus pennsylvanica*), hemlock (*Tsuga canadensis*), or Atlantic white cedar (*Chamaecyparis thyoides*) (Griffith, et al., 2009). Atlantic white cedar swamp forest and black-ash-American elm-red maple forests are found at Hodges Village Dam. The Atlantic white cedar swamp contains white pine, hemlock, and red maple. The black ash-American elm-red maple is dominated by red maples and is found throughout swamps and in areas of slow drainage (USACE, 1998).



Photo 2.1 Understory of Native Forest at Hodges Village Dam Source: USACE

2.7.3 Threatened and Endangered Species

Federal

The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) system was consulted to review project area resources and evaluate project compliance. An IPaC report was generated to indicate federal conservation species and other resources under the jurisdiction of USFWS (Appendix B). Birds of Conservation Concern (BCC) are identified through IPaC alongside species protected under the Endangered Species Act. BCC species are migratory and nonmigratory bird species which have the highest conservation priority as identified by USFWS (USFWS, 2021). Table 2.9 and Table 2.10 provide lists of federal conservation species listed under the Endangered Species Act and the Migratory Bird Treaty Act (USFWS, 2024a).

Table 2.9 Federal Listed Species Potentially Occurring at Hodges Village Dam

Common Name	Scientific Name	Federal Status
Small Whorled Pogonia	Isotria medeoloides	Threatened
Tricolored Bat	Perimyotis subflavus	Proposed Endangered

Table 2.10 Federal Listed Migratory Birds Potentially Occurring at Hodges VillageDam

Common Name	Scientific Name	Federal Status
Bald eagle	Haliaeetus leucocephalus	Bald and Golden Eagle Protection Act
Black-billed cuckoo	Coccyzus erythropthalmus	Bird of Conservation Concern (BCC)
Blue-winged warbler	Vermivora cyanoptera	BCC
Bobolink	Dolichonyx oryzivorus	BCC
Canada warbler	Cardellina canadensis	BCC
Cerulean warbler	Setophaga cerulea	BCC
Chimney swift	Chaetura pelagica	BCC
Eastern whip-poor will	Antrostomus vociferus	BCC
Lesser yellowlegs	Tringa flavipes	BCC
Pectoral sandpiper	Calidris melanotos	BCC
Prairie warbler	Setophaga discolor	BCC
Prothonotary warbler	Protonotaria citrea	BCC
Red-headed woodpecker	Melanerpes erythrocephalus	BCC
Rusty blackbird	Euphagus carolinus	BCC
Scarlet tanager	Piranga olivacea	BCC
Semipalmated sandpiper	Calidris pusilla	BCC
Wood thrush	Hylocichla mustelina	BCC

State

A list of state threatened and endangered species was obtained from the Massachusetts Division of Fisheries & Wildlife's (MassWildlife) Natural Heritage and Endangered Species Program through the use of MassWildlife's Heritage Hub. Statelisted species potentially occurring within the project area are listed within Table 2.11 (MassWildlife, 2025). Six additional species are listed in Table 2.12, which were found to occur in the Town of Oxford although not identified within the project area (MassWildlife, 2024).

Table 2.11 State Listed Conservation Species Potentially Occurring at HodgesVillage Dam

Common Name	Scientific Name	State Status
Bristly buttercup	Ranuncules pensylvanicus	Special Concern
Creeper	Strophitus undulatus	Special Concern
Heath metarranthis	Metarranthis pilosaria	Special Concern
Marbled salamander	Ambystoma opacum	Threatened
Orange sallow moth	Pyrrhia aurantiago	Special Concern
Wood turtle	Glyptemys insculpta	Special Concern

Common Name	Scientific Name	State Status
Adder's tongue fern	Ophioglossum pusillum	Threatened
Climbing fern	Lygodium palmatum	Special Concern
Eastern whip-poor-will	Antrostomus vociferus	Special Concern
Pale green orchid	Platanthera flava var. herbiola	Threatened
Pied-billed grebe	Podilymbus podiceps	Endangered
Pink sallow moth	Psectraglaea carnosa	Special Concern

2.7.4 Invasive Species

An invasive species is defined as a plant or animal that is non-native (or native nuisance) to an ecosystem and whose introduction causes, or is likely to cause, economic and/or environmental harm, or harm to human health (USDA 2024). Invasive species can change community structure, composition, and ecosystem processes. Careful management can minimize these negative impacts. Table 2.13 lists known invasive species found at Hodges Village Dam.

Table 2.13 Invasive Species at Hodges Village Dam

Common Name	Scientific Name
Autumn olive	Elaeagnus umbellata
Bell's honeysuckle	Lonicera x bella [morrowii x tatarica]
Black locust	Robinia pseudoacacia
Black swallow-wort	Vincetoxicum nigrum
Carolina fanwort; fanwort	Cabomba caroliniana ¹
Common buckthorn	Rhamnus cathartica
Common reed	Phragmites australis

Common Name	Scientific Name
Curly-leafed pondweed	Potamogeton crispus L. ¹
Eurasian water-milfoil	Myriophyllum spicatum ¹
Garlic mustard	Alliaria petiolata
Glossy buckthorn	Frangula alnus
Japanese barberry	Berberis thunbergii
Japanese honeysuckle	Lonicera japonica
Japanese knotweed	Fallopia japonica
Morrow's honeysuckle	Lonicera morrowii
Multiflora rose	Rosa multiflora
Norway maple	Acer platanoides
Oriental (Asiatic) bittersweet	Celastrus orbiculatus
Purple loosestrife	Lythrum salicaria
Sycamore maple	Acer pseudoplatanus
Variable-leaved water-milfoil	Myriophyllum heterophyllum ¹
Water chestnut	Trapa natans ¹
Winged euonymus; Burning bush	Euonymus alatus
Yellow iris	Iris pseudacorus

¹ Aquatic Invasive Species

Careful management of invasive species can minimize negative impacts on the ecosystem and immediate natural community. There are five main methods USACE utilizes to manage invasive species:

- Biological: use of other living organisms to suppress invasive species
- Chemical: application of registered pesticides for control of targeted species
- Manual: hand pulling, digging, weed wrenching, cutting
- Mechanical: mechanized removal or control of invasive species including mowing, forestry equipment, chainsaws, aquatic harvesting equipment, and/or the use of traps
- Cultural: education, outreach, and other activities to improve public practices on lands and reduce spread of invasive species and/or manipulation of habitats to increase mortality

Chemical and mechanical methods are used extensively by staff, volunteers and contractors at Hodges Village Dam and include the following:

- Hand pulling
- Cutting
- Mowing
- Digging
- Brush hogging/cutting
- Pulling with a mini excavator and tractor
- Chemical treatment

These methods are effective if repeated frequently during a growing season to exhaust a plant's root reserves, or if used in combination with other techniques.

An invasive species management plan for the project will be developed in the future as funding becomes available. This plan would then be directly incorporated into the Master Plan during future updates or revisions.

2.7.5 Ecological Setting

Ecoregion classifications are used to describe areas with similar ecosystems, analyzing type, quality, and quantity of environmental resources (EPA, 2024b). Ecoregions are classified through a hierarchical scale, which ranges from general to detailed ecoregions. Level IV ecoregions describe localized vegetation, whereas Level III describe the regional ecosystems. Refer to Section 2.7.2 for a description of vegetative resources within the Level IV ecoregions at Hodges Village Dam. This section uses Level III ecoregions to describe the broad ecological setting at Hodges Village Dam (Wiken et al., 2011; Griffith et al., 2009).

Hodges Village Dam is a part of the Northeastern Coastal Zone Level III ecoregion. This is the predominant Level III ecoregion in Massachusetts alongside the Northeastern Highlands ecoregion which is found in the western and north-western areas of Massachusetts. The Northeastern Coastal Zone is found throughout southern New England and coastal areas of New Hampshire and southern Maine.

Landforms in the Northeastern Coastal Zone include irregular plains, plains with low to high hills, and open hills. Elevations in this ecoregion range from sea level to over 984 feet. This ecoregion has a humid continental climate with warm summers and severe winters.

The geology of this ecoregion is varied and is predominantly igneous and metamorphic rocks. Soils are relatively nutrient poor and are typically Inceptisols with moderate soil development.

Common surface water features of the ecoregion include perennial streams, lakes, ponds, and wetlands. Glacial lakes are concentrated in this ecoregion. There is diversity of stream networks due to variable geology and geomorphology.

2.7.6 Wetlands

The USFWS maintains the National Wetlands Inventory (NWI), which is a wetlands database across the United States. Using the NWI's GIS data, there are approximately 286.37 acres of wetlands present within the fee boundary for Hodges Village Dam (USFWS, 2024b). Table 2.14 summarizes the wetlands by NWI wetland type (USFWS, 2024b).

NWI Wetland Type	Acres
Freshwater Forested/Shrub Wetland	132.98
Freshwater Emergent Wetland	130.75
Freshwater Pond	11.33
Riverine	11.31

Table 2.14 NWI Wetlands by Type at Hodges Village Dam



Figure 2.6 EPA Level III Ecoregions at Hodges Village Dam (EPA, 2015)



Figure 2.7 EPA Level IV Ecoregions at Hodges Village Dam (EPA, 2015)

The USFWS maintains the National Wetlands Inventory (NWI), which is a wetlands database across the United States. Using the NWI's GIS data, there are approximately 286.37 acres of wetlands present within the fee boundary for Hodges Village Dam (USFWS, 2024b). Table 2.15 summarizes the wetlands by NWI wetland type (USFWS, 2024b).

Table 2.15	NWI Wetland	s by Type	at Hodges	Village Dam
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NWI Wetland Type	Acres
Freshwater Forested/Shrub Wetland	132.98
Freshwater Emergent Wetland	130.75
Freshwater Pond	11.33
Riverine	11.31

NOTE: Acreages differ from land and water surface calculations due to USFWS using a single snapshot of the water surface. Source: USFWS. 2024.



Figure 2.8 NWI Wetlands at Hodges Village Dam (NWI, 2024)

2.8 HAZARDOUS, TOXIC AND RADIOACTIVE WASTE

There are no hazardous, toxic, radioactive, or solid waste advisories within the Hodges Village Dam fee boundary. Figure 2.9 EPA EnviroMapper Facilities within a 5 Mile Radius of Hodges Village Dam (EPA, 2023B) shows the EPA Registered Facilities within a 5-mile radius of Hodges Village Dam. As a part of USACE annual environmental compliance assessment, members of USACE inspect various areas (leases, easements, and parks) at Hodges Village Dam that are known to potentially emit or store hazardous materials on an annual basis as part of USACE efforts to be in compliance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This assessment is completed through a USACE formal process known as the Environmental Review Guide for Operations (ERGO). Upon completion of the assessment if any compliance findings occur then formal remedial actions will take place.



Figure 2.9 EPA EnviroMapper Facilities within a 5 Mile Radius of Hodges Village Dam (EPA, 2023B)

2.9 HEALTH AND SAFETY

Hodges Village staff work in conjunction with state and federal agencies to provide public outreach programs on conservation of natural resources. The USACE has established recreation management practices to protect the public. These include safety regulations and speed limit and pedestrian signs for park roads. The USACE also ensures compliance with rules and regulations governing solid waste, wastewater, and potable water management in place for USACE fee land, including those areas operated by lessees.

The Project Manager at Hodges Village Dam is responsible for developing plans and programs designed to implement and enforce safety regulations and requirements. A hazard-free environment for both USACE personnel and the visiting public is essential. Project personnel are required to identify hazards and unsafe conditions that occur in all areas of their operation. Once identified, they take steps to prevent, reduce, or control such hazards.

Project personnel are trained in safety regulations and in the use of safety equipment. Markers, signs, or guardrails are provided at appropriate locations throughout the area. Negative signs and warnings have been held to a minimum so that the public may enjoy the greatest freedom without unnecessary restraint. Access roads and trails are closed to the public during flood control operations.

Hunting and angling are controlled by the Massachusetts fish and game laws, which generally prohibit activities which would damage vegetation or government property, or which would threaten the safety of hunters or other project users.

2.10 AESTHETIC RESOURCES

Hodges Village Dam offers year-round outdoor recreation with over 21 miles of trails available. The blue blazed trails and Midstate trail are for nonmotorized use including hiking, nature study, mountain biking, cross-country skiing, and horseback riding. On the west side of the French River, dirt bikes and snowmobiles are allowed on the designated off-road vehicle (ORV) orange-blazed trails only.

The outdoor enthusiast can hunt, fish and paddle at Hodges Village Dam. However, hunting is allowed only on the west side of the French River; no hunting is permitted anywhere on the east side of the river at Hodges Village Dam. The French River is accessible for paddling at Greenbriar Park and just downstream of Hodges Village Dam at Augutleback Pond, outside of USACE fee-owned land. There are many different opportunities for those who enjoy cold weather sports, including cross country skiing, and snowmobiling (west side of French River only). Hodges Village Dam is available for use by students and educators for environmental education.

Hodges Village Dam includes acres of scenic river and wetland views, and wildlife viewing areas provide high visual and scenic qualities. Some areas are admired for their scenic attractiveness (intrinsic scenic beauty that evokes a positive response), scenic integrity (wholeness of landscape character), and landscape visibility (how many people view the landscape and for what reasons and how long). The overall visual character of the reservoir area is mainly that of a second growth mixed hardwood forest of the type typical to southern Massachusetts. The peak time of scenic quality for this area is during the fall foliage season. The low rolling tree-covered hills and hollows provide a source of visual aesthetic appeal, but this type of landscape interferes with long vistas. The spillway overlook of the Hodges Village Dam is the only high point on the site that provides a clear view. From here, the view to the south is of Hodges Village and the lower pond. To the north, the view is of the shrub swamp and marsh area. The Greenbriar Recreation Area provides a motoring vista on Route 12.

Adjacent landowners are informed that removing trees from USACE property to obtain a view of or access to the project not only destroys wildlife habitat but also lowers the scenic quality to the public. Furthermore, unauthorized removal of trees and other vegetation from USACE property is a direct violation of Federal Code, Title 36 – Part 327. Additionally, reasonable measures must be taken to ensure that damage to the natural landscape from invasive species and catastrophic wildfire are minimized. Vegetative management, debris removal, and other shoreline issues are managed by the USACE Hodges Village Dam Office.



Photo 2.2 View of Chaffee Pond in Full Bloom from the Old Railroad Bed Source: USACE

2.11 CULTURAL, HISTORICAL, AND ARCHAEOLOGICAL RESOURCES

Cultural resources preservation and management is an equal and integral part of all resource management at USACE-administered operational projects. The term "cultural resources" is a broad term that includes, but is not limited to, historic and prehistoric archaeological sites, deposits, and features; burials and cemeteries; historic and prehistoric districts comprised of groups of structures or sites; cultural landscapes; built environment resources such as buildings, structures (such as bridges), and objects; traditional cultural properties; and sacred sites. These property types may be listed on the National Register of Historic Places (NRHP) if they meet the criteria specified by the NRHP (36 CFR Part 60) reflecting significance in architecture, history, archaeology, engineering, and culture. Cultural resources that are identified as eligible for listing in the NRHP are referred to as "historic properties," regardless of category. A Traditional Cultural Property (TCP) is a property that is eligible for inclusion in the NRHP based on its associations with the cultural practices, traditions, beliefs, lifeways, arts, crafts, or social institutions of a living community. Ceremonies, hunting practices, plant-gathering, and social practices which are part of a culture's traditional lifeways, are also cultural resources.

Stewardship of cultural resources on USACE Civil Works water resources projects is an important part of the overall Federal responsibility. Numerous laws pertaining to identification, evaluation, and protection of cultural resources, Native American rights, curation and collections management, and the protection of resources from looting and vandalism, establish the importance of cultural resources to our Nation's heritage. With the passage of these laws, the historical intent of U.S. Congress has been to ensure that the Federal government protects cultural resources. Additionally, as stewards of cultural resources and in compliance with federal laws, it is incumbent upon the USACE to consult with the State Historic Preservation Officer (SHPO), Tribal Nations, the Advisory Council on Historic Preservation (ACHP), and other interested stakeholders in the preservation and management of cultural resources.

Guidance is derived from a number of cultural resources laws and regulations, including but not limited to Sections 106 and 110 of the National Historic Preservation Act (NHPA) of 1966 (as amended) (54 U.S.C. 306108 et seq.); Archaeological Resources Protection Act (ARPA) of 1979; Native American Graves Protection and Repatriation Act (NAGPRA); and 36 CFR Part 79, Curation of Federally owned and Administered Archeological Collections. Implementing regulations for Section 106 of the NHPA and NAGPRA are 36 CFR Part 800 and 43 CFR Part 10, respectively. All cultural resources laws and regulations should be addressed under the requirements of the National Environmental Policy Act (NEPA) of 1969 (as amended), as applicable. USACE summarizes the guidance provided in these laws in ER and EP 1130-2-540.

2.11.1 Summary of Resources and Previous Investigations

The cultural history of New England spans approximately 12,500 years of human occupation. This history is generally divided into pre-contact (prior to Native American contact with Europeans) and post-contact (after Native American contact with Europeans) frameworks that are further subdivided into more specific time periods based technological variation, settlement patterns, land use, and subsistence and consist of (Doucette et al. 2010; Lothrop et al. 2018):

- Pre-Contact Periods
 - Paleo-Indian Period (10,500 to 8,000 BC)
 - Early Archaic Period (8,000 to 5,500 BC)
 - Middle Archaic Period (5,500 to 3,000 BC)

- Late Archaic Period (3,000 to 1,000 BC)
- Early Woodland Period (1,000 BC to 300 AD)
- Middle Woodland Period (300 to 950 AD)
- Late Woodland Period (950 to 1500 AD)
- Post-Contact Periods
 - Contact and Early Historic (1500 to 1675 AD)
 - o Colonial (1675 to 1775 AD)
 - Federal (1775 to 1830 AD)
 - Early Industrial (1830 to 1870 AD)
 - Late Industrial (1870 to 1915 AD)
 - Modern (1915 AD to Present)

Cultural resources within Hodges Village Dam include a record of occupations by indigenous populations from as early as the Late Archaic (ca. 3,000 BC) through the Contact period (1500 to 1675 AD) and into the present day. Pre-contact archaeological sites in the project area range from small scatters of chipped stone tools to campsites or small villages representing multiple episodes of occupation. Sites are typically found on low terraces overlooking ponds, wetlands, and streams. Pre-contact artifacts include stone projectile points, chipped stone tools, shell, bone, ceramics and burned rock. There are nine pre-contact sites recorded within the project area. These sites include four locations around Stumpy Pond (Stumpy Pond Findspot Nos.1-4), the River Terrace Findspot, the Blue Trail Findspot (Late Archaic), the Yellow Trail Findspot, the Black Racer Site, and the Hodges Rockshelter Site. The Blue Trail Findspot consisted of a single Squibnocket Triangle projectile point and was determined to be not eligible for inclusion in the NRHP. The remaining eight pre-contact sites require additional evaluation to determine their eligibility for inclusion in the NRHP (Atwood 2001).

Post-contact settlement in the project area begins in the late 17th century in the nearby community of Oxford. Manufacturing and light industry developed primarily along the French River to the west and north of Oxford. The surrounding region was occupied by farmsteads focused on livestock and crop agriculture (Doucette et al. 2010). There are six post-contact sites recorded within the project area. These include the George Hodges Carriage House and Ice House (1861), the Jason Brown Farmstead (1791), the Charlton Road Bridge Abutments (1738), the Norwich and Worcester Railroad Easement, the Cyrus Kidder Cellar Hole (ca. 1740 to 1851), and the H.P. House/Farmstead (ca. 1870). The Norwich and Worcester Railroad Easement was determined to be not eligible for inclusion in the NRHP. The remaining five post-contact sites require additional evaluation to determine their eligibility for inclusion in the NRHP (Atwood 2001).

There have been three previous cultural resources investigations within the Hodges Village Dam project area. The first of these investigations was a 200-acre archaeological survey of a low flow-augmentation project conducted by the Office of Public Archaeology (Wamsley 1983). A second investigation was conducted by Public Archaeology Laboratory, Inc. (PAL) in 1994 (Cherau et al. 1994). This investigation was an intensive archaeological survey of 3.22-acre tract below the Hodges Village Dam.

The final investigation was an archaeological reconnaissance survey conducted by PAL in 1995 (Cherau and Herbster 1995). This investigation consisted of archival research, pedestrian survey, and limited subsurface testing. The 1995 investigation resulted in the identification of the 15 sites in the project area and the delineation of archaeologically sensitive areas. It is important to note that archaeological investigations have only been conducted within specific areas and not over the entirety of the project area. Locations within the project area that are inundated, marshlands, or steep slopes have low potential for the recovery of archaeological deposits.

2.11.2 Long-Term Cultural Resource Objectives

Cultural and environmental formation processes have affected cultural resources within the Hodges Village Dam project. These formation processes include the displacement of pre-contact archaeological sites by European settlement of the region that included deforestation, agriculture, and the construction of dams, houses, and roads. Subsurface looting has not been documented in the project area, but archaeological sites are vulnerable to the surface collection of artifacts. Impacts from surface collection are often exacerbated by increased access to site locations. The construction of the dam has had the largest impact to cultural resources, especially to historic age buildings and structures. The primary ongoing threat to cultural resources within the project area is erosion resulting from surface runoff, inundation, and recreation.

A Historic Properties Management Plan (HPMP) was created by USACE for Hodges Village Dam in 2001 (Atwood 2001). Due to the relative paucity of cultural resources data for the project area, the current HPMP is sufficient for the management of cultural resources. However, the HPMP should be updated to incorporate any new cultural resources information that has been developed since the 2001 HPMP. Additionally, the USACE has only a partial inventory of the fee-owned lands of the Hodges Village Dam project and a complete inventory should be completed to identify unrecorded cultural resources. It is recommended that the USACE update the existing HPMP in consultation with the Massachusetts SHPO, Native American Tribes, and other stakeholders to synthesize the existing data, address the effects of cultural and environmental processes on cultural resources and recommendations for managing these impacts, and outline procedures for management of these resources during construction and operations activities. Until the HPMP is updated, future activities that have a potential to affect cultural resources should look to the existing HPMP for guidance. Finally, any future activities that have a potential to affect cultural resources must comply with Section 106 and 110 of the NHPA, NAGPRA, and ARPA.

2.12 CURRENT SOCIAL AND ECONOMIC CONDITIONS

2.12.1 Zone of Interest

Hodges Village Dam is in Oxford, Massachusetts in Worcester County. It is 13 miles southwest of Worcester, Massachusetts. The zone of interest for the socioeconomic analysis is comprised of seven counties in the area surrounding the dam, including Connecticut's county equivalent, the Northeastern Connecticut Planning Region. These are listed in Table 2.16. Connecticut, Massachusetts, and Rhode Island all contain a portion of the zone of interest.

Table 2.16 Zone of Interest Counties

Zone of interest Counties
Northeastern Connecticut Planning Region, CT
Hampden County, MA
Hampshire County, MA
Middlesex County, MA
Norfolk County, MA
Worcester County, MA
Providence County, RI

2.12.2 Population

The total population in the zone of interest in 2023 was 4,583,354 (Table 2.17). Approximately 36% of the zone of interest's population resides in Middlesex County, MA and 19% reside in Worcester County, MA, 16% reside in Norfolk County, MA, and 15% reside in Providence County, RI. The remaining counties in the zone of interest each account for less than 11% of the zone's population. 84.1% of the zone's population resides in Massachusetts, 13.8% reside in Rhode Island, and 2.2% reside in Connecticut.

From 2020 to 2040, the population in the zone of interest is expected to increase by 2.46% from 4,508,968 to 4,583,354, an average annual growth rate of 0.12%. In comparison, the populations of Connecticut and Massachusetts are forecasted to increase by 1.34%, and 1.03%, respectively. The population of Rhode Island is expected to decrease by 2.5%. Counties within the zone of interest that are expected to grow include: Middlesex County, MA (1.88%), Norfolk County, MA (3.97%), and Worcester County, MA (1.08%). Counties forecasted to decrease in population include: Hampden County, MA (-5.3%), Hampshire County, MA (-4.74%), Providence County, RI (-3.77%). In Connecticut, Planning Regions replaced Counties in the U.S. Census Bureau's American Community Surveys after 2023. 2010 and 2020, population counts for this region come from Windham County, its approximate regional equivalent. Population for the years 2010 and 2020 are included for historical reference.

Geographical Area	2010	2010 2020		Population Projection Estimates	
Connecticut	3,574,097	3,605,944	3,598,348	3,654,015	

Table 2.17 Population Estimates, and Projections (2010, 2020, 2023, 2040)

Geographical Area	2010	2020	2023 Population Estimate	Population Projection Estimates
Massachusetts	6,547,629	7,029,917	6,992,395	7,102,574
Rhode Island	1,052,567	1,097,379	1,095,371	1,070,104
Northeastern Connecticut Planning Region, CT	116,418*	118,428*	95,829	99,433
Hampden County, MA	463,490	465,825	462,853	441,146
Hampshire County, MA	158,080	162,308	156,595	154,612
Middlesex County, MA	1,503,085	1,632,002	1,622,896	1,662,747
Norfolk County, MA	670,850	725,981	724,540	754,805
Worcester County, MA	798,552	862,111	861,664	871,384
Providence County, RI	626,667	660,741	658,977	635,851
Zone of Interest Total	4,220,724	4,508,968	4,583,354	4,619,978

Source: Sources: U.S. Census Bureau, (2010), RACE, Decennial Census; U.S. Census Bureau, (2020), RACE, Decennial Census; U.S. Census Bureau, 2018-2023 American Community Survey 5-Year Estimates; State of Connecticut, Connecticut Population Projections – State, County, and Regional Councils of Governments Level, 2015-2040; UMass Donahue Institute, UMDI-V2024 Massachusetts Population Projections; Rhode Island Statewide Planning Program, Rhode Island Population Projections 2010-2040.

The zone of interest's population is approximately 49% male and 51% female. Table 2.18 shows the population estimates by sex for the regions included in the zone and the states it is within. The sex ratio is the same for the zone of interest and the states, with at most a 0.02% divergence. Each of the regions that comprise the zone of influence have a greater number of females than males, ranging from just 0.02% more in the Northeastern Connecticut Planning Region, CT, to 6.4% more in Hampshire County, MA.

Table 2.18 Population Estimate b	y Sex	(2023)
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Geographical Area	Male	Female
Connecticut	1,765,117	1,833,231
Massachusetts	3,416,765	3,575,630
Rhode Island	537,173	558,198
Northeastern Connecticut Planning Region, CT	47,829	48,000
Hampden County, MA	225,006	237,847
Hampshire County, MA	73,249	83,346
Middlesex County, MA	800,913	821,983
Norfolk County, MA	351,264	373,276
Worcester County, MA	427,601	434,063

Geographical Area	Male	Female
Providence County, RI	323,751	335,226
Zone of Interest Total	2,249,613	2,333,741

Source: U.S. Census Bureau, 2018-2023 American Community Survey 5-Year Estimates

Figure 2.10 shows the percent of the population by age group for the zone of interest, Connecticut, Massachusetts, and Rhode Island for 2023. The zone of interest population's age distribution is consistent when compared to the three states across most of the age ranges. It had a higher percentage of its population in the 15- to 19-year-olds range (7.1%), compared to Connecticut (6.6%), Massachusetts (6.5%), and Rhode Island (6.7%). It also had a higher percentage of 20- to 24- year-olds in its population (7.4%) compared to Connecticut (6.5%), Massachusetts (6.8%), and Rhode Island (6.9%).

The 2023 population below the age of 20 was 22.9% in the zone of interest; compared to 23% in Connecticut, 22.4% in Massachusetts, and 22.2% in Rhode Island. The 2023 population between the ages of 19 and 65, was 59.6% in the zone of interest; compared to 58.8% in Connecticut, 60.2% in Massachusetts, and 59.6% in Rhode Island's. The 2023 population over the age of 65 was 17.4% in the zone of interest; compared to 18.2% in Connecticut, 17.4% in Massachusetts, and 18.2% in Rhode Island.



U.S. Census Bureau, 2018-2023 American Community Survey 5-Year Estimates Figure 2.10 Percent of Population by Age Group (2023)

Population by race and Hispanic origin is displayed in Table 2.19. The zone of interest is approximately 67% White, 13% Hispanic or Latino, 5.7% Black, 8.7% Asian, and 4.4% two or more races. The other race categories each account for less than 1%. By comparison, the population in the state of Connecticut is 63% White, 18% Hispanic

or Latino, 9.9% Black, 0.09% American Indian or Alaskan Native, 4.71% Asian, 0.03% Native Hawaiian/Other Pacific, 0.73% Some Other Race, and 3.8% Two or More Races. Massachusetts is 68% White, 13% Hispanic or Latino, 6.5% Black, 0.08% American Indian or Alaskan Native, 7.0% Asian, 0.03% Native Hawaiian/Other Pacific, 1.15% Some Other Race, and 4.49% Two or More Races. Rhode Island is 69% White, 17% Hispanic or Latino, 5.0% Black, 0.16% American Indian or Alaskan Native, 3.4% Asian, 0.04% Native Hawaiian/Other Pacific, 0.77% Some Other Race, and 4.38% Two or More Races.

The zone of interest has a higher percentage of Asian residents than each state. 76% of the zone's Asian population lives in Middlesex County, MA (65%) and Norfolk County, MA (22%). These two counties have higher percentage of people of Asian descent compared to other regions and the state at 13.1% and 12% respectively.

Area	White	Hispanic or Latino	Black	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some other race	Two or more races
Connecticut	2,265,780	640,668	355,413	3,236	169,312	1,102	26,211	136,626
Massachusetts	4,738,848	904,679	455,145	5,837	491,861	1,964	80,134	313,927
Rhode Island	756,498	187,503	55,222	1,721	37,493	475	8,472	47,987
Northeastern Connecticut Planning Region, CT	83,553	4,839	1,611	56	1,304	86	313	4,067
Hampden County, MA	278,624	123,001	35,131	260	11,534	29	1,203	13,071
Hampshire County, MA	127,318	11,259	3,449	83	7,826	101	501	6,058
Middlesex County, MA	1,081,878	145,868	78,074	1,127	213,224	571	21,502	80,652
Norfolk County, MA	507,345	40,130	50,218	417	87,086	180	7,120	32,044
Worcester County, MA	618,267	114,759	40,024	711	44,647	213	8,563	34,480
Providence County, RI	379,663	164,093	47,246	1,219	27,169	367	6,971	32,249
Zone of Interest Total	3,076,648	603,949	255,753	3,873	392,790	1,547	46,173	202,621

Table 2.19 Population Estimate by Race/Hispanic Origin (2023)

Source: U.S. Census Bureau, 2018-2023 American Community Survey 5-Year Estimates

2.12.3 Education and Employment

Table 2.20 displays the highest level of education attained by the population ages 25 and over in each of the regions. The zone of interest's population had a higher level of educational attainment than the states. The counties within the zone with the most educated populations were Hampshire County, MA, with over 51% of its population attaining a bachelor's degree or higher, Middlesex County, MA with 59%, and Norfolk County, MA with 58%, compared to the zone of interest's average of 47.2%. Hampden County, MA and Providence County, RI had the highest percentage of their population over 25 attaining less than a high school degree at 13% and 14% respectively, compared to the zone of interest's average of 8.4%.

In the zone of interest, 3.93% of the population have less than a 9th grade education; another 4.49% have between a 9th and 12th grade education; 22.56% have at least a high school diploma or equivalent; 14.38% have some college education; 7.38% have an associate degree; 24.88% have a bachelor's degree; and 22.37% have a graduate or professional degree.

In Connecticut, 4.01% of the population have less than a 9th grade education; another 4.66% have between a 9th and 12th grade education; 25.55% have at least a high school diploma or equivalent; 16.21% have some college education; 7.63% have an associate degree; 22.98% have a bachelor's degree; and 18.97% have a graduate or professional degree.

In Massachusetts, 4.24% of the population have less than a 9th grade education; another 4.36% have between a 9th and 12th grade education; 22.84% have at least a high school diploma or equivalent; 14.4% have some college education; 7.53% have an associate degree; 25.27% have a bachelor's degree; and 21.36% have a graduate or professional degree.

In Rhode Island, 4.81% of the population have less than a 9th grade education; another 5.17% have between a 9th and 12th grade education; 26.51% have at least a high school diploma or equivalent; 17.57% have some college education; 8.09% have an associate degree; 22.25% have a bachelor's degree; and 15.06% have a graduate or professional degree.

Area	Population 25 years and over	Less than 9th grade	9th to 12th grade, no diploma	High school graduate (includes equivalency)	Some college, no degree	Associate's degree	Bachelor's degree	Graduate or professional degree
Connecticut	2,532,853	101,530	118,019	647,094	410,591	193,216	581,935	480,468
Massachusetts	4,945,630	209,811	215,398	1,129,802	712,343	372,377	1,249,640	1,056,259
Rhode Island	776,505	37,355	44,321	205,862	136,460	62,840	172,759	116,908
Northeastern Connecticut Planning Region, CT	71,008	1,825	3,781	25,008	14,419	7,400	10,581	7,994
Hampden County, MA	319,878	16,936	24,081	98,467	57,386	30,483	54,356	38,169
Hampshire County, MA	99,992	1,828	2,687	20,363	15,162	8,836	24,534	26,582
Middlesex County, MA	1,149,018	38,403	37,019	200,893	129,075	65,860	330,513	347,255
Norfolk County, MA	512,818	15,260	13,666	89,085	63,416	35,774	153,763	141,854
Worcester County, MA	602,409	21,131	31,218	159,762	101,817	53,387	135,457	99,637
Providence County, RI	458,321	31,055	31,814	131,506	80,827	35,535	90,198	57,386
Zone of Interest	3,213,444	126,438	144,266	725,084	462,102	237,275	799,402	718,877

Table 2.20 Highest Level of Educational Attainment, Population 25 Years of Age and Older (2023 Estimates)

Source: U.S. Census Bureau, 2018-2023 American Community Survey 5-Year Estimates

Employment by sector is presented in Figure 2.11 and Table 2.21 shows that the largest percentage of the zone of interest is employed in the educational services, health care, and social assistance sector at 28.34%. 15.52% of the population works in professional, scientific, management, administrative, and waste management services, 10.16% work in manufacturing, 9.66% work in retail trade, 7.18% work in finance and insurance, real estate, and rental and leasing. 7.14% work in arts, entertainment, recreation, accommodation, and food services, 5.69% work in construction. The remainder of the employment sectors each comprise less than 4.5% of the zone of interest's labor force. 84% of the zone of interest's civilian employed population resides in Massachusetts and the employment characteristics of the zone closely match those of Massachusetts.



Figure 2.11 Employment by Sector (2023)

Source: U.S. Census Bureau, 2018-2023 American Community Survey 5-Year Estimates

Employment Sector	Connecticut	Massachusetts	Rhode Island	Northeastern Connecticut Planning Region, CT	Hampden County, MA	Hampshire County, MA	Middle sex County, MA	Norfolk County, MA	Worcester County, MA	Providence County, RI	Zone of Interest
Civilian employed population 16 years and over	1,835,455	3,687,020	555,915	49,276	214,730	79,837	897,476	390,797	443,268	331,010	2,406,394
Agriculture, forestry, fishing and hunting, and mining	7,261	16,034	2,938	772	1,246	565	2,618	968	2,351	1,126	9,646
Construction	112,821	224,881	35,528	3,429	10,479	3,541	47,169	20,535	30,983	20,789	136,925
Manufacturing	195,355	331,446	60,762	7,415	23,701	6,245	92,955	25,773	51,407	36,953	244,449
Wholesale trade	37,294	69,760	11,879	862	5,152	1,268	13,472	6,874	9,373	7,309	44,310
Retail trade	192,535	361,140	62,314	6,511	23,239	7,908	73,157	33,930	49,636	38,151	232,532
Transportation and warehousing, and utilities	84,571	155,398	26,958	3,420	13,898	2,871	27,118	13,448	20,468	18,246	99,469
Information	36,631	75,547	7,817	658	2,450	1,472	25,030	9,545	6,668	4,270	50,093
Finance and insurance, and real estate and rental and leasing	162,724	269,181	37,850	2,897	13,813	3,856	61,336	42,152	27,106	21,501	172,661

Table 2.21 Annual Average Employment by Sector (2023)

Employment Sector	Connecticut	Massachusetts	Rhode Island	Northeastern Connecticut Planning Region, CT	Hampden County, MA	Hampshire County, MA	Middle sex County, MA	Norfolk County, MA	Worcester County, MA	Providence County, RI	Zone of Interest
Professional, scientific, and management, and administrative and waste management services	223,982	573,593	63,445	4,009	17,587	7,606	187,432	65,132	54,513	37,266	373,545
Educational services, and health care and social assistance	490,839	1,030,165	148,337	12,146	66,797	30,309	245,333	114,452	123,991	88,987	682,015
Arts, entertainment, and recreation, and accommodatio n and food services	145,445	278,268	50,814	3,635	15,452	7,221	57,650	28,242	30,603	28,950	171,753
Other services, except public administration	78,662	157,833	23,432	1,406	10,017	3,791	35,595	15,435	19,573	14,524	100,341
Public administration	67,335	143,774	23,841	2,116	10,899	3,184	28,611	14,311	16,596	12,938	88,655

Source: U.S. Census Bureau, 2018-2023 American Community Survey 5-Year Estimates

Table 2.22 contains the 2023 population estimates for the civilian labor force in each of the regions. In 2023, the zone of interest had an unemployment rate of 5.43%, lower than the unemployment rates of Connecticut (5.6%) and Rhode Island (5.7%) and higher than the unemployment rate in Massachusetts (5.1%). The zone of interest includes nearly 60% of Rhode Island's civilian labor force, 55% of Massachusetts', and 2.7% of Connecticut's. This is approximately proportional to its share of the state's total populations.

Geographic Area	Civilian Labor Force	Number Employed	Number Unemployed	Unemployment Rate
Connecticut	1,945,293	1,835,455	109,838	5.60%
Massachusetts	3,886,902	3,687,020	199,882	5.10%
Rhode Island	589,549	555,915	33,634	5.70%
Northeastern Connecticut Planning Region, CT	52,551	49,276	3,275	6.20%
Hampden County, MA	228,511	214,730	13,781	6.00%
Hampshire County, MA	84,102	79,837	4,265	5.10%
Middlesex County, MA	937,222	897,476	39,746	4.20%
Norfolk County, MA	411,077	390,797	20,280	4.90%
Worcester County, MA	468,291	443,268	25,023	5.30%
Providence County, RI	353,274	331,010	22,264	6.30%
Zone of Interest	2,535,028	2,406,394	128,634	5.43%

Table 2.22 Labor Force.	Employment.	and Unemploy	vment Rates	(2023 Estimates)
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Source: U.S. Census Bureau, 2018-2023 American Community Survey 5-Year Estimates (2023 Averages)

2.12.4 Households, Income and Poverty

Table 2.23 displays the number of households and average household sizes in the state and zone of interest. There were approximately 1,787,267 households in the zone of interest. The average household size of 2.43 was smaller than Connecticut's (2.47) and Massachusetts' (2.45) and larger than Rhode Islands (2.40).

Geographic Area	Total Households	Average Household Size
Connecticut	1,420,170	2.47
Massachusetts	2,762,070	2.45
Rhode Island	436,902	2.40
Northeastern Connecticut Planning Region, CT	39,155	2.41
Hampden County, MA	184,217	2.44
Hampshire County, MA	61,770	2.18
Middlesex County, MA	630,939	2.48
Norfolk County, MA	281,408	2.51
Worcester County, MA	333,273	2.50
Providence County, RI	256,505	2.46
Zone of Interest	1,787,267	2.43

Table 2.23 Households and Household Size (2023)

Source: U.S. Census Bureau, 2018-2023 American Community Survey 5-Year Estimates

The median household income in the zone of interest ranged from \$126,779 in Middlesex County, MA to \$70,535 in Hampden County, MA in 2023, as displayed in Table 2.24. Per capita income in the zone of interest was \$50,380 in 2023, higher than the per capita income of the state of Rhode Island (\$45,919) and lower than the states of Connecticut (\$54,409) and Massachusetts (\$56,284).

Table 2.24 Median and Per Capita Income (2023)

Geographic Area	Median Household Income (All)	Per Capita Income
Connecticut	\$93,760	\$54,409
Massachusetts	\$101,341	\$56,284
Rhode Island	\$86,372	\$45,919
Northeastern Connecticut Planning Region, CT	\$87,564	\$44,393
Hampden County, MA	\$70,535	\$37,810
Hampshire County, MA	\$86,391	\$45,006
Middlesex County, MA	\$126,779	\$67,471
Norfolk County, MA	\$126,497	\$69,508
Worcester County, MA	\$93,561	\$47,780
Providence County, RI	\$78,204	\$40,689
Zone of Interest (Average)	\$95,647	\$50,380

Source: U.S. Census Bureau, 2018-2023 American Community Survey 5-Year Estimates

Table 2.25 displays the percentage of persons and families whose incomes fell below the poverty level in the past twelve months as of 2023. Within the zone of interest, Hampden County, MA had the highest percentage of people with incomes below the poverty level at 15.7% and Norfolk County, MA had the lowest at 6.6%. In terms of families below the poverty level, Norfolk County, MA has the lowest percentage with 4.2% and Hampden County, MA has the highest with 11%. In comparison, the Commonwealth of Massachusetts has the lowest percentage of families below the poverty line with 6.6%, while Rhode Island has the highest with 7%.

Table 2.25 Percent of Families and People Whose Income in the Past 12	Months is
Below the Poverty Level (2023)	

Geographic Area	All Families	All People
Connecticut	6.80%	10.00%
Massachusetts	6.60%	10.00%
Rhode Island	7.00%	10.90%
Northeastern Connecticut Planning Region, CT	5.40%	8.60%
Hampden County, MA	11.00%	15.70%
Hampshire County, MA	4.80%	10.90%
Middlesex County, MA	4.70%	7.50%
Norfolk County, MA	4.20%	6.60%
Worcester County, MA	7.00%	10.30%
Providence County, RI	9.00%	13.00%
Zone of Interest (Average)	6.59%	10.37%

Source: U.S. Census Bureau, 2018-2023 American Community Survey 5-Year Estimates

2.13 RECREATION FACILITIES, ACTIVITIES, AND NEEDS

2.13.1 Visitation Profile

Hodges Village Dam visitors are a diverse group that include residents of the immediate area, anglers, trail users, and day users who picnic, observe wildlife, hunt, and sightsee. Hodges Village Dam is a popular off highway motorcycle area in Central Massachusetts and draws visitors from around the tri-state area. The peak visitation months are mid-May through mid-September, with July typically being the highest visitation month.

Zone of Interest

The visitation market area, or zone of interest, is the area from which the majority of visitors to the project originate. The study team determined the majority of visitors travel from a 25-mile radius based on visitation records for Hodges Village Dam.

2.13.2 Recreation Areas and Facilities

Although the primary use of the reservoir area is for flood water retention, the Corps of Engineers' policy of managing land for multiple use has allowed several types of recreation to develop on the site. The entire project, except for facilities associated with the direct operation of the dam, is open to the public free of charge.

Recreation at Hodges Village Dam is managed by the USACE, and there is a partnership with the Town of Oxford to operate and maintain the Greenbriar Recreation Area. The project area offers many recreational activities such as disc golf, baseball, volleyball, hiking, biking, picnicking, fishing, hunting, not to mention an abundance of wildlife viewing opportunities. Of great importance to the zone of interest are the existing and future recreational opportunities. Each recreational area is more specifically described in Chapter 5.

Fishing and Hunting

The wildlife management area presently consists of all lands within the fee ownership of the USACE, with the exceptions of the Town of Oxford's recreational areas and the dam. Warm water fishing is available in the French River and the associated ponds within the project. Access to fishing areas can be found throughout the project by unimproved roads and trails. Paddlers can access the river at Greenbriar Park and Hodges Village Dam to fish and paddle. Hunting is allowed only on the west side of the French River. Duck hunting is permitted in the river. Hunting access is excellent via the old railroad bed and numerous woodland trails, which form a network through abundant game areas. All federal, state, and local laws apply. Stocking is currently not performed for fish or game birds.



Photo 2.3 Paddlers on the French River North of the Dam Source: USACE

Day Use and Picnicking

The Town of Oxford leases one parcel of land from the USACE to provide recreation at Greenbriar Recreation Area. Greenbriar Park offers volleyball, pickleball courts, tennis courts, a running track, a skate park, two baseball fields, event stage, restrooms, and access to the Hodges Village Dam trail system. These are the only existing athletic facilities at the project. The Town of Oxford permits other outdoor activities at Greenbriar Park such as town events, triathlon, and horse events. The USACE offers a small picnic area adjacent to the dam, overlooking Augutleback Pond. This is a well-maintained area due to its proximity to the main USACE administration and maintenance buildings. Hodges Village Dam also offers a small disc golf course. The course winds its way around the dam site and through the woods.

Trails

The reservoir has approximately 22 miles of trails, old haul roads, former town roads, abandoned railroad beds, and utility easements which are used for hiking, mountain bike riding, hunting, disc golf, wildlife viewing, and recreational dirt bike riding.

These two-way roads and trails wind through the woodlands and skirt along the wetlands of the reservoir with no systematic arrangement. Two narrow bridges cross the French River to allow for the passage of pedestrians. The trails offer difficulty levels for all ages and skill abilities. Some trails are hard packed, flat and easy to walk. Some trails are moderately difficult, with rolling hills and minor obstacles, such as rocks and roots, to traverse. The trails on the north end of the project are more difficult, comprised of steep slopes and large boulders to maneuver around. Lost trail signage is maintained throughout the entirety of the trail system. The signs include GPS coordinates, location name and number, emergency contacts phone numbers, and trail name. The park rangers and Oxford Police Department have sign locations on a map to make emergency response times quicker. The French River Canoe trail is a 3-mile paddle from Greenbriar Park to Hodges Village Dam. Paddlers will enjoy the pristine natural ecosystem created by the river. An overview trail map is shown in Figure 2.12, and detailed trail maps are included in Appendix A.



Photo 2.4 Trail through the Forest at Hodges Village Dam Source: USACE



Figure 2.12 Hodges Village Dam Trail Map (See Appendix A for Detailed Maps)

2.13.3 Recreation Analysis

The 2024 Massachusetts Statewide Comprehensive Outdoor Recreation Plan (SCORP) was prepared by the Executive Office of Energy and Environmental Affairs' (EEA) Division of Conservation Services (DCS). The SCORP serves to address emerging issues in Massachusetts outdoor recreation and set priority areas to serve as the foundation for action over the next five years. According to the 2024 Massachusetts SCORP, the following goals were identified:

- 1. Improve access to beaches and other water-based recreation facilities
- 2.Support trail projects
- 3. Create and renovate neighborhood parks, especially to benefit the underserved
- 4. Create opportunities, especially for the underserved, to enjoy protected natural areas

To implement these priorities the SCORP identified 3 detailed objectives for each goal, for a total of 12 objectives.

In order to gain an understanding of statewide participation trends several surveys were conducted to support the development of the SCORP. Some highlights of the participation trends include:

- 44% of respondents indicated that outdoor recreation is "extremely important" and 37% indicated it is "somewhat important."
- Walking was identified as the most popular activity with 9.6% of respondents and reported as most frequently with 68% of respondents who walked more than once a week. The following most popular activities included visiting the beach (6.1%), hiking (5.7%), visiting farmers markets (4.7%), visiting outdoor historic sites or museums (3.9%), swimming in outdoor pools (3.6%), swimming in natural water bodies, (3.6%), camping (3.3%), bird watching or wildlife viewing (3.2%) and running or jogging (3.0%) and basketball (3.0%).
- 46% of respondents live within 5 miles of outdoor recreation area of facility they
 use most often with another 35% of respondents living between 5 and 10 miles
 away. Racial-ethnic disparities showed that Black or African American and
 Hispanic or Latino respondents were more likely to live 5 to 10 miles away from
 the outdoor recreation area of facility they use more often.
- Beaches were at the top of the list of outdoor recreational areas that respondents would like to see more in Massachusetts with 10.6% of respondents. Picnic facilities were at the top of the list for Asian/ Pacific Islander respondents.
- Factors that most limited the use of outdoor recreational areas and facilities is lack of time (15%), lack of restrooms/ locker rooms (12.3%), and lack of parking (11.1%).

Table 2.26 depicts the activities that outdoor recreation enthusiasts in Massachusetts were most interested in participating, and results are presented with different activities identified by race. Walking consistently ranked on the top of the list for all races, with running or jogging and hiking being other activities that are popular among a diversity of respondents in Massachusetts. Hodges Village Dam provides
opportunities for the public to participate in their favorite activities by making use of the numerous hiking trails for all levels and access to fishing along the river shoreline or by canoe/kayak.

White	Black/African American	Hispanic/Latino	Asian/Pacific Islander
Walking	Walking	Walking	Walking
Running or jogging	Running or jogging	Hiking	Visiting the beach
Hiking	Basketball	Basketball	Hiking
Visiting the beach	Dance	Visiting the beach	Visiting the farmers markets
Dance	Visiting the beach	Visiting the farmers markets	Swimming in natural water bodies

Table 2.26 Top Five Activities by Race

(Source: 2023 Massachusetts Outdoor Recreation Plan)

The USACE recognizes the importance of recreation to the local community and the Commonwealth of Massachusetts, and the importance that USACE managed land can play in providing access. Information from the SCORP including the survey results and the statewide goals and objectives were considered when developing the goals and objectives for this Master Plan. See Chapter 3 for the resource goals and objectives developed for the Hodges Village Dam Master Plan.

2.13.4 Recreation Carrying Capacity

The plan formulated herein proposes to provide a variety of activities and to encourage optimal, safe use of present public use areas without causing irreparable harm to natural resources. The carrying capacity of the land is determined primarily by the distinct characteristics of the site including but not limited to soil type, steepness of topography, and available moisture. Recreational carrying capacity of the water is based primarily on available space and numbers of users. These characteristics, both natural and manmade, are development constraints that often determine the type and number of facilities that should be provided.

No recreation carrying capacity studies have been conducted at Hodges Village Dam. Presently, the USACE manages recreation areas using historic visitation data combined with best professional judgment to address recreation areas considered to be overcrowded, overused, underused, or well balanced. Compared to other USACE projects of similar size, Hodges Village Dam experiences low visitation. This trend is expected to continue based on regional population projections. The USACE will apply appropriate best management practices including site management, regulating visitor behavior, and modifying visitor behavior as needed to adapt to changes in usage.

2.14 REAL ESTATE

A total of 881 acres of fee simple land and 264 acres of easements were acquired for the Hodges Village Dam. After disposals (sale), the current total is 872 acres fee simple and 264 easement acres. These are the official acres and may differ from those in other parts of this plan, which are for planning purposes only, due to improved measurement technology, erosion, and sedimentation.

2.14.1 Outgrants

The term "outgrant" is a broad term used by the USACE to describe a variety of real estate instruments wherein an interest in real property has been conveyed by the USACE to another party. Outgrants at Hodges Village Dam include leases, licenses, easements, consents, permits, and others which include the following:

- 7 Easements
- 1 Lease
- 3 Licenses

The demand for real estate outgrants at Hodges Village Dam ranks fairly low among USACE civil works projects in terms of the total number and complexity of real estate outgrants. Management actions related to outgrants include routine inspections to ensure compliance with the terms of the outgrant, public safety requirements, and environmental compliance. The management of outgrants is a major responsibility shared by the Operations and Real Estate Divisions of the New England District.

2.14.2 Guidelines for Property Adjacent to Public Land

It is the policy of the USACE to manage the natural, cultural, and developed resources of Hodges Village Dam to provide the public with safe and healthful recreational opportunities, while protecting and enhancing those resources. While private exclusive use of public land is not permitted, property owners adjacent to public lands do have all the same rights and privileges as any other citizen on their own property. Therefore, the information contained in these guidelines is designed to acquaint the adjoining landowner and other interested persons with the types of property involved in the management of government land at Hodges Village Dam. See Section 6.4 for more information about private activities on property owned by the USACE.

2.14.3 Trespass and Encroachment

Government property is monitored by USACE personnel to identify and correct instances of unauthorized use, including trespasses and encroachments. The term "trespass" includes unauthorized transient use and occupancy, such as mowing, tree cutting and removal, livestock grazing, cultivation and harvesting crops, and any other alteration to Government property done without the USACE approval. Unauthorized trespasses may result in a Title 36 citation requiring violators to appear in Federal Magistrate Court, which could subject the violator to fines or imprisonment (See 36 C.F.R. Part 327 Rules and Regulations Governing Public Use of Water Resources Development Projects Administered by the Chief of Engineers). More serious trespasses will be referred to the USACE Office of Counsel for enforcement under state and federal law, which may require restoration of the premises and collection of monetary damages.

The term "encroachment" pertains to an unauthorized structure or improvement on Government property. When encroachments are discovered, project personnel will attempt to resolve the issue at the project level. Where no resolution is reached, or where the encroachment is a permanent structure, the method of resolution will be determined by the USACE Real Estate Division, with recommendations from Operations Division and Office of Counsel. The USACE's general policy is to require removal of encroachments, restoration of the premises, and collection of appropriate administrative costs and fair market value for the term of the unauthorized use. Incidents of unauthorized tree removal and mowing have occurred, as well as placement of unauthorized structures or material.

The most common trespass are unauthorized mowing and paths, unauthorized structures such as fences and temporary structures, storage of personal property on USACE lands, trash dumping, and tree and vegetation removal. Efforts are continuously underway to resolve these unauthorized acts. Encroachments can be prevented. Identifying the USACE fee boundary line and flowage easement designation are critical elements for the public who are planning for any type of activity near a USACE fee boundary. See the maps in Appendix A for general maps showing the project boundary.

CHAPTER 3 – RESOURCE GOALS AND OBJECTIVES

3.1 INTRODUCTION

The terms "goal" and "objective" are often defined as synonymous, but in the context of this Master Plan goals express the overall desired end state of the Master Plan whereas resource objectives are specific task-oriented actions necessary to achieve the overall Master Plan goals.

3.2 RESOURCE GOALS

The following statements, taken from EP 1130-2-550, Chapter 3, express the goals for the Hodges Village Dam Master Plan:

GOAL A. Provide the best management practices to respond to regional needs, resource capabilities and suitabilities, and expressed public interests consistent with authorized project purposes.

GOAL B. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs.

GOAL C. Provide public outdoor recreation opportunities that support project purposes and public demands created by the project itself while sustaining the project's natural resources.

GOAL D. Recognize the particular 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 above goals, USACE management activities are guided by USACE-wide Environmental Operating Principles (EOPs) as follows (USACE 2025):

- 1. Foster sustainability as a way of life throughout the organization.
- 2. Proactively consider environmental consequences of all USACE activities and act accordingly.
- 3. Create mutually supporting economic and environmentally sustainable solutions.
- 4. Continue to meet our corporate responsibility and accountability under the law for activities undertaken by USACE, which may impact human and natural environments.
- 5. Consider the environment in employing a risk management and systems approach throughout the life cycles of projects and programs.

- 6. Leverage scientific, economic and social knowledge to understand the environmental context and effects of USACE actions in a collaborative manner.
- 7. Employ an open, transparent process that respects views of individuals and groups interested in USACE activities.

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 the jurisdiction of the New England District, Hodges Village Dam Project Office. The objectives stated in this Master Plan support the goals of the Master Plan, the USACE EOPs, and applicable national performance measures. They are consistent with authorized project purposes, federal laws and directives, regional needs, resource capabilities, and they take public input into consideration. Recreational and natural resources carrying capacities are also accounted for during development of the objectives found in this Master Plan, as well as regional and state planning documents including:

- Massachusetts Wildlife Action Plan
- Massachusetts Statewide Comprehensive Outdoor Recreation Plan

The objectives in this Master Plan are intended to provide project benefits, meet public needs, and foster environmental sustainability for Hodges Village Dam to the greatest extent possible. Tables 3.1 through 3.4 list the objectives for Hodges Village Dam.

Table 3.1	Recreational	Objectives
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Recreational Objectives Goals:	Α	В	С	D	Ε
Consider existing and future potential recreational opportunities for multiple user groups while ensuring visitor safety.	*		*	*	*
Provide opportunities for day use activities, especially trail improvements.	*		*		
Seek out partnerships and provide technical guidance to lease partners on the management of recreation facilities in accordance with public demand.	*		*		
Consider flood pool to address potential impact to recreation.	*	*	*	*	
Ensure consistency with USACE NRM Strategic Plan.					*
Analyze heavy trail use by multiple user groups and develop a comprehensive trail maintenance plan to ensure trail integrity for future use.	*	*	*		*

Recreational Objectives G	oals:	Α	В	С	D	Ε
Develop long lasting partnerships to achieve trail maintenance needs.	ance	*	*	*		*
Continue to manage the disc golf course with potential for improving the course and furthering partnerships.				*		*
Improve accessibility for more user groups in recreation a	reas.	*		*		*

*Denotes that the objective helps to meet the specified goal.

Table 3.2 Natural Resource Management Objectives

Natural Resource Management Objectives Goals:	A	В	С	D	Е
Give priority to the preservation and improvement of open space in public use planning, design, development, and management activities.	*	*		*	
Work with Tribal Nations to provide access to any culturally significant natural resources.		*		*	
Actively manage and conserve fish and wildlife resources, especially threatened and endangered species and Species of Greatest Conservation Need, by implementing ecosystem management principles. Key among these principles is the use of native species adapted to the Southern New England Coastal Plains and Hills ecoregion in restoration and mitigation plans.	*	*		*	
Manage high-density recreation lands in ways that balances visitor use with natural resource management.			*		
Optimize resources, labor, funds, and partnerships for protection and restoration of fish and wildlife habitats.		*			
Minimize activities which disturb the scenic beauty and aesthetics of the project.	*	*	*	*	
Work with the partners on prescribed fire, timber harvests, and removal of targeted species as a management tool to promote the vigor and health of forests, woodlands, and grasslands.	*	*			
Deter unauthorized use and damage of public lands through utilization of Title 36 CFR authorities, as well as state and local rules and regulation related to the protection of natural resources.	*	*	*	*	
Manage lands and waters to reduce the spread of invasive, non-native, and aggressively spreading native species.	*	*		*	
Protect and restore important native habitats such as grasslands, forests, riparian zones, and wetlands where they occur or historically occurred on project lands. Special emphasis should be placed on protection and/or restoration of special or rare plant species. Emphasize promotion of pollinator habitat, migratory bird habitat, and habitat for birds listed by USFWS as BCC.	*	*		*	

Natural Resource Management Objectives Goa	ls:	Α	В	С	D	Ε
As funding permits, complete an inventory of timber resource and prepare a Forest Management Plan.	es	*	*		*	

*Denotes that the objective helps to meet the specified goal.

Table 3.3 Visitor Information, Education, and Outreach Objectives

Visitor Information, Education, and Outreach Objectives Goals:	A	В	С	D	Е
Create opportunities for communication with partner agencies, special interest groups, and the general public. Utilize social media as a platform to share information with visitors and stakeholders.	*			*	*
Provide educational, interpretive, and outreach programs at the project. Topics to include history, project purposes (flood risk management, natural resource management, and recreation), water safety, cultural resources, ecology, and USACE missions.	*	*	*	*	*
Educate adjacent landowners on real estate requirements in order to reduce encroachment actions.	*	*	*	*	*
Work with local communities to engage the public and provide educational and informational opportunities.	*	*	*	*	*

*Denotes that the objective helps to meet the specified goal.

Table 3.4 Cultural Resources Management Objectives

Cultural Resources Management Objectives Goals:	Α	В	С	D	Ε
Maintain the Cultural Resources Management Plan to manage cultural resources at Hodges Village Dam.	*	*		*	*
Monitor and enforce Title 36 and ARPA to prevent unauthorized excavation and removal of cultural resources.		*		*	*
Provide access to Tribal Nations to any cultural resources, sacred sites, or other Traditional Cultural Properties.	*	*			
Preserve and protect cultural resources sites in compliance with existing federal statutes and regulations.	*	*	*	*	*
Work with the State Historic Preservation Office to inventory and protect historic and archeological resources.	*	*		*	*

*Denotes that the objective helps to meet the specified goal.



Photo 3.1 Volunteers planting a new pollinator garden for Earth Day 2024 Source: USACE

CHAPTER 4 – LAND ALLOCATION, LAND CLASSIFICATION, WATER SURFACE, AND PROJECT EASEMENT LANDS

4.1 LAND ALLOCATION

All lands at 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: Operations, Recreation, Fish and Wildlife, and Mitigation. At Hodges Village Dam, the only land allocation category is Operations. Operations is defined as those lands that are required to construct and operate the project for the primary authorized purpose, which at Hodges Village Dam is flood risk management. The remaining allocations of Recreation, Fish and Wildlife, and Mitigation would apply only if lands had been acquired specifically for these purposes.

4.2 LAND CLASSIFICATION

4.2.1 General

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.

4.2.2 Prior Land Classifications

The previous version of the Hodges Village Dam included land classification criteria that were similar, but not identical to the current criteria. In the previous plan, the land classifications were called land-use zones and were not clearly defined or mapped. In the years since the previous Master Plan was published, wildlife habitat values, surrounding land use, and regional recreation trends have changed giving rise to the need for revised classifications. Table 4.1 identifies land and water surface classification changes from the 1976 Master Plan to the proposed 2025 Master Plan Revision, although the acres from the 1976 Master Plan are rough estimates based on imprecise descriptions and no maps. The previous land use zones were as follows:

• Operations: Recreation – Intensive Use also called Intensive Recreation Area: Intensive recreation are those areas which attract high public participation rates and require the development of relatively costly facilities. The presence of large numbers of people and facilities which require operation and maintenance creates a need for intensive management programs. The high level of public use also demands that intensive recreation lands be accessible from major transportation routes. The degree of development requires that these lands contain some level areas or moderate slopes. Equally important is that access be provided to the project's primary resource - the water. Within the 1976 Master Plan, these included Rocky Hill and Greenbriar Recreation Area.

- Operations: Recreation Low Density Use Area also called Low Density Recreation Area: Non-intensive recreation uses are those which require little or no facilities development. These activities generally have lower participation rates within an individual recreation project than the intensive recreation activities. Fewer people and facilities require less management. The land requirements of these activities vary, but generally they need accessibility via an appropriate form of transportation as well as natural, aesthetically appealing settings. Within the 1976 Master Plan, much of the area was licensed to the Commonwealth of Massachusetts, Office of Environmental Affairs, and the Department of Fisheries, Wildlife and Recreational Vehicles, Division of Fisheries and Wildlife.
- **Project Operations:** Project Operations are those where USACE-operated facilities are located, including the dam and outlet works, operations buildings, and spillway as well as any maintenance and laydown areas. Incidental recreation often occurs within Project Operations but are ancillary to the primary purpose of project operations for flood risk management. The 1976 Master Plan included this for project operation and maintenance.

Prior Land Classifications (1976)	Acres	Proposed Land Classifications (2025)	Acres	Net Difference
Project Operations	26	Project Operations (PO)	62	36
Operations: Recreation – Intensive Use	109	High Density Recreation (HDR)	15	(94)
Operations: Recreation – Low Density Use	729	-	_	(729)
_	—	Wildlife Management (WM)	784	784
_	_	Environmentally Sensitive Area (ESA)	3	3
LAND TOTAL	864	LAND TOTAL	864	_

Table 4.1 Change from 1976 Land Classifications to 2025 Land Classification

* 1976 acres are approximate based on text descriptions of each area since the areas were not originally mapped.

4.2.3 Land Classifications

USACE regulations require project lands and waters to be classified in accordance with the primary use for which project lands are managed (EP 1130-2-550). There are six categories of classification identified in USACE regulations as follows:

- Project Operations
- High Density Recreation
- Mitigation

- Environmentally Sensitive Areas
- Multiple Resource Management Lands
- Water Surface

The land classifications for Hodges Village Dam were established after considering public comments and input from key stakeholders, including elected officials, city and county governments, and lessees operating on USACE land. Additionally, information from the 2023 Massachusetts SCORP, public comments, wildlife habitat values, and trends analysis were used in decision making. Maps showing the various land classifications can be found in Appendix A. The following paragraphs provide acreages and descriptions of allowable uses for each of the land classifications.

Project Operations (PO)

The PO classification includes the lands managed for operation of the dam, project office, spillway, dikes, and maintenance yards, all of which must be maintained to carry out the authorized purpose of flood risk management. In addition to the operational activities taking place on these lands, limited recreational use may be allowed for activities such as public access to the shoreline for fishing or the disc golf course. Regardless of any limited recreation use allowed on these lands, the primary classification of PO will take precedent over other uses. There are 62 acres of PO land specifically managed for this purpose.



Photo 4.1 Hodges Village Dam with winter snow Source: USACE

High Density Recreation (HDR)

HDR lands are developed for intensive recreational activities for the visiting public, including day use areas, campgrounds, marinas, and related concession areas. Recreational areas operated by lessees on USACE lands must follow policy guidance contained in USACE regulations at ER 1130-2-550, Chapter 16. That policy includes the following statement:

"The primary rationale for any future recreation development must be dependent on the project's natural or other resources. This dependency is typically reflected in facilities that accommodate or support water-based activities, overnight use, and day use such as marinas, campgrounds, picnic areas, trails, swimming beaches, boat launching ramps, and comprehensive resort facilities. Examples that do not rely on the project's natural or other resources include theme parks or ride-type attractions, sports or concert stadiums, and standalone facilities such as restaurants, bars, motels, hotels, non-transient trailers, and golf courses. Normally, the recreation facilities that are dependent on the project's natural or other resources, and accommodate or support water-based activities, overnight use, and day use, are approved first as primary facilities followed by those facilities that support them. Any support facilities (e.g., playgrounds, multipurpose sports fields, overnight facilities, restaurants, camp stores, bait shops, comfort stations, and boat repair facilities) must also enhance the recreation experience, be dependent on the resource-based facilities, [and] be secondary to the original intent of the recreation development "

Lands classified for HDR are suitable for the development of comprehensive resorts. The regulation cited above defines Comprehensive Resort as follows:

"Typically, multi-faceted developments with facilities such as marinas, lodging, conference centers, golf courses, tennis courts, restaurants, and other similar facilities."

Some areas within the areas previously defined as intensive recreation were never developed and/or were determined by the study team to be unsuitable for development resulting in a change to another, more suitable land classification. The largest change was at Rocky Hill which was originally planned for intensive recreation use, but due to lack of demand, now only provides less intensive recreation such as hiking trail access. There are 15 acres at Hodges Village Dam classified as HDR. The brief description and resource management plan for each HDR area is described briefly in Chapter 5 and mapped in Appendix A.

Mitigation (MG)

The MG classification is used only for lands allocated by Congress for mitigation for the purpose of offsetting losses associated with the development of the project. There are no (zero) acres at Hodges Village Dam with this classification.

Environmentally Sensitive Areas (ESA)

ESAs include scientific, ecological, cultural, and aesthetic features identified and in need of preservation. At Hodges Village Dam, there are less than 3 acres with this classification.

Multiple Resource Management Lands (MRML)

This land classification is divided into four sub-classifications: Low Density Recreation, Wildlife Management, Vegetative Management, and Future/Inactive Recreation Areas. A given tract of MRML land is classified using one of these subclassifications, with the primary sub-classification reflective of the dominant use of the land. Typically, MRMLs support only passive, non-intrusive uses with very limited facilities or infrastructure. Where needed, some areas may require basic facilities that include, but are not limited to, minimal parking spaces, a small boat ramp, and/or primitive sanitary facilities. There are 784 acres of MRML lands at Hodges Village Dam. The following sections describes each sub-classification, the number of acres, and primary uses for each designation.

Low Density Recreation (LDR)

LDR lands support passive public recreational use (e.g., fishing, hunting, wildlife viewing, natural surface trails, hiking, etc.). There are no (zero) acres under this land classification at Hodges Village Dam.

Wildlife Management (WM)

The WM land classification applies to lands managed primarily for the conservation of fish and wildlife habitat. These lands generally include comparatively large contiguous parcels of land for passive recreation uses such as natural surface trails, fishing, hunting, and wildlife observation, unless restrictions are necessary to protect sensitive species or to promote public safety. There are 784 acres of land included in this classification at Hodges Village Dam.

Vegetative Management (VM)

VM lands designated for stewardship of forest, grasslands, and other native vegetative cover. Passive recreation activities previously described may be allowed in these areas. There are no (zero) acres of land included in this classification at Hodges Village Dam.

Future or Inactive Recreation (FOIR)

FOIR lands have site characteristics compatible with HDR development. These are areas where HDR development was anticipated in prior land classifications, but the development either never took place or was minimal, or areas where intensive recreation facilities may be permitted in the future, but there are no current facilities. These areas are typically closed to vehicular traffic and are managed as MRML until

development takes place. There are no (zero) acres of land included in this classification at Hodges Village Dam.

4.2.4 Water Surface Classifications

Hodges Village Dam does not impound a permanent or recreation pool but is primarily managed for flood control. However, there are both permanent and intermittent ponds at Hodges Village Dam which are managed under the land classifications described above. USACE regulations specify the possible classifications for the water surface, which are intended to promote public safety, protect resources, or protect project operational features such as the dam and spillway. These areas are typically marked by the USACE with navigational or informational buoys, signs, or denotations on public maps and brochures. There are no (zero) acres of permanent water surface classified at Hodges Village Dam.

Restricted

Restricted water surface includes those areas where recreational boating is prohibited or restricted for project operations, safety, and security purposes. There are no (zero) acres of Restricted water surface at Hodges Village Dam.

Designated No-Wake

Designated No-Wake areas are intended to protect sensitive shorelines and improve boating safety near key recreational water access areas such as boat ramps. There are no (zero) acres of No Wake water surface at Hodges Village Dam.

Fish and Wildlife Sanctuary

This water surface classification applies to areas with annual or seasonal restrictions to protect fish and wildlife species during periods of migration, resting, feeding, nesting, and/or spawning. Hodges Village Dam has no (zero) water surface areas designated as a Fish and Wildlife Sanctuary.

Open Recreation

Open Recreation includes all water surface areas available for year-round or seasonal water-based recreational use. This classification typically would encompass the majority of a permanent pool water surface and is open to general recreational boating. Because there is no permanent pool, there are no (zero) water surface acres of open recreation water surface at Hodges Village Dam.

4.2.5 Project Easement Lands

Project Easement Lands are primarily lands on which easement interests were acquired. Fee title was not acquired on these lands, but the easement interests convey to the Federal government certain rights to use and/or restrict the use of the land for

specific purposes. Easement lands are typically classified as Operations Easement, Flowage Easement, and/or Conservation Easement. At Hodges Village Dam, Flowage Easement lands and access road easements are the only type of easements present. A flowage easement, in general, grants to the government the perpetual right to occasionally flood/inundate land during flood risk management operations and to prohibit habitable structures and restrict placement of other structures without prior written approval of the government. There are 264 acres of Flowage Easement lands at Hodges Village Dam.



Photo 4.2 Flooded railroad bed with 14ft pool at Hodges Village Dam in 2023 Source: USACE

CHAPTER 5 – RESOURCE PLAN

5.1 MANAGEMENT BY CLASSIFICATION

This chapter describes the management plans for each land use classification within the Master Plan. The classifications that exist at Hodges Village Dam are Project Operations, High Density Recreation, and Multiple Resource Management Lands, which consist of the Wildlife Management sub-classification. The management plans describe how these project lands will be managed in broad terms. A more descriptive plan for managing these lands can be found in the Hodges Village Dam OMP.

5.2 PROJECT OPERATIONS

PO lands are associated with the dam, dikes, spillway, levees, project office, maintenance facilities, and other areas solely for the operation of the project. There are 62 acres of lands under this classification, all of which are managed by the USACE. The management plan for the PO area is to continue providing physical security necessary to ensure sustained operations of the dam and related facilities, including restricting public access in hazardous locations near the dam and spillway. Some recreation use such as disc golf course, bank fishing, and hiking are currently allowed within some areas classified as PO, but the USACE considers this use to be incidental and may prohibit such use without notice for project operations or security needs.

Recommended future actions for PO areas include facility upgrades as funding and personnel allow. Implementing low impact design principles into future building, parking, and site developments will continue to be emphasized. Opportunities to incorporate environmental stewardship objectives for land management will be implemented as appropriate.



Photo 5.1 View of Hodges Village Dam from below the dam Source: USACE

5.2.1 Recreation within Project Operations

Hodges Village Dam Recreation

The disc golf course at Hodges Village Dam has 13 holes. The course consists of 21 tee pads and 13 corresponding basket "holes" and is located adjacent to the dam and Hodges Village Pond. Visitor parking is available near the project office and along Howarth Road. The area is often used to access shoreline fishing and is one of the main trail heads. From the dam site parking lot, visitors can access the east side trails, Rocky Hill Road, the old railroad bed, Greenbriar Park, and the west side trails. Visitors may also walk on the top of the dam during low security levels. The blue-blazed east side trails are reserved for non-motorized use including hiking, mountain biking, dog walking, horseback riding, geocaching, and wildlife viewing. These trails are a combination of easy and moderate difficulty levels. Blazes with a black dot in the middle indicate the visitor is heading back to the dam. Two bridges across the French River allow for the passage of pedestrians. The east side trails are open year-round for recreation.

In 2023, the public restrooms were replaced with a prefabricated building offering Americans with Disabilities Act (ADA) accessibility and sustainable utilities. In 2024, the trailhead and operations parking lot was repaved, and a new information kiosk was installed. The dam site security gates were upgraded, and new walkways were created to better allow visitor and ADA accessibility to the top of the dam and trails. Also in 2024, the beginning of an ADA trail was established at the North Cemetery access in partnership with a local Girl Scout Troop.



Photo 5.2 Public Restrooms and Information Kiosk Source: USACE

Recommended future actions for the disc golf course include upgrading the tee pads and baskets to meet the disc golf game standards. Trailhead improvements include installing improved signage during peak season times such as hunting, flood operations, trail closures, etc. to inform the public of safety concerns. It is also recommended to develop a trail operation and maintenance manual for the entire trail system at Hodges Village Dam. Currently, the trail maintenance manual is only developed for the off-highway, motorized trails. The Town of Oxford has a rich history that surrounds Hodges Village. The trail system would be a great place to develop a historical, self-guided tour to educate visitors about the historical richness of the area. Establishing the North Cemetery access as an official trailhead, define parking, install a small picnic area, and improve ADA access along the old Route 12 roadway is a possibility in the future.



Photo 5.3 Bicyclists enjoying a trail at Hodges Village Dam Source: USACE

5.3 HIGH DENSITY RECREATION

Hodges Village Dam has 15 acres developed for intensive recreational activities for the visiting public including day use areas and trail access. Most of that land is within Greenbriar Park which is leased to the Town of Oxford, Massachusetts. HDR land within Greenbriar Park will be managed to maintain the existing intensive recreation facilities. The other area classified as HDR is a small, paved parking lot at the north end of the project on the west side of the French River at the Multiple Use Area. These areas are described briefly in Section 5.3.1 and Section 5.3.2.

Based upon outdoor recreation trends documented in the 2024 SCORP, activities such as hiking, walking/running, camping, wildlife watching/bird watching, paddling, and fishing are the most popular in the state of Massachusetts, and are common activities that can be undertaken at Hodges Village Dam (see Section 2.13). Seeking opportunities to improve facilities and provide access to outdoor recreation activities in response to public demand are important to the USACE recreation goals at Hodges Village Dam. The future management of HDR areas includes maintaining and improving existing facilities through partnerships and other funding options, including the local stakeholders and the Commonwealth of Massachusetts.

5.3.1 USACE Managed High Density Recreation Areas

French River Multiple Use Area Trailhead

The USACE manages a paved parking lot and trailhead at the north end of the Hodges Village Dam project on the west side of the French River. Multiuse trails provide access for motorized bikes and motorcycles, snowmobiles, hikers, mountain bikers, equestrian riders, and access to natural resources such as fishing, hunting, and wildlife viewing. Four-wheel motorized vehicles are not permitted on any trails at Hodges Village Dam. Motorized two-wheel dirt bikes are permitted only on designated trails, the west side trails marked with orange blazes, and with a Massachusetts Off-Highway Vehicle (OHV) registration. Snowmobiles are permitted in winter months as long as there is at least 6" of snow on the ground. The motorized trails are open seasonally and when trail conditions allow for safe riding. The trails are closed annually to dry out during spring thaw conditions and/or during flood risk management operations. The trails include a variety of difficulty levels for users including easy, moderate, and hard. Easy trails are characterized by flat, hard-packed gravel. Moderate trails are characterized by rolling hills, roots, sandy footing, and twisting trails winding their way through heavily forested areas. Hard trails, located on the north end, are characterized by steep slopes, large boulders, and poor footing. The parking area features a large three-panel information kiosk, with trail maps, brochures, event information, and Tread Lightly information.



Photo 5.4 Hiking trail through the woods at Hodges Village Dam Source: USACE

Future management of the trailhead will include maintenance and improvements to parking and trail access. The west side trails will continue to be maintained and patrolled by Hodges Village Park Rangers and volunteers. Trail maintenance is an ongoing activity due to flood risk management operations and frequency of storms. The trails will be evaluated and rerouted in heavily used areas to preserve the integrity for future use and environmental sustainability. The Hodges Village Off-Highway Trail Maintenance document will be updated. A new Hodges Village Trail management plan will be developed to include maintenance strategies and update the annual trail closure policy. Due to the increase in popularity of mountain biking, trails improvements may be considered to support this activity in conjunction with new partnerships. Other possible future endeavors include establishing a small picnic area at the Multiple Use Area parking lot and to maintain and consider re-opening the Hodges Village Dam overlook on Old Howarth Road.



Photo 5.5 Motorized dirt bike trail at Hodges Village Dam Source: USACE

5.3.2 Non-USACE Managed High Density Recreation Areas

Greenbriar Recreation Area

Greenbriar Recreation Area is leased and managed by the Town of Oxford, Massachusetts. The current lease is up for renewal in July of 2027. The intensive recreation area known as Greenbriar Park consists of three tennis and pickleball courts, two volleyball courts, running track, two baseball fields, a skateboard park, and a small stage for events. There are restroom facilities available for official events such as during ballgames, but they are not open during all hours. The restrooms were damaged by a large pine tree in 2018, and the Town of Oxford is finding solutions to replace the facility. The recreation area also contains primitive gravel roads, undefined parking, and a trailhead with access to trails used for walking, biking, snow shoeing, horseback riding, nature viewing, and access to fishing. The 3-mile French River Canoe trail starts at Greenbriar and meanders along the river to Hodges Village Dam.

Future management will be conducted by the Town of Oxford in partnership with the USACE. Future projects are expected to include regular park and utility maintenance and establishing seasonal vehicle access. Improvements may also include the establishment of a historical trail and formalized canoe launch, rebuilding a trail bridge behind the volleyball court, defining parking for baseball and trailhead activities, establishing of vehicle traffic patterns and a secondary exit route, enhancing and fortification of the stage, replacement of the public restrooms, reestablishing the Greenbriar/ Route 12 Overlook, and any other improvements necessary to maintain the baseball fields, volleyball courts, tennis/pickleball courts, track, and skatepark.

5.4 MITIGATION

This classification is used for lands that were acquired specifically for the purpose of offsetting losses associated with development of the project. There are no (zero) acres at Hodges Village Dam under this classification.

5.5 ENVIRONMENTALLY SENSITIVE AREAS

There are two (2) areas of ESA-designated land, totaling less than 3 acres at Hodges Village Dam in which scientific, ecological, cultural, or aesthetic features have been identified. Designation of these lands is not limited to just lands that are otherwise protected by laws such as the Endangered Species Act, the NHPA or applicable state statutes. These areas must be managed to ensure they are not adversely impacted. Typically, limited public use is allowed on these lands. With the exception of natural surface pedestrian trails and minimal visitor parking areas, limited or no development of public use facilities is allowed on these lands and no real estate out grants for easements should be granted unless disturbance can be confined to the boundaries of existing easements. No agricultural or grazing uses are permitted on these lands unless necessary for a specific resource management benefit, such as prairie restoration or provision of supplemental browse and forage for wildlife. An ESA classification provides the highest level of ecological protection among the various land use classifications. The two ESAs are described briefly in Table 5.1.

Table 5.1 ESA Descriptions

ESA #	Acres	Description
1	1.7	ESA 1 is located to the west of the French River and south of Stumpy Pond. It is comprised of a vernal pool of approximately 1.7 acres. A vernal pool is a seasonal wetland that provides critical habitat for many species including breeding and rearing habitat for amphibians, insects, and other wildlife.
2	0.9	ESA 2 is located south of Wellington Brook and southeast of the confluence with the French River and is comprised of a vernal pool of approximately 0.9 acre.

5.6 MULTIPLE RESOURCE MANAGEMENT LANDS

There are 784 acres of Multiple Resource Management Lands within just one sub-classification at Hodges Village Dam – Wildlife Management (WM). The following is a description of the resource objectives, acreages, and description of use.

5.6.1 Wildlife Management (WM)

These are lands designated for the stewardship of fish and wildlife resources and are managed by the USACE and the Town of Oxford, Massachusetts. There are currently 784 acres of land under this classification at Hodges Village Dam. Management efforts focus on producing and ensuring access to native wildlife habitat.

The broad objective of fish and wildlife management is to conserve, maintain and improve the fish and wildlife habitat to produce the greatest dividend for the benefit of the general public. Implementation of a fish and wildlife management plan is the first step toward achieving the goals of the Fish and Wildlife Coordination Act (Public Law 85-624). MassWildlife assists with enforcement of state laws and regulations and establishing seasons and bag limits for game species. Hunting is permitted only on the west side of the French River. Future management plans for wildlife areas include continued cooperation with partners in managing and improving wildlife management areas under this land classification, maintaining and improving trails, connecting to regional trail networks, and providing additional access including small, natural surface parking where feasible.

There are 2 known federally listed species, along with 17 federally listed migratory birds, and 12 known state-listed species that could utilize habitat within the Hodges Village Dam project area. Therefore, any work conducted on this project will be in accordance with the Endangered Species Act and will be appropriately coordinated with the USFWS and State resource agencies. These species (described in Section 2.7.3) will continue to receive attention to ensure they are managed in accordance with their habitat needs.

Non-game wildlife is also managed. The following list of non-game programs is being or will be pursued as funds become available.

- Early detection, prevention, and removal of invasive species
- Native vegetation restoration where needed
- Fish spawning and habitat structures
- Food/habitat plots for native wildlife
- Pollinator gardens
- Wildlife friendly fencing
- Trail maintenance and improvements to ensure access to natural resources



Photo 5.6 Pollinator Field at Hodges Village Dam Source: USACE

5.7 WATER SURFACE

There is no designated conservation or permanent pool at Hodges Village Dam, so no acres were classified as water surface in the 1976 Master Plan nor the 2025 Master Plan. However, there are both permanent and intermittent ponds and wetlands at Hodges Village Dam which are managed under the land classifications described above.

5.8 SUSTAINABILITY

Sustainability is a multi-pronged aspect of responsible stewardship of USACE lands. The outcome of sustainability initiatives is to have a program that is able to adapt to fiscal challenges, safeguards the environment, and continues to provide high quality recreational opportunities for the public. As the nation's largest provider of outdoor recreation, managing 12 million acres of lands and waters across the country, the USACE is committed to implementing initiatives that link people to water.

The recreational mission of the USACE is to manage and conserve natural resources, while providing quality public outdoor recreation opportunities to serve the needs of the present and future generations. This is in line, and indeed the underpinning, of all the goals and objectives for Hodges Village Dam resources and management. The national USACE 2021 Natural Resources Management Strategic Plan identifies several goals and related objectives designed to build a more robust environmental and recreational program on USACE managed lands. The four primary goals are Workforce Development; Improved Communication; Resourcing; and Program Delivery. Under the umbrella goal of Program Delivery, several objectives center specifically on promoting environmental sustainability in all aspects of natural resources management. This includes integrating EOPs and other environmental regulations and initiatives into day-to-day decision making and long-range planning. Other objectives include using Leadership in Energy and Environmental Design (LEED) certified personnel and projects in facility design and maintenance on land-based recreation areas, and updating project Master Plans to include environmental sustainability elements.

Meeting the public's needs and continuing to provide a full range of outdoor recreation opportunities will require collaboration. In support of that, the USACE will maintain and enhance existing rapports while seeking new and innovative types of relationships with federal, state, and local agencies, volunteers, non-government organizations, cooperators, and others to provide certain recreation services and opportunities to the public. Besides pursuing and maintaining partnerships, it is important to continue to identify, analyze, and evaluate authorities and policies such as fee collection and retention, and increased partnership capabilities. Areas identified for changes to meet the goals and objectives of this strategy include authorities for fee collection and retention without budgetary offset, and policies that pertain to funding schedules for partnership projects.

Through creativity, innovation, strong partnerships, and environmentally sustainable stewardship, quality recreational opportunities will continue to be available to the public. This will be done while simultaneously protecting the water, environment, and cultural resources for current and future generations.



Photo 5.7 Trail bridge on west side, preserving the integrity the surrounding wetlands

Source: USACE

CHAPTER 6 – SPECIAL TOPICS/ISSUES/CONSIDERATIONS

6.1 COMPETING INTERESTS OF NATURAL RESOURCES

Hodges Village Dam is a multi-purpose project with numerous authorized purposes. The authorized purposes accommodate the needs of federal, state, and municipal users which have developed over time and have contractual rights that must be honored. The benefits provided by virtue of authorized purposes are critical to the local and regional economies and are of great interest to the public. Aside from operating the reservoir to meet the needs of those entities with contractual rights, there are many competing interests for the utilization of federal lands including recreational users, adjacent landowners, those who own mineral rights, utility providers, and all entities that provide and maintain public roads. A growing population and increasing urbanization places additional stress on these competing interests through increased demand for water resources and recreation spaces as well as diminishing quality and space for natural habitat and open spaces. Balancing the interests of each of these groups to ensure that valid needs are met while at the same time protecting natural and cultural resources is a challenge. The purpose of this Plan is to guide management into the foreseeable future to ensure responsible stewardship and sustainability of the project's resources for the benefit of present and future generations.



Photo 6.1 A typical forest trail at Hodges Village Dam Source: USACE

6.2 UTILITY CORRIDORS

USACE policy encourages the establishment of designated corridors on project lands, where feasible, to serve as the preferred location for future outgrants such as easements for roads or utility lines. After obtaining public input and examining the location of existing roads and utility lines on project lands, the USACE determined that utility corridors would not be designated at Hodges Village Dam, however the one existing utility corridor will be identified in this Master Plan. The Tennessee Gas Pipeline Company, L.L.C. has a Real Estate easement with USACE for a natural gas pipeline right of way across the middle of Hodges Village Dam property for the purpose of transporting gas over, across, in, and upon land of the USACE. The Massachusetts Electric Company has a Real Estate easement with USACE for overhead powerlines across the middle of Hodges Village Dam property for the purpose of transporting electricity over, across, in, and upon land of the USACE.

Any utility seeking an easement to cross USACE property will need to consider alternate routes around USACE property and demonstrate that a feasible alternative does not exist. Additionally, any expansion of existing or newly proposed utility corridors would need to undergo the required NEPA permitting process.



Photo 6.2 Power line that crosses Hodges Village Dam property Source: USACE

6.3 CULTURAL RESOURCES AND CONSULTATION WITH TRIBAL NATIONS

It is required for federal agencies to consult with affiliated Federally Recognized Tribes on various activities that take place on federal land under federal guidance including but not limited to Sections 106 and 110 of the NHPA; ARPA; NAGPRA; and 36 CFR Part 79, Curation of Federally-Owned and Administered Archeological Collections. Implementing regulations for Section 106 of the NHPA and NAGPRA are 36 CFR Part 800 and 43 CFR Part 10, respectively. All cultural resources laws and regulations should be addressed under the requirements of NEPA as amended. USACE summarizes the guidance provided in these laws in ER and EP 1130-2-540.

Additionally, Executive Order 13007 states that each federal agency with responsibility for the management of Federal lands shall accommodate access to and ceremonial use of Native American sacred sites by religious practitioners and avoid adversely affecting the physical integrity of such sacred sites.

The New England District takes its responsibilities for consultation on a government-to-government basis very seriously and consulted with Federally Recognized Tribes on the Hodges Village Dam Master Plan. The Tribes the USACE consulted with are the Wampanoag Tribe of Gay Head (Aquinnah), Mashpee Wampanoag Tribe, and Narragansett Tribe. The New England District consulted with Tribes primarily on developing best practices and ensuring areas of Tribal concern were addressed. This process has allowed Tribes to become more familiar with USACE property at Hodges Village Dam, and has increased USACE staff awareness of Tribal histories, sites, and concerns in the area. This exchange of knowledge from developing the Master Plan will allow USACE staff to better engage with Tribes on future projects at Hodges Village Dam and will likely lead to more efficient reviews and better outcomes meeting objectives for both parties.

6.4 PRIVATE ACTIVITIES AND SHORELINE MANAGEMENT

It is the policy of the USACE to protect and manage shorelines of all civil works water resource development projects to promote the safe and healthful use of these shorelines by the public while maintaining environmental safeguards to ensure a quality resource for use by the public. The objectives of all management actions will be to achieve a balance between permitted private uses and resource protection for public use. Public pedestrian access to and exit from these shorelines shall be preserved. The New England District generally does not permit private exclusive uses by adjacent landowners. Private exclusive use (often called private shoreline use) is defined in ER 1130-2-406 as "Any action, within the context of this regulation [36 CFR Part 327.30], which gives a special privilege to an individual or group of individuals on land or water at a Corps project, that precludes use of those lands and waters by the general public, is considered to be private shoreline use." The Master Plan does not concern private use of federal property; instead private use is managed per guidance in ER 1130-2-406 at the discretion of the New England District and project manager. See Section 2.14 for more information about Real Estate including outgrants, trespass, and encroachment.



Photo 6.3 Boy scouts installing a bridge over a wetland area near Greenbriar Park Source: USACE

CHAPTER 7 – PUBLIC AND AGENCY COORDINATION

7.1 PUBLIC, AGENCY, AND TRIBAL COORDINATION OVERVIEW

The USACE is dedicated to serving the public interests in support of the overall development of land uses related to land management of cultural, natural, and recreational resources of Hodges Village Dam. An integral part of this effort is gathering public comment and engaging stakeholders in the process of planning. USACE policy guidance in ER and EP 1130-2-550 requires thorough public involvement and agency coordination throughout the Master Plan revision process including any associated NEPA process. Public involvement is especially important at Hodges Village Dam to ensure that future management actions are environmentally sustainable and responsive to public outdoor recreation needs. The following milestones provide a brief look at the overall process of revising the Hodges Village Dam Master Plan.

The USACE began planning to revise the Hodges Village Dam Master Plan in the fall of 2024. The objectives for the Master Plan revision are to (1) revise land classifications to reflect changes in USACE land management policies since the 1976 Master Plan, (2) prepare new resource goals and objectives, and (3) revise the Master Plan to reflect new agency requirements for Master Plan documents in accordance with ER 1130-2-550, Change 7, January 30, 2013 and EP 1130-2-550, Change 5, January 30, 2013.

7.2 INITIAL STAKEHOLDER AND PUBLIC MEETINGS

On August 1, 2024 a public open house was held at the Oxford Public Library in Oxford, Massachusetts to inform the public of the intent to revise the Master Plan. Nine members of the public and stakeholders attended the open house. The Open House started a public input period for 30 days from August 1, 2024 to August 31, 2024. At the open house, a presentation was running that included the following topics:

- What is a Master Plan?
- What a Master Plan is Not
- Why Revise a Master Plan?
- Overview of the National Environmental Policy Act (NEPA) process
- Master Planning Process
- Instructions for submitting comments

The USACE received 9 comments from 3 members of the public. These comments and USACE responses can be found in Appendix E.

7.3 PUBLIC AND AGENCY REVIEW OF DRAFT MP, EA, AND FONSI

A public open house will be held for the Hodges Village Dam Master Plan revision, and this section will be completed after the close of the comment period, prior to publishing the final Master Plan.

7.4 TRIBAL CONSULTATION

In 2024, the USACE consulted with the appropriate Tribal Nations on the notice of availability for the scoping effort for this Master Plan and Environmental Assessment seeking their comments and confirmation of interest. A sample letter is included in Appendix B.

The following recognized Tribal Nations were consulted in 2024 prior to the initial Open House:

- Wampanoag Tribe of Gay Head (Aquinnah)
- Mashpee Wampanoag Tribe
- Narragansett Tribe

For the Draft Master Plan and Environmental Assessment, the same group of recognized Tribal Nations were consulted to notify of the Open House the availability of the draft documents.

CHAPTER 8 – SUMMARY OF RECOMMENDATIONS

8.1 SUMMARY OVERVIEW

The preparation of this Master Plan for Hodges Village Dam followed the USACE master planning guidance in ER 1130-2-550 and EP 1130-2-550, both dated 30 January 2013. Three major requirements set forth in the guidance include the preparation of contemporary resource objectives, classification of project lands using the approved classification standards, and 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. Additional important requirements include rigorous public involvement throughout the process, consideration of regional recreation and natural resource management priorities identified by other federal, state, and municipal authorities, and consultation with local Tribal Nations.

The study team endeavored to follow this guidance to prepare a Master Plan that will provide for enhanced recreational opportunities for the public, improve environmental quality, and foster a management philosophy conducive to existing and projected USACE staffing levels at Hodges Village Dam as also reflected in ER 1130-2-540 change 2 dated July 2005. Factors considered in the Plan development were identified through public involvement and review of regional and statewide planning documents including the current Massachusetts SCORP prepared by the Commonwealth of Massachusetts Executive Office of Energy and Environmental Affairs (EEA) 2024, EPA Ecoregion Handbook and descriptions, and the USFWS IPaC website. This Master Plan will guide the long-term sustainability of the outdoor recreation program and natural resources associated with Hodges Village Dam.

8.2 LAND CLASSIFICATION

A key component in preparing this Master Plan was examining prior land classifications and addressing the needed transition to the updated land classification standards that reflect how lands are being managed now and will be managed in the foreseeable future. The updated land classification standards will also comply with current USACE standards. Public comment was solicited to assist in making these land reclassification decisions. Consultation was also conducted with Tribal Nations to provide input on cultural and natural resources to help inform the land classification decisions. Chapter 7 of this Plan describes the public involvement process and Appendix E provides a summary of public comments received. After analyzing public comment, examining recreational trends, and taking into account regional natural resource management priorities, USACE team members reclassified the Federal lands and waters associated with Hodges Village Dam as described in Table 8.1 and explained in Table 8.2. The land classification changes map in Appendix A shows detailed changes from the 1976 Master Plan to the 2025 Master Plan's proposed changes.

Prior Land Classifications (1976)	Acres	Proposed Land Classifications (2025)	Acres	Net Difference
Project Operations	26	Project Operations (PO)	62	36
Operations: Recreation – Intensive Use Area	109	High Density Recreation (HDR)	15	(94)
Operations: Recreation – Low Density Area	729	Low Density Recreation (LDR)	_	(729)
_	_	Wildlife Management (WM)	784	784
_	_	Environmentally Sensitive Area (ESA)	3	3
TOTAL ACRES	864	TOTAL ACRES	864	-

Table 8.1 Change from 1976 Land Classification to 2025 Land Classification

* 1976 acres are approximate based on text descriptions of each area since the areas were not originally mapped.

8-2

Land Classification	Description of Changes ⁽³⁾	Justification
Project Operations (PO)	Net increase in PO lands from 26 to 62 acres.	All lands classified as PO are managed and used primarily in support of critical operational requirements related to the primary missions of flood risk management and water conservation. Approximately 36 acres along the dam, dike, and adjacent areas needed for operations that were previously classified as Operations: Recreation – Low Density Use were changed to PO. Incidental recreation can still occur in many of these areas, but they are managed primarily for operations and management of the project.
High Density Recreation (HDR)/ Operations: Recreation – Intensive Use Area	Net decrease in HDR lands from 109 to 15 acres.	A change of approximately 15 acres is in name only, as the land was classified as Operations: Recreation – Intensive Use Area in the 1976 Master Plan but reclassified as HDR. Approximately 33 acres were classified from Operations: Recreation – Intensive Use Area to WM in the old Rocky Hill Recreation Area off of Rocky Hill Road, since that area was never developed for intensive recreation. Another 61 acres around Greenbriar Recreation Area were also classified as WM, since the previous Master Plan included much more land than was needed for intensive recreation at the park. Both changes reflect current management activities and uses at Hodges Village Dam. A small tract of approximately less than one acre on the west side of the French River at the north end of the project was changed from Operations: Recreation – Intensive Use Area to HDR, since this is a paved trailhead and parking lot and would allow for additional intensive recreation amenities or facilities in the future at that trailhead.

Table 8.2 Changes⁽¹⁾ and Justifications for Land Classifications⁽²⁾
Land Classification	Description of Changes ⁽³⁾	Justification
MRML – Low Density Recreation (LDR)/ Operations: Recreation – Low Density Area	Net decrease in LDR acres from 729 acres to 0 (zero) acres.	In the 1976 Master Plan, the Operations: Recreation – Low Density Area was comprised of the vast majority of the project. 690 acres of was changed to WM to better reflect the existing uses which include less intensive activities such as hiking, fishing, hunting, observing nature, and access to the natural resources. A small tract of less than one acre on the west side of the French River at the north end of the project was changed from Operations: Recreation – Low Density Recreation to HDR, since this is a paved trailhead and parking lot and would allow for additional intensive recreation amenities or facilities in the future at that trailhead. Approximately 3 acres were classified as ESA to better protect sensitive resources in the areas. Approximately 36 acres were classified as PO to better reflect the current management uses to support critical operational requirements related to the primary missions of flood risk management and water conservation.
Wildlife Management (WM) Area	Net increase in WM acres from 0 (zero) acres to 784 acres.	Approximately 690 acres of land that was previously classified as Operations: Recreation – Low Density Area were reclassified as WM. This change was to better reflect the existing uses which include less intensive activities such as hiking, fishing, hunting, observing nature, and access to the natural resources. An additional 94 acres were classified from Operations: Recreation – Intensive Use Area to WM, since those areas were never developed for intensive recreation, and are currently managed for multiple resources including less intensive recreation and access to natural resources.

Land Classification	Description of Changes ⁽³⁾	Justification
Environmentally Sensitive Area (ESA)	Net increase in ESA acres from 0 (zero) acres to 3 acres.	Two small wetland areas totaling approximately 3 acres were classified as ESA to better protect the sensitive resources in those areas.

(1) 1976 acres are approximate based on text descriptions of each area since the areas were not mapped.
(2) The land classification changes described in this table are the result of changes to individual parcels of land ranging from a few acres to several hundred acres. New acreages were measured using more accurate GIS technology, thus total changes will not equal individual changes. The acreage numbers provided are approximate.

⁽³⁾ Acreages are based on GIS measurements and may vary from net difference detailed in Table 8.1.

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APPENDIX A – LAND CLASSIFICATION, MANAGING AGENCIES, AND RECREATION MAPS





USArmy Corps 2025 MASTER PLAN of Engineers SHEET INDEX (0.1)





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HODGES VILLAGE DAM 2025 MASTER PLAN LAND CLASSIFICATIONS USArmy Corps of Engineers • New England District - INDEX 3 (MAP 3.4)

French River



Жж



- Local Roads Fee Lands Land Classification Wildlife Management 500 750 250 0 US Feet























APPENDIX B – NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) DOCUMENTATION

Finding of No Significant Impact (FONSI) And Environmental Assessment

Hodges Village Dam Master Plan

Worcester County, Massachusetts E6-O-1741697403



June 2025

US Army Corps of Engineers ® New England District

ENVIRONMENTAL ASSESSMENT ORGANIZATION

This Environmental Assessment (EA) evaluates the potential environmental and socioeconomic impacts of the Hodges Village Dam Master Plan.

SECTION 1 INTRODUCTION of the Proposed Action summarizes the purpose of and need for the Proposed Action, provides relevant background information, and describes the scope of the EA. **SECTION 2 PROPOSED ACTION AND ALTERNATIVES examines** alternatives for implementing the Proposed Action and describes the recommended alternative. SECTION 3 AFFECTED ENVIRONMENT describes the existing environmental and socioeconomic setting. ENVIRONMENTAL CONSEQUENCES identifies the potential environmental and socioeconomic effects of implementing the Proposed Action and alternatives. SECTION 4 COMPLIANCE WITH ENVIRONMENTAL LAWS provides a listing of environmental protection statutes and other environmental requirements. SECTION 5 PUBLIC AND AGENCY COORDINATION provides a listing of individuals and agencies consulted during preparation of the EA. SECTION 6 **REFERENCES** provides bibliographical information for cited sources. APPENDIX A **COORDINATION** National Environmental Policy Act (NEPA) Coordination and Scoping APPENDIX B WILDLIFE DOCUMENTATION provides information on USFWS resources (including threatened and endangered species) and Massachusetts's NHESP state-listed species.

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List of Acronyms

Code of Federal Regulations
Massachusetts Department of Fish and Game
Environmental Assessment
Environmental Impact Statement
Executive Order
U.S. Environmental Protection Agency
Environmental Sensitive Areas
Finding of No Significant Impact
High Density Recreation
Hazardous, Toxic, and Radioactive Waste
Information for Planning and Consultation
Low Density Recreation
Master Plan
Multiple Resource Management Lands
Native American Graves Protection and Repatriation Act
National Environmental Policy Act
Natural Heritage & Endangered Species Program
National Historic Preservation Act
National Register of Historic Places
Operation and Maintenance
Project Operations
State Historic Preservation Office
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service
Wildlife Management

FINDING OF NO SIGNIFICANT IMPACT Hodges Village Dam Master Plan Worcester County, Massachusetts

The U.S. Army Corps of Engineers (USACE), New England District, and the Regional Planning and Environmental Center (RPEC), propose to revise, adopt, and implement the Hodges Village Dam Master Plan, as required by Engineering Regulation 1130-2-550 and Engineering Pamphlet 1130-2-550. Hodges Village Dam is dry bed reservoir that provides flood risk management to the Thames River Basin. The Flood Control Act of 1941 authorized Hodges Village Dam as a part of the Thames River Basin flood control system. The Flood Control Act of 1944, as amended, authorized the development of Hodges Village Dam for recreation.

The Hodges Village Dam Master Plan is a strategic land use management document that guides the efficient, cost-effective, comprehensive management, development, and use of recreation, natural resources, and cultural resources throughout the life of the Hodges Village Dam project. The Master Plan and supporting documentation provide an inventory and analysis of goals, objectives, and recommendations for USACE lands and waters at Hodges Village Dam with input from the public, stakeholders, and subject matter experts.

USACE has completed an Environmental Assessment (EA) for this action in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended. USACE is fully revising the 1976 Master Plan to reflect current ecological, sociodemographic, and outdoor recreation trends that are impacting the dam, as well as those anticipated to occur within the next 25 years.

The revised 2025 Master Plan includes updated land classifications, resource goals and objectives. The land classifications include a small increase in Project Operations, large decrease in High Density Recreation, large decrease in Low Density Recreation, a small increase in Environmentally Sensitive Areas, and a large increase in Wildlife Management lands.

I find that based on the evaluation of environmental effects discussed in the EA, this action is not a major federal action significantly affecting the quality of the environment. The EA includes an evaluation of the affected environment and the geographical context and intensity of the direct, indirect, and cumulative long-term and short-term effects of the action. The effects of the proposed action relative to significance criteria are summarized below. None are implicated to warrant a finding of NEPA significance.

- (i) <u>The degree to which the action may adversely affect public health and</u> <u>safety.</u> The action is expected to have no effects on public health and safety.
- (ii) <u>The degree to which the action may adversely affect unique</u> <u>characteristics of the geographic area such as historic or cultural</u>

resources, parks, Tribal sacred sites, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas. The action will have no potential for adverse effectsto unique characteristics of the geographic area such as Tribal sacred sites, prime farmlands, wild and scenic rivers, or ecologically critical areas. The project will have no potential for adverse effects on historical and cultural resources.

- (iii) Whether the action may violate relevant Federal, State, Tribal, or local laws or other requirements or be inconsistent with Federal, State, Tribal, or local policies designed for the protection of the environment. The action will not violate federal, state, tribal or local laws or policies for the protection of the environment.
- (iv) <u>The degree to which the potential effects on the human environment are highly uncertain.</u> The effects are not uncertain. USACE has revised numerous master plans.
- (v) <u>The degree to which the action may adversely affect resources listed or eligible for listing in the National Register of Historic Places (NRHP)</u>. The action has no potential for adverse effects on historic properties eligible or listed on the NRHP.
- (vi) The degree to which the action may adversely affect an endangered or threatened species or its habitat, including habitat that has been determined to be critical under the Endangered Species Act of 1973. The action will have no effect on any federal or state threatened or endangered species or designated critical habitat for such species.
- (vii) <u>The degree to which the action may adversely affect rights of Tribal</u> <u>Nations that have been reserved through treaties, statutes, or Executive</u> <u>Orders.</u> The action will not adversely affect rights of Tribal Nations that have been reserved through treaties, statutes, or Executive Orders.

Based on my review and evaluation of the environmental effects as presented in the EA, I have determined that the revisions to the implementation and adoption of the 2025 Hodges Village Master Plan is not a major federal action significantly affecting the quality of the environment and is therefore exempt from requirements to prepare an Environmental Impact Statement.

Date

Justin R. Pabis, P.E. Colonel, Corps of Engineers District Engineer This page left intentionally blank

SECTION 1: INTRODUCTION

The U.S. Army Corp of Engineers (USACE), New England District, has prepared this Environmental Assessment (EA) to analyze the potential environmental effects associated with the adoption and implementation of the 2025 Hodges Village Dam Master Plan (MP). This MP is a programmatic document subject to evaluation under the National Environmental Policy Act (NEPA) of 1969, as amended, and all appropriate federal and state environmental regulations, laws, and executive orders.

The 2025 MP is a strategic land use management plan that provides direction to preserve, conserve, restore, maintain, manage, and develop all natural, cultural, and recreational resources of a USACE water resource project, which includes all government-owned lands in and around a reservoir. It is a vital tool for responsible stewardship and sustainability of the project's natural, cultural, and recreational resources. The 2025 MP identifies conceptual types and levels of activities, but does not include designs, project sites, or estimated costs. All actions carried out by the USACE, other agencies, and individuals granted leases to USACE lands must be consistent with the 2025 MP.

1.1 PROJECT LOCATION AND SETTING

Hodges Village Dam is a dry bed reservoir located in Oxford, Massachusetts in Worcester County. Hodges Village Dam is located along the French River in the upper Thames River Basin. It was authorized by Congress in 1941for flood risk management within the Thames River Basin flood control system and the dam construction was completed in 1959. For more information on Hodges Village Dam, please refer to Chapter 1.5 of the 2025 MP.

1.1 PURPOSE AND NEED

The 2025 MP is intended to serve as a comprehensive land and recreation management plan with an effective life of approximately 25 years. The purpose of the 2025 MP is to ensure that the conservation and sustainability of the land, water, and recreational resources at Hodges Village Dam comply with applicable environmental laws and regulations and to maintain quality lands for future public use. Engineer Pamphlet (EP) 1130-2-550 requires a revision of an MP that no longer serves its intended purpose due to a combination of age and substantial changes to the project. Therefore, the revised MP is being adopted and implemented to provide effective guidance in USACE decision-making.

SECTION 2: PROPOSED ACTION AND ALTERNATIVES

During the alternative development process, different land classifications were evaluated for each parcel of USACE land at Hodges Village Dam. Land classifications were determined by primary use alongside the consideration of the multiple Congressionally authorized missions of the Project, public and agency comments, USACE staff knowledge, and potential impacts to the social, cultural, and environmental resources. The goals for the 2025 MP include the following:

GOAL A. Provide the best management practices to respond to regional needs, resource capabilities and suitability, and expressed public interests consistent with authorized project purposes.

GOAL B. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs.

GOAL C. Provide public outdoor recreation opportunities that support project purposes and public demands created by the project itself while sustaining the project's natural resources.

GOAL D. Recognize the particular 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 above goals, USACE management activities are guided by USACE-wide Environmental Operating Principles as follows (USACE, n.d.):

- Foster sustainability as a way of life throughout the organization.
- Proactively consider environmental consequences of all USACE activities and act accordingly.
- Create mutually supporting economic and environmentally sustainable solutions.
- Continue to meet our corporate responsibility and accountability under the law for activities undertaken by USACE, which may impact human and natural environments.
- Consider the environment in employing a risk management and systems approach throughout the life cycles of projects and programs.
- Leverage scientific, economic, and social knowledge to understand the environmental context and effects of USACE actions in a collaborative manner.
• Employ an open, transparent process that respects views of individuals and groups interested in USACE activities.

Resource objectives were developed to support the goals of the Master Plan, USACE Environmental Operating Principles, and applicable national performance measures. Resource objectives are consistent with authorized project purposes, federal laws and directives, regional needs, resource capabilities, and public consideration. Recreational and natural resources carrying capacities were considered alongside state planning documents, including the Massachusetts Wildlife Action Plan and the Massachusetts Statewide Comprehensive Outdoor Recreation Plan. Refer to Chapter 3 of the 2025 MP for a description of the resource objectives.

During the alternative development workshop, project lands were classified to identify how a given parcel of land shall be used now and in the foreseeable future. Land classifications to be used are defined as follows:

- **Project Operations (PO):** Lands required for operation of the dam, spillway, dikes, offices, maintenance facilities, and other areas used solely for the operation of Hodges Village Dam. These lands allow for limited recreational use such as public access to the shoreline for fishing, but the primary classification of PO will take precent over other uses.
- **High Density Recreation (HDR):** Lands developed for intensive recreational activities for the visiting public including day use areas and campgrounds. These areas could also be for commercial concessions and quasi-public development.
- Environmentally Sensitive Areas (ESA): Areas where scientific, ecological, cultural, or aesthetic features have been identified and are in need of preservation.
- **Multiple Resource Management Lands (MRML):** Allows for the designation of a predominate use with the understanding that other compatible uses may also occur on these lands.
 - <u>Low Density Recreation (LDR)</u>: Lands with minimal development or infrastructure that supports passive recreational use (primitive camping, fishing, hunting, trails, wildlife viewing, etc.)
 - <u>Wildlife Management (WM)</u>: Lands designated for stewardship of fish and wildlife habitat that permit passive recreation unless restrictions are necessary to protect sensitive species or promote public safety.

2.1 NO ACTION ALTERNATIVE

The No Action Alternative serves as a basis for comparison to the anticipated effects of the action alternatives. Under the No Action Alternative, USACE would not adopt and implement the 2025 MP. Instead, USACE would continue to manage Hodges

Village Dam's natural resources as set forth in the 1976 MP. The 1976 MP would continue to be the only source of comprehensive management guidelines and philosophy.

2.2 PROPOSED ACTION ALTERNATIVE

Under the Proposed Action, USACE will adopt and implement the 2025 MP, replacing the 1976 MP. The 2025 MP will classify all of Hodges Village Dam's land into management categories. The Proposed Action Alternative will meet regional stewardship goals associated with good stewardship of land, water, and recreational resources, address identified recreational trends; and allow for continued use and development of project lands without violating national policies or public laws.

Table 1 provides a summary of prior 1976 MP land classifications alongside the proposed 2025 MP land classifications.

Prior Land Classifications (1976)	Acres	Proposed Land Classifications (2025)	Acres	Net Difference
Project Operations	26	Project Operations (PO)	62	36
Operations: Recreation – Intensive Use Area	109	High Density Recreation (HDR)	15	(9)
Operations: Recreation – Low Density Area	729	-	-	(729)
-	-	Wildlife Management (WM)	784	(784)
-	-	Environmentally Sensitive Area (ESA)	3	3
TOTAL FEE	864	TOTAL FEE	864	0

Table 1. Existing and Proposed Land Classification Changes

* 1976 acres are approximate based on text descriptions of each area since the areas were not originally mapped. Total fee simple title acreage differences from the 1976 total to the 2025 totals are due to improvements in measurement technology, deposition/siltation, and erosion. Totals also differ due to rounding while adding parcels.

SECTION 3: AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section describes the natural, cultural, and social resources found within the Hodges Village Dam fee boundary and the environmental consequences of the No Action and Proposed Action Alternative. A description of the existing conditions of resources can be found in Chapter 2 of the 2025 MP. Only those resources that have the potential to be affected by implementation of either alternative will be analyzed in this EA. Impacts are evaluated in terms of type, context, intensity, and duration. The type of impacts can be either beneficial or adverse and can be either directly or indirectly related to the action.

3.1 LAND USE

Please refer to Chapter 4.2 of the 2025 MP for existing land use information in and around Hodges Village Dam.

3.1.1 No Action Alternative

The No Action Alternative will result in moderate, adverse long-term impacts on land use. Under the No Action Alternative, the 2025 MP would not be implemented, and existing land use management would not reflect current and future needs. The operation and maintenance (O&M) at Hodges Village Dam would continue to follow the 1976 MP. Land use management would not meet operational and recreational needs identified through scoping efforts. As a result, land use management would be inefficient due to conflicting guidance and management of USACE lands.

3.1.2 Proposed Action

The Proposed Action will result moderate, long-term beneficial impacts to land use. Under the Proposed Action the 2025 MP would be implemented. The objectives for the 2025 MP describe current and foreseeable land uses while considering expressed public opinion, regional goals and trends, and USACE policies that have evolved to meet day-to-day operational needs. The majority of the reclassifications will maintain and improve current land use management.

The 1976 MP land classifications included multiple operation land classifications, including Recreation – Intensive Use Area, Recreation – Low Density Area, and Projection Operations. The Proposed Action includes classification of prior land uses and unclassified lands at Hodges Village Lake. Descriptions of the 2025 MP land classifications can be found below, and Table 1 shows the land classification differences expressed as acreages.

Project Operations (PO)

The Proposed Action will result in a net increase in PO. PO lands are managed

and used primarily in support of critical operational requirements related to the primary missions of flood risk management and water conservation. The increase in PO lands is a result of a change in classifications from Operations: Recreation – Low Density Area to PO. This includes the entire dam and dike footprints as well as adjacent areas managed for project operations. Potential future actions for PO include facility upgrades. Future facility upgrades and development will implement low impact design and environmental stewardship objectives (e.g. invasive species control, wildlife management) as appropriate.

MRML – High Density Recreation (HDR)

The Proposed Action will result in a net decrease of HDR. The decrease in HDR lands is from the reclassification of approximately 94 acres to WM. This classification reflects current and projected use to management for natural resources, such as a wildlife management, with no future development for intensive recreation. The majority of HDR lands include areas of Greenbriar Park which is leased to the Town of Oxford. Potential future actions include the maintenance and improvement of existing facilities through partnerships and other funding options.

MRML – Low Density Recreation (LDR)

The Proposed Action will result in a net decrease of LDR. The 1976 MP previously classified the majority of lands at Hodges Village Dam as Operations: Recreation – Low Density Use. The Proposed Action reclassifies these lands to reflect the existing and projected use of these areas for natural resource management. Lands that contain areas used for project operations and maintenance (e.g. dam, dikes) were reclassified to PO. Areas were reclassified to ESA (3 acres) to reflect sensitive resources. The majority of LDR was reclassified to WM to reflect current and projected uses focused on wildlife management, with less-intensive recreation (e.g. trails) to provide access to those natural resources. The 2025 MP does not propose any LDR lands, therefore no potential future actions are anticipated.

MRML – Wildlife Management (WM)

The Proposed Action will result in a net increase in WM, resulting from the reclassification of LDR lands (Operations: Recreation – Low Density Area). The proposed reclassification reflects the primary management objectives, current, and projected uses for natural resources management (e.g. wildlife management). WM lands are designated for the stewardship of fish and wildlife resources. WM lands are managed according to fish and wildlife management objectives outlined in the Hodges Village Dam Operational Management Plan and in accordance with best management practices. WM lands are currently managed by USACE, the Massachusetts Department of Fish and Game (DFG), and the Town of Oxford, Massachusetts Potential future actions include continued cooperation with partners, maintenance and improvements to trails, connecting trails to regional trail networks, and developing additional access including small, natural surface parking where feasible. Non-game wildlife programs will

be considered as applicable and may include: early detection, prevention, and removal of invasive species; native vegetation restoration where needed; fish spawning and habitat structures; food/habitat plots for native wildlife; pollinator garden; wildlife friendly fencing; trail maintenance and improvements to ensure access to natural resources.

Environmental Sensitive Area (ESA)

The Proposed Action will result in a net increase in ESA, resulting from land previously unclassified. The proposed reclassification includes the protection of sensitive resources within these areas. There are two areas totaling less than 3 acres of ESA at Hodges Village Dam in which scientific, ecological, cultural, or aesthetic features have been identified. Future management will ensure these resources are not adversely impacted. Limited or no development of public use is allowed on these lands. No agricultural or grazing uses are permitted on these lands unless necessary for a specific resource management benefit (i.e. prairie restoration).

3.2 WATER RESOURCES

Please refer to Chapters 2.1, 2.3, and 2.7.6 in the 2025 MP for more information on existing conditions for hydrology (including surface and ground water), water quality, and wetlands, respectively.

3.2.1 No Action Alternative

The No Action Alternative will result in no impacts to water resources. Under the No Action Alternative, the 2025 MP would not be implemented. As a result, there would be no changes to existing water resources.

3.2.2 Proposed Action

The Proposed Action will result in minor, beneficial impacts associated with land reclassification. Implementation of the 2025 MP would be compatible with water resources stewardship goals.

3.3 AIR QUALITY

For more information on existing conditions for air quality at Hodges Village Dam, please refer to Chapter 2.4 in the 2025 MP.

3.3.1 No Action Alternative

The No Action Alternative will result in no changes to existing air quality at Hodges Village Dam. The 1976 MP would remain in compliance with the Clean Air Act as no project activities would result in the contribution of criteria pollutants.

3.3.2 Proposed Action

The Proposed Action will result in no changes to existing air quality at the project

and in the region. The 2025 MP would not implement any actions (i.e. ground disturbing activities) that will result in impacts to criteria pollutants and would therefore remain in compliance with the Clean Air Act.

3.4 CLIMATE AND GREENHOUSE GASES

For more information on existing conditions for air quality at Hodges Village Dam, please refer to Chapter 2.5 in the 2025 MP.

3.4.1 No Action Alternative

The No Action Alternative would result in no changes or impacts to existing climate or GHG management at Hodges Village Dam. There would be no impact on existing or future climate conditions from continued management under the 1976 MP.

3.4.2 Proposed Action

The Proposed Action will result in minor, beneficial long-term impacts to existing air quality at the project and in the region. Impacts would result from promotion of land management practices and design standards promoting sustainability. The 2025 MP does not include activities which would contribute to a detectable change in emissions, including greenhouse gases, in the region.

3.5 TOPOGRAPHY, GEOLOGY, AND SOILS

Please refer to Chapter 2.6 of the 2025 MP for more information on existing conditions for topography, geology, and soils at Hodges Village Dam.

3.5.1 No Action Alternative

The No Action Alternative will have no impacts to topography, geology, or soils. Under the No Action Alternative, the 1976 MP would remain effective and no benefits to topography, geology, and soils would result from land reclassification. No ground disturbing activities would take place that could potentially affect topography, geology, or soils resources.

3.5.2 Proposed Action

The Proposed Action will have minor, beneficial long-term impacts to topography, geology, or soils. No ground disturbing activities would take place that could potentially affect topography, geology, or soils at Hodges Village Dam. Under the Proposed Action, the reduction of HDR and increase in WM and ESA lands would result in minor long-term beneficial impacts associated with limited development and ground disturbing acitivies. WM lands would be managed by USACE, DFG, and the Town of Oxford, Massachusetts. Potential future actions include the maintenance and improvement of trails, and additional access to WM lands including small, natural surface parking. These actions could result in minor, short-term impacts to soils, from minor trail maintenance and limited development, but would be support the overall management

plan for WM lands. ESA lands would allow for limited or no future development for public use. No agricultural or grazing uses would occur in ESA lands, unless for a specific resource management benefit (*i.e.* prarie restoration).

3.6 NATURAL RESOURCES

For existing conditions on natural resources (including fish and wildlife resources and vegetative resources), refer to Chapters 2.7.1, 2.7.2, 2.7.5, and 2.7.6 of the 2025 MP.

3.6.1 No Action Alternative

The No Action Alternative will result in minor, adverse long-term impacts to natural resources. Under the No Action Alternative, the 2025 MP would not be implemented, and land management would not be updated to reflect current natural resources management policies and needs at Hodges Village Dam.

3.6.2 Proposed Action

The Proposed Action will result in moderate, long-term beneficial impacts to natural resources. Under the Proposed Action, the 2025 MP would be implemented, and land management policies would be updated to reflect current needs and natural resource requirements at Hodges Village Dam. The 2025 MP resource goals and objectives aim to further enhance, conserve, and protect natural resources, including state and federally listed species.

The proposed action includes an increase in ESA (+3 acre) and WM (+784 acres), lands. ESA lands are designated for scientific, cultural, or aesthetic features and will be managed to ensure no adverse impacts occur. Development of ESA lands will be limited, and the lands will be managed to ensure no adverse impacts to the sensitive resources. WM lands are actively managed for the stewardship of fish and wildlife resources by USACE, DFG, and the Town of Oxford.

3.7 THREATENED AND ENDANGERED SPECIES

The Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) provides a means to conserve threatened and endangered species. An endangered species is a species in danger of extinction throughout all or a significant portion of its range. A threatened species is a species likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Species may be considered endangered or threatened because of any of the following factors (16 U.S.C 1533(a)(1)):

(1) the present or threatened destruction, modification, or curtailment of its habitat or range;

(2) overutilization for commercial, recreational, scientific, or educational purpose;

- (3) disease or predation;
- (4) the inadequacy of existing regulatory mechanisms; and

(5) other natural or human-induced factors affecting continued existence.

In addition to threatened and endangered designations, the U.S. Fish and Wildlife Service (USFWS) identifies species that are candidates for listing as a result of identified threats to their continued existence. Proposed species are those that have been proposed in the Federal Register to be listed under Section 4 of the Endangered Species Act.

Section 7(a)(2) of the Endangered Species Act requires Federal agencies to ensure that any action authorized, funded, or carried out by such agency is not likely to 1) jeopardize the continued existence of any endangered or threatened species, or 2) result in the destruction or adverse modification of critical habitat. An official species list was obtained from the USFWS's Information for Planning and Consultation tool (IPaC) on November 18, 2024 (Appendix B). Threatened and Endangered species as well as Migratory Bird Treaty Act, and Bald and Golden Eagle Act species are described in Table 2 and Table 3.

Table 2. Federal Threatened and Endangered Species Potentially Occurring

 at Hodges Village Dam

Common Name	Scientific Name	Federal Listing Status
Tricolored Bat	Perimyotis subflavus	Proposed Endangered
Small Whorled Pogonia	Isotria medeoloides	Threatened

Table 3. Federally Listed Migratory Species Potentially Occurring at Hodges Village Dam

Common Name	Scientific Name
Eastern Whip-poor will	Antrostomus vociferus
Pectoral sandpiper	Calidris melanotos
Semipalmated Sandpiper	Calidris pusilla
Canada Warbler	Cardellina canadensis
Chimney Swift	Chaetura pelagica
Black-billed Cuckoo	Coccyzus erythropthalmus
Bobolink	Dolichonyx oryzivorus
Rusty Blackbird	Euphagus carolinus
Bald eagle ¹	Haliaeetus leucocephalus
Wood Thrush	Hylocichla mustelina
Red-headed woodpecker	Melanerpes erythrocephalus
Scarlet Tanager	Piranga olivacea
Prothonotary Warbler	Protonotaria citrea
Cerulean Warbler	Setophaga cerulea
Prairie Warbler	Setophaga discolor
Lesser Yellowlegs	Tringa flavipes
Blue-winged Warbler	Vermivora cyanoptera

¹ Species protected under the Bald and Golden Eagle Act

A list of state threatened and endangered species was obtained from MassWildlife's Natural Heritage and Endangered Species Program (NHESP) through the use of MassWildlife's Heritage Hub (Appendix B). Table 4 provides a summary of state-listed species potentially occurring at Hodges Village Dam.

Table 4. State-listed Threatened and Endangered Species Potentially Occurring at Hodges Village Dam

Common Name	Scientific Name	State Listing Status
Marbled salamander	Ambystoma opacum	Threatened
Wood Turtle	Glyptemys insculpta	Special Concern
Heath metarranthis	Metarranthis pilosaria	Special Concern
Orange sallow moth	Pyrrhia aurantiago	Special Concern
Bristly buttercup	Ranuncules pensylvanicus	Special Concern
Creeper	Strophitus undulatus	Special Concern

3.7.1 No Action Alternative

The No Action Alternative will result in no impacts to federal or state-listed species. The No Action Alternative would have no effect threatened and endangered species. No impacts are anticipated to species protected under the Migratory Bird Treaty Act or the Bald and Golden Eagle Act. State and federal threatened and endangered species would continue to be managed under the existing 1976 MP and in accordance with federal and state laws including the Endangered Species Act, the Migratory Bird Treaty Act, the Bald and Golden Eagle Act, the Massachusetts Endangered Species Act (321 CMR 10.00).

3.7.2 Proposed Action

The Proposed Action will result in minor, direct beneficial impacts to federal and state-listed species. The implementation of the 2025 MP will allow for improved management that will help to preserve, enhance, and protect vegetation and wildlife habitat resources that support threatened and endangered that may be occur within Hodges Village Dam Lake.

USACE has made a no effect determination for the Proposed Action for any federally listed or proposed threatened, endangered, or candidate species that may occur within Hodges Village Dam (Project Code No. 2025-0020691). The implementation of the 2025 would not result in construction or ground-disturbing activities. No direct or indirect impacts would occur to federal and state-listed species. The proposed action would not affect any species or suitable habitat that may occur within Hodges Village Dam. Any future activities that could potentially result in impacts to federally listed species will be coordinated with USFWS under Section 7 of the Endangered Species Act.

3.8 INVASIVE SPECIES

Refer to Chapter 2.7.4 for information on the existing condition of invasive species

at Hodges Village Dam in the 2025 MP.

3.8.1 No Action Alternative

The No Action Alternative will have a minor, long-term adverse effect on invasive species management. The 2025 MP would not be implemented, and the project would continue to utilize the 1976 MP. As a result, no changes to existing conditions would occur and land management would not be compatible with current invasive species management needs.

3.8.2 Proposed Action

The Proposed Action will result in minor, long-term beneficial impacts from increased invasive species management. The reclassification of lands, improvement of resource management objectives, and improvement of the 2025 MP will allow for more effective invasive species management. Invasive species management, including early detection and prevention, will be implemented in WM and PO lands where applicable.

3.9 HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE

For information on the existing conditions of Hazardous, Toxic, and Radioactive Waste (HTRW) at Hodges Village Dam, please refer to Chapter 2.8 of the 2025 MP.

3.9.1 No Action Alternative

The No Action Alternative will result in no impacts to HTRW resources. Under the No Action Alternative, the 2025 MP would not be implemented and there would be no changes to the existing 1976 MP. No impacts to HTRW resources would occur as no HTRW resources or facilities are located within or in the immediate vicinity of Hodges Village Dam.

3.9.2 Proposed Action

The Proposed Action will result in no impacts to HTRW resources. Under the Proposed Action, the 2025 MP would be implemented, and no construction or ground-disturbing activities would occur. No impacts to HTRW resources would occur as no HTRW resources or facilities are located within or in the immediate vicinity of Hodges Village Dam.

3.10 HEALTH AND SAFETY

For information on the existing conditions of health and safety at Hodges Village Dam, please refer to Chapter 2.9 of the 2025 MP.

3.10.1 No Action Alternative

The No Action Alternative will result in no impacts to health and safety. Under the No Action Alternative, the 2025 MP would not be implemented and there would be no

changes to the existing 1976 MP.

3.10.2 Proposed Action

The Proposed Action will result in no impacts to health and safety. The implementation of the 2025 MP will result in no construction or ground-disturbing activities that may impact health and safety

3.11 AESTHETIC RESOURCES

For information on the existing conditions of aesthetic resources at Hodges Village Dam, please refer to Chapter 2.10 of the 2025 MP.

3.11.1 No Action Alternative

The No Action Alternative will result in no impacts on aesthetic resources. No revisions to the 1976 MP would occur, and no changes would occur to existing aesthetic resources.

3.11.2 Proposed Action

The Proposed Action will result in negligible, long-term beneficial impacts to aesthetic resources. The proposed action includes an increase in WM (+784 acres) lands. Future WM land management may result in beneficial impacts from the production, maintenance, and improvement of native fish and wildlife habitat.

3.12 CULTURAL, HISTORICAL, AND ARCHAEOLOGICAL RESOURCES

For information on the existing conditions of Cultural, Historical, and Archaeological Resources at Hodges Village Dam, please refer to Chapter 2.11 of the 2025 MP.

3.12.1 No Action Alternative

The No Action Alternative will result in no impacts to existing cultural, historical, or archaeological resources. The 2025 MP would not be implemented. No updated historical monitoring and protection would occur under the 1976 MP.

3.12.2 Proposed Action

The Proposed Action will result in no impacts to existing historical, or archaeological resources. The 2025 MP has no potential for adverse effects on historic properties eligible or listed on the NRHP. The Proposed Action will result in minor, long-term beneficial impacts to cultural resources. The 2025 MP would provide updated monitoring and protection for historic properties over the next 25 years. Any future proposed activities that could potentially result in impacts will be coordinated with Massachusetts's State Historic Preservation Officer (SHPO) and reviewed under Section 106 of the NHPA.

3.13 SOCIOECONOMICS AND DEMOGRAPHICS

For more information on the existing conditions of socioeconomics and demographics, please refer to Chapter 2.12 of the 2025 MP.

3.13.1 No Action Alternative

The No Action Alternative will result in no impacts to existing socioeconomics or demographics. The 2025 MP would not be implemented, and Hodges Village Dam would continue management under the 1976 MP.

3.13.2 Proposed Action

The Proposed Action will result in no impacts to existing socioeconomics or demographics. Under the Proposed Action the 2025 MP would be implemented. The 2025 MP would result in no construction or changes that would affect local socioeconomic or demographic factors. No activities proposed in the 2025 MP would impact the changes the local economy or local populations in any perceivable way.

3.14 RECREATION

For information on the existing conditions of recreation and the zone of influence for Hodges Village Dam, please refer to Chapter 2.13 of the 2025 MP.

3.14.1 No Action Alternative

The No Action Alternative would result in moderate, long-term adverse impacts to recreation. The 2025 MP would not be implemented, and the 1975 MP land classifications would not reflect current and future recreation needs at Hodges Village Dam.

3.14.2 Proposed Action

The Proposed Action would result in moderate, long-term adverse impacts to recreation. The 2025 MP would update recreation policies and goals and decrease recreation land classifications. The 2025 MP would result in decreased HDR (-94 acres) and LDR (-728) lands. These land classification changes reflect current and projected recreation needs, allowing for effective land management in the context of recreation and recreational access to the public, as well as more streamlined and current recreation management opportunities for Hodges Village Dam.

SECTION 4: COMPLIANCE WITH ENVIRONMENTAL LAWS

This EA has been prepared to satisfy the requirements of all applicable federal environmental laws, regulations, and executive orders. The adoption and implementation of the 2025 MP is consistent with USACE's Environmental Operating Principles. The following is a list of applicable environmental laws and regulations that were considered in the planning of this project and the status of compliance with each:

Federal Statutes

1. Archaeological Resources Protection Act of 1979, as amended, 16 U.S.C 470aa <u>et seq</u>.

Compliance: In compliance. Prior to any work being done as part of this project, the area will be surveyed for the presence of any archaeological resources.

2. Preservation of Historic and Archeological Data Act of 1974, as amended, 54 U.S.C 312501-312508

Compliance: In progress. A copy of the draft EA will be released to the SHPO and Tribes. SHPO concurrence will be obtained for USACE's no effect determination. Prior to any work being done as part of this project, the area will be surveyed for the presence of any archaeological resources.

3. American Indian Religious Freedom Act of 1978, 42 U.S.C 1996.

Compliance: This project will not impede access by Native Americans to sacred sites, possession of sacred objects, and the freedom to worship through ceremonials and traditional rites.

4. Clean Air Act, as amended, 42 U.S.C 7401 et seq.

Compliance: Existing reservoir O&M is compliant with the Clean Air Act and will not change with the 2025 MP. A General Conformity Determination is not required since the emissions of either alternative are negligible at best and are otherwise de minimis.

5. Clean Water Act of 1977 (Federal Water Pollution Control Act Amendments of 1972), 33 U.S.C 1251 <u>et seq.</u>

Compliance: A state water quality certification pursuant to Section 401 of the Clean Water Act is not required for the 2025 MP. There will be no change in the existing management of the reservoir that will impact water quality, but minor, long-term benefits to water quality are expected from the Proposed Action.

6. Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 et seq.

Compliance: Pending. USACE made a no effect determination for the tricolored bat and small whorled pogonia. Coordination with the USFWS is on-going.

7. Fish and Wildlife Coordination Act, as amended, 16 U.S.C. 661 et seq.

Compliance: The USACE initiated public involvement and agency scoping activities to solicit input on the 2025 MP EA, and to identify significant issues related to the Proposed Action. A copy of the draft EA will be released to USFWS and MassWildlife.

8. Migratory Bird Treaty Act of 1918, as amended, 16 U.S.C. 703 et seq.

Compliance: The timing of resource management activities at Hodges Village Dam will be coordinated to avoid impacts on migratory and nesting birds.

9. National Historic Preservation Act of 1966, as amended, 54 U.S.C. 300101 <u>et seq.</u>

Compliance: In progress. A copy of the draft EA will be released to the Massachusetts SHPO and Native American Tribes. All previous surveys, site testing, and excavations will be coordinated with the Massachusetts SHPO and Native American Tribes with interest in the project area. Known sites are mapped and avoided by maintenance activities with review and approval from District.

10. Native American Graves Protection & Repatriation Act (NAGPRA), 25 U.S.C 3001-3013, 18 U.S.C 1170

Compliance: Regulations implementing NAGPRA will be followed if discovery of human remains and/or funerary items occur during implementation of this project.

11. National Environmental Policy Act of 1969, as amended, 42 U.S.C 4321 <u>et</u> <u>seq.</u>

Compliance: Preparation of an EA signifies partial compliance with NEPA. Full compliance shall be noted at the time the FONSI is issued.

12. Bald and Golden Eagle Protection Act, 16 U.S.C. 688 et seq.

Compliance: The project does not involve take, sale, purchase, or transport of any Bald or Golden Eagles.

13. National Invasive Species Act (NISA), as amended, 16 U.S.C. 4701 et seq.

Compliance: The project will not promote or cause the introduction or spread of invasive species into waters of the United States.

Executive Orders (EO)

1. EO 11593, Protection and Enhancement of the Cultural Environment, 13 May 1971

Compliance: In-progress. A copy of the draft EA will be released to the Massachusetts's SHPO.

2. EO 11988, Floodplain Management, 24 May 1977 amended by EO 12148, 20 July 1979.

Compliance: The proposed project will have no impacts to existing floodplains at Hodges Village Dam.

3. EO 11990, Protection of Wetlands, 24 May 1977

Compliance: This project does not propose construction or future activities in wetlands.

4. EO 13007, Indian Sacred Sites, 24 May 1996

Compliance: Access to and ceremonial use of Indian sacred sites by Indian religious practitioners will be allowed and accommodated. No adverse effects to the physical integrity of such sacred sites will occur.

5. EO 13045, Protection of Children from Environmental Health Risks and Safety Risks. 21 April, 1997; amended by EO 13296, 18 April 2003.

Compliance: The proposed action will not create a disproportionate environmental health or safety risk for children.

6. EO 13112, Invasive Species, 8 December 2016.

Compliance: The project will not promote or cause the introduction or spread of invasive species.

7. EO 13175, Consultation and Coordination with Indian Tribal Governments, 6 November 2000

Compliance: Consultation with Indian Tribal Governments, where applicable, and consistent with executive memoranda, DOD Indian policy, and USACE Tribal Policy Principles signifies compliance.

8. EO 13186, Migratory Bird Habitat Conservation, 10 January 2001

Compliance: The 2025 MP would not result in a measurable negative effect on migratory bird populations.

Executive Memoranda

1. Memorandum for the Heads of Agencies from CEQ, Analysis of Impacts on Prime or Unique Agricultural Lands in Implementing NEPA, 11 August 1980

Not applicable. The project does not impact Prime Farmland present on Hodges Village Dam project lands.

2. Memorandum for the Heads of Executive Departments and Agencies from the President of the United States, Memorandum on Government-to-Government Relations with Native American Tribal Governments, 29 April 1994.

Compliance: Consultation with Federally Recognized Indian Tribes signifies compliance.

SECTION 5: PUBLIC AND AGENCY COORDINATION

In accordance with NEPA of 1969, as amended, the USACE initiated public involvement and agency scoping activities to solicit input on the proposed revision of the 1976 MP, as well as identifying any issues related to the Proposed Action.

A public open house was held for the Hodges Village Dam Master Plan revision at the Oxford Public Library Community Meeting Room, 339 Main Street, Oxford, MA 01540 on August 1, 2024 from 5:00-7:00 p.m. The purpose of this open house was to provide attendees with information regarding the proposed Master Plan revision as well as to provide them with the opportunity to provide comments on the proposed 2025 MP Draft, EA, and FONSI. The open house included the following topics:

- What is a Master Plan?
- What a Master Plan is Not
- Why Revise a Master Plan?
- Overview of the National Environmental Policy Act (NEPA)
 process
- Master Planning process
- Proposed Changes to the Master Plan
- Instructions for submitting comments

The public input period remained open for 30 days from August 1, 2024, to August 31, 2024. During the 30-day comment period, USACE received 3 comments. These comments and the USACE response can be found in Appendix E of the 2025 MP.

Attachment A to this EA includes the news release, agency coordination letters, and the distribution list for all coordination letters. The EA has been coordinated with the following agencies and stakeholders:

<u>Federal</u>

U.S. Environmental Protection Agency (EPA)

U.S. Fish and Wildlife Service (USFWS)

<u>State</u>

Massachusetts Department of Fish and Game (DFG), Division of Fisheries and Wildlife (MassWildlife)

Massachusetts Historical Commission, State Historic Preservation Officer (SHPO)

Local

Town of Oxford

<u>Tribes</u>

Wampanoag Tribe of Gay Head (Aquinnah) Mashpee Wampanoag Tribe Narragansett Tribe

SECTION 6: REFERENCES

- U.S. Army Corps of Engineers (USACE). n.d. *Environmental Operating Principles*. U.S. Army Corps of Engineers Headquarters. Retrieved on April 2, 2025 from <u>https://www.usace.army.mil/Missions/Environmental/Environmental-Operating-Principles/</u>
- U.S. Army Corps of Engineers (USACE). 2025. Hodges Village Dam Master Plan.
- U.S. Army Corps of Engineers (USACE). 1976. Hodges Village Dam Master Plan for Recreation Resources Development.



NEWS RELEASE

BUILDING STRONG®

For Immediate Release: July 5, 2024 Release No. MA 2024-22

Contact: <u>Cenae-pa@usace.army.mil</u>

USACE hosts open house August 1 in Oxford, Mass., for Hodges Village Dam Master Plan revision

CONCORD, Mass. – The U.S. Army Corps of Engineers, New England District will host an open house August 1, 2024, in Oxford, Mass., to kick off a process to revise the 1976 Hodges Village Dam Master Plan for the Hodges Village Dam project in Oxford.

The open house will be held from 5 to 7 p.m. at the Oxford Public Library Meeting Room located at 339 Main Street in Oxford. There will be no formal presentation during the session, but USACE members will be on hand to share information about the revision process, provide the general schedule and gather initial feedback from the public.

The master plan serves as the strategic land use management document that guides the comprehensive management and development of all recreational, natural and cultural resources throughout the life of the water resource development project. It defines how USACE will manage the resources for public use and conservation.

The current Hodges Village Dam Master Plan was last approved in 1976 and needs revision to address changes in regional land use, population, outdoor recreation trends, and the USACE management policy. Key topics to be discussed in the revised master plan include updated land use classifications, new natural and recreational resource management objectives, recreation facility needs, and special issues such as invasive species management and threatened and endangered species habitat. The revision does not address the technical and operational aspects of the Hodges Village Dam project related to flood risk management or the water conservation missions of the project.

An initial 30-day public comment period will begin August 1 and end August 31. During this time, members of the public can submit comments, suggestions and concerns about the master plan. Comments must be submitted in writing at the open house or digitally via the comment link on the Hodges Village Dam Master Plan revision website at <a href="https://www.nae.usace.army.mil/missions/recreation/hodges-village-dam/hodges-village-d

-MORE-

Hodges Village Dam/2-2-2

The website also contains a presentation which will be available during the open house that provides details about an additional comment period that will open after the draft report is released (currently scheduled for September 2025).

Hodges Village Dam is located on the French River in the upper Thames River Basin. This is a multi-purpose project built and maintained by USACE. Construction of the dam was authorized by the Flood Control Act of 1944. Hodges Village Dam was built in 1959 at a cost of \$4.4 million in response to the floods of 1936 which caused tremendous property damage and took many lives in the Thames River Basin. Hodges Village Dam is part of the comprehensive plan for the development of the Thames River Basin. The main mission of the project is flood risk management and subsequent legislation authorizes the use of the Hodges Village Dam project area for recreation and fish and wildlife management.

While the main purpose of Hodges Village Dam is to provide flood risk management to the Thames River Basin, over the years the project has become a recreational hotspot. With approximately 22 miles of trails weaving around the Hodges Village Dam project area, visitors can enjoy hiking, nature study, mountain biking, cross country skiing and horseback riding.

Hodges Village Dam is also the only legal off-highway motorcycle area in Central Massachusetts and draws visitors from around the tri-state area. Off-highway motorcycles are allowed on the west side of the French River as reservoir level, weather and trail conditions permit. There is also a 13-hole disc golf course and a 3-mile-long canoe trail that starts at Green Briar in North Oxford and ends at the dam site. Hunting of game species is allowed on the west side of the French River in accordance with state regulations.

For more information about Hodges Village Dam, visit the project website at https://www.nae.usace.army.mil/Missions/Recreation/Hodges-Village-Dam/.

##

AGENCY AND TRIBAL COORDINATION

Federal

- The U.S. Environmental Protection Agency (EPA)
- The U.S. Fish and Wildlife Service (USFWS)
- The U.S. Geological Survey (USGS)
- The National Oceanic and Atmospheric Administration (NOAA)

<u>State</u>

The Massachusetts Department of Environmental Protection (MA DEP)

The Massachusetts Division of Fish and Wildlife (MassWildlife)

The Massachusetts Historical Commission (MHC), State Historic Preservation Officer (SHPO)

The Massachusetts Environmental Police (MEP)

The Massachusetts Emergency Management Agency (MEMA)

The Massachusetts Department of Conservation and Recreation (DCR)

Congressional

U.S. Senate

- U.S. House of Representatives
- The Governor of Massachusetts
- The General Court of the Commonwealth of Massachusetts

<u>Town</u>

Town of Charlton

- Town of Dudley
- Town of Oxford

<u>Local</u>

Thames River Basin Commission, Connecticut and Massachusetts Thames River Basin Partnership The Last Green Valley Shepard Hill Regional High School The New England Mountain Bike Association (NEMBA) Bay State Trail Riders Association Midstate Massive Ultra Trail Tri-State Trail Riders

<u>Tribal</u>

Mashantucket Pequot Tribal National

Wampanoag Tribe of Gay Head (Aquinnah)

Narragansett Tribe

APPENDIX C – WILDLIFE DOCUMENTS

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as*trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

ONSUL

Location

Worcester County, Massachusetts



Local office

New England Ecological Services Field Office

(603) 223-2541
(603) 223-0104

70 Commercial Street, Suite 300 Concord, NH 03301-5094

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement ca**only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

- 1. Draw the project location and click CONTINUE.
- 2. Click DEFINE PROJECT.
- 3. Log in (if directed to do so).
- 4. Provide a name and description for your project.
- 5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the <u>Ecological Services Program</u> of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries³).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact<u>NOAA Fisheries</u> for<u>species under their jurisdiction</u>.

- Species listed under the<u>Endangered Species Act</u> are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See th<u>disting status page</u> for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
- 2. <u>NOAA Fisheries</u> also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME

Proposed Endangered

Tricolored Bat Perimyotis subflavus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10515

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. <u>https://ecos.fws.gov/ecp/species/974</u> 3	Candidate
Flowering Plants	STATUS
Small Whorled Pogonia Isotria medeoloides No critical habitat has been designated for this species. <u>https://ecos.fws.gov/ecp/species/189</u> 0	Threatened
Critical habitats	SUI

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Actand the Migratory Bird Treaty Act.

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the supplemental Information on Migratory Birds and Eagles".

Additional information can be found using the following links:

Eagle Management<u>https://www.fws.gov/program/eagle-management</u>

- Measures for avoiding and minimizing impacts to birds <u>https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds</u>
- Nationwide conservation measures for birds <u>https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf</u>
- Supplemental Information for Migratory Birds and Eagles in IPaC <u>https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action</u>

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to <u>Bald Eagle Nesting and Sensitivity to Human Activity</u>

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus	Breeds Oct 15 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential	TN
activities.	175
https://ecos.fws.gov/ecp/species/1626	Jr.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read<u>Supplemental Information on Migratory Birds and Eagles</u>, specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence(

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

- 1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by th<u>Avian Knowledge Network (AKN</u>) The AKN data is based on a growing collection of<u>survey, banding, and citizen science dataset</u> and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagl<u>eagle Act</u> requirements may apply). To see a list of all birds potentially present in your project area, please visit th<u>Rapid Avian Information Locator</u> (<u>RAIL</u>) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFW<u>Sirds of Conservation Concern (BCC</u>) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by thevian Knowledge Network (AKN) The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science dataset</u>s and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle gele <u>Act</u> requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the <u>Rapid Avian Information Locator (RAIL) Tool</u>

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the <u>should</u> should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Adtand the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitat³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the <u>"Supplemental Information on Migratory Birds and Eagles</u>"

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The Bald and Golden Eagle Protection Actof 1940.

Additional information can be found using the following links:

- Eagle Management<u>https://www.fws.gov/program/eagle-management</u>
- Measures for avoiding and minimizing impacts to birds
 <u>https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds</u>
- Nationwide conservation measures for birdshttps://www.fws.gov/sites/default/files/ documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC <u>https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action</u>

The birds listed below are birds of particular concern either because they occur on the SFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FADelow. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit th∉-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be foundbelow.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Black-billed Cuckoo Coccyzus erythropthalmus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/939</u> 9	Breeds May 15 to Oct 10
Blue-winged Warbler Vermivora cyanoptera This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Bobolink Dolichonyx oryzivorus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Canada Warbler Cardellina canadensis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Cerulean Warbler Setophaga cerulea This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/2974</u>	Breeds Apr 29 to Jul 20
Chimney Swift Chaetura pelagica This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will Antrostomus vociferus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Lesser Yellowlegs Tringa flavipes This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/967</u> 9	Breeds elsewhere
Pectoral Sandpiper Calidris melanotos This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere

Prairie Warbler Setophaga discolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler Protonotaria citrea This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird Euphagus carolinus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Scarlet Tanager Piranga olivacea This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 10 to Aug 10
Semipalmated Sandpiper Calidris pusilla This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read<u>Supplemental Information on Migratory Birds and Eagles</u>, specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence(

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
- 3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (--)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Bald Eagle Non-BCC Vulnerable	+ ++∎	I ++ I	++++	++#+	┼ ∎┼+	++++	++++	++++	*+++	+1++	[++]	++++
Black-billed Cuckoo BCC Rangewide (CON)	++++	++++	++++	++++	+111	++++	++++	++++	++++	++++	++++	++++
Blue-winged Warbler BCC - BCR	++++	++++	++++	+ +∓∎		I I I I I	# +++	++++	*+++	++++	++++	++++
Bobolink BCC Rangewide (CON)	++++	++++	++++	++++	♦∎∎+	++++	++++	++++	*+++	++++	++++	++++
Canada Warbler BCC Rangewide (CON)	++++	++++	++++	++++	↓ ₽ <mark>┃</mark> +	++++	++++	++++	++++	++++	++++	++++

Cerulean Warbler BCC Rangewide (CON)	*++*	-+-+	++++	++ <mark>+</mark>	+++1	••••	-+	++	+-+-+	-+	-++-	**+*
Chimney Swift BCC Rangewide (CON)	++++	++++	++++	+++ I		111	111)	1111	*+++	++++	++++	++++
Eastern Whip-poor- will BCC Rangewide (CON)	***	-+-+	++++	+1+	∔ ∎++	• • • •	• • • •	++		****	-++-	***
Lesser Yellowlegs BCC Rangewide (CON)	++++	++++	++++	1 # 1 1	• +++	++++	++++	++++	++++	++++	++++	++++
Pectoral Sandpiper BCC Rangewide (CON)	++++	++++	++++	++++	₩+++	++++	*++*	++++	-+++	++++	++++	++++
Prairie Warbler BCC Rangewide (CON)	++++	++++	++++	++++	∳III+	+∔ ∳ ∳	∦ +++	++++	++++	****	+++++	++++
Prothonotary Warbler BCC Rangewide (CON)	++++	++++	++++	++++	<u></u> ++∎+	++++	++++	++++	4444		++++	++++
SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
Red-headed Woodpecker BCC Rangewide (CON)	┼₩┼┼	++++	<u>+</u> ∔∎∭	++++	- <mark>11</mark>	Ser 9	9441	++++	<mark>++</mark> ++	++++	++++	++++
Rusty Blackbird BCC - BCR	++++	++++	+1++	+00+	++++	++++	++++	++++	+ +++	<u>+</u> ++∎	II ++	++++
Scarlet Tanager BCC - BCR	++++	++++	++++	+++#		I I##	<u> </u> +++	++++	+++ +	++++	++++	++++
Semipalmated Sandpiper BCC - BCR	++++	-+++	++++	++++	++++	++++	++++	++1+	****	+-++	++++	*+++
Wood Thrush BCC Rangewide (CON)	++++	++++	++++	+++#		+111	 +++	+++	++++	++++	++++	++++

IPaC: Explore Location resources

11/18/24, 9:00 AM

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

<u>Nationwide Conservation Measures</u> describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary<u>Additional measures</u> or<u>permits</u> may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFW<u>Sirds of Conservation Concern</u> (BCC) and other species that may warrant special attention in your project location.

IPaC: Explore Location resources

The migratory bird list generated for your project is derived from data provided by thevian Knowledge Network (AKN) The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science dataset</u>s and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle gle <u>Act</u> requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the <u>Rapid Avian Information Locator (RAIL) Too</u>l

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the <u>Knowledge Network (AKN)</u> This data is derived from a growing collection o<u>survey</u>, <u>banding</u>, <u>and citizen science</u> <u>datasets</u>.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or yearround), you may query your location using the <u>RAIL Tool</u> and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

- 1. "BCC Rangewide" birds are<u>Birds of Conservation Concern</u> (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
- 2. "BCC BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
- 3. "Non-BCC Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the <u>Eagle Act</u> requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the<u>lortheast Ocean Data Porta</u>l The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the<u>OAA NCCOS</u> Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelfproject webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact<u>Caleb Spiege</u> or <u>Pam Loring</u>.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to btain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the<u>National Wildlife Ref</u>uge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

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There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.
Wetlands in the National Wetlands Inventory (NWI)

Impacts to <u>NWI wetlands</u> and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the loca<u>U.S. Army Corps of Engineers</u> <u>District</u>.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND
PEM1C
PEM1E
PEM1F
FRESHWATER FORESTED/SHRUB WETLAND
PSS1C
PFO1/4E
PFO1E
PFO1C
PSS1E
PFO1/4C
PFOC
FRESHWATER POND
PUBHx
RIVERINE
<u>R5UBH</u>
R2UBH
<u>R4SBC</u>

A full description for each wetland code can be found at the lational Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.



United States Department of the Interior

FISH AND WILDLIFE SERVICE New England Ecological Services Field Office 70 Commercial Street, Suite 300 Concord, NH 03301-5094 Phone: (603) 223-2541 Fax: (603) 223-0104



11/18/2024 14:14:17 UTC

In Reply Refer To: Project Code: 2025-0020691 Project Name: Hodges Village Lake 2024 Master Plan Revisions

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Updated 4/12/2023 - *Please review this letter each time you request an Official Species List, we will continue to update it with additional information and links to websites may change.*

About Official Species Lists

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Federal and non-Federal project proponents have responsibilities under the Act to consider effects on listed species.

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested by returning to an existing project's page in IPaC.

Endangered Species Act Project Review

Please visit the **"New England Field Office Endangered Species Project Review and Consultation**" website for step-by-step instructions on how to consider effects on listed

species and prepare and submit a project review package if necessary:

https://www.fws.gov/office/new-england-ecological-services/endangered-species-project-review

NOTE Please <u>do not</u> use the **Consultation Package Builder** tool in IPaC except in specific situations following coordination with our office. Please follow the project review guidance on our website instead and reference your **Project Code** in all correspondence.

Northern Long-eared Bat - (Updated 4/12/2023) The Service published a final rule to reclassify the northern long-eared bat (NLEB) as endangered on November 30, 2022. The final rule went into effect on March 31, 2023. You may utilize the **Northern Long-eared Bat Rangewide Determination Key** available in IPaC. More information about this Determination Key and the Interim Consultation Framework are available on the northern long-eared bat species page:

https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis

For projects that previously utilized the 4(d) Determination Key, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective. If your project was not completed by March 31, 2023, and may result in incidental take of NLEB, please reach out to our office at <u>newengland@fws.gov</u> to see if reinitiation is necessary.

Additional Info About Section 7 of the Act

Under section 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to determine whether projects may affect threatened and endangered species and/or designated critical habitat. If a Federal agency, or its non-Federal representative, determines that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Federal agency also may need to consider proposed species and proposed critical habitat in the consultation. 50 CFR 402.14(c)(1) specifies the information required for consultation under the Act regardless of the format of the evaluation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/service/section-7-consultations

In addition to consultation requirements under Section 7(a)(2) of the ESA, please note that under sections 7(a)(1) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species. Please contact NEFO if you would like more information.

Candidate species that appear on the enclosed species list have no current protections under the ESA. The species' occurrence on an official species list does not convey a requirement to

consider impacts to this species as you would a proposed, threatened, or endangered species. The ESA does not provide for interagency consultations on candidate species under section 7, however, the Service recommends that all project proponents incorporate measures into projects to benefit candidate species and their habitats wherever possible.

Migratory Birds

In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see:

https://www.fws.gov/program/migratory-bird-permit

https://www.fws.gov/library/collections/bald-and-golden-eagle-management

Please feel free to contact us at **newengland@fws.gov** with your **Project Code** in the subject line if you need more information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat.

Attachment(s): Official Species List

Attachment(s):

Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office

70 Commercial Street, Suite 300 Concord, NH 03301-5094 (603) 223-2541

PROJECT SUMMARY

Project Code:	2025-0020691
Project Name:	Hodges Village Lake 2024 Master Plan Revisions
Project Type:	Land Management Plans - NWR
Project Description:	Master plan revisions including updated land classifications and resource
	goals and objectives

Project Location:

The approximate location of the project can be viewed in Google Maps: <u>https://www.google.com/maps/@42.132533949999996,-71.88265019415451,14z</u>



Counties: Worcester County, Massachusetts

ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/10515</u>	Proposed Endangered
INSECTS NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/9743</u>	Candidate
FLOWERING PLANTS NAME	STATUS
Small Whorled Pogonia <i>Isotria medeoloides</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1890	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

- Agency: Army Corps of Engineers
- Name: Kelsie Dakessian
- Address: 696 Virginia Road
- City: Concord
- State: MA
- Zip: 01742
- Email kelsie.dakessian@usace.army.mil
- Phone: 9783188685



DIVISION OF FISHERIES & WILDLIFE

1 Rabbit Hill Road, Westborough, MA 01581 p: (508) 389-6300 | f: (508) 389-7890 MASS.GOV/MASSWILDLIFE

January 03, 2025

Kelsie Dakessian 696 Virginia Road Concord, MA 01742

RE: Project Location: 30 Howarth Rd, Oxford MA 01540 Town: Oxford Heritage Hub Form ID: IR-90093 NHESP Tracking No.: -

To Whom It May Concern:

Thank you for contacting the Natural Heritage and Endangered Species Program (NHESP) of the MA Division of Fisheries & Wildlife (the "Division") for information regarding state-listed species in the vicinity of the above referenced site. Based on the information provided, this project site or a portion thereof is located **within** the current *Massachusetts Natural Heritage Atlas*. The following state-listed species are mapped for either *Priority Habitat (PH)* alone, or for both *Priority Habitat (PH)* and *Estimated Habitat (EH)*, as indicated in the following table:

Scientific Name	Common Name	Taxonomic Group	State Status	<u>EH</u>	<u>PH</u>
Strophitus undulatus	Creeper	Mussel	Special Concern	716	926
Ranunculus pensylvanicus	Bristly Buttercup	Plant	Special Concern		926
Pyrrhia aurantiago	Orange Sallow Moth	Butterfly/Moth	Special Concern		926
Metarranthis pilosaria	Heath Metarranthis	Butterfly/Moth	Special Concern		926
Glyptemys insculpta	Wood Turtle	Reptile	Special Concern	716	926
Ambystoma opacum	Marbled Salamander	Amphibian	Threatened	711	917

The species listed above are protected under the Massachusetts Endangered Species Act (MESA) (M.G.L. c. 131A) and its implementing regulations (321 CMR 10.00). State-listed wildlife are also protected under the Massachusetts Wetlands Protection Act (WPA) (M.G.L. c. 131, s. 40) and its implementing regulations (310 CMR 10.00). Fact sheets for most state-listed species can be found on our website (<u>www.mass.gov/nhesp</u>).

Please note that projects and activities located within Priority and/or Estimated Habitat must be reviewed by the

<u>Division</u> for compliance with the state-listed species protection provisions of MESA (321 CMR 10.00) and/or the WPA (310 CMR 10.00).

Wetlands Protection Act (WPA)

If the project site is within Estimated Habitat and a Notice of Intent (NOI) is required, then a copy of the NOI must be submitted to the Division so that it is received at the same time as the local conservation commission. If the Division determines that the proposed project will adversely affect the actual Resource Area habitat of state-protected wildlife, then the proposed project may not be permitted (310 CMR 10.37, 10.58(4)(b) & 10.59). In such a case, the project proponent may request a consultation with the Division to discuss potential project design modifications that would avoid adverse effects to state-listed wildlife habitat.

A streamlined joint MESA/WPA review process is available. When filing an NOI, the applicant may file concurrently under the MESA and qualify for a 30-day streamlined joint review. Please visit our website for filing instructions: www.mass.gov/regulatory-review.

MA Endangered Species Act (MESA)

If the proposed project is located within Priority Habitat and is not exempt from review (see 321 CMR 10.14), then project plans, a fee, and other required materials must be submitted to the Division to determine whether a Take under the MA Endangered Species Act would occur (321 CMR 10.18). Please note that all proposed and anticipated development must be disclosed, as MESA does not allow project segmentation (321 CMR 10.16). Please visit our website for filing instructions: <u>www.mass.gov/regulatory-review</u>.

We recommend that state-listed species habitat concerns be addressed during the project design phase prior to submission of a formal MESA filing, <u>as avoidance and minimization of impacts to state-listed species and their</u> <u>habitats is likely to expedite regulatory review.</u> Please visit our website for more information on how to request a pre-filing consultation with the Division: <u>www.mass.gov/how-to/request-a-pre-filing-consultation</u>

This evaluation is based on the most recent information available in the NHESP database, which is constantly being expanded and updated through ongoing research and inventory. If the purpose of your inquiry is to generate a species list to fulfill the federal Endangered Species Act (16 U.S.C. 1531 et seq.) information requirements for a permit, proposal, or authorization of any kind from a federal agency, we recommend that you use the NOAA Fisheries Greater Atlantic Region ESA Section 7 Mapper

(https://noaa.maps.arcgis.com/apps/webappviewer/index.html?id=1bc332edc5204e03b250ac11f9914a27) and the U.S. Fish and Wildlife Service's Information for Planning and Conservation website (https://ecos.fws.gov/ipac). If you have any questions regarding this letter please contact Melany Cheeseman, Endangered Species Review Assistant, at Melany.Cheeseman@mass.gov.

MASSWILDLIFE

Sincerely,

Jesse Leddick Assistant Director

APPENDIX D – PERTINENT LAWS

- <u>Antiquities Act of 1906, Public Law 59-209, 34 Stat. 225, 54 U.S.C.</u> Sections 320301-320303: 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.
- <u>Flood Control Act of 1938, Public Law 75-761:</u> This act authorizes the construction, repair, and preservation of certain public works on rivers and harbors for navigation, flood control, and for other purposes.
- <u>Bald and Golden Eagle Protection Act, as amended, 16 U.S.C. Sections 668-668d</u>: This Act prohibits anyone, without a permit issued by the Secretary of the Interior, from taking bald eagles, including their parts, nests, or eggs. The Act provides criminal penalties for persons who take, possess, sell, purchase, barter, offer to sell, transport, export or import, at any time or any manner, any bald eagle [or any golden eagle], alive or dead, or any part, nest, or egg thereof. The Act defines "take" as pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb.
- <u>Flood Control Act of 1944, Public Law 78-534:</u> 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.
- <u>River and Harbor Act of 1946, Public Law 79-525</u>: This act authorizes the construction, repair, and preservation of certain public works on rivers and harbors for navigation, flood control, and for other purposes.
- <u>Flood Control Act of 1954, Public Law 83-780</u>: This act authorizes the construction, maintenance, and operation of public parks and recreational facilities in reservoir areas under the control of the Department of the Army and authorizes the Secretary of the Army to grant leases of lands in reservoir areas deemed to be in the public interest.
- <u>Fish and Wildlife Coordination Act, Public Law 85-624</u>: This act, as amended, 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 which might be served by water resources development.
- <u>An Act to provide for the protection of forest cover for reservoir areas under the jurisdiction of the Secretary of the Army and the Chief of Engineers, Public Law 86-717</u>: 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.

- <u>River and Harbor Act of 1962, Public Law 87-874</u>: This act authorizes the construction, repair, and preservation of certain public works on rivers and harbors for navigation, flood control, and for other purposes.
- <u>Land and Water Conservation Fund Act of 1965, Public Law 88-578</u>: This act established a fund from which U.S. Congress can make appropriations for outdoor recreation. This law 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.
- <u>Outdoor Recreation Planning and Development Act, Public Law 88-29</u>: Authorized the Secretary of the Interior to inventory and classify outdoor recreation needs and resources and to prepare a comprehensive outdoor recreation plan taking into consideration the plans of the various Federal agencies, State, and other political subdivisions. It also states that the federal agencies undertaking recreational activities shall consult with the Secretary of the Interior concerning these activities and shall carry out such responsibilities in general conformance with the nationwide plan.
- <u>Federal Water Project Recreation Act, Public Law 89-72</u>: This act requires that not less than one-half the separable costs of developing recreational facilities and all operation and maintenance costs at Federal reservoir projects shall be borne by a non-Federal public body. A HQUSACE/OMB implementation policy made these provisions applicable to projects completed prior to 1965.
- <u>Water Resources Planning Act, Public Law 89-80</u>: 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.
- <u>National Historic Preservation Act of 1966, Public Law 89-665, 54 U.S.C. Sections</u> <u>300101 et seq.</u>: This act provides for: (1) an expanded National Register of significant sites and objects; (2) matching grants to states undertaking historic and archeological resource inventories; and (3) a program of grants-in aid to the National Trust for Historic Preservation; and (4) the establishment of an Advisory Council on Historic Preservation. Section 106 requires that the President's Advisory Council on Historic Preservation have an opportunity to comment on any undertaking which adversely affects properties listed, nominated, or considered important enough to be included on the National Register of Historic Places.
- <u>Flood Control Act of 1968, Section 210, Public Law 90-483</u>: Restricted collection of entrance fee at USACE lakes and reservoirs to users of highly developed facilities requiring continuous presence of personnel.
- <u>National Environmental Policy Act of 1969 (NEPA), Public Law 91-190, 42 U.S.C.</u> <u>Sections 4321 et seq.</u>: 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. It is Section 102 that requires consideration of environmental impacts associated with Federal actions. Section 101 of NEPA requires the federal government to use all practicable means to create and maintain conditions under which man and nature can exist in productive harmony.

Specifically, Section 101 of NEPA declares:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations
- Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings
- Attain the widest range of beneficial uses of the environment without degradation risk to health or safety or other undesirable and unintended consequences
- Preserve important historic, cultural, and natural aspects of our national heritage and maintain wherever possible an environment which supports diversity and variety of individual choice
- Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities
- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources
- <u>River and Harbor Act of 1970 and Flood Control Act of 1970, Public Law 91-611</u>: Establishes the requirement for evaluating the economic, social, and environmental impacts of projects.
- <u>To restore the Golden Eagle program to the Land and Water Conservation Fund Act</u>, <u>Public Law 92-347</u>: This act revises Public Law 88-578, the Land and Water Conservation Fund Act of 1965, to require Federal agencies to collect special recreation user fees for the use of specialized sites developed at Federal expense and to prohibit the USACE from collecting entrance fees to projects.
- <u>Federal Water Pollution Control Act Amendments of 1972, Public Law 92-500</u>: The Federal Water Pollution Control Act of 1948 (PL 845, 80th U.S. Congress), as amended in 1961, 1966, 1970, 1972, 1977, and 1987, 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."
- <u>To amend certain provisions of the Land and Water Conservation Fund Act of 1965</u> relating to the collection of fees in connection with the use of Federal areas for <u>outdoor recreation purposes, Public Law 93-81</u>: This law amends Section 4 of the Land and Water Conservation Fund Act of 1965, as amended, to require each

Federal agency to collect special recreation use fees for the use of sites, facilities, equipment, or services furnished at Federal expense.

- <u>Endangered Species Act of 1973, Public Law 93-205, 16 U.S.C. Sections 1531 et</u> <u>seq.</u>: This law repeals the Endangered Species Conservation Act of 1969. It also directs all Federal departments/agencies to carry out programs to conserve endangered and threatened species of fish, wildlife, and plants and to preserve the habitat of these species in consultation with the Secretary of the Interior. This Act establishes a procedure for coordination, assessment, and consultation.
- <u>Water Resources Development Act of 1974, Public Law 93-251</u>: Section 107 of this law establishes a broad Federal policy which makes it possible to participate with local governmental entities in the costs of sewage treatment plan installations.
- <u>Archeological and Historic Preservation Act of 1974, Public Law 93-291</u>: 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. This amends the Reserve Salvage Act of 1960 (PL-86-523).
- An act to amend the Land Water Conservation Fund Act, as amended, to provide for collection of special recreation use fees at additional campgrounds, and for other purposes, Public Law 93-303: This law amends Section 4 of the Land and Water Conservation Fund Act of 1965, as amended, to establish less restricted criteria under which Federal agencies may charge fees for the use of campgrounds developed and operated at Federal areas under their control.
- <u>Safe Drinking Water Act, Public Law 93-523</u>: The act assures that water supply systems serving the public meet minimum national standards for protection of public health. The act (1) authorizes the Environmental Protection Agency to establish Federal standards for protection from all harmful contaminants, which standards would be applicable to all public water systems, and (2) establishes a joint Federal-State system for assuring compliance with these standards and for protecting underground sources of drinking water.
- <u>An Act to amend the Land and Water Conservation Fund Act of 1965, as amended, to establish the National Historic Preservation Fund, and for other purposes, Public Law 94-422</u>: Expands the role of the Advisory Council on Historic Preservation. Section 201 amends Section 106 of the National 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 National Register of Historic Places.
- <u>Clean Water Act of 1977, as amended, Public Law 95-217</u>: This Act amends the Federal Water Pollution Control Act Amendments of 1972 and extends the appropriations authorization. The Clean Water Act is a comprehensive Federal water pollution control program that has as its primary goal the reduction and control of the discharge of pollutants into the nation's navigable waters. The Clean Water Act of 1977 has been amended by the Water Quality Act of 1987, Public Law 100-4.

- <u>American Indian Religious Freedom Act, Public Law 95-341</u>: The Act protects the rights of Native Americans to exercise their traditional religions by ensuring access to sites, use and possession of sacred objections, and the freedom to worship through ceremonials and traditional rites.
- Endangered Species Act Amendments of 1978, Public Law 95-632: This law
 amends the Endangered Species Act of 1973. Section 7 directs agencies to conduct
 a biological assessment to identify threatened or endangered species that may be
 present in the area of any proposed project. This assessment is conducted as part of
 a Federal agency's compliance with the requirements of Section 102 of NEPA.
- <u>Archeological Resources Protection Act of 1979, Public Law 96-95</u>: This Act protects archeological resources and sites that are on public and tribal lands and that fosters increased cooperation and exchange of information between governmental authorities, the professional archeological community, and private individuals. It also establishes requirements for issuance of permits by the Federal land managers to excavate or remove any archeological resource located on public or Indian lands.
- <u>Supplemental Appropriations Act, 1983, Public Law 98-63</u>: This Act authorized the USACE Volunteer Program. The United States Army Chief of Engineers may accept the services of volunteers and provide for their incidental expenses to carry out any activity of the USACE, except policymaking or law or regulatory enforcement.
- <u>Water Resources Development Act of 1986, Public Law 99-662</u>: Provides for the conservation and development of water and related resources and the improvement and rehabilitation of the Nation's water resources infrastructure.
- <u>North American Wetland Conservation Act of 1989, Public Law 101-233</u>: This act directs the conservation of North American wetland ecosystems and requires agencies to manage their lands for wetland/waterfowl purposes to the extent consistent with missions.
- <u>Americans with Disabilities Act of 1990 (ADA), PL101-336, as amended by the ADA</u> <u>Amendments Act of 2008 (PL110-325)</u>: This law prohibits discrimination based on disabilities in, among others, the area of public accommodations and requires reasonable accommodations for persons with disabilities.
- <u>Native American Graves Protection and Repatriation Act, Public Law 101-601</u>: This act requires Federal agencies to return Native American human remains and cultural items, including funerary objects and sacred objects, to their respective peoples.
- <u>Water Resources Development Act (WRDA) of 1992 PL 102-580</u>: This act authorizes the USACE to accept contributions of funds, materials and services from non-Federal public and private entities to be used for managing recreational sites and facilities and natural resources.
- <u>Omnibus Reconciliation Act of 1993, Public Law 103-66</u>: Day use fees authorizes the USACE to collect fees for the use of developed recreational sites and facilities, including campsites, swimming beaches and boat ramps.

- <u>WRDA 1996, PL 104-303</u>: authorizes recreation and fish and wildlife mitigation as purposes of a project, to the extent that the additional purposes do not adversely affect flood control, power generation, or other authorized purposes of a project.
- <u>Omnibus Parks and Public Lands Management Act of 1996, Public Law 104-333</u>: This act created an advisory commission to review the current and anticipated demand for recreational opportunities at lakes or reservoirs managed by the Federal Government and to develop alternatives to enhance such opportunities for such use by the public.
- <u>Neo-tropical Migratory Bird Conservation Act of 2000, Public Law106-147</u>: This act promotes the conservation of habitat for neo-tropical migratory birds

APPENDIX E – PUBLIC COMMENT

INITIAL PUBLIC SCOPING (AUGUST 1, 2024 – AUGUST 31, 2024)

COMMENT	USACE RESPONSE
I would like to have an ATV trail. I hear they allow dirt bikes so i don't see way not allow ATV rides.	All-terrain vehicles (ATV) with four or six wheel configurations are much more damaging to natural resources causing significant erosion and runoff. Furthermore, they require a much wider trail and one separated from other user-groups to protect the public. There are currently insufficient resources to expand existing trails to accommodate the larger ATVs or to complete the more frequent and substantial maintenance due to the greater damage caused by ATVs.
Hello. My name is [REDACTED], a Charlton resident who lives 10 minutes from the dam. My family and friends visit here often to ride dirt bikes, as it's one of the last legal places to ride. If donations would help in certain folks in the off-road community would pay a fee to ride these trails. Thank you for your time.	The Hodges Village Dam project cannot accept donations to help maintain trails. However, the USACE welcomes the opportunity to partner with local nonprofits and volunteer groups to conduct ongoing maintenance or make improvements, and such groups may be able to accept donations depending on their status. Groups interested in such a partnership should contact the Hodges Village Dam Project Office.
Pump House Trail, the section after you leave the paved road that goes along the water. There are a couple places that need some work as the trail has gotten muddy. We discussed some ways to solve this problem with larger stones topped with smaller stones. You had mentioned that the trail in that section is actually off property. I looked up the owner of that property and [REDACTED]. Something to follow up on.	Noted.
Matchbox Hill Trail, this trail is by the bridge that goes over the river by Lanes and it follows the river. That has gotten quite rocky, roots protruding along with some other issues.	Noted.

COMMENT	USACE RESPONSE
Maybe an assessment of the trail system (most are quite nice) to see what would be a priority to work on in collaboration with the user groups.	The USACE welcomes the opportunity to work with volunteers or nonprofit groups to assess trail conditions and conduct maintenance or make improvements. Groups interested in such a partnership should contact the Hodges Village Dam Project Office.
The bridge by Lanes does need some help, but you mentioned that was going to be looked at and hopefully repaired.	Noted.
Bridge behind the skate board park. We chatted about that. Thought you said it was under the town's jurisdiction. Miss doing that loop out the back.	Noted.
I know that horseback riders love riding those trails. There is always something to see there. And we hugely appreciate the town of Oxford's Greenbriar that allows us to park there (usually one of our biggest issues).	Noted. The USACE values the partnership with the Town of Oxford in providing valuable recreation opportunities at Greenbriar Recreation Area. Although parking can be limited during events, the existing parking is sufficient for most activities and uses throughout the year.
Keep up the great work you all do.	Noted.

DRAFT MASTER PLAN PUBLIC COMMENTS (TBD)

Comments from Draft Public Open House and Comment Period and USACE Responses will be listed here in the final Master Plan.

APPENDIX F – ACRONYMS

ACHP	Advisory Council on Historic Preservation
ADA	Americans with Disabilities Act
ARPA	Archeological Resources Protection Act of 1979
BCC	Bird of Conservation Concern
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and
	Liability Act
CFR	U.S. Code of Federal Regulations
cfs	Cubic feet per second
CO2e	Carbon Dioxide equivalent
CRMP	Cultural Resources Management Plan
СТ	Connecticut
DCS	Division of Conservation Services
DM	Design Memorandum
EA	Environmental Assessment, NEPA Document
EEA	Massachusetts Office of Energy and Environmental Affairs
EO	Executive Order
EOP	Environmental Operating Principles
EP	Engineering Pamphlet
EPA	United States Environmental Protection Agency
ER	Engineering Regulation
ERGO	Environmental Guide for Operations
ES	Executive Summary
ESA	Environmentally Sensitive Area
°F	Degrees Fahrenheit
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
GIS	Geographical Information Systems
HDR	High Density Recreation
HPMP	Historic Properties Management Plan
HUC	USGS Hydrological Unit Code
IPaC	Information for Planning and Consultation
KCC	Köppen Climate Classifications
LDR	Low Density Recreation
LEED	Leadership in Energy and Environmental Design
Lidar	Light Detection and Ranging, remote sensing technology
MA	Massachusetts
MassDEP	Massachusetts Department of Environmental Protection
MassWildlife	Massachusetts Division of Fisheries and Wildlife
MP	Master Plan or Master Planning
MRML	Multiple Resource Management Lands
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act

NCEI NEPA NGVD/NGVD29	National Centers for Environmental Information National Environmental Policy Act, 1970 National Geodetic Vertical Datum (1929)
NHESP	Massachusetts Natural Heritage and Endangered Species Program
NHPA	National Historic Prevention Act
NRHP	National Register of Historic Places
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resource Conservation Service
NRM	USACE Natural Resource Management system
NWI	National Wetland Inventory
OMB	Office of Management and Budget
OMP	Operations Management Plan for a specific lake Project
ORV	Off-road vehicle
PL	Public Law
PM	Project Management or Project Manager
PMP	Project Management Plan
PO	Project Operations
RPEC	Regional Planning and Environmental Center
RRT	Reservoir Regulation Team
SCORP	Statewide Comprehensive Outdoor Recreation Plan
SGCN	Species of Greatest Conservation Need
SHPO	State Historical Preservation Office
TCP	Traditional Cultural Property
USGCRP	U.S. Global Change Research Program
USACE	United States Army Corps of Engineers
USEWS	U. S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VM	Vegetative Management Area
WM	Wildlife Management