

APPENDIX A

Environmental Assessment



Environmental Assessment for the Raystown Lake Project Master Plan Revision

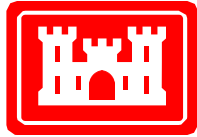
Raystown Lake, Huntingdon County, Pennsylvania

February 2021



**US Army Corps
of Engineers**
Baltimore District





Prepared by:

U.S. Army Corps of Engineers

Baltimore District

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Baltimore, Maryland 21201

February 2021

FINDING OF NO SIGNIFICANT IMPACT

Raystown Lake Project Master Plan Revision

Huntingdon County, Pennsylvania

In accordance with the National Environmental Policy Act of 1969, including guidelines in 33 Code of Federal Regulations, Part 230, the Baltimore District of the U.S. Army Corps of Engineers (USACE) has assessed the environmental impacts of the revised Raystown Lake Project Master Plan (MP).

The revised MP will provide guidance for stewardship of natural resources and management for long-term public access to, and use of, the natural resources of the Raystown Lake Project (Project). The MP provides a comprehensive description of the Project, a discussion of factors influencing resource management and development, the resource plan which describes how Project lands and waters will be managed, identification and discussion of special problems, a synopsis of public involvement and input to the planning process, and descriptions of existing development. USACE manages project lands in accordance with the land use classifications that have been determined in the Project's MP. Thus, land use classifications are fundamental to project land management.

Under the No Action alternative, USACE would be taking no action, which means the MP would not be revised. With this alternative, no new resources analysis and land-use classifications would occur at the Project. The operation and management of the Project would continue as outlined in the current MP. Because this alternative does not result in a MP that meets current guidance and regulations, it was eliminated from further consideration.

The proposed action was reviewed, coordinated with the public, updated to comply with current USACE regulations and guidance, and to reflect changes in land management and land uses that have occurred over time. This included refining land use classifications that would meet authorized Project purposes and determining current resource objectives that address a mix of natural resource and recreation management objectives that are compatible with regional goals. Required land use classification changes associated with this action would include multiple classifications to balance resource objectives. This action results in the following:

1994 Land Use Classifications	Acres	Proposed New Land Use Classifications	Acres
Project Operations	4,000	Project Operations	241.71
Recreation	1,740	High Density Recreation	1,067.03
Mitigation	3,000	Mitigation	2,653.77
Environmentally Sensitive	2,300	Environmentally Sensitive Areas	507.82
MRM - Recreation - Low Density	9,200	MRM - Low Density Recreation	2,694.36
MRM - Wildlife Management General		MRM - Wildlife Management	7,012.26

MRM - Vegetation Management		MRM - Vegetative Management	5,466.96
MRM - Inactive and/or Future Recreation Areas		MRM - Future or Inactive Recreation Areas	1,698.85
**		Water Surface: Restricted	236.39
**		Water Surface: Designated No-Wake	2,032.33
**		Water Surface: Fish and Wildlife Sanctuary	43.70
**		Water Surface: Open Recreation	6,020.04

**Land classification acreages were derived using geographic information system technology that was not available during the 1994 classifications. These totals do not reflect the official land acquisition records – no additional acres have been acquired. The total land classification acres listed in the 1994 MP were 20,240. The current land classification acres in the 2020 MP are 21,342.*

*** Water surface was not classified in the 1994 MP.*

This action was chosen because it meets regional goals associated with proper stewardship of land and water resources, meets regional recreation goals, and allows for continued use and development of Project lands without violating national policies or laws.

The Environmental Assessment (EA) and comments received from other agencies have been used to determine whether the proposed action requires the preparation of an Environmental Impact Statement (EIS). All environmental, social, and economic factors that are relevant to the recommended alternative were considered in this assessment. These include, but are not limited to, climate and climate change, environmental justice, cultural resources, air quality, prime farmland, water quality, wild and scenic rivers, wetlands, fish and wildlife, invasive species, migratory birds, recreational fisheries, and threatened and endangered species.

It is my finding, based on the EA, that the revision of the 1994 MP for the Raystown Lake Project will have no significant adverse impacts on the environment and will not constitute a major Federal action affecting the quality of the human environment. Therefore, an EIS will not be prepared.

March 14, 2021

Date

JOHN T. LITZ
COL, EN
Commanding

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Environmental Assessment Organization

Section 1	INTRODUCTION, PURPOSE, NEED, AND SCOPE of the proposed action summarizes the purpose and need for the proposed action, provides relevant background information and describes the scope of the EA.
Section 2	ALTERNATIVES INCLUDING PROPOSED ACTION examines alternatives for implementing the proposed action and describes the recommended action.
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, including cumulative effects.
Section 4	APPLICABLE ENVIRONMENTAL LAWS, REGULATIONS, AND POLICY provides a listing of environmental protection statutes and other environmental requirements.
Section 5	FEDERAL, STATE, and LOCAL AGENCY COORDINATION provides a listing of individuals and agencies consulted during preparation of the EA.
Section 6	REFERENCES provides bibliographical information for cited sources.
Appendices	A Alternatives Comparison to Key Selection Criteria B National Environmental Policy Act Coordination Documentation

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SECTION 1 - INTRODUCTION

1.1 Purpose and Need for the Action

In compliance with the National Environmental Policy Act (NEPA), the U.S. Army Corps of Engineers, Baltimore District (USACE), is preparing an Environmental Assessment (EA) for the implementation of a Master Plan (MP) for the Raystown Lake Project. The MP is being updated by USACE, Baltimore District. NEPA documents prepared concurrently with updating a MP can influence and modify strategic land use decisions. The intention of the revised land use classifications in the MP is to develop land classifications, management goals, and management objectives that will guide the sustainable development of resources within the Raystown Lake Project. It is not feasible to define the exact nature of potential impacts for all potential actions prior to receiving specific project proposals. Therefore, environmental consequences may be less than or may exceed what is described in this EA. To ensure that future environmental consequences are identified and documented as accurately as possible, additional NEPA coordination will be conducted, as appropriate, for future projects that are the result of the implementation of the MP.

The U.S. Army Corps of Engineers, Raystown Lake Project, located in central Pennsylvania, is comprised of over 28,000 acres of fee title land and water, of which 18,000 acres are primarily forested. Other land types include grassland communities, agricultural lease, and recreational areas.

The Project's current MP, completed in 1994, was prepared in accordance with the requirements of Engineer Regulation 1130-2-435, dated 30 December, 1987. The MP describes the manner in which all Project lands, waters, forests, and other resources will be conserved, enhanced, developed, managed, and used in the public interest throughout the life of the Project. The MP is a vital tool for responsible stewardship and sustainability of the Project's resources for the benefit of present and future generations.

Implementation of the MP must recognize and be compatible with the authorized Project purposes of flood risk management, recreation, hydropower, and fish/wildlife management. The update reflects the changes that have occurred to the site, in the region, in recreation trends, and in USACE policy in the years since the completion of the current MP. Table 1-1 shows the current classification (from ER 1130-2-435) and the proposed changes to land classification (from ER 1130-2-550 and EP 1130-2-550, Change 5, dated 30 January 2013).

Table 1-1 Description of Proposed Land Use Classification Changes

Current Land Classification	Proposed Land Classification	Description of Proposed Land Classification
Project Operations	Project Operations	Lands required for the dam, spillway, offices, and other areas used solely for the operation of the reservoir.
Recreation	Recreation- High Density	Lands acquired and designated for use as parks or other areas for intensive recreational activities by the visiting public.

Current Land Classification	Proposed Land Classification	Description of Proposed Land Classification
Multiple Resource Management	Multiple Resource Management Lands: a. Low Density Recreation, b. Wildlife Management, c. Future/Inactive Recreation, d. Vegetative Management	Multiple Resource Management Lands: This classification allows for the designation of a predominant use with the understanding that other compatible uses may also occur on these lands; these additional uses may include: a. Low Density Recreation: lands classified for use for activities such as hiking trails, primitive camping, limited lake access points, and other similar activities by the visiting public. b. Wildlife Management: lands classified as habitat for fish and wildlife, and are generally open for hunting and fishing. c. Future/Inactive Recreation Areas: Lands intended for recreation, but which were never developed or have been closed. d. Vegetative Management: Lands designated for stewardship of forest, prairie, and other native vegetative cover.
Environmentally Sensitive Areas	Environmentally Sensitive Areas	Lands designated for areas where scientific, ecological, cultural, or aesthetic features have been identified. These areas are managed to protect environmental resources.

1.2 Scope of the Action

This EA was prepared to evaluate existing conditions and potential impacts of proposed alternatives. The alternative considerations were formulated to include all lands and waters acquired for the Project. These lands are comprised of all properties historically acquired to build the Project, including current USACE lands. This EA was prepared pursuant to the NEPA, Council on Environmental Quality (CEQ) regulations (40 CFR, 1500-1508), and USACE implementing regulation, Policy and Procedures for Implementing NEPA, Engineer Regulation ER 200-2-2 (1988).

On September 14, 2020, the Council on Environmental Quality’s “Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act” (NEPA), published at 85 Federal Register 43304 (July 16, 2020), became effective. This Master Plan EA was in progress prior to the effective date of the revision and as permitted under the rule, this EA has been prepared in accordance with the prior regulation.

1.3 Project Setting

The Project is located on the Raystown Branch of the Juniata River, 5.5 miles upstream of its confluence with the Juniata River, and 92 miles upstream from the confluence of the Juniata and the Susquehanna Rivers (Figure 1-1). The communities of Saxton, Entriken, Marklesburg, Hesston, McConnellstown, and Huntingdon are located close to the Project. The largest community, Huntingdon, is the county seat for Huntingdon County, Pennsylvania, and home of Juniata College. The Project is a USACE facility consisting of 28,132 acres, including the dam and reservoir area and the federal land downstream of the dam. The reservoir is approximately 30 river miles long and covers a distance of approximately 20 miles. The surface area of the lake is roughly 8,300 acres.

Figure 1-1 Location of Raystown Lake



Project lands provide a diversity of habitats, including wetlands, moderate to steeply sloped forests, ravines, rangeland, and shale barrens. The lake and surrounding Project lands are popular for boating, fishing, hunting, camping, mountain biking, and other outdoor recreation activities. Abandoned roads and rail beds, as well as informal trails, are used by hikers, hunters, and anglers. Open areas and unplowed roads have received limited use for cross-country skiing when snow conditions and accessibility permit.

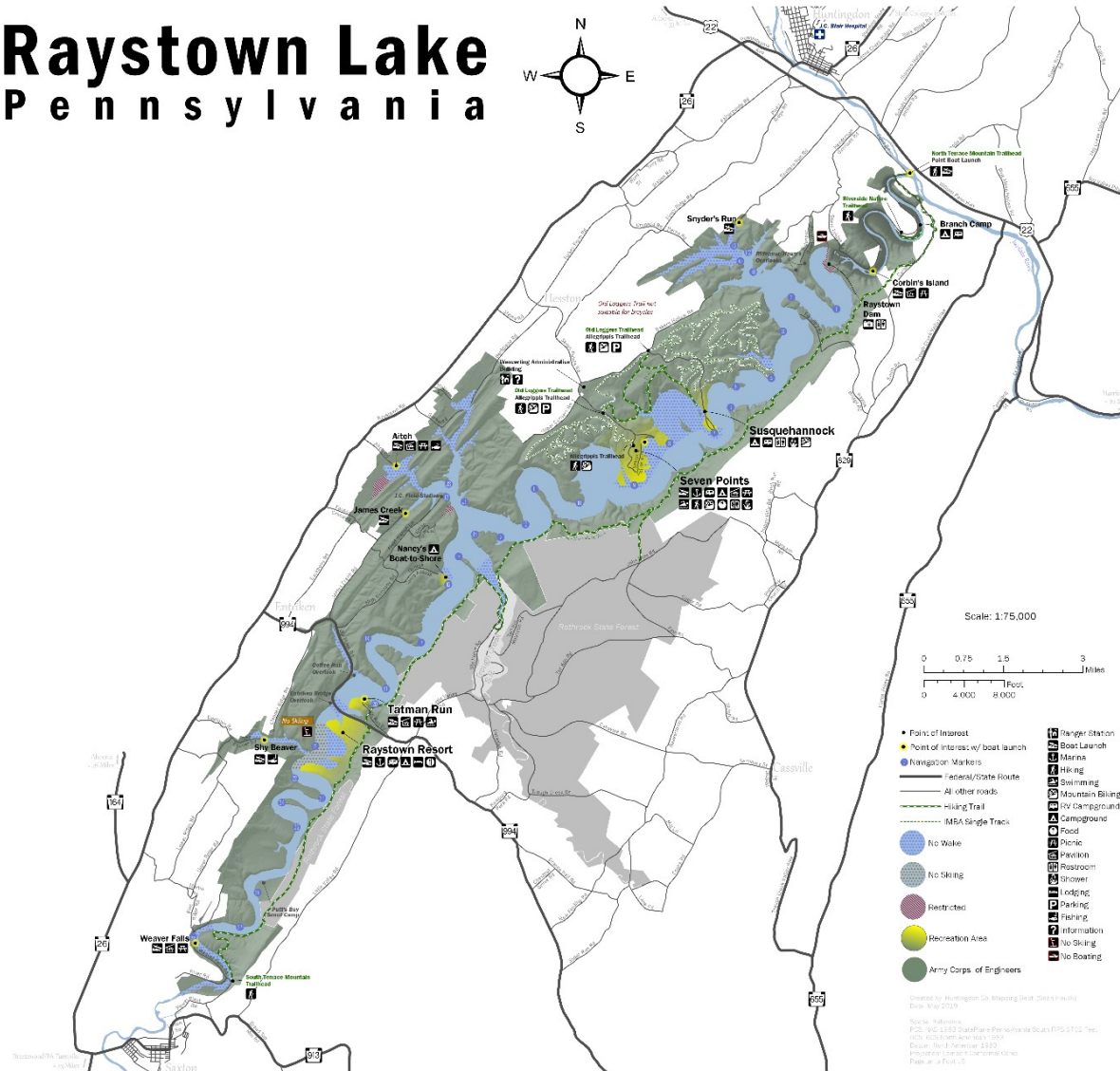
The Backbone Ridge Wildlife Management Area (also known as Wildlife Management Area 420 by the Pennsylvania Game Commission - PGC), was acquired specifically for the purpose of offsetting environmental losses associated with development of the Project. Area 420 is adjacent to and extends north and south of the Aitch and Brumbaugh embayments. This area is made up of approximately 3,000 acres of land managed by the PGC under a license agreement for wildlife management. Hunting is permitted during appropriate seasons on the PGC lands and other marked Project lands. Trapping is also permitted for raccoon, fox, and other furbearers.

The existing recreation facilities are located along both sides of the lake and downstream of the dam (Figure 1-2). The majority of the recreation facilities were built during general construction, however, some facilities and additions to existing facilities were constructed in the mid-1970s. The majority of the basic infrastructure was constructed and operated by the USACE. Lake Raystown Resort, formerly known as the Rothrock Campground, was operated by the USACE until 1984 when it was leased to RRP Recreation for further development and renamed Lake Raystown Resort. The Seven Points Marina, a leased facility, was built and operates as the largest marina within the state of Pennsylvania. Additionally, three notable areas are located downstream of the dam: a hydroelectric plant operated under a Federal Energy Regulatory Commission agreement, Corbin's Island operated by USACE, and Branch Camp operated under a lease agreement. In total, there are 15 designated recreation areas at the Project.

An administration building housing the Project office is located adjacent to the Seven Points Recreation Area, near the community of Hesston. Project facilities include the dam and associated infrastructure, a maintenance complex, a number of boat launch ramps, camping, and recreation areas, two sewage treatment plants (at Seven Points and Lake Raystown Resort), two water supply plants (at Seven Points and Lake Raystown Resort), several beaches, and multiple hiking trails. Seven Points Marina and Lake Raystown Resort are leased to private concessioners, as are the Lighthouse, Branch Camp, and Putt's Camp. Other scenic overlooks are maintained through agreements with the Pennsylvania Department of Transportation.

Figure 1-2 Raystown Lake Recreation Facilities

Raystown Lake Pennsylvania



SECTION 2 – ALTERNATIVES

NEPA requires that an EA evaluate all reasonable alternatives to the proposed action, including the no-action alternative.

Alternatives evaluated in this EA are the proposed MP and the no-action alternative. These are compared to one another to identify the preferred alternative. The current Project need is to revise the existing MP so that it is compliant with current USACE regulation and guidance. Additionally, the MP was prepared under the guidance provided to USACE in “The Water Infrastructure Improvements for the Nation Act of 2016 (WIIN)” - P.L. 114-322. Alternatives were developed using land use classifications. Land use classifications indicate the primary use for which the Project’s lands are managed. The five categories of land use classification are: Project Operations, High Density Recreation, Mitigation, Environmentally Sensitive Areas, and Multiple Resource Managed Lands. Multiple Resource Managed Lands are divided into four subcategories identified as: Low Density Recreation, Wildlife Management, Vegetative Management, and Future/Inactive Recreation Areas. Water surfaces are classified as restricted, designated no-wake, fish and wildlife sanctuary, and open recreation.

USACE guidance EP 1130-2-550 requires the resource objectives set forth measurable and attainable current and future management and development activities that support the stated goals of the MP, Environmental Operating Principles, and applicable national performance measures. They must be consistent with authorized Project purposes, Federal laws and directives, regional and ecosystem needs, resource capabilities, and take public input into consideration. They should also take recreational and natural resources carrying capacity into account, as well as the State Comprehensive Outdoor Recreation Plan (SCORP). The objectives must maximize Project benefits, meet public needs, and foster environmental sustainability. USACE manages project lands in accordance with land use classifications that have been determined in the Project’s MP. Thus, land use and surface water classifications are fundamental to project land management.

During the process of updating the MP the Project team developed land use classification determination criteria (Appendix A). These criteria were used to evaluate each parcel of land on the Project equally. All land was evaluated with criteria that included the classification from the 1994 MP, the current features, any proposed development identified in the 1994 MP, biological inventories and opinions, public comments, and a boat carrying capacity study. As part of alternative development, an initial array of alternatives were considered and discussed. These alternatives were screened out from further consideration due to a multitude of factors including policy, public comment, environmental impacts, etc.

2.1 No-Action Alternative

The no-action alternative is defined as USACE taking no action, which means the MP would not be revised. With this alternative, no new resources analysis and land-use classifications would occur at the Project. The operation and management of the Project would continue as outlined in the current MP. The Water Infrastructure Improvements for the Nation Act, December 5, 2016 Sec. 1309 stated that the Secretary [of the Army] shall prioritize the updating of the MP for the Juniata River and tributaries project, Huntingdon County, Pennsylvania. Because the no-action alternative does not result in a MP that meets guidance and regulations, it was eliminated from further consideration.

2.2 Proposed Action

The proposed action is to revise the MP to meet authorized Project purposes and to reflect current land management and uses that are compatible with regional natural resource and recreation goals.

Under this alternative, the MP would be reviewed and revised, with public coordination, to comply with current USACE regulations and guidance, and updated to reflect changes in land management and land uses that have occurred over time. This would include refining land use classifications to reflect changes that would meet authorized Project purposes and current resource objectives that address a mix of natural resource and recreation management objectives that would be compatible with regional goals. Required changes associated with this action would include six land reclassifications to balance resource objectives. Table 2-1 shows the proposed reclassifications. Current land classifications are shown in Table 2-2. This alternative represents the optimal plan developed through the master planning process. Implementation of any future actions that are a result of the update to this MP may require additional NEPA documentation. Implementation of such actions would be addressed in accordance with procedures set forth in 33 CFR Part 230.

Table 2-1 Proposed Land Use and Surface Water Classifications

Classification	Acres/ Classification	Sub classification	Acres
Project Operations	241.71		241.71
High Density Recreation	1,067.03		1,067.03
Mitigation	2,653.77		2,653.77
Environmentally Sensitive Areas	507.82		507.82
Multiple Resource Management Lands	16,872.43	Low Density Recreation	2,694.36
		Wildlife Management	7,012.26
		Vegetative Management	5,466.96
		Future or Inactive Recreation Areas	1,698.85
Total Land Area	21,342.76*		21,342.76
Water Surface	8,332.49	Restricted	236.39
		Designated No-Wake	2,032.33
		Fish and Wildlife Sanctuary	43.70
		Open Recreation	6,020.04
Total Water Area	8,332.49		8,332.49
Total Acres:			29,675.25

*The total land area classified in the 1994 MP equals 20,240 acres. It is important to recognize that land and water surface classifications were defined at normal pool elevation (786 feet NGVD). Additionally, the land and water classification acreages were derived using geographic information system (GIS) technology that was not available during the 1994 classifications. These totals do not reflect the official land acquisition records, no additional acres have been acquired. Therefore, acreages represented as land use classifications and the resulting totals will differ from official land acquisition and allocation.

Table 2-2 Current Land Classification

1994 Land Use Classifications	Acres
Project Operations	4,000
Recreation	1,740
Mitigation	3,000
Environmentally Sensitive	2,300
MRM - Recreation - Low Density	9,200
MRM - Wildlife Management General	
MRM - Vegetation Management	
MRM - Inactive and/or Future Recreation Areas	
Total	20,240

Updating the land use classifications meets regional goals associated with proper stewardship of land and water resources, meets regional recreation goals, and allows for continued use and development of Project lands without violating national policies or public laws. Therefore, this alternative will carry forward as the proposed action.

SECTION 3 - AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION

This EA focuses on conditions in Raystown Lake Project lands. Where pertinent, this EA also considers conditions outside Project boundaries.

3.1 Climate and Hydrology

Affected Environment

The climate in the Raystown region is considered to be humid continental, with some characteristics of a mountain type climate. The mountain and valley influence on the air movements causes somewhat greater temperature extremes than are experienced in the southeastern part of Pennsylvania. Consequently, the daily range of temperature is greater under these valley influences. Although fog is not an uncommon climatic condition in the Raystown Lake region, local reports show that it has increased since the inundation of Project lands. This phenomenon is most likely caused by general local climate changes resulting from the increased water surface area of the lake and subsequent evaporation and condensation.

The mean annual precipitation for the Raystown watershed is about 38 inches (USGS, 2019), with a mean average runoff of 16 inches per year since 1912. Since 2013, the minimum and maximum annual recorded precipitation for stations in the region are 33.75 and 59.65 inches, respectively (NOAA, 2019). The months of March through August experience the greatest monthly average precipitation, with the least precipitation occurring in the late fall and winter. The annual snowfall averages 42.6 inches and the average annual temperature is about 51.7 degrees Fahrenheit (NOAA, 2019). Prevailing winds are from the northwest during the winter, from points between northwest and southwest during the spring and fall, and from the southwest in summer.

Two types of floods generally are experienced in the Juniata watershed. The first type is a typical springtime flood caused by snowmelt and moderate to heavy coincidental rainfall. The second type results from extremely heavy rains connected with tropical storms and hurricanes. The most notable storms of record in the Raystown watershed occurred in 1889, 1894, 1924, 1936, 1937, 1954, 1972, 1993, 1996, and 2004 (Huntingdon County, 2008). The storm of March 1936, which was caused by prolonged heavy rainfall and snowmelt, produced the greatest recorded flood along the Raystown Branch and the second greatest flood of record on the lower Juniata River. The peak discharges for this event were recorded as 80,500 cfs (normally 200 to 2,200 cfs) at Saxton upstream of the Project and 190,000 cfs (normally 1,200 to 10,000 cfs) at Newport downstream (USGS, 2019). The 1889 storm, which produced an average rainfall depth of 6.7 inches in the Juniata basin, resulted in the second largest flood of record on the Raystown Branch with 41,300 cfs flows at Saxton and the largest flood in the lower Juniata basin with flows of 209,000 cfs at Newport.

The June 1972 flood was produced by heavy rainfall associated with the remnants of hurricane Agnes and resulted in the third largest flood of record for the Raystown watershed and the Juniata River basin. During that event the partially completed reservoir Project was effective in reducing the flood crests downstream, including reductions of 4.6 feet at Mapleton Depot, 3.3 feet at Newport, and 0.8 feet at Harrisburg. At the dam, the peak inflow was 60,000-cfs while

the maximum discharge through the diversion tunnel, located near the dam, was only 17,200 cfs. Without the holding the capacity of the Raystown Dam, the Agnes event would have been the largest flood of record on the lower Juniata River. At Newport a maximum flow of 187,000 cfs was recorded; this value would have been 226,000 cfs without the Raystown Lake Project construction.

The most severe prolonged period of drought in the Raystown Branch basin occurred from 1930 to 1932. Other significant periods of low flow include droughts in 1914, 1922, 1944, 1953, 1957, 1962-66, 1988, and 1991-92. Generally, low flow periods start during the summer and reach a minimum in August through October. Prolonged drought, such as the 1930-32 period, continue all the way through winter months into the next year with only a brief respite during the spring snowmelt.

Typically, the lake does not experience a complete freeze over often during the winter months, and when it does, ice generally remains thin. Accordingly, it is generally unsafe for recreation in the main channel of the lake. Project staff do not measure ice thickness and advise the recreating public of the risks associated with ice-related activities.

Environmental Consequences

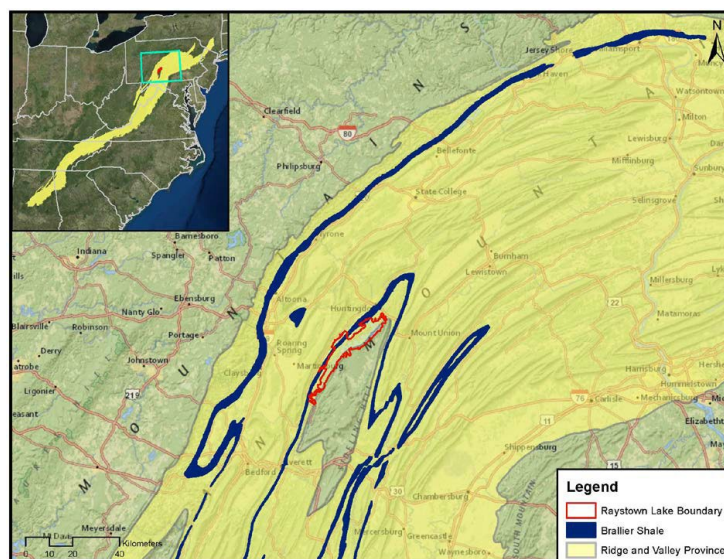
There will be no impact on the climate of the Project area from updating the MP.

3.2 Topography, Physiography, Soils and Geology

Affected Environment

The Project is located in the Ridge and Valley physiographic province of the Appalachian Highlands of south-central Pennsylvania (Figure 3-1). This area is known for parallel narrow ridges and broad valleys which run in a northeast to southwest direction. The surrounding area along Raystown Lake ranges in elevation from 601 feet National Geodetic Vertical Datum (NGVD) at the dam site to 2,940 feet on the Allegheny Front. Visible relief reaches 1,800 feet and ranges well over 1,000 feet for many miles along the ridges that surround the lake.

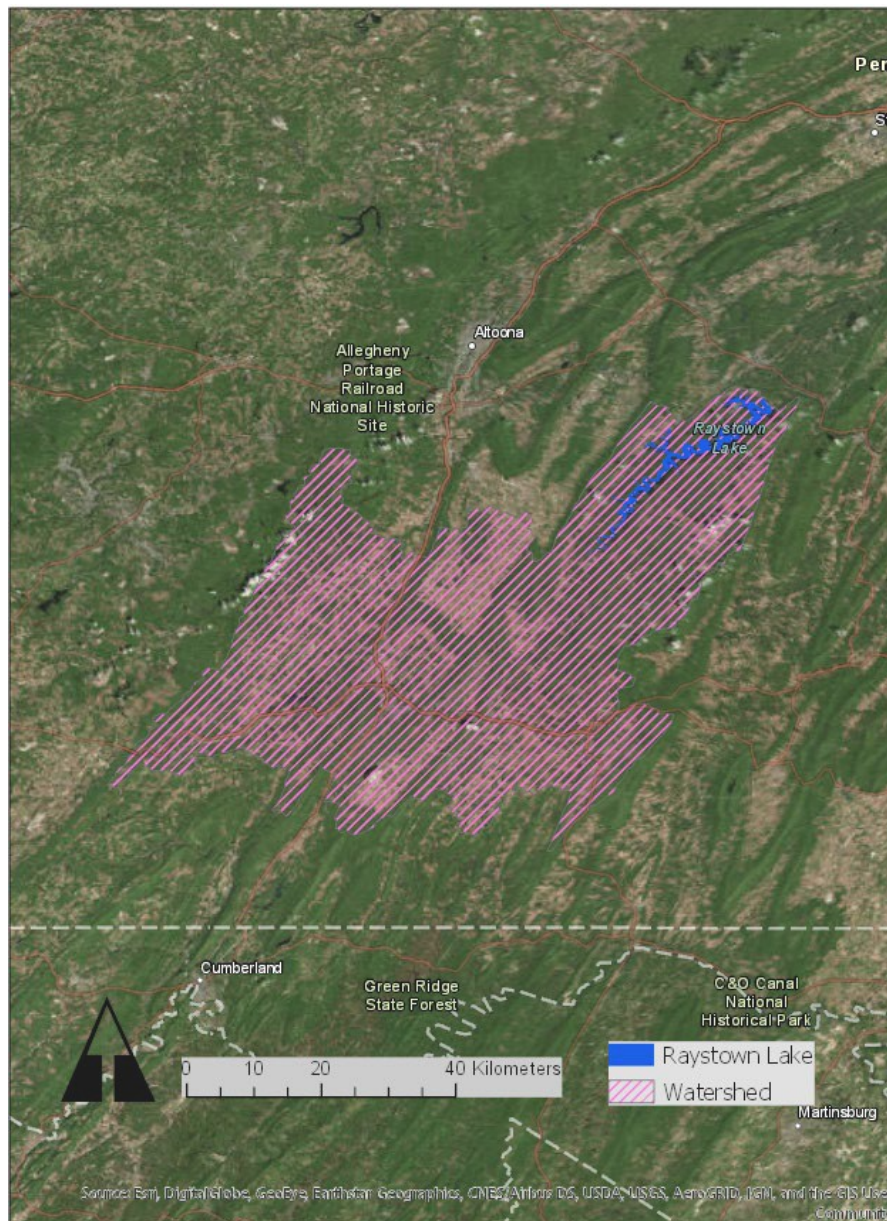
Figure 3-1 Extent of the Ridge and Valley Province and the distribution of the Brallier Shale Bedrock in PA (Pennsylvania Geological Survey, 2018).



Access from one valley to another is generally through notches or gaps that have been eroded through the mountains by cross-cutting streams.

The Project's watershed drains an area of 960 square miles (Figure 3-2). The watershed is bounded by the Allegheny Front on the west, the Frankstown Branch drainage divide on the north, the Aughwick Creek divide on the east, and the Potomac River divide on the south. Raystown Lake controls about 28% of the entire Juniata River drainage areas whose watershed drains 3,409 square miles. Principal tributaries are Dunning Creek, Cove Creek, Brush Creek, Yellow Creek, and Great Trough Creek. The slope of the Raystown Branch between its mouth at Dunning Creek and the dam site averages five feet per mile. The slope of the channel above this point averages 20 feet per mile.

Figure 3-2 Raystown Lake Watershed



There are numerous dams in the watershed. Most are small; controlling the runoff of their smaller drainage areas. Shawnee Lake Dam, with a storage equivalent to about 7% of the Raystown flood control storage, is the one large structure that exists upstream of Raystown Lake. In the event of Shawnee Lake Dam failing, the volume of water released would raise Raystown Lake approximately two feet above normal pool. All other upstream dams are small and their combined effect on Raystown Lake is insignificant.

Development of the Juniata Basin is limited because of the generally rugged terrain. It's predominantly mountainous terrain limits farming to small valley areas. Most improvements are located in the valleys along the stream banks; only a few farms are located on the upper slopes. The Project lies in a long, narrow valley with heavily wooded oak-hickory slopes. Most of the watershed consists of wooded areas with only small areas of land under cultivation.

The Project is underlain by layered sedimentary rocks primarily of Pennsylvanian, Mississippian, Devonian, and Silurian age, including the Pocono, Catskill, Devonian Marine Beds, Mauch Chunk, Pottsville, and other formations. These formations were extensively folded as part of a regional syncline. The upturned ends of these rock outcrop as parallel bands with a southwest to northeast orientation. The harder outcropping layers, composed of such material as sandstones and conglomerate, eroded slowly while the layers composed of softer, more erodible shales and mudstones were weathered away. Over time, the steep-sloped high ridge and deep valley terrain characteristic of the region formed with a corresponding southwest to northeast orientation. The combination of parent material, orientation, and climate led to the growth and development of existing flora and fauna including the unique geo-topographic and ecologic systems known as shale barrens.

The soils of Huntingdon County range from extremely shallow and rocky in the mountains to moderately deep and well-drained in the valley. About 66% of the county is made up of soils that formed in place from the underlying parent bedrock in the uplands; 22% is soil that formed in loose colluvial deposits along the base of the mountains and valley walls formed by gravity and slope wash; 6.3% is soil that formed on alluvial flood plains and terraces in material transported and deposited by streams; and the rest is urban land, strip mines, iron ore pits, rock outcrop and rubble. The basin soils are dominated by the Berks-Weikert-Ernest and Calvin-Klinesville-Albrights Associations, with the latter making up most of the general area. Generally, these soils are relatively deep and well-drained.

Average annual sediment yield on the Raystown Branch at Saxton has been measured as 90 tons per square mile. This yield is approximately 20% lower than the average for the Susquehanna River basin. Large-grained sediments tend to deposit in the upper end of the lake, while smaller-grained materials are transported further into the lake, with the finest portion deposited at the dam. A brief hydrographic survey conducted in 1983 concluded that although sediment is accumulating in the upper end of the lake, the rate appears to be well below the 500 acre-feet per year that was originally projected.

There are no active mines immediately adjacent to the Project. Within the surrounding areas of Pennsylvania there are numerous mines. Fracking has not been done in the area at this time, but some test sites were drilled.

Environmental Consequences

There will be no impact to the topography, physiography, and geology of the Project from updating the MP. No intrusive actions are proposed, and the Project's resource management plans would not be changed as the intent of the proposed action is to establish new resource objectives, and to reclassify Project lands in a way that recognizes historic, current, and projected uses. Therefore, no significant impacts to topography, physiography, or geology would occur as a result of implementing revisions to the Raystown Lake MP.

3.3 Land Use and Recreation

Affected Environment

Land use within a five-mile proximity of the Project ranges from urban activities such as railroads, highways, residential, commercial, industrial, and public lands to open, extensive activities like agriculture, woodlands, wetlands, and parkland. The land use sectors with the greatest amount of acres are in woodlands and agricultural uses. These two categories account for about 90% of the land use in the study area.

The operation of the Project provides for flood risk management, hydroelectric power, recreation, fish and wildlife conservation and mitigation, and downstream low-flow augmentation for water quality improvement. Land use classifications associated with the Project are established to support the overall goal of providing good stewardship of land and water resources while providing safe recreation opportunities and economic uses to the public. In order to implement authorized purposes and support regional management goals for recreation and natural resources, USACE maximizes resources through the use of cooperative agreements and leases with federal, state, local, and private entities. These areas provide recreation opportunities such as camping, hiking, forestry, wildlife viewing, boating, fishing, hunting, and picnicking.

The primary area, having a significant influence on the public use and management of the Project, includes residents of the surrounding counties including Huntingdon, Bedford, Mifflin, Centre, Blair, and Fulton. In addition, significant influence is received from major metropolitan areas such as Philadelphia, Pittsburgh, Baltimore, and Washington, D.C. The Project receives a diverse group of visitors including campers, boaters, fishermen, hunters, bicyclists, hikers, and day-users for beach, picnic, and scenic facilities.

Peak visitation to USACE and lease operated facilities occurs during the months of June, July, and August. Table 3-1 depicts the average percentage of visitors to each recreation area. Recreational use at the Project continues to evolve and subtle changes have been notable such as the increase in bicyclists due to the development of the Allegrippis Trail System, and a general increase in non-motorized boating such as canoeing and kayaking. Boating and camping remain the principal activities pursued by most visitors. Dispersed use includes adjacent landowners walking on to USACE lands, hunters and fishermen parking at undesignated or unmonitored access points, and trail users parking at trailheads that are not monitored. Roads are monitored for maintenance as appropriate, and Project roadways accommodate current traffic.

Table 3-1 Areas Visited by Percent

Area	
Seven Points	36.10%
Dispersed Use	10.00%
Tatman Run	9.07%
Lake Raystown Resort	8.32%
Aitch	7.30%
Snyder's Run	6.21%
James Creek	5.35%
Shy Beaver	3.10%
Bakers Hollow	2.56%
Weaver's Falls	2.53%
Ridenour Overlook	2.35%
Corbin's Island	1.54%
Raystown Dam	1.2%
Branch Camp	1.15%
Susquehannock Campground	0.69%
Nancy's Camp	0.39%

Designated recreation generally falls within two broad categories of land or water-based recreation. The MP identifies 15 high density recreation areas, listed in Table 3-2. Low density recreation focuses on those activities that rely on minimal development or infrastructure such as hunting, trail use, wildlife viewing, etc.

Table 3-2 High Density Recreation Areas

High Density Recreation Area	Primary Type of Use	Operator
Aitch	Day Use (Boat Launch)	USACE
Branch Camp	Camping	Lessee
Corbin's Island	Day Use (Boat Launch)	USACE
James Creek	Day Use (Boat Launch)	USACE
Lake Raystown Resort	Multi (Day Use/Overnight)	Lessee
Nancy's Camp	Camping	USACE
Putt's Camp	Camping	Lessee
Raystown Dam	Overlook	USACE
Ridenour Overlook	Overlook	USACE
Seven Points	Multi (Day Use/Overnight)	USACE
Shy Beaver	Day Use (Boat Launch)	USACE
Snyder's Run	Day Use (Boat Launch)	USACE
Susquehannock Campground	Camping	USACE
Tatman Run	Multi (Boat Launch, Beach)	USACE
Weaver's Falls	Day Use (Boat Launch)	USACE

Recreational carrying capacity is considered by USACE to ensure that visitors have a high-quality and safe recreational experience and that natural resources are not irreparably damaged. A boating carrying capacity study was conducted at the Project to characterize peak boating use and boaters' perceptions of safety and crowding on the lake. The primary focus of

the study was to evaluate existing recreational use and users' perspectives against carrying capacity ranges developed specifically for Raystown Lake.

Environmental Consequences

The primary objective for revising the MP is to capture historic, current, and projected land use as well as management measures needed to serve the public interest in ways compatible with Project authorized purposes and operational requirements. The reclassification changes required for the proposed action were developed to recognize regionally important resources and enhance regional stewardship goals to allow for continued use and development of Project lands for the planning horizon of 25 years. In addition, the proposed action changes land use classifications to more accurately represent protected areas and land use. The revision brings land classification into compliance with current guidance. It also reclassifies land to better align future management with resource capabilities and expressed public interests. Specifically, changes to the High Density Recreation land classification acreages were the result of improvements in geographical measurements and alignment with current use. While there is a net reduction in measured lands, no High Density Recreation Areas were removed. The relabeling of these lands will have no effect on current or projected public use. Therefore, implementing the proposed revisions to the MP would not result in negative impacts to land uses on the Project.

3.4 Terrestrial Resources

3.4.1 Vegetation and Prime Farmland

Affected Environment

Land surrounding Raystown Lake is primarily forested (roughly 18,000 acres). The primary tree species are oak and pine (USACE, 2011). The geology that the Project lies on provides the basis for numerous unique types of vegetation. A portion of the area is comprised of shale barrens which offer a unique subset of plant species. Shale barrens are naturally difficult for plants to establish on due to their lack of stable substrate, potential for high surface temperature, and minimal soil present.

The shale barrens at the Project are typically occupied by trees such as *Juniperus virginiana* (eastern red cedar), *Quercus montana* (chestnut oak), *Pinus virginiana* (Virginia pine), *Carya glabra* (pignut hickory), *Quercus rubra* (red oak), and *Pinus pungens* (table-mountain pine). Shrubs are often absent entirely, patchy, or primarily line the perimeter of the barrens where they transition to other forest types. The herbaceous layer tends to be highly variable and can be extremely sparse or have moderate to high cover (USACE, 2019).

The Project maintains approximately 200 acres of field habitat that is actively planted and maintained for wildlife use. The fields contain crops such as corn, alfalfa, soybeans, clover, sorghum, buckwheat, etc. These crops are not harvested but rather left to serve as forage for wildlife. Additionally, through active timber management, early successional habitat is created to meet the requirements of a variety of small game and bird species that are early- successional specialists. Examples include the American woodcock, ruffed grouse, golden- winged warbler, and cerulean warbler. These areas are then allowed to progress through successional phases, and new, early successional areas are created to replace those advancing through succession. In accordance with CEQ memorandum dated 11

August 1980, with regard to compliance with the Farmland Protection Policy Act, the effects of the proposed actions on prime and unique farmlands will be examined.

Prime farmland is available land that provides the best combination of physical and chemical characteristics for producing crops. A listing of prime farmlands in Huntingdon County, Pennsylvania was provided by the county office of the U.S. Soil Conservation Service (SCS). This list was cross-referenced with the Huntingdon County soil survey maps to determine the location of any prime farmlands at the Project.

The affected prime soils are the Albright, Barbour, and Philo series, specifically Albright silt loam, all Barbour soils, and Philo and Basher silt loams. Albright soils are found mostly on mountain foot slopes and Barbour and Philo soils are primarily associated with floodplains. All three soil types are defined by the SCS as being limited by frequent flooding and/or a seasonal high water table. Many of the areas of prime soils at Raystown Lake are along tributary streambeds and shoreline areas which are presently subjected to temporary flooding due to normal reservoir operations. Some of these soils are managed for wildlife habitat, and most support natural vegetation. There is no active farming on the Project.

The Project has a diverse assemblage of vegetation, making it an exemplary area for wildlife habitat. It is ecologically important to allow these habitats to remain as natural as possible, so that they may go through the various phases of succession.

Environmental Consequences

The purpose of the update is to capture historic, current, and projected land use as well as management measures needed to serve the public interest in ways compatible with Project operational requirements. This action does not entail any physical work to be performed within or around the Project. The revision will classify land so that it may be managed more effectively and efficiently. Furthermore, no intrusive work will occur within areas established as Environmentally Sensitive as a result of the revision. Any earthwork occurring in other land use classification will have further project specific NEPA review. There will be no impact to the vegetation, soil, or prime farmland of the area.

3.4.2 Wildlife and Migratory Birds

Affected Environment

The PGC and the PFBC work with USACE to manage wildlife at the Project. The lake and surrounding forest hosts a variety of species throughout the year including the bald eagle, numerous migratory birds, river otters, mink, muskrat, beaver, bats, and other mammals. Raystown Lake offers many types of different foraging and nesting habitat to sustain wildlife populations at the Project as well as the surrounding areas. USACE works with state and federal agencies to ensure that habitat requirements for many of these species are being met. Several no-wake areas exist throughout the lake which allow migrating ducks to rest and feed. These no-wake areas were not designated specifically for wildlife, but have the added benefit of providing suitable resting areas. The wetland areas surrounding the lake provide habitat for green heron, willow flycatchers, red-winged blackbirds, as well as many waterfowl species in migration (PGC, 2019). In addition, there are 43.7 acres of water surface classified as fish and wildlife sanctuary. Hunting is allowed at the Project, with typical species being deer, turkey, squirrel, grouse, bear, and geese.

Environmental Consequences

There will be no negative impacts to wildlife and migratory birds at the Project by updating the MP. The actions proposed will update the current land use classifications, making them more precise and in some cases increasing protected habitat. The 1994 MP did not accurately quantify or classify Project Operations and Environmentally Sensitive Areas, which were all researched extensively for this update. Many of the Operations and Environmentally Sensitive Areas lands have been reclassified to a classification appropriate for that specific piece of land. The changes proposed to water surface classification slightly increase the currently designated no-wake areas. These changes are in response to notable public input and will additionally serve as increased acreage for potential resting waterfowl areas. Furthermore, no intrusive work will occur within areas established as Environmentally Sensitive as a result of this revision. Any earthwork occurring in other land use classification will have further project specific NEPA review. Any wildlife or game will thus be unaffected in the area.

3.5 Aquatic and Water Resources

3.5.1 Fisheries

Affected Environment

Raystown Lake is an 8,300 acre reservoir that provides both warm, cool, and cold water fish habitat. The PFBC manages the lake fishery, which includes stocking several game fish species (lake trout, striped bass, and walleye). The PFBC began stocking the lake in 1973 in an effort to establish a "two-story" fishery unique to the Northeast. Generally, a stocking management plan is developed every four years based on the PFBC census of fish population.

Eutrophic conditions occur during late summer to early fall, and are pronounced in the shallow embayments and along the main stem of the lake upstream of Trough Creek. During those months and due to the limiting dissolved oxygen concentrations and temperature preferences, these areas amount to approximately 58% of the lake which is either uninhabitable or marginally inhabitable for cold water fish, including trout, striped bass, and smelt. With a lack of nutrients in this large portion of the lake, low primary production inhibits many fish species from reaching their maximum potential.

While the reservoir provides diverse habitat for a variety of fish and other aquatic animals, due to the lake's steep shoreline and low proportion of suitable substrate, aquatic vegetation is not abundant, and non-vegetative cover (e.g., logs, stumps, boulders) in relatively shallow water is scarce. Over the past 10 years, two invasive aquatic plants, hydrilla (*Hydrilla verticillata*) and Eurasian watermilfoil (*Myriophyllum spicatum*) have become dominantly established within suitable portions of the water-body. The lack of snags and debris in near shore shallows limits the area available for fish to spawn, forage, and hide from predators. The lack of physical structures along much of the lakeshore is one of the limiting factors in the quality of the lake fishery.

Benthic invertebrates are small organisms that inhabit the lower levels of the aquatic ecosystem. They can be used to assess general water quality and available habitat. Benthic invertebrate samples were collected upstream and downstream of Raystown

Lake in 2003, 2004, and 2005. Samples were collected in riffle complexes, pools, and glides. Fifty-five different Orders, Families, and Genus' were represented in the collected sample. Benthic invertebrates have not been surveyed in Raystown Lake. Any fishery will thus be unaffected in the area. In the event any new work is proposed, it will go through the appropriate NEPA process.

Environmental Consequences

There will be no impact to fisheries of Raystown Lake by updating the MP. The actions proposed will accurately classify the aquatic resources, which will aid in effective management. The changes proposed to water surface classification slightly increase the currently designated no-wake areas. These changes are in response to notable public input. Furthermore, no intrusive work will occur within aquatic resources as a result of this update.

3.5.2 Wetlands, Streams, and Conservation Pool

Affected Environment

Wetlands play an important role in the ecology of the Project by serving as nursery and feeding areas for various aquatic animals, filtering sediment and other pollutants from surface runoff, and helping to deter erosion. Wetlands comprise 26 acres of the lands at the Project. Generally, wetlands are located in the relatively flat, low lying areas along the lake at the mouths of tributary streams. The extent of the wetlands are limited by the steep topography of the region.

Despite the periodic drawdown of the lake due to minimum flow releases, the limited amount of wetlands are of fair quality. Soils along the lake exhibit hydric characteristics and are saturated in varying degrees throughout the year. The lake has been operational since 1973; since this time a seed pool of wetland vegetation has developed.

Prior to the early 1980s, irregular periodic drawdowns of the lake (due to the year-round minimum 480 cfs release requirement in effect at the time) hampered the growth of many of the area's wetlands. Submerged aquatic vegetation was never permanently established and the vegetative cover along relatively shallow shorelines was scarce. The lack of a permanent water level was the main limiting factor in the establishment of wetlands.

There are roughly 26 acres of wetlands in the area around the Project (USFWS, 2017). Wetland classifications include emergent, forested, and scrub shrub (Table 3-33).

Table 3-3 Wetland Systems

System	Class	Acres
Palustrine	Emergent Wetland	12
Palustrine	Forested Wetland	11
Palustrine	Scrub-shrub Wetland	3

There are a number of small streams that flow within USACE boundaries. Many of them flow into Raystown Lake. These include Tatman Run, Coffee Run, Great Trough Creek, and Shy Beaver Creek.

Environmental Consequences

There will be no impact to the wetlands and surface waters of the Project by updating the MP. While the 1994 MP was not required to quantify or classify water surface, it did depict designated no wake and restricted areas. The proposed action will classify land and surface waters according to the reclassification criteria under one of the following classifications: restricted, designated no wake, fish and wildlife sanctuary, or open recreation. The changes proposed to water surface classification slightly increase the currently designated no-wake areas. These changes are in response to notable public input and will additionally serve as increased acreage for potential resting waterfowl areas. Aquatic resources will retain recreational capabilities, environmental benefits, and operational capabilities. Furthermore, no intrusive work will occur as a result of this update, hence the wetlands will remain undisturbed. The MP update does not change the operations of the dam at the Project, and no changes are expected in the nature and function of the lake.

3.5.3 Wild and Scenic Rivers (Public Law 90-542)

Affected Environment

Wild River Areas are defined as those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. Scenic river areas are defined as those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads. None of the areas associated with the Raystown Lake Project are designated as wild and scenic rivers pursuant to PL 90-542.

Environmental Consequences

There are no areas within the Project designated as wild and scenic rivers. Therefore, there would be no significant adverse impacts to wild or scenic rivers.

3.5.4 Water Quality

Affected Environment

The greatest sources of pollutants impacting the wadeable waters across the state of Pennsylvania are agriculture and abandoned mine drainage. Wadeable waters are an important part of the overall aquatic ecosystem, providing valuable habitat, drinking water, and downstream commercial and recreational benefits. The largest source of pollution impacting the state's lakes is commonly generated by agriculture. For the state's streams and rivers, this means the largest stressors are siltation and metals. For the lakes, the greatest stressors are nutrients, suspended solids, and dissolved oxygen/organic enrichment (PA DEP, 2016).

In general, the water quality of Raystown Lake is very good to excellent, being suitable for water-contact recreation and capable of supporting a diverse and healthy aquatic community. Motorized boating could potentially be a source for water quality impacts, but there is currently no available data to show this. The lake develops a strong stratification by June, with a 10 to 20-foot epilimnion (upper layer) and a 23 to 33-foot thermocline (middle layer). The lake is clear, cold, and deep, with a well-oxygenated hypolimnion (cool, lower layer) during the warm months. Lake waters are generally characterized as soft and slightly alkaline with oxygen levels capable of sustaining fish life to the bottom of the lake. Pollutants

entering the lake are currently minimal though there has been a long-term trend noted by PA DEP for total ammonia found within Raystown Lake (PA DEP, 2016).

Environmental Consequences

There will be no impact to the Water Quality by updating the MP.

3.6 Invasive Species

Affected Environment

Invasive species that occur at the Project are typical of those found throughout the region. The Project contains various categories of invasive species to include terrestrial plants, aquatic plants, terrestrial pests, aquatic pests, and diseases that pose serious threats to wildlife, vegetation, aquatic resources, and potentially human health. They have and will continue to impose enormous costs for detection, management, and control efforts. The Project embraces the principle concepts of early detection and rapid response; noting that early detection is a key goal in managing invasive species populations.

Terrestrial plants include, but are not limited to, oriental bittersweet (*Celastrus orbiculatus*), tree of heaven (*Ailanthus altissima*), stringy stonecrop (*Sedum sarmentosum*), German knotweed (*Scleranthus annuus*), crown vetch (*Securigera varia*), spotted knapweed (*Centaurea stoebe*), bush honeysuckle (*Lonicera maackii*), Japanese honeysuckle (*Lonicera japonica*), asiatic tearthumb (*Persicaria perfoliata*), yellow toadflax (*Linaria vulgaris*), Japanese stiltgrass (*Microstegium vimineum*), mile-a-minute (*Persicaria perfoliata*) and princess tree (*Paulownia tomentosa*). As funding permits, the Project annually conducts invasive species treatments to minimize the spread of numerous species.

Aquatic plants as discussed above include Hydrilla (*Hydrilla verticillata*), Eurasian watermilfoil (*Myriophyllum spicatum*), and brittle naiad (*Najas minor*).

Terrestrial pests have had a notable presence and impact on the landscape of the Project requiring intensive management activities and funding support. Specifically, the gypsy moth (*Lymantria dispar*), emerald ash borer (*Agrilus planipennis*), and hemlock woolly adelgid (*Adelges tsugae*) have had significant impacts on the vegetative resources. The Raystown Lake Project has sought and received funding through the U.S. Forest Service totaling over \$1.1 million (1983-2018) to treat both gypsy moth and hemlock woolly adelgid infestations. The effects of the emerald ash borer have been devastating to the ash population within the region. Over 99% of ash trees within developed recreation areas have been removed as hazardous trees due to mortality. Although not yet found at Raystown Lake, heightened awareness has been placed on detecting the presence of spotted lanternfly (*Lycorma delicatula*) and Asian longhorned beetle (*Anoplophora glabripennis*), which could have devastating effects on the ecosystem if the current population cannot be contained and eradicated.

The presence of aquatic pests have not been significantly noted within the waterbody of Raystown Lake. Sampling efforts should be conducted routinely for various pests such as zebra and quagga mussels which have been found in other reservoirs and bodies of water within Pennsylvania and nearby states. Terrestrial diseases include chestnut blight (*Cryphonectria parasitica*) and Dutch elm disease. The chestnut blight of the early 1900s dramatically altered the vegetation composition of the northeast. The Project has been heavily involved in a partnership with The American Chestnut Foundation in their efforts to restore the

presence of the species across the landscape. Dutch elm disease is caused by pathogens belonging to the genus *Ophiostoma* that are vectored by various species of elm bark beetles. Although not yet found at Raystown Lake, staff are surveying for thousand cankers disease which is caused by the fungus *Geosmithia morbida* and vectored by walnut twig beetles.

Environmental Consequences

There will be no change to the invasive species by updating the MP. USACE will continue to monitor and manage invasive species to the best of their ability.

3.7 Threatened and Endangered Species

Affected Environment

The Project hosts multiple state and federally listed threatened and endangered species. Additionally, a team of scientists from USACE Engineer Research and Development Center performed biological surveys at the Project. The surveys included 4 primary components: (1) survey and map shale barren plant communities; (2) survey shale barrens for the presence of endemic, threatened, and endangered Noctuid moth species. Their findings are summarized in Table 3-4; (3) conduct acoustic bat surveys with a focus on continued documentation of the presence or absence of federally and state listed species; (4) invertebrate surveys of aquatic insects and freshwater mussels in the headwaters, tributaries, and tailwater portions of Raystown Lake. The full report can be found in Appendix H of the MP.

Table 3-4 State and Federally Listed Species at Raystown Lake

Species	Common Name	Classification	Important Habitat
<i>Myotis septentrionalis</i>	Northern long-eared bat	Federally Threatened	Forest
<i>Myotis sodalis</i>	Indiana bat	Federally Endangered	Forest
<i>Xestia elimata</i>	Southern variable dart moth	State Imperiled	Forest
<i>Cisthene packardii</i>	Packard’s lichen moth	State Critically Imperiled	Barrens and forests
<i>Calopteryx dimidiata</i>	Sparkling jewelwing	State Possibly Extinct	Streams and fields
<i>Boyeria grafiana</i>	Ocellated darner	State Vulnerable	Streams
<i>Cordulegaster erronea</i>	Tiger spiketail dragonfly	State Vulnerable	Streams
<i>Antennaria virginica</i>	Shale barren pussytoes	State Threatened	Shale barrens
<i>Oenothera argillicola</i>	Shale barren evening primrose	State Imperiled	Shale barrens
<i>Solidago argute var. harrisii</i>	Harris’ golden-rod	State Critically Imperiled	Shale barrens
<i>Trifolium virginicum</i>	Kate’s mountain clover	State Imperiled	Shale barrens
<i>Potamogeton illinoensis</i>	Illinois pondweed	State Rare	Shallow water
<i>Sida hermaphrodita</i>	Virginia mallow	State Imperiled	Stream bank

Species	Common Name	Classification	Important Habitat
<i>Haliaeetus leucocephalus</i>	Bald eagle	State Rare	Forest and lake
<i>Neotoma magister</i>	Allegheny woodrat	State Rare	Shale barrens
<i>Calopteryx angustipennis</i>	Appalachian jewelwing	State Possibly Imperiled	Rivers and streams
<i>Caripetra aretaria</i>	Southern pine looper moth	State Critically Imperiled	Shale barrens
<i>Semiothisa promiscuata</i>	Promiscuous angle	State Critically Imperiled	Forest
<i>Properigea sp.</i>	Noctuid moth	State Critically Imperiled	Shale barrens
<i>Pyrgus wyandot</i>	Southern grizzled skipper	State Critically Imperiled	Shale barrens
<i>Thalictrum coriaceum</i>	Thick-leaved meadow rue	State Imperiled	Forest
<i>Solidago curtisii</i>	Curtis's goldenrod	State Critically Imperiled	Forest

Huntingdon County 2004, PNHP 2019, and USACE 2019

Environmental Consequences

There will be no negative impact to the threatened and endangered species of the Project by updating the MP. The Project will continue to implement and operate per the Biological Opinion issued by the US Fish and Wildlife Service, dated 24 February 2016, Effects to the Indiana Bat and Northern Long-eared Bat from activities on the Raystown Lake Project. The actions proposed are will not negatively affect their habitat.

3.8 Archeological and Historic Resources

3.8.1 Prehistoric Background

Affected Environment

The Project lies within the Allegheny Mountain region in the Susquehanna River valley. As with other areas in the Mid-Atlantic region, the prehistory of this region can be divided into the Paleo-Indian (13,000-7,000 B.C.), Archaic (7,000-1,000 B.C.), and Woodland (1,000 B.C.-1,500 A.D.) chronological periods.

The Paleo-Indian occupation of the Susquehanna River valley is primarily marked by the occurrence of isolated finds of fluted points. Both Paleo-Indian and Early Archaic (8,000-6,000 B.C.) sites are known primarily through surface finds or uncertain contexts.

Middle Archaic sites are defined by projectile points, especially the bifurcate point style, on Holocene terraces and upland surfaces in the Susquehanna River valley. The Late Archaic period in this region of the Susquehanna falls within a timeframe from about 3,500-1,000 B.C. and can be divided into various traditions which are almost as numerous as the number of point styles recognized for this time period. The Fishtail Phase marks the end of the Archaic period and the beginning of the Early Woodland period around 1,000 B.C. The

Orient Fishtail point is the most common diagnostic artifact for this period. The Early Woodland period (1,000-300 B.C.) in this area of the Susquehanna is marked by the introduction of ceramics and an intensification of burial ceremonialism. The majority of evidence from this period is chiefly limited to surface finds of trade items along the major streams. For the Middle Woodland period (500 B.C.-A.D. 900) in the Susquehanna region, a Bushkill Complex, Fox Creek, and Kipp Island Phase are represented. Clemson Island occupations (A.D. 700-1200) in the Middle and Upper Susquehanna had maize as a firmly established crop and many fortified villages. Changes from previous periods show the settlement focus to have been on highly productive agricultural soils in bottomland areas. Shenks Ferry settlement types are typically small sites although some may be nucleated villages. Evidence of subsistence pursuits on Shenks Ferry sites includes corn, beans, and squash from the Lower Susquehanna Valley. In the Middle and Upper Susquehanna region, maize agriculture was also present. The Susquehannock occupation of the Middle and Upper Susquehanna regions is marked by a very rapid occupation soon followed by desertion of the area.

Environmental Consequences

The primary objective for revising the MP is to capture historic, current, and projected land use as well as management measures needed to serve the public interest in ways compatible with Project operational requirements. The reclassification changes required for the proposed action were developed to recognize regionally important resources and enhance regional stewardship goals to allow for continued use and development of Project lands for the planning horizon of 25 years. The land use classifications will be updated to more accurately reflect the land they represent. This may involve some land areas receiving a different classification than they currently had, which in some cases may appear to be a loss of protected land, or land managed for vegetation or wildlife. In fact, many of these lands were not classified clearly in the 1994 MP, and the update will classify these lands accordingly. This will assist land management, which will be more beneficial to vegetation and wildlife in the future. Any future land-disturbing activities would be subject to Section 106 of the National Historic Preservation Act. Therefore, implementing the proposed revisions to the MP would not result in impacts to the historic heritage of the Project land.

3.8.2 Historic Background

Settlers came to Huntingdon County in the late eighteenth century, which brought about the end of the Native American occupation in this region. Between 1750 and 1800, settlers from Maryland and eastern Pennsylvania came to establish the region between the Raystown Branch and Juniata River valleys. Robert Ray, a trader, settled in the Raystown area in 1750. In the following year, the British built Fort Bedford on the southern shore of the Raystown Branch. This fort was used as a supply post for the British campaign against Fort Duquesne in 1758 during the French and Indian War.

Forests were cleared for farming in the Woodcock Valley and in the fertile bottomlands along the Raystown Branch. Sawmills were built on many of the streams and large quantities of oak bark were shipped for use in tanning hides in the making of leather. The first gristmill, known as "Tub Mill," was built in Penn Township near "Station Farm." Another gristmill as built in 1844 on Shy Beaver Creek at its confluence with the river. Iron ore was dug between Mulberry and Warrior's Ridge and at the base of Tussey Mountain in Hopewell and Penn Townships for shipment to Johnstown and Danville. There were several iron furnaces in the

area.

In 1854, the Huntingdon and Broad Top Mountain Railroad were built at the base of Terrace Mountain along the Indian trail known as Warrior's Path. The trains hauled coal from the Broad Top coalfields to Huntingdon. They also carried iron ore, lumber, and other local products. The railroad was removed in 1954. By 1820, post offices were established in Coffee Run, McConnellstown, Aitch, Cove Station, Shy Beaver, Grafton, and Marklesburg.

Local communities were established as the need for trade arose in the area. Most of the settlements were either along State Route 26, at the base of Tussey Mountain west of the Raystown Branch, or were built to the east of Terrace Mountain, adjacent to the Huntingdon and Broad Top Mountain Railroad after its construction in 1854. One of the earliest communities was Marklesburg, founded in 1844. Jacob Putt founded Puttstown in 1840; Coffee Run was first settled by James Entrikey, Sr. at the mouth of Coffee Run between 1790 and 1800.

Each township had several widely scattered schools, usually with one in each village. However, most were built after the Civil War. Churches were numerous throughout the valley. During the eighteenth and nineteenth centuries, timber was being cleared as part of the major lumber industry in the northeast of the United States. The region was largely based on a subsistence farm economy, with most farms producing for themselves, selling their surplus, and buying those few items which could not be made at home.

3.8.3 Existing Cultural Resources

Most Project lands have a low potential for containing prehistoric and historic cultural resources due to the terrain being extremely steep in this region. Most prehistoric resources that were discovered were located near the river. Most of the sites were seasonal hunting camps which were not considered significant enough for further investigations. Almost all of the sites identified on the Project lands were inundated as a result of the original Project. Only a few identified sites (36Hu14; 36Hu15; Quarry Site - 36Hu16; Shy Beaver - 36Hu27; H8795; E8231; E8232; and E8274) were located above the current water level.

The Sheep Rock Shelter (36Hu1) was subject to extensive data recovery investigations. It was discovered that the earliest occupation of the Sheep Rock Shelter dates from about the seventh millennium B.C., within the Early Archaic period, and was continuously occupied until the middle of the sixteenth century A.D. Various types of pottery, projectile points, a French rifle flint from the late 1700's, two rifle balls, and two worn fragments of "Kentucky cloth" were found in the Sheep Rock Shelter. This site location is now inundated. Other significant prehistoric sites include the Workman Site (36Bd36) which is located outside of the Project lands and the Mussel Rock Shelter (36Hu6) which is now inundated. Early Woodland pottery found at the Workman Site is characteristically different than that found at the Sheep Rock Shelter (ca. 30 miles away). The period of occupation for this site extends from the Archaic through the historic era, with a gap in the late nineteenth/early twentieth century chronology. This site provided valuable data on the occupation of the area. Mussel Rock had a habitation period covering the Woodland period. Assorted pottery types were found as well as projectile points from different stages of Woodland period. There were other prehistoric sites intensively investigated that did not yield significant or numerous finds. These include the Quarry Site – 36Hu16; 36Hu19; the Entrikey Bridge Site – 36Hu24;

and Baker Sites Nos. 1 and 2 – 36Hu25 and 36Hu26, respectively.

During 2010, an Integrated Cultural Resources Management Plan was completed for the Raystown Lake Project. Approximately 200 potential historic period site locations, and the location of previously identified prehistoric period sites, were mapped into a Geographic Information System (GIS) layer. One building, the Brumbaugh House, is currently listed in the National Register. The Brumbaugh House, a stone and frame structure built in 1804, is located on the former Brumbaugh homestead that was once called “Timothy Meadows.” After being placed on the National Register of Historic Places, the house has been the victim of vandals and arson. The remaining walls of the house are currently enclosed by a fence and is still listed on the National register by request of the Historic Society. The Cloyd Rhodes House is another important structure from the historic period. The Rhodes House is also constructed of stone. It is located in the Lake Raystown Resort and serves as a food store and concession at the campground and beach.

A predictive model and site sensitivity map were developed to identify areas of cultural sensitivity. The integrated cultural resource management plan (ICRMP) is intended to serve as a how-to manual for Raystown Lake personnel to manage, plan, and prioritize the protection of cultural resources on the Project. This ICRMP provides guidance needed to identify and effectively manage cultural resources at Raystown Lake.

3.9 Socioeconomic Resources and Environmental Justice

3.9.1 Social and Economic Setting

Affected Environment

The U.S. Census Bureau reported that Huntingdon County had a population of 45,913 in 2010 (US Census Bureau, 2019). The projections of population indicate a decline in the population growth for both Bedford and Huntingdon Counties. Bedford County is expected to decline in population by nearly two percent in the period from 1990 to 2040. Huntingdon County is projected to grow modestly for a portion of the period and then is expected to decline in population after the year 2020.

While Huntingdon County is projected to experience a population decline early into the twenty-first century, the economic region that includes Huntingdon County is projected to grow about 15 percent for the 1995-2040 period. Even with this small growth rate, it exceeds the growth rate projected for the United States and the Commonwealth of Pennsylvania.

As of December 2018, the unemployment rate in the Commonwealth of Pennsylvania averaged 4.2 percent. In Huntingdon County, unemployment rates averaged around 5.6 percent (US Dept. of Labor, 2019). These rates probably fluctuate frequently by one to three percentage points depending on the economic health of specific, large employers.

The total population for the zone of interest is 94,577, containing both Bedford and Huntingdon counties (Table 3-5). The gender split is relatively equal in both counties, roughly 50:50.

Table 3-5 Population Total and Gender Composition

Geographical Area	Total	Male %	Female %
Pennsylvania	12,790,505	48.9	51.1
Huntingdon County, PA	45,686	52.8	47.2
Bedford County, PA	48,891	49.9	50.1

Source American Community Survey 2013-2017

The distribution by age group is similar for both counties in the area of interest (Table 3-6). The largest population age ranges from 25 to 64, which is a similar trend to the state of Pennsylvania.

Table 3-6 Age Population Range

Geographical Area	Age Group									
	<5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 44	45 to 64	65 to 74	75 to 84	>85
Pennsylvania	711,647	736,583	763,267	834,335	858,720	3,151,269	3,553,662	1,195,873	659,750	325,399
Huntingdon County, PA	2,179	2,294	2,624	2,949	3,065	11,037	12,810	5,015	2,640	1,073
Bedford County, PA	2,417	2,670	2,902	2,863	2,544	10,393	14,599	5,656	3,413	1,434
Geographical Area	Age Group									
	<5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 44	45 to 64	65 to 74	75 to 84	>85
Pennsylvania	6%	6%	6%	7%	7%	25%	28%	9%	5%	3%
Huntingdon County, PA	5%	5%	6%	6%	7%	24%	28%	11%	6%	2%
Bedford County, PA	5%	5%	6%	6%	5%	21%	30%	12%	7%	3%

Source American Community Survey 2013-2017

The majority of people in Huntingdon and Bedford Counties are white, with other races comprising a much smaller population count (Table 3-7). Huntingdon County has a much higher population of Black or African Americans than Bedford County.

Table 3-7 Population Race Numbers

Geographical Area	Race Group						
	White	Black or African American	American Indian and Alaskan	Asian	Native Hawaiian and other Pacific	Other	Two or more races
Pennsylvania	10,378,174	1,417,611	24,995	417,525	3,665	251,215	297,320
Huntingdon County, PA	41,966	2,446	30	235	9	171	829
Bedford County, PA	47,728	217	61	118	0	137	630
Geographical Area	Race Group						
	White	Black or African	American Indian	Asian	Native Hawaiian	Other	Two or more

		American	and Alaskan		and other Pacific		and other races
Pennsylvania	81%	11%	0%	3%	0%	2%	2%
Huntingdon County, PA	92%	5%	0%	1%	0%	0%	2%
Bedford County, PA	98%	0%	0%	0%	0%	0%	1%

Source American Community Survey 2013-2017

For most of the population 25 years and older in Huntingdon and Bedford Counties, the highest level of education is high school, or equivalent (Table 3-8).

Table 3-8 Population Education Data

Geographical Area	Highest Level of Educational Attainment for Population of 25 years or older							
	Population: 25 years and older	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
Pennsylvania	8,885,953	296,463	602,519	3,161,786	1,427,444	724,522	1,621,733	1,051,486
Huntingdon County, PA	32,575	954	2,697	16,391	5,090	2,475	3,395	1,573
Bedford County, PA	35,495	1,351	3,273	18,297	4,864	2,814	2,839	2,057

Geographical Area	Highest Level of Educational Attainment for Population of 25 years or older							
	Population: 25 years and older	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
Pennsylvania	50%	2%	3%	18%	8%	4%	9%	6%
Huntingdon County, PA	50%	1%	4%	25%	8%	4%	5%	2%
Bedford County, PA	50%	2%	5%	26%	7%	4%	4%	3%

Source American Community Survey 2013-2017

Employment is represented in Table 3-9. The largest areas of employment in both counties are educational services, health care, manufacturing, and construction.

Table 3-9 Population Industry Data

Industry	Geographical Area		
	Pennsylvania	Huntingdon County, PA	Bedford County, PA
Civilian employed population 16 years and over	6,096,977	18,540	22,161
Agriculture, forestry, fishing and hunting, and mining:	85,983	616	968
Agriculture, forestry, fishing and hunting	54,504	490	767
Mining, quarrying, and oil and gas extraction	31,479	126	201
Construction	351,087	1,788	2,079
Manufacturing	726,822	2,475	3,240
Wholesale trade	170,078	324	453
Retail trade	702,198	1,851	2,973
Transportation and warehousing, and utilities:	327,457	977	1,735
Transportation and warehousing	269,844	813	1,525

Utilities	57,613	164	210
Information	103,432	263	235
Finance and insurance, and real estate and rental and leasing:	394,251	604	593
Finance and insurance	305,761	476	480
Real estate and rental and leasing	88,490	128	113
Professional, scientific, and management, and administrative and waste management services:	619,991	957	1,423
Professional, scientific, and technical services	389,187	447	690
Management of companies and enterprises	5,747	16	0
Administrative and support and waste management services	225,057	494	733
Educational services, and health care and social assistance:	1,573,451	5,278	4,210
Educational services	570,354	2,239	1,368
Health care and social assistance	1,003,097	3,039	2,842
Arts, entertainment, and recreation, and accommodation and food services:	514,393	1,286	2,218
Arts, entertainment, and recreation	112,707	173	223
Accommodation and food services	401,686	1,113	1,995
Other services, except public administration	282,945	673	1,113
Public administration	244,889	1,448	921
Industry	Geographical Area		
	Pennsylvania	Huntingdon County, PA	Bedford County, PA
Civilian employed population 16 years and over	39%	40%	40%
Agriculture, forestry, fishing and hunting, and mining:	1%	1%	2%
Agriculture, forestry, fishing and hunting	0%	1%	1%
Mining, quarrying, and oil and gas extraction	0%	0%	0%
Construction	2%	4%	4%
Manufacturing	5%	5%	6%
Wholesale trade	1%	1%	1%
Retail trade	4%	4%	5%
Transportation and warehousing, and utilities:	2%	2%	3%
Transportation and warehousing	2%	2%	3%
Utilities	0%	0%	0%
Information	1%	1%	0%
Finance and insurance, and real estate and rental and leasing:	3%	1%	1%
Finance and insurance	2%	1%	1%
Real estate and rental and leasing	1%	0%	0%
Professional, scientific, and management, and administrative and waste management services:	4%	2%	3%
Professional, scientific, and technical services	2%	1%	1%

Management of companies and enterprises	0%	0%	0%
Administrative and support and waste management services	1%	1%	1%
Educational services, and health care and social assistance:	10%	11%	8%
Educational services	4%	5%	2%
Health care and social assistance	6%	6%	5%
Arts, entertainment, and recreation, and accommodation and food services:	3%	3%	4%
Arts, entertainment, and recreation	1%	0%	0%
Accommodation and food services	3%	2%	4%
Other services, except public administration	2%	1%	2%
Public administration	2%	3%	2%

Source American Community Survey 2013-2017

Environmental Consequences

There will be no impact to the social economic settings by updating the MP. The planned revision only seeks to reclassify land uses names to better recognize the regionally important resources and enhance regional stewardship goals. There will be no invasive work done at the Project.

3.9.2 Environmental Justice

Affected Environment

In February 1994 President Clinton signed Executive Order 12898, entitled “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.” This EO directs Federal agencies “to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of programs, policies, and activities on minority populations and low income populations in the United States.” The purpose of this order is to avoid the disproportionate placement of adverse environmental economic, social, or health impacts from Federal actions and policies on minority and low-income populations. In order to prevent the potential for discrimination and disproportionately high and adverse effects on specific populations, a process must identify minority and low-income populations that might be affected by the implementation of a proposed action or alternatives.

As defined by the “Environmental Justice Guidance Under NEPA” (CEQ, 1997), “minority populations” includes persons who identify themselves as Asian or Pacific Islander, Native American or Alaskan Native, Black (not of Hispanic origin), or Hispanic. Race refers to Census respondents’ self-identification of racial background. Hispanic origin refers to ethnicity and language, not race, and may include persons whose heritage is Puerto Rican, Cuban, Mexican, Central or South American.

A minority population exists where the percentage of minorities in an affected area either exceeds 50% or is meaningfully greater than in the general population. Low-income

populations are identified using the Census Bureau’s statistical poverty threshold, which is based on income and family size. The Census Bureau defines a “poverty area” as a census tract with 20% or more of its residents below the poverty threshold and an “extreme poverty area” as one with 40% or more below the poverty level.

As of the census of 2010, there were 45,913 people residing in Huntingdon County. The racial makeup of the county was 92.5% White, 5.2% African American, 0.4% Asian, 0.1% Native American, 1.6% Hispanic or Latino, and 0.9% from two or more races (U.S. Census Bureau, 2010). The median household income reported in 2017 in Huntingdon County \$46,765. The per capita income was \$22,908. About 14.9% of the population were below the poverty level (U.S. Census Bureau, 2019).

The area is not considered to be one of poverty or of a minority population.

Environmental Consequences

The Project area is not considered to be an area of concentrated poverty. The proposed action would not result in an impact to these populations of concern.

3.10 Air Quality

Affected Environment

According to the U.S. Environmental Protection Agency, Huntingdon County is in attainment for all of the National Ambient Air Quality Standards: sulfur dioxide, carbon monoxide, lead, nitrogen dioxide, 8-hour ozone, 2.5 micrometer particulate matter, and 10 micrometer particulate matter (USEPA, 2019). The Project area is primarily rural and exhibits good air quality. Presently there are no factors that adversely affect the air quality in the Project area.

Environmental Consequences

There will be no impact to the air quality by updating the MP.

3.11 Climate Change

Affected Environment

The report titled “Pennsylvania Climate Impacts Assessment Update” indicates that annual mean temperatures in Pennsylvania may increase between 2.5°F and 6.5°F by mid-century (2041-2070), depending on the climate scenario and model employed (Shortle et. al., 2015). These increases are not projected to vary significantly by season. The climate models also project increases in average annual precipitation in Pennsylvania on the order of 10% by mid-century. Increases in precipitation are projected to occur throughout the year, with somewhat larger increases in the winter (around 15%) than the summer (around 5%). Thus, by the middle of the century, the climate of Pennsylvania is projected to be significantly different, and agricultural production systems will have to adapt to a changing climate.

The primary sources of energy-related greenhouse gas emissions in Pennsylvania continue to be associated with the electric power, transportation and industrial sectors. The burning of fossil fuels for space conditioning in homes or commercial buildings also contributes, but these effects are small by comparison, particularly since the majority of homes in Pennsylvania use natural gas for heating.

The increased use of natural gas for power generation in Pennsylvania, relative to coal and petroleum, has led to a decline in the greenhouse-gas footprint of Pennsylvania's electric generation sector. It has likely also led to an increase in the greenhouse-gas footprint of Pennsylvania's natural gas production sector, due to methane leakage across various portions of the production and delivery chain. While these leakages are difficult to quantify with precision, the Pennsylvania DEP has estimated 10 tons per year for the average drilling site in the Commonwealth in 2013 (PA DEP, 2015). Transportation-related emissions have also exhibited a decline since the 2011 PCIA update, in large part due to lower consumption figures for gasoline and diesel fuel reported by the U.S. Energy Information Administration.

Environmental Consequences

Updating the MP will have no impact on climate change. No intrusive work will be performed as a result of this update. Climate change does not currently impact land use classifications, but in the event that it does, future MP revisions will address the issue.

3.12 Health and Safety

Affected Environment

In accordance with the "Hazardous, Toxic and Radioactive Waste (HTRW) Guidance for Civil Works Projects", dated 26 June 1992, a preliminary HTRW assessment was conducted for Project lands at Raystown Lake. The U.S. Environmental Protection Agency's (EPA) Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) was consulted to determine the presence of current HTRW sites within Bedford County and Huntingdon County, Pennsylvania. A total of 26 sites were identified in the two counties. None of these sites are on project lands.

There are seven utility corridors established at the Project: five pipelines which cross Project lands, and two electric transmission lines. These corridors transport natural gas, petroleum products, and electricity.

There are numerous aboveground and underground storage tanks on project lands. These tanks store various substances, from potable water to diesel fuel, propane, and heating oil. All underground storage tanks are registered with the Federal and State governments and are periodically checked for leaks.

The use of pesticides and fertilizers on Project lands and waters are limited to specific contractual actions. No pesticides or fertilizers, other than over the counter pre-mixed sprays or granular products, are stored on Project lands. All applications of pesticides follow Commonwealth of Pennsylvania regulations for applications and disposals and must utilize certified applicators.

Environmental Consequences

There will be no impact to human health and safety by updating the MP.

3.13 Cumulative Impacts

Affected Environment

A cumulative effect is defined as the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable

future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a long period of time (40 CFR Part 1508.7). The following analysis abides by the NEPA, CEQ Considering Cumulative Effects under NEPA (CEQ, 1997), and Guidance on the Consideration of Past Actions in Cumulative Effects Analysis (CEQ, 2005) (Table 3-10).

Environmental Consequences

The Project will continue to provide recreation benefits to the region. These benefits may come at the cost of atmospheric and aquatic pollution, infrastructure maintenance, and minor environmental disturbances. USACE land management assists with maintaining the natural environment through wildlife, vegetation, and developmental management.

Huntingdon County has plans to develop important infrastructure in the county, including water treatment, sewers, public buildings, transportation, utilities, telecommunications, and recreation facilities. These improvements could make use of the Project even more enticing and potentially increase annual visitation. Lack of these improvements would see the Project functioning in the same manner.

The PA DEP has listed two stream systems directly connected to Raystown Lake as category 5. There are multiple other streams within the watershed also listed. Category 5 streams are waters impaired for one or more uses by a pollutant that requires the development of a Total Maximum Daily Load (TMDL). If these stream systems receive some type of remedy the cumulative impact could benefit water quality and sediment load in Raystown Lake and downstream.

The MP revision will refine current management of Project lands. The proposed action will continue to protect the environment as well as provide flood risk management, hydroelectric power, and recreational benefits. The Project will continue to be a place where nature is allowed to thrive with limited disturbances from humans. Therefore, no increase in cumulative impacts would occur as a result of this MP revision.

Table 3-10 Cumulative Impacts

Resource	Proposed Action	No Action
Climate	No Impact	No Impact
Topography, Physiography and Geology	No Impact	No Impact
Land Use	Minor Impact	No Impact
Vegetation, Soils and Prime Farmland	No Impact	No Impact
Wildlife and Migratory Birds	No Impact	No Impact
Fisheries	No Impact	No Impact
Wetlands and Surface Waters	No Impact	No Impact
Wild and Scenic Rivers	No Impact	No Impact
Waters of the U.S.	No Impact	No Impact
Water Quality	No Impact	No Impact
Invasive Species	No Impact	No Impact
Threatened and Endangered Species	No Impact	No Impact
Archeological and Historic Resources	No Impact	No Impact
Socioeconomic Resources	No Impact	No Impact

Air Quality	No Impact	No Impact
Climate Change	No Impact	No Impact
Health and Safety	No Impact	No Impact
Cumulative Impacts	No Impact	No Impact

SECTION 4 – APPLICABLE FEDERAL LAWS

This EA has been prepared to satisfy the requirements of all applicable environmental laws and regulations, and has been prepared in accordance with the CEQ's implementing regulations for NEPA, 40 CFR Parts 1500 – 1508, and USACE Regulation ER 200-2-2, Environmental Quality: Procedures for Implementing NEPA. The revision of the master plan is consistent with the USACE's Environmental Operating Principles. Public and agency coordination was conducted in accordance with NEPA guidance and can be found in Appendix B of this EA. The following is a list of applicable environmental laws, regulations, and applicable amendments that were considered in the planning of this project and the status of compliance with each:

National Environmental Policy Act of 1969 – This EA has been prepared in accordance with Council on Environmental Quality regulations for implementing NEPA. The environmental and social consequences of master plan revision have been analyzed in accordance with NEPA and presented in the assessment.

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

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

Flood Control Act of 1938 - This act authorizes the construction, repair, and preservation of certain public works on rivers and harbors for navigation, flood control, and for other purposes.

Title 16 U.S. Code §§ 668-668a-d. 54 Stat. 250. Bald Eagle Protection Act of 1940. as amended - 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.

Flood Control Act of 1944 - Section 4 of the act as last amended in 1962 by Section 207 of Public Law 87-874 authorizes USACE to construct, maintain, and operate public parks and recreational facilities in reservoir areas and to grant leases and licenses for lands, including facilities, preferably to Federal, State or local governmental agencies. This act also authorized the creation of the Southwestern Power Administration, then within the Department of the Interior and currently within the Department of Energy, as the agency responsible for marketing and delivering the power generated at Federal reservoir projects.

River and Harbor Act of 1946 - This act authorizes the construction, repair, and preservation of certain public works on rivers and harbors for navigation, flood control, and for other

purposes.

Flood Control Act of 1954 - This act authorizes the construction, maintenance, and operation of public park 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.

Endangered Species Act 1973 – This act provided for the conservation of ecosystems upon which threatened and endangered species of fish, wildlife, and plants depend.

Fish and Wildlife Coordination Act 1934 - This act as amended in 1965 sets down the general policy that fish and wildlife conservation shall receive equal consideration with other project purposes and be coordinated with other features of water resource development programs. Opportunities for improving fish and wildlife resources and adverse effects on these resources shall be examined along with other purposes which might be served by water resources development.

SECTION 5 – FEDERAL, STATE, AND LOCAL AGENCY COORDINATION

The EA was coordinated with the following agencies having legislative and administrative responsibilities for environmental protection: U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, U.S. Department of Transportation Federal Highway Administration, U.S. Department of Agriculture Natural Resources Conservation Service, Federal Emergency Management Agency, National Park Service, Pennsylvania Department of Environmental Protection, Pennsylvania Natural Heritage Program, Pennsylvania Department of Conservation and Natural Resources, Pennsylvania Game Commission, Pennsylvania Fish and Boat Commission, Huntingdon County Commissioners, and Bedford County Commissioners. A copy of the correspondence from the agencies that provided comments and planning assistance for preparation of the EA are in the appendices. The mailing list for the 30-day public review periods for this EA is in Appendix C.

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Appendix A

Alternatives Comparison to Key Selection Criteria

Land Classification Determination

To determine land classification for the Raystown Lake Master Plan Revision, the items listed below were evaluated for **ALL** zones. The team felt it extremely important to evaluate all acres of both land and water using the same criteria and question process. The team focused on an overarching concept “is there a compelling justification to change from the current classification”.

In addition to the items below, for the classification determination of Hawn’s Bridge Peninsula, the team utilized a generalized conceptual framework, which focused on four primary components, as follows, with examination and analysis of past, present, and future environmental, recreational and socioeconomic conditions and trends. The Master Plan objectives were individually evaluated to determine benefits and detriments in potential re-classification. Check sheet attached.

- Regional and ecosystem needs,
- Project resource capabilities and suitability,
- Expressed public interests that are compatible with Raystown Lake’s authorized purposes, and
- Environmental sustainability elements.

Evaluation Criteria

- 1. Review current land classification (1994 Master Plan).**
 - a. Have there been changes since the 1994 plan?
 - b. Does this classification meet the current public and resource needs?
 - c. Is there a compelling justification to change from the current classification?
- 2. Review current features (recreation/stewardship/operations).**
 - a. Have there been changes since the 1994 plan?
 - b. Do the current features meet the current public and resource needs?
 - c. Is there a compelling justification to change (reduce/increase/rehabilitate) features?
- 3. Review proposed development identified in the 1994 MP.**
 - a. Have there been changes to future development proposed in the 1994 MP?
 - b. What has been accomplished?
 - c. What is still needed?
 - d. What is no longer appropriate or needed?
 - e. Does the proposed development meet the current public and resource needs?
 - f. Is there a compelling justification to change (reduce/increase/rehabilitate) features?
 - Post classification example: The potential future development of the Hopewell Heritage Center was removed during the revision process. The Upper Corners potential future development was retained during the revision process. Further justification can be provided if needed.
- 4. Review ERDC Biological Inventory (Shale Barren Plants/Shale Barren Moths/SSS Bats/Freshwater Invertebrates-Moths and Damselflies).**
 - a. Does the presence/absence of these species require a change in land classification?
 - b. Does the presence/absence of these species require specific management?
- 5. Review Draft Boating Study.**
 - a. Do the capacity results require safety consideration in land use classification changes and water surface classifications?

- b. Do the capacity results require consideration to boating capacity that would influence the development of additional recreation opportunities?
 - c. Does the public survey results require consideration of land classification, water surface classification, identify a need for additional recreation features, or a limitation on new recreation features?
- 6. Review Public Comments (Evaluate from the position of the 4 Questions asked to the public)**
- a. Did the public identify the need for new recreation opportunities in this zone/land tract?
 - b. Did the public identify the need for new environmental stewardship opportunities in this zone/land tract?
 - c. Did the public express concerns related to this zone/land tract?
 - d. Did the public identify a value in this zone/land tract?
- 7. Review Public Brainstorm Session Comments (4 Questions asked to the public).**
- a. Did the public identify the need for new recreation opportunities in this zone/land tract?
 - b. Did the public identify the need for new environmental stewardship opportunities in this zone/land tract?
 - c. Did the public express concerns related to this zone/land tract?
 - d. Did the public identify a value in this zone/land tract?
- 8. Review RLP Forest Management EA & Forest Management Plan.**
- a. Review current land management practices conducted and planned.
- 9. Review RLP Biological Opinion for Forest Dwelling Bat Species.**
- a. Review BO requirements.
- 10. Review other submitted or existing research.**
- a. Does the submitted or existing research contain information in any of these documents that indicate special considerations of land classification?
 - Juniata College Field Station Plan
 - Turtles of the Raystown Lake Project
 - Pennsylvania Striped Bass Association – Comments on the Raystown Master Plan Revision, Boat Study, and Boating Safety Considerations
 - Pennsylvania Striped Bass Association – Comments and Concerns
 - Huntingdon County Heritage Inventory
 - Pennsylvania Statewide Comprehensive Outdoor Recreation Plan (SCORP)
- 11. Additional References Utilized.**
- a. 1976 Master Plan (Note: The team agreed that the 1994 Master Plan superseded the 1976 Master Plan. The 1994 Master Plan was developed after 20 years of operation of the project – it was felt that it included the practical operation and maintenance that may not have been considered during initial MP development. Additionally, the 1994 MP included extensive public comment, input, and evaluation to incur changes from the original MP. The 1976 Master Plan was not evaluated – simply used as a reference.)
 - b. RLP Design Memorandums
 - c. WIIN Act
 - d. 1988 Boat Capacity Study

Justification for the Proposed Land Use Classification

Land Classification	Proposed Action Description	Justification
Project Operations	Decrease in Project Operations from 4,000 acres to 241.71 acres.	The decrease in Project Operations is due to a number of different factors, including an error in the 1994 Plan and improvements in geographical measurement technology. These lands are used in support of critical operation and maintenance activities. These include lands around Raystown's Dam, Administration Building, and Maintenance Compound.
High Density Recreation	Lands under the prior classification of Recreation were converted to the new and similar classification of High Density Recreation.	Changes to the High Density Recreation land classification acreages were the result of improvements and alignment with current use. While there is a net reduction in measured lands, no High Density Recreation Areas were removed. The relabeling of these lands will have no effect on current or projected public use.
Mitigation	Mitigation lands are managed by the PA Game Commission and have not changed.	Acreage differences are due to use of GIS technology and do not reflect the official land acquisition records.
Environmentally Sensitive Areas	<p>The decrease in Environmentally Sensitive Areas from 2,300 acres to 507.82 acres resulted from the following actions:</p> <ul style="list-style-type: none"> • The Juniata College lease area was removed from this classification and was classified as MRM – Wildlife Management. • Historic shale barren habitats were surveyed by the USACE Research and Developmental team (ERDC). 	<p>These classification changes were necessary for the following reasons:</p> <ul style="list-style-type: none"> • The Juniata College Field Station does not meet the definition of Environmentally Sensitive Areas. This land is primarily used for education and research. This resulted in a reduction of about 362 acres. • Historic shale barrens that were surveyed and determined to not be shale barren habitat were removed from this classification. Historic shale barrens that were not surveyed remained within this classification. Historic shale barrens that were identified as shale barren habitat were more accurately identified and their boundaries refined.
MRM – Low Density Recreation	The 1994 Master Plan did not identify specific polygons or acreages for MRM - Low Density Recreation.	Lands that are predominately used for passive public recreation were identified. These lands include

		trail systems, trailheads, islands and overlooks.
MRM – Wildlife Management	The 1994 Master Plan did not identify specific polygons or acreages for MRM – Wildlife Management.	Lands that are designated for stewardship of fish and wildlife resources were identified. These lands include 3 Bat Conservation Areas; as well as the Gate 35, High Germany and Bowsers Orchard Wildlife Management areas.
MRM – Vegetative Management	The 1994 Master Plan did not identify specific polygons or acreages for MRM – Vegetative Management.	Lands that are designated for stewardship of forest and other native vegetative cover were identified. These lands include forest management polygons identified in Raystown’s Forest Management EA.
MRM – Future or Inactive Recreation Areas	The 1994 Master Plan did not identify specific polygons or acreages for MRM - Future or Inactive Recreation Areas.	Lands that have site characteristics compatible with potential future recreational development were identified. Seven polygons are within this classification.
Water Surface	<p>The 1994 Master Plan did not classify water surface acreage. The classification of 8,332.49 acres of water surface of the lake at the conservation pool elevation is as follows:</p> <ul style="list-style-type: none"> • 236.39 acres of Restricted water surface at Raystown Lake include water upstream and downstream of the dam, Juniata College inlet, the existing no-ski area, USACE Boat House and 3 swimming areas. • 2,032.33 acres of Designated No-Wake areas are in place to include water surface near the dam, boat launches, multiple inlets and marinas. • 43.70 acres of Fish and Wildlife Sanctuary are identified in one location to the south of the Aitch recreation area. 	<p>Restricted water surface includes areas where recreational boating is prohibited or restricted for project operations, safety and security purposes.</p> <p>Designated No-Wake areas are intended to protect environmentally sensitive shorelines, improve boating safety near key recreational features such as boat ramps and shoreline camp sites, and be responsive to public comments.</p> <p>Open Recreation areas encompass the majority of the lake water surface and are open to general recreational boating. Boaters are advised through maps and brochures, or signs at boat ramps and marinas, that navigational hazards may be present at any time and at any location in these areas.</p> <p>Operation of a boat in these areas is at the owner’s risk. Specific navigational hazards may or may not be marked with a buoy.</p>

	<ul style="list-style-type: none">• There are 6,020.04 acres of Open Recreation water surface at Raystown Lake.	
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Appendix B

National Environmental Policy Act Coordination Documentation



DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, CORPS OF ENGINEERS
2 HOPKINS PLAZA
BALTIMORE, MARYLAND 21201

Planning Division

Mr. Patrick McDonnell, Secretary
Pennsylvania Department of Environmental Protection
Rachel Carson State Office Building
400 Market Street
Harrisburg, Pennsylvania 17101

Dear Mr. McDonnell:

The U.S. Army Corps of Engineers, Baltimore District (USACE-Baltimore) is in the process of updating the Master Plan for the Raystown Lake Project, which is a USACE facility located on the Raystown Branch of the Juniata River, in Huntington and Bedford Counties, Pennsylvania (Enclosure). The Raystown Lake Project was authorized by the Flood Control Act of 1962, and was constructed, and is managed, by USACE for the purposes of flood control (flood damage reduction), mitigation/augmentation of water quality, hydropower, recreation and fish and wildlife preservation. Raystown Lake Dam is vital to the protection of downstream communities along the Juniata River and is critical to the comprehensive flood control plan of the Susquehanna River basin. The Raystown Lake Project also has an active natural resource program with a goal to maintain and enhance the quality of existing resources. The Raystown Lake Project encompasses 29,314 acres, including the dam and reservoir area and the federal land downstream of the dam. The reservoir is approximately 30 river miles long and covers a distance of approximately 20 miles, "as the crow flies." Raystown Lake is the largest lake located entirely in Pennsylvania, consists of 8,300 acres of surface waters, and is surrounded by 21,000 acres of forested mountain slopes.

USACE-Baltimore is preparing an environmental assessment (EA) for the Master Plan revisions in accordance with the National Environmental Policy Act of 1969, as amended. USACE-Baltimore is coordinating this action with federal, state, and local government agencies, as well as the public to acquire information that may affect and assist us with the preparation of the EA associated with the Master Plan revision. The draft EA is expected to be publicly released in fall 2019.

Please provide any information or concerns that your agency may have, that will assist us with proper preparation of the EA, within 30 days of the date of this letter. Also, please include a point of contact with your submittal. A public notice announcing the initiation and preparation of the draft EA is also being posted to the following website:
<http://www.nab.usace.army.mil/Home/Public-Notices/Ops-Public-Notices/>.

If you have any questions, please contact Major Terrence Harrington by phone at (410) 962-1846 and by e-mail at Terrence.G.Harrington@usace.army.mil, or Ms. Tarrie Ostrofsky by e-mail at tarrie.l.ostrofsky@usace.army.mil. Additionally, questions may be mailed to U.S. Army Corps of Engineers, Planning Division, Subject: Raystown Project, 2 Hopkins Plaza, Baltimore, MD 21201.

Sincerely,

Daniel M. Bierly, P.E.
Chief, Civil Project Development Branch

Enclosure

1: Project map

CC:

Mr. Joseph Adams, Regional Director
Pennsylvania Department of Environmental Protection
South Central (Harrisburg) Regional Office
909 Elmerton Avenue
Harrisburg, Pennsylvania 17110

CF:
CPD READING FILE

OSTROFSKY/CENAB-PL-P
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GOMEZ/CENAB-PL-P
BIERLY/CENAB-PL-P

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DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, CORPS OF ENGINEERS
2 HOPKINS PLAZA
BALTIMORE, MARYLAND 21201

Planning Division

Mr. Greg Podniesinski
Pennsylvania Natural Heritage Program
400 Market Street
Harrisburg, Pennsylvania 17105

Dear Mr. Podniesinski:

The U.S. Army Corps of Engineers, Baltimore District (USACE-Baltimore) is in the process of updating the Master Plan for the Raystown Lake Project, which is a USACE facility located on the Raystown Branch of the Juniata River, in Huntington and Bedford Counties, Pennsylvania (Enclosure). The Raystown Lake Project was authorized by the Flood Control Act of 1962, and was constructed, and is managed, by USACE for the purposes of flood control (flood damage reduction), mitigation/augmentation of water quality, hydropower, recreation and fish and wildlife preservation. Raystown Lake Dam is vital to the protection of downstream communities along the Juniata River and is critical to the comprehensive flood control plan of the Susquehanna River basin. The Raystown Lake Project also has an active natural resource program with a goal to maintain and enhance the quality of existing resources. The Raystown Lake Project encompasses 29,314 acres, including the dam and reservoir area and the federal land downstream of the dam. The reservoir is approximately 30 river miles long and covers a distance of approximately 20 miles, "as the crow flies." Raystown Lake is the largest lake located entirely in Pennsylvania, consists of 8,300 acres of surface waters, and is surrounded by 21,000 acres of forested mountain slopes.

USACE-Baltimore is preparing an environmental assessment (EA) for the Master Plan revisions in accordance the National Environmental Policy Act of 1969, as amended. USACE-Baltimore is coordinating this action with federal, state, and local government agencies, as well as the public to acquire information that may affect and assist us with the preparation of the EA associated with the Master Plan revision. The draft EA is expected to be publicly released in fall 2019.

Please provide any information or concerns that your agency may have, that will assist us with proper preparation of the EA, within 30 days of the date of this letter. Also, please include a point of contact with your submittal. A public notice announcing the initiation and preparation of the draft EA is also being posted to the following website:
<http://www.nab.usace.army.mil/Home/Public-Notices/Ops-Public-Notices/>.

If you have any questions, please contact Major Terrence Harrington by phone at (410) 962-1846 and by e-mail at Terrence.G.Harrington@usace.army.mil, or Ms. Tarrie Ostrofsky by e-mail at tarrie.l.ostrofsky@usace.army.mil. Additionally, questions may be mailed to U.S. Army Corps of Engineers, Planning Division, Subject: Raystown Project, 2 Hopkins Plaza, Baltimore, MD 21201.

Sincerely,

Daniel M. Bierly, P.E.
Chief, Civil Project Development Branch

Enclosure

1: Project map

CF:
CPD READING FILE

OSTROFSKY/CENAB-PL-P
KENNEDY/CENAB-OP
BROWN/CENAB-OP
GOMEZ/CENAB-PL-P
BIERLY/CENAB-PL-P

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DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, CORPS OF ENGINEERS
2 HOPKINS PLAZA
BALTIMORE, MARYLAND 21201

Planning Division

Mr. Robert Anderson
U.S. Fish and Wildlife Service
Pennsylvania Field Office
110 Radnor Road, Suite 322
State College, Pennsylvania 16801

Dear Mr. Anderson:

The U.S. Army Corps of Engineers, Baltimore District (USACE-Baltimore) is in the process of updating the Master Plan for the Raystown Lake Project, which is a USACE facility located on the Raystown Branch of the Juniata River, in Huntington and Bedford Counties, Pennsylvania (Enclosure 1). The Raystown Lake Project was authorized by the Flood Control Act of 1962, and was constructed, and is managed, by USACE for the purposes of flood control (flood damage reduction), mitigation/augmentation of water quality, hydropower, recreation and fish and wildlife preservation. Raystown Lake Dam is vital to the protection of downstream communities along the Juniata River and is critical to the comprehensive flood control plan of the Susquehanna River basin. The Raystown Lake Project also has an active natural resource program with a goal to maintain and enhance the quality of existing resources. The Raystown Lake Project encompasses approximately 29,314 acres, including the dam and reservoir area and the federal land downstream of the dam. The reservoir is approximately 30 river miles long and covers a distance of approximately 20 miles, "as the crow flies." Raystown Lake is the largest lake located entirely in Pennsylvania, consists of 8,300 acres of surface waters, and is surrounded by 21,000 acres of forested mountain slopes.

USACE-Baltimore is preparing an environmental assessment (EA) for the Master Plan revisions in accordance with the National Environmental Policy Act of 1969, as amended. USACE-Baltimore is coordinating this action with federal, state, and local government agencies, as well as the public to acquire information that may affect and assist us with the preparation of the EA associated with the Master Plan revision. The purpose of this letter is to inform your office of the assessment and to solicit U.S. Fish and Wildlife Service (USFWS) input pursuant to the Fish and Wildlife Coordination Act (FWCA) and Endangered Species Act (ESA). The draft EA is expected to be publicly released in fall 2019.

To evaluate potential effects to federally listed species under the jurisdiction of USFWS, USACE-Baltimore utilized the Information, Planning, and Conservation (IPaC) web site (<http://ecos.fws.gov/ipac/>) on July 9, 2018, to generate a draft IPaC resources list (Consultation Code: 05E2PA00-2018-SLI-1280) (Enclosure 2) for the project's boundaries using an uploaded Shape file. The draft IPaC resource list identifies two federally listed endangered species,

one federally listed threatened species, 14 migratory birds, multiple wetland types, riverine systems, and open waters as occurring within the project boundaries. The federally listed species include the endangered Indiana bat (*Myotis sodalists*), threatened Northern long-eared bat (*Myotis septentrionalis*), and endangered Northeastern bulrush (*Scirpus ancistrochaetus*). No critical habitats were identified on the resource list as being within the project boundaries. The migratory birds, protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act, include the bald eagle (*Haliaeetus leucocephalus*), black-billed cuckoo (*Coccyzus erythrophthalmus*), black-capped chickadee (*Poecile atricapillus praticus*), bobolink (*Dolichonyx oryzivorus*), Canada warbler (*Cardellina Canadensis*), cerulean warbler (*Dendroica cerulean*), eastern whip-poor-will (*Antrostomus vociferous*), golden-winged warbler (*Vermivora chrysoptera*), northern saw-whet owl (*Aegolius acadicus acadicus*), prairie warbler (*Dendroica discolor*), red-headed woodpecker (*Melanerpes erythrocephalus*), rusty blackbird (*Euphagus carolinus*), wood thrush (*Hylocichla mustelina*), and yellow-bellied sapsucker (*Sphyrapicus varius*). The wetlands include freshwater palustrine forested, scrub-shrub, and emergent wetlands; freshwater pond, freshwater lake, and freshwater riverine systems.

Additionally, USACE-Baltimore utilized the Pennsylvania Natural Heritage Program, Pennsylvania Conservation Explorer website (<https://conservationexplorer.dcnr.pa.gov/>) to generate a draft Pennsylvania Natural Diversity Inventory (PNDI) Report (Project Search ID: PNDI-661402) (Enclosure 3) for the project's boundaries using an uploaded Shapefile. The results of the Draft PNDI indicate that further review of the project is necessary by the Pennsylvania Game Commission, Pennsylvania Department of Conservation and Natural Resources, Pennsylvania Fish and Boat Commission, and USFWS.

USACE-Baltimore is requesting any information your office has on the presence of federally protected species of animals and plants listed by Section 7 of the ESA within the study area of review. Please provide this information within 30 days of the date of this letter. Additionally, we would like to discuss the appropriate level of involvement for the USFWS pursuant to the FWCA (i.e., technical services, planning aid letter, or FWCA report). Please provide us with a point of contact for FWCA activities and collaborative planning on this project. A public notice announcing the initiation and preparation of the draft EA is also being posted to the following website: <http://www.nab.usace.army.mil/Home/Public-Notices/Ops-Public-Notices/>.

If you have any questions, please contact Major Terrence Harrington by phone at (410) 962-1846 and by e-mail at Terrence.G.Harrington@usace.army.mil, or Ms. Tarrie Ostrofsky by e-mail at tarrie.1.ostrofsky@usace.army.mil. Additionally, questions may be mailed to U.S. Army Corps of Engineers, Planning Division, Subject: Raystown Project, 2 Hopkins Plaza, Baltimore, MD 21201.

Sincerely,

Daniel M. Bierly, P.E.
Chief, Civil Project Development Branch

Enclosures

- 1: Study Area Map
- 2: IPaC Draft Resource List
3. PNDI Draft Report

Copies Furnished:

Pennsylvania Game Commission
Bureau of Wildlife Habitat Management
Attn: Mr. Pete Sussenbach
2001 Elmerton Avenue
Harrisburg, PA 17110

Pennsylvania Game Commission
South Central Office
Attn: Messrs. Robert Einodshofer, Brad Myers, & Chris Skipper
8627 William Penn Highway
Huntingdon, PA 16652

Pennsylvania Department of Conservation and Natural Resources
Bureau of Forestry, Ecological Services Section
Attn: Rachel Reyna
400 Market Street
Harrisburg, PA 17105

Pennsylvania Fish and Boat Commission
Bureau of Wildlife Habitat Management
Attn: Mr. Ben Page
450 Robinson Lane
Bellefonte, PA 16823

Pennsylvania Fish and Boat Commission
Attn: Messrs. Alan Robinson & Anthony Quarricino
1704 Pine Road
Newville, PA 17241

CF:
CPD READING FILE

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KENNEDY/CENAB-OP
BROWN/CENAB-OP
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BIERLY/CENAB-PL-P

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**US Army Corps
of Engineers**
Baltimore District

Planning Division
Public Notice

Raystown Lake Project Master Plan Revision and Environmental Assessment

All Interested Parties: The U.S. Army Corps of Engineers, Baltimore District (USACE-Baltimore) is in the process of updating the Master Plan for the Raystown Lake Project, a USACE facility located on the Raystown Branch of the Juniata River, in Huntington and Bedford Counties, Pennsylvania. USACE is preparing an environmental assessment in accordance with the National Environmental Policy Act of 1969, as amended, to assess the impact of the Master plan Revision to the human environment.

The Raystown Lake Project was authorized by the Flood Control Act of 1962, and was constructed, and is managed, by USACE for the purposes of flood control (flood damage reduction), mitigation/augmentation of water quality, hydropower, recreation and fish and wildlife preservation. Raystown Lake Dam is vital to the protection of downstream communities along the Juniata River and is critical to the comprehensive flood control plan of the Susquehanna River basin. The Raystown Lake Project also has an active natural resource program with a goal to maintain and enhance the quality of existing resources. The Raystown Lake Project encompasses 29,314 acres, including the dam and reservoir area and the federal land downstream of the dam. The reservoir is approximately 30 river miles long and covers a distance of approximately 20 miles, "as the crow flies." Raystown Lake is the largest lake located entirely in Pennsylvania, consists of 8,300 acres of surface waters, and is surrounded by 21,000 acres of forested mountain slopes.

Public meetings will be held at the Raystown Lake Visitor's Center on August 11 and 12, 2018 for the purpose of providing the public a better opportunity for submitting their ideas, comments, and feedback on the Master Plan revision and process. Updates for the public meetings may be found on the following site: <http://www.nab.usace.army.mil/Raystown-Master-Plan-Revision/>.

The draft EA is expected to be publicly released in Fall 2019. The purpose of this notice is to inform the public of the initiation of the preparation of an EA the Raystown Lake Project Master Plan. We request that federal and state agencies provide information concerning interests within your organization's area of responsibility or expertise, and the public provide information which may be pertinent to this assessment, to an address listed below, within 30 days from the date of this notice. A timely review of the enclosed map and a written response will be greatly appreciated and will assist us with preparation of the EA.

If you have any questions, please contact Major Terrence Harrington at (410) 962-1846 and by e-mail at Terrence.G.Harrington@usace.army.mil, or Ms. Tarrie Ostrofsky by e-mail at Tarrie.L.Ostrofsky@usace.army.mil. Additionally, questions may be mailed to U.S. Army Corps of Engineers, Planning Division, Subject: Raystown Project, 2 Hopkins Plaza, Baltimore, MD 21201.

Daniel M. Bierly, P.E.
Chief, Civil Project Development Branch

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KENNEDY/CENAB-OP
BROWN/CENAB-OP
GOMEZ/CENAB-PL-P
BIERLY/CENAB-PL-P

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DEPARTMENT OF THE ARMY
U.S. Army Engineer District, Baltimore
Planning Division
2 Hopkins Plaza
Baltimore, Maryland 21201

Official Business



Absentee Shawnee Tribe of Indians of Oklahoma
Cultural/Tribal Historic Preservation Department
2025 S. Gordon Cooper Dr.
Shawnee, Oklahoma 74801
Phone: (405) 275-4030 ext. 6243

October 3, 2018

Re: Raystown Lake Project Master Plan Revision and Environmental Assessment

To Whom It May Concern:

My name is Devon Frazier, and I am the Tribal Historic Preservation Officer for the federally-recognized *Absentee Shawnee Tribe of Indians of Oklahoma*. In this capacity, I am the Tribe's point of contact for all Section 106 and NAGPRA issues. Our office received your letter on August 13, 2018, regarding the above referenced project in Huntingdon and Bedford Counties, Pennsylvania.

As described in your correspondence, and after research and review through our database and files, the Absentee Shawnee Tribe offers no objection to the proposed project at this time. However—as the site is within aboriginal Shawnee homelands, and has proximity to an existing historically significant site (see citation below)—we request a copy of the SHPO's report and any further archaeological surveys performed as the project moves forward. Please email all documentation to 106NAGPRA@atribe.com. We also strongly advise the use of archaeological and/or tribal monitoring during ground disturbing activities.

Should this project inadvertently discover archaeological evidence, or any human remains and/or cultural items liable under the Native American Graves Protection and Repatriation Act (NAGPRA), we request immediate notification and consultation with the entity of jurisdiction for the location of the discovery. We also ask that all construction and ground disturbing activity stop, and any advertent discovery of human remains and/or cultural items remain in situ, until the interested Tribe(s) and State agencies are consulted. In such case, please contact me by my office phone at 405-275-4030 (ext. 6243) or by email 106NAGPRA@atribe.com.

The Absentee Shawnee Tribe requests to serve as a consulting party to the above-mentioned project. As the Tribal Historic Preservation Officer, I am the point of contact for consultation. Thank you for contacting the *Absentee Shawnee Tribe of Indians of Oklahoma*; we appreciate your cooperation.

Best Regards,

Ms. Devon Frazier
Tribal Historic Preservation Officer
Absentee Shawnee Tribe of Oklahoma
2025 Gordon Cooper Drive, Shawnee, OK 74801
405.275.4030 ext. 6243
(E) 106NAGPRA@atribe.com

Citation—

Tanner, Helen Hornbeck, ed. *Atlas of Great Lakes Indian History*. Norman: University of Oklahoma Press, 1987. Pg. 40.

Penna's History of Indiana County (Newark, Ohio, 1880), 132, 249.

Elkin, Cortlandt WW. "The Early Settlement of Indiana County, Pennsylvania." *Western Pennsylvania History*: 1918-2013 18, no. 4 (1935): 269.



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pennsylvania Field Office
110 Radnor Road, Suite 101
State College, Pennsylvania 16801-4850



September 21, 2018

Daniel Bierly
U.S. Army Corps of Engineers
Baltimore District
Planning Division
2 Hopkins Plaza
Baltimore, MD 21201

RE: USFWS Project #2018-1280
PNDI #661402_FINAL_1

Dear Mr. Bierly:

This responds to your letter of August 7, 2018, requesting information about federally listed and proposed, endangered and threatened species within the area affected by the proposed environmental assessment for the updated master plan for the Raystown Lake project located in Huntingdon and Bedford Counties, Pennsylvania. The project is within the known range of the federally endangered Indiana bat (*Myotis sodalis*), the northern long-eared bat (*Myotis septentrionalis*), a species federally listed as threatened, and northeastern bulrush (*Scirpus ancistrochaetus*), a federally listed endangered plant. It is also within the range of known bald eagle (*Haliaeetus leucocephalus*) nests. The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of endangered and threatened species, and the Bald and Golden Eagle Protection Act (54 Stat. 250, as amended; 16 U.S.C. 668-668d) to ensure the protection of eagles.

Indiana Bat

Raystown Lake is within the swarming radius of two Indiana bat hibernacula. Studies have found that forested areas provide important foraging and roosting habitat for Indiana bats, especially during the fall and spring, when bats are building up their fat reserves prior to and after hibernation. For more information on recommended forest management practices for conserving Indiana bats see the following link:

https://www.fws.gov/northeast/pafo/pdf/endspecies/timbermgtguide_ibat_hibernacula.pdf

Northern Long-eared Bat

The northern long-eared bat hibernates in caves, and abandoned mines during the winter months (November through March), and uses a variety of upland, wetland and riparian habitats during the spring, summer and fall, usually roost in dead or living trees with exfoliating bark, crevices or cavities. Because the proposed project is not located within 0.25 mile of a known northern long-eared bat hibernaculum or within 150 feet from a known, occupied maternity roost tree, any incidental take that may occur is not prohibited in accordance with the conservation rule (i.e., 4(d) rule) specific for this species.

However, if tree removal is planned, consultation under section 7 of the Act is required. This applies to trees that are greater than, or equal to 3 inch diameter at breast height. However, in order to streamline the consultation process, the Service completed a nationwide biological opinion that fulfills this requirement provided that the conditions of the 4(d) rule are implemented. More information on the northern long-eared bat and the 4(d) rule can be found at: <http://www.fws.gov/midwest/endangered/mammals/nleb/>.

Northeastern Bulrush

Huntingdon and Bedford Counties are within the range of northeastern bulrush. The northeastern bulrush is typically found in ponds, wet depressions, shallow sinkholes, vernal pools, small emergent wetlands, or beaver-influenced wetlands. These wetlands are often located in forested areas and characterized by seasonally variable water levels. Project activities such as herbicide use could impact northeastern bulrush. Since the species is not known within the project boundary, we recommend one of two things: 1) assume presence of the species, and establish a buffer to protect potential habitat (300-foot wide upland buffer, as well as 50-100 foot wide buffers along waterways), or 2) conduct a survey in order to establish presence or absence of the species within project wetlands.

Bald Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (Eagle Act). The Eagle Act protects eagles by prohibiting killing, selling, disturbing, or otherwise harming eagles, their nests or eggs. "Disturb" means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle; 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior; or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.

Bald eagles are known to nest in the vicinity of the project area, with 7 known nests located within 0.5 mile of the project site. Consequently, we recommend that you evaluate the project type, size, location and layout in light of the *National Bald Eagle Management Guidelines* to determine whether bald eagles may be disturbed as a direct or indirect result of your project. If it appears that disturbance may occur, we recommend that you consider modifying your project consistent with the *Guidelines*. These guidelines, as well as additional eagle information, are available at <http://www.fws.gov/northeast/EcologicalServices/eagle.html>. To assist you in

From: Theodore, Nora [mailto:theodore.nora@epa.gov]
Sent: Wednesday, September 5, 2018 10:14 AM
To: Harrington, Terrence G MAJ USARMY CENAB (US) <Terrence.G.Harrington@usace.army.mil>
Cc: Rudnick, Barbara <Rudnick.Barbara@epa.gov>
Subject: [Non-DoD Source] Raystown Lake Master Plan Scoping

Dear Mr. Harrington,

EPA has reviewed your study initiation notice dated August 7, 2018 regarding the proposed Raystown Lake Project Master Plan Revision and Environmental Assessment (EA) on the Raystown Branch of the Juniata River in Huntington and Bedford Counties, Pennsylvania. Raystown Lake Dam is vital to the protection of downstream communities and is critical to the comprehensive flood control plan of the Susquehanna River Basin. The lake is the largest in Pennsylvania. EPA understands that the study is being done in compliance with the National Environmental Policy Act (NEPA) and CEQ regulations implementing NEPA. Please find recommendations for the scope of analysis for the proposed study below.

- * The NEPA document should include a clear explanation of the underlying purpose and need for the proposed action. The purpose and need statement is important because it helps explain why the proposed action is being undertaken, the objectives the project intends to achieve, and the measures to determine how well alternatives meet need. The purpose of the proposed action is typically the specific objective of the activity. The need should explain the underlying problem for why the project is necessary.
- * The Alternatives analysis section should include the suite of activities or solutions that were considered and the rationale for not carrying these alternatives forward for detailed study. It is important to include a "No Action Alternative", as it functions as a baseline against which to compare other alternatives.
- * It is recommended that a narrative describing aquatic resources and functions be included in the NEPA document. We suggest a narrative be provided that includes: a discussion of wetlands, water quality, hydrology, and lake biology with particular emphasis on any notable changes that have occurred since the last Master Plan in 1994. Additional areas of description would include: the vegetative communities in the impact area, including size of trees (dbh), percent canopy cover, and presence of invasive species; soil type(s); and an assessment of expected functions based on the hydrogeomorphic type, ecological community, and surrounding land use. Photos are recommended. Some information on resources may be gained from public websites including:
 - * EnviroMapper: [Blockedhttps://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system](https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system). The Watershed Assessment, Tracking & Environmental Results System (WATERS) unites water quality information previously available only from several independent and unconnected databases.
 - * Envirofacts: [Blockedhttps://www3.epa.gov/enviro/](https://www3.epa.gov/enviro/). Includes enforcement and compliance information.
 - * NEPAAssist: [Blockedhttps://www.epa.gov/NEPA/nepassist](https://www.epa.gov/NEPA/nepassist). NEPAAssist is a tool that facilitates the environmental review process and project planning in relation to environmental considerations. The web-based application draws environmental data dynamically from EPA Geographic Information System databases and web services and provides immediate screening of environmental assessment indicators for a user-defined area of interest. These features contribute to a streamlined review process that potentially raises important environmental issues at the earlier stages of project development.
 - * 303(d) Listed Impaired Waters: [Blockedhttps://www.epa.gov/exposure-assessment-models/303d-listed-impaired-waters](https://www.epa.gov/exposure-assessment-models/303d-listed-impaired-waters)
 - * Watershed Resources Registry: [Blockedhttps://watershedresourcesregistry.org/index.html](https://watershedresourcesregistry.org/index.html). This newly released mapping and screening tool prioritizes areas for preservation and restoration of wetlands, riparian zones, terrestrial areas, and stormwater management across several states in the mid-Atlantic region, including Pennsylvania. This tool is useful for planners to access environmental data to avoid impacting natural areas and identify optimal mitigation areas.
- * It appears that the eastern shore of the lake is a low recreation density area. If there are anticipated changes to recreational densities from low to high as part of the Master Plan, EPA recommends that the associated impacts of this change be thoroughly analyzed including impacts to wetlands, water quality (specifically, anticipated changes to run-off and nutrient input), safety, and impacts to other recreational activities.
- * In the EA, please specifically address current and planned water quality monitoring. Precipitation and elevation data are available on the USGS National Water Information System and some additional information is available on USACE's Water Management Website. It is recommended that physical, chemical, and biological parameters such as dissolved oxygen, pH, conductivity, nitrogen, phosphorous, chlorophyll a, and transparency be measured periodically to monitor potential changes in lake condition. Additionally, please consider including information regarding when the next comprehensive water quality report from USACE and USGS will be produced. The post-impoundment survey of Water-Quality Characteristics of Raystown Lake is a comprehensive document that covers these water quality parameters (and more) however was published in 1978 and is therefore out of date.
- * It would be appropriate to include the current maintenance associated with the Raystown Lake Dam and improvements that are anticipated to be needed over the next 15-20 years in the EA.
- * It is recommended that effects of project design on runoff and surface water movement be evaluated. Stormwater ponds, best management practices (BMPs), and staging areas should not be located in wetlands and streams. We recommend stormwater management alternatives that address the existing and possible new construction be considered.
- * For this or future projects, please consider the following: to reduce runoff volume and improve water quality, EPA recommends where possible the incorporation of Low Impact Development (LID) design features. Technical guidance in implementing green infrastructure (GI) practices and LID can be found at: [Blockedhttps://19january2017snapshot.epa.gov/sites/production/files/2015-09/documents/eisa-438.pdf](https://19january2017snapshot.epa.gov/sites/production/files/2015-09/documents/eisa-438.pdf), [Blockedwww.epa.gov/sustainability/giwiz](https://www.epa.gov/sustainability/giwiz) and [Blockedwww.epa.gov/greeninfrastructure](https://www.epa.gov/greeninfrastructure) <[Blockedhttp://www.epa.gov/greeninfrastructure](https://www.epa.gov/greeninfrastructure)>. We suggest LID options be considered for design of features such as parking, paving, and landscaping. Other information can be found at [Blockedwww.epa.gov/nps/lid](https://www.epa.gov/nps/lid) <[Blockedhttp://www.epa.gov/nps/lid](https://www.epa.gov/nps/lid)>; U.S. EPA's Smart Growth Website: [Blockedwww.epa.gov/smartgrowth](https://www.epa.gov/smartgrowth) <[Blockedhttp://www.epa.gov/smartgrowth](https://www.epa.gov/smartgrowth)>; and the International Stormwater BMP Database: [Blockedhttp://www.bmpdatabase.org](https://www.bmpdatabase.org) <[Blockedhttp://www.bmpdatabase.org](https://www.bmpdatabase.org)>
- * The NEPA study should identify and include an analysis of any hazardous sites or materials if present in the vicinity of the project. If relevant, please also address the status of any ongoing or past remediation efforts in the project area, including any groundwater contamination. We suggest any additional soil or water sampling, assessment of potential exposure to workers, or adjustments to construction methods be considered, if needed. Lastly, as relevant, it is recommended that potential impacts from nearby locations with NPDES permits on Raystown Lake be included.
- * Environmental Justice (EJ) should also be evaluated, including the identification of potential communities of concern, and meaningful and timely community involvement, public outreach, and access to information, as has already begun with this project. Please consider a tool developed by EPA to help users to identify areas with EJ population: [Blockedhttps://www.epa.gov/ejscreen](https://www.epa.gov/ejscreen). Additionally, consider referring to "Promising Practices for EJ Methodologies in NEPA Reviews" document for EJ analysis in NEPA reviews", available at: [Blockedhttps://www.epa.gov/environmentaljustice/ej-imp-promising-practices-ej-methodologies-NEPA-reviews](https://www.epa.gov/environmentaljustice/ej-imp-promising-practices-ej-methodologies-NEPA-reviews). Our regional EJ expert would be pleased to discuss methodology for identifying communities with potential EJ concerns at your convenience.
- * As the Master Plan will dictate how the land in the study area is managed for the next 15-25 years, EPA recommends that the document include a discussion of reasonably foreseeable effects that changes in the climate may have on the proposed project and the project area, including its long term infrastructure. This could help inform the development of measures to improve the resilience of the proposed project. If projected changes could notably exacerbate the environmental impacts of the project, EPA recommends these impacts also be considered as part of the NEPA analysis.
- * Please include if additional NEPA studies will be needed for actions outlined in the Master Plan in the EA.
- * The NEPA document should address potential indirect and cumulative effects in the project areas; analysis may aid in the identification of resources that are likely to be adversely affected by multiple projects, and sensitive resources that could require additional avoidance or mitigation measures. It is suggested that a secondary and cumulative effects analysis begin with defining the geographic and temporal limits of the study; this is generally broader than the study area of the project. The cumulative impact analysis should evaluate impacts to environmental resources that have the potential to be impacted by the project. Depending on the nature of what is proposed in the document, positive cumulative impacts should also be identified. Along with the analysis, EPA recommends including a list of potentially relevant projects in the area that could contribute to cumulative impacts.

Thank you for coordinating with EPA on this project. Please let me know if you have any questions on the recommended topics above. Please provide a copy of the EA to EPA when it is available for review in Fall 2019.

Sincerely,

Nora Theodore

NEPA Reviewer

Office of Environmental Programs

Environmental Assessment and Innovation Division

US EPA, Region III

1650 Arch Street (3EA30)

Philadelphia, PA 19103

215-814-2728

theodore.nora@epa.gov <mailto:theodore.nora@epa.gov>

-----Original Message-----

From: Bruce Thomas [mailto:bcxuva@verizon.net]

Sent: Saturday, September 15, 2018 1:49 PM

To: Harrington, Terrence G MAJ USARMY CENAB (US) <Terrence.G.Harrington@usace.army.mil>

Subject: [Non-DoD Source] ENVIRONMENTAL ASSESSMENT AT RAYSTOWN LAKE

Dear Mr Harrington,

Thank you to all of the USACE personnel and volunteers that maintain and improve the beauty of Raystown Lake. Your efforts have provided a wonderful recreational resource to everyone who visits the lake, as well as fulfilling the primary mission of flood control which is so important as witnessed by the recent flooding and the future of Hurricane Florence.

As a concerned citizen of Huntingdon, Pa for 41 years, I would like to provide some comments about the ENVIRONMENTAL ASSESSMENT of the Raystown Lake Master Plan Reassessment. I have attended several of the Public Meetings sponsored by USACE which have provided a great deal of knowledge about the environment around the lake. It is my understanding that environmental studies will be done on several moths(e.g. Southern Pine Looper Moth, etc) and a few underwater plants. There will be a study of the mussels below the dam on the Raystown Branch and in the shallows near Saxton which are not part of the Master Plan Reassessment(i.e. that study would have been done regardless). What I find lacking is a significant assessment of the fisheries, bird life, and soils in the EA.

It is my understanding that USACE will not be doing ANY studies on the fish in Raystown Lake. I have heard that USACE is relying on a private volunteer organization, the Pennsylvania Striped Bass Association, to perform these studies. However, I am not aware of any specific studies that are planned or financed for the fisheries at Raystown. Paradoxically, the Huntingdon County Commissioners indicated in The Huntingdon Daily News that USACE will be doing studies on the fisheries! It seems to me that there are several groups that are talking about studies on the fish, but I am not aware of any specific plans. We do have a great resource at Juniata College that has the expertise to evaluate fisheries. Associate Professor Uma Ramakrishnan is currently doing studies on the wild native brown trout in the Little Juniata River(TDN, 9/14/18, frontpage). I would suggest that USACE develop a plan in conjunction with all governmental, scientific, and volunteer organizations mentioned above to fund a study of the fisheries and oxygen levels at Raystown Lake as part of the Master Plan Reassessment.

I believe that more efforts should be made to study the BIRD LIFE at Raystown Lake. We have been fortunate to have many Bald Eagles nesting as permanent residents of the lake. There have been recent sightings of Golden Eagles with their young eaglets in the Northern part of the lake. We, also, have a significant MIGRATORY BIRD population with Snow Geese, Tundra Swans, Ospreys, Common Loons, Blue Herons, Cormorants, and numerous species of ducks. I would suggest that significant efforts and funding should be made to study the impact of new developments on the bird populations at Raystown Lake and partner with the Juniata Valley Audubon Society for these studies.

SOIL STUDIES seem to be an integral part of any new development. Raystown Lake is surrounded by shale barrens and xeric forests which are very vulnerable to erosion which can effect the animal and plant life in these areas. There are many unique and rare species found along the steep, dry slopes and xeric forests(e.g. noctuid moths, Allegheny woodrats, shale-barren evening-primrose, American beakgrain, etc.) that may be effected by "Changes in the surface flow of water and direct disturbance to the slope habitat could be detrimental to these communities" (Huntingdon County National Heritage Inventory). The shale around Raystown Lake is very vulnerabe to water drainage which cuts deep channels into the rock formations as witnessed by the many cliffs along side of the river and lake. I have personally witnessed severe erosions several times a year on shale roads around the lake which require constant maintenance. BIOLOGICAL DIVERSITY AREAS(BDA) have been defined by the National Heritage Inventory as "An area containing plants or animals of special concern at state or federal levels, exemplary natural communities, or exceptional native diversity. BDAs include both the immediate habitat and surrounding lands important in the support of these special elements." Specifically, the RAYSTOWN DAM BDA in Juniata Township is managed by the USACE(bulk of the land in the BDA) and the recommendation from the National Heritage Inventory states "The Corp is aware of the presence of the rare species and communities, and is managing for their conservation. The shale barrens within the site have been designated as Natural Areas." Since the bulk of the land in the RAYSTOWN DAM BDA is managed by USACE, I believe it is up to USACE(and not local municipalities) to maintain this area(including Hawn's Peninsula) as a Natural Area or change it based upon USACE studies. I would suggest that appropriate soil and erosion studies be done by USACE as part of the master plan for any area around Raystown Lake.

Thank you for considering these recommendations.

Respectfully yours,

Bruce L. Thomas, MD

September 13, 2018

Avis Kennedy
Project Manager
Raystown Lake Master Plan Update
US Army Corps of Engineers
Hesston, Pa. 16647

RE: Comments on the Raystown Lake Environmental Assessment

Dear Ms. Kennedy,


This letter will serve as our public comment on the Environmental Assessment for the Raystown Lake Master Plan Update. We understand you are getting information from many organizations on the environment around Raystown Lake. We want to assure the USACE that our company is totally committed to working with your organization on mitigating or avoiding any sensitive environmental areas that may be uncovered during the EA for the Hawn's Bridge Peninsula. We also know that if a concession lease is up for consideration for this area, a more intensive EA will be conducted.

Our company, as well as all local economic organizations, are hopeful that the USACE will include the Hawn's Bridge peninsula as an area open for high-density recreation in the final master plan. If the USACE issues a concession lease for this area, we hope to win the bid and will devote the financial resources needed to plan and build an environmentally sensitive land-use design. Please be assured that we will work diligently with the USACE on our design plans to create a public recreation area that meets or exceeds all environmental recommendations for plant and wildlife habitats. We believe a well thought out plan will minimize the removal of trees and shrubs so visitors can experience a wooded, tranquil setting. We plan to work with a talented environmentally-astute landscape architect to bring the USACE design plans that are appropriate for the area. In addition, we hope to include as many eco-friendly building design methods and systems as possible.

As you know, Juniata College has agreed to assist us in the design of the Hawn's Bridge Recreation Area should it come to fruition. Their expertise in researching plant and animal life around Raystown Lake for more than 25 years will be invaluable to our draft plans to the USACE.

Thank you for your consideration of our comments. Please reach out to me at any time if you have a question or concern by calling: 814-308-3168.

With Regards,



Janet Chambers
Community Outreach
Proposed - Terrace Mountain Lodge and Hawn's Bridge Recreation Area
Lancer Resources, Inc.



Exploring and Protecting Nature in Central Pennsylvania

President: Catie Farr
Vice-President: Laura Jackson
Secretary: Sharon Clewell
Treasurer: George Mahon
Address: P. O. Box 42 Tyrone, PA 16886
Phone number: 870-681-3839

To Whom It May Concern,

Please accept this letter as a formal comment submitted by the Juniata Valley Audubon Society, a chapter of the National Audubon Society, with over 300 members residing in Blair, Bedford, Huntingdon, Mifflin, and Centre Counties in central Pennsylvania. We appreciate the opportunity to provide comments to be considered in the development of the Raystown Lake Master Plan Revision.

Juniata Valley Audubon Society (JVAS) recognizes the diverse recreational resources offered by the Raystown Lake, its economic development potential, the importance of the flood control, and its clean hydropower. More importantly, however, we value the significant amount of relatively undisturbed habitat: approximately 18,000 acres (84%) of the Raystown Lake Project is forested. Since Terrace Mountain provides a forested backdrop to much of the eastern lake shore, we know that sustainable forest management is key to maintaining not only the viewscape, but the quality of water in Raystown Lake. We commend the US Army Corps of Engineers on their work to maintain this important habitat, so vital to maintaining clean water and healthy fish and wildlife.

Furthermore, we applaud the Corps' efforts to establish a Bat Conservation Area on Terrace Mountain in the Hawn's Bridge Peninsula area to maintain roosting and foraging habitat for northern long-eared bats and Indiana bats, as well as other forest dwelling bat species. JVAS supports managing these areas to mimic old growth conditions, which will create better habitat for roosting bats.

Another type of habitat quite different from the forested expanses are the rare shale barrens that occur in the Raystown Lake Project Area. We understand that the shale barren communities in Bedford and Huntingdon counties are one of the most unusual, and also most endangered, ecosystems in Pennsylvania. They are few in number and small in acreage, but contain endemic plant species found only in this habitat. The eleven shale barrens in the Raystown Lake Project are each significantly important since they vary in geographical and environmental features, as well as types of flora and fauna. We appreciate the Corps' dedication to protecting them by designating them as "Natural Areas," which will be preserved in their natural state.

We ask that the Corps continue to protect the shale barrens as designated Natural Areas by placing total restriction of any development in the area, and protecting the steep slopes and fragile environment of the barrens areas from disturbance, except for scientific investigation. Especially important is the restriction of foot travel on the slope and prohibition of watercraft docking at the base of the cliffs.

We are concerned, however, that the 9-acre shale barrens on the Hawn's Bridge Peninsula is under threat from future development. In the 1994 Master Plan, the Corps pledged complete protection and did not agree to any development on the Hawn's Bridge Peninsula. We know that the current Master Plan update is considering changing the use of this area. In keeping with the Corp's pledge to protect one of Pennsylvania's rarest and most endangered habitats, we would like to emphasize that this complete protection will only occur if the entire Hawn's Bridge Peninsula is protected from development. The 1994 master plan emphasized protection of the eastern shore, which includes the Hawn's Bridge Peninsula. We feel the eastern shore and Terrace Mountain should remain protected.

The Shale Barrens are also designated as part of the Raystown Biological Diversity Area (BDA), a Natural Heritage Area documented by the Western Pennsylvania Conservancy in the Huntingdon County Natural Heritage Inventory. Within the strata of BDAs, Huntingdon County recognizes Hawn's Bridge Peninsula to be the highest ranking: an "Exceptional Biological Diversity Area." See map at end of letter.

Our request to protect Hawn's Bridge Peninsula from development is supported by many local residents, including the Coalition to Protect Hawn's Peninsula. It is important to note that our request to protect Hawn's Bridge Peninsula is also aligned with the Huntingdon County Comprehensive Plan, 2007 Supplement. Sadly, the businesses and organizations that are promoting development of Hawn's Bridge Peninsula are at odds with the Comprehensive Plan.

Although it is not regulatory, the Comprehensive Plan is an important guiding document for Huntingdon County as it contains, "A Vision for the 21st Century." The Elements of the Vision include, "protection of farmland, forest land, natural resources, and the environment," while emphasizing new development "in and around existing boroughs and villages." It further emphasizes developing "greenways along rivers and ridges."

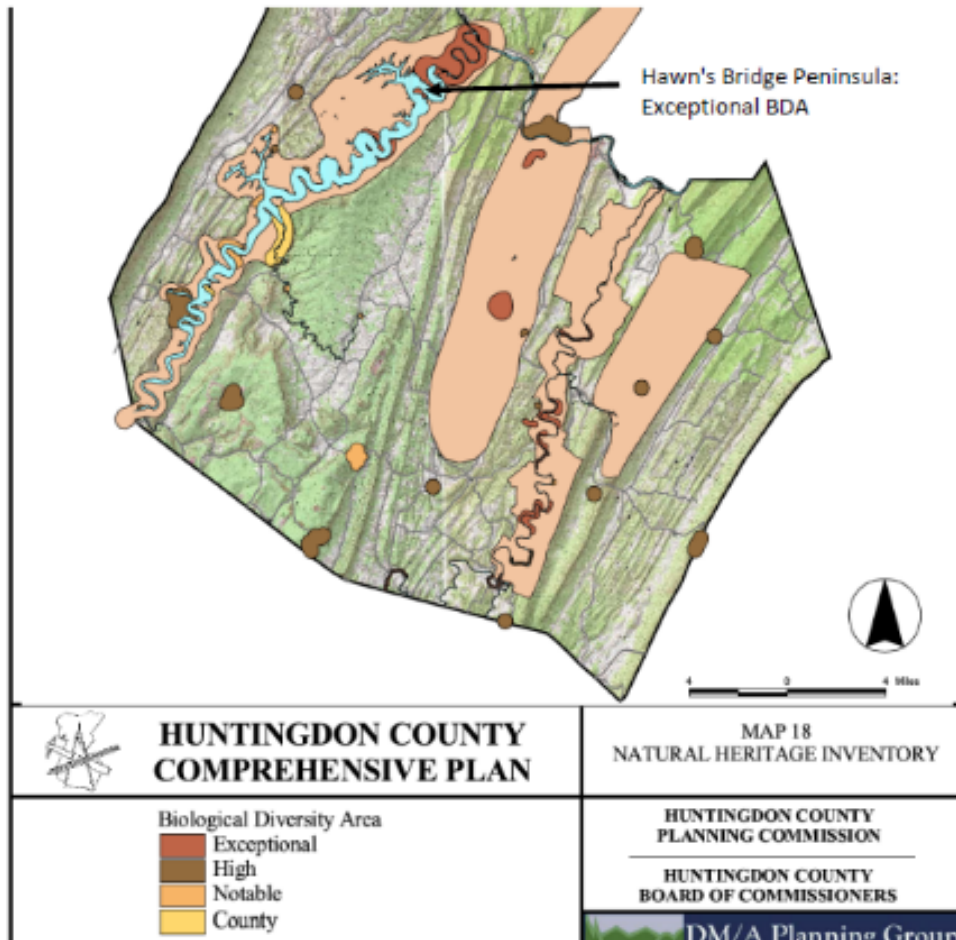
This vision is further detailed in this excerpt, "The vast majority of land in the County will remain in productive private rural land uses such as agriculture, forestry, and recreation. A system of "Greenways" will be established along mountain ridges, streams, and rivers to protect water quality, to provide habitat for wildlife, to enhance recreational opportunities, and to protect scenic beauty. "

One policy supported in this Vision does include, "the development of a year-round, full-service resort at Raystown Lake." However, we ask that such development should not be along mountain ridges such as Terrace Mountain, or impact rare habitats like shale barrens. Such a resort at Raystown Lake should be on Army Corps property where development already occurs, not in an exceptional Biological Diversity Area like Hawn's Bridge Peninsula.

In conclusion, Juniata Valley Audubon Society supports the protection of the eastern shore of Raystown Lake, specifically the endangered shale barrens which include the one located on Hawn's Bridge Peninsula. **We request that Hawn's Bridge Peninsula be reclassified as an Environmentally Sensitive Area and that Terrace Mountain remain as a Low Density Recreation Area in the new Master Plan.**

Sincerely,

Laura Jackson, Vice-President





Pennsylvania Division
SEP 4 - 2018

228 Walnut Street, Room 508
Harrisburg, PA 17101-1720
(717) 221-3461

In Reply Refer To:
HPD

Mr. Daniel M. Bierly, P.E.
Chief, Civil Project Development Branch
U.S. Army Corps of Engineers, Baltimore District
2 Hopkins Plaza
Baltimore, MD 21201

Dear Mr. Bierly:

The Federal Highway Administration (FHWA) Pennsylvania Division Office has received the Study Initiation Notice regarding the Raystown Lake Project Master Plan Revision and Environmental Assessment (EA) and offers the following information for review and consideration. FHWA partners with the Pennsylvania Department of Transportation (PennDOT) Engineering District 9-0 and Southern Alleghenies Planning and Development Commission (SAP&DC) to deliver the Federal-Aid Highway Program in Huntingdon and Bedford counties.

FHWA offers the following transportation plans to USACE for review as part of the EA revision:

- 2017 Southern Alleghenies Transportation Improvement Program (TIP)
 - Link: http://www.sapdc.org/documents/2017-2020_Highway_and_Bridge_TIP.pdf
- Draft 2019 Southern Alleghenies Transportation Improvement Program (TIP):
 - Link: http://www.sapdc.org/documents/Southern_Alleghenies_2019-2022_Highway_Bridge_TIP.pdf
- Draft 2019 Southern Alleghenies Twelve Year Program (TYP):
 - Please see attached document.
- 2017-2041 Southern Alleghenies Long Range Transportation Plan:
 - Link: <http://www.sapdc.org/gov-non-profit/long-range-transportation-plan>
- 2016 Southern Alleghenies Bike and Pedestrian Plan:
 - http://www.sapdc.org/documents/FINAL_BICYCLE_PEDESTRIAN_PLAN.pdf

County	District	S.R.	Sec.	Project	Project Title	Ph	Area	Year	First Four Years					Second Four Years					Third Four Years					Totals	Milestones	
									Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.			State
Bedford	9	869	01B	21449	Osterburg Scrubgrass Crk	U	BRDG	2019		185	25,000		25,000												25,000	
Bedford	9	869	01B	21449	Osterburg Scrubgrass Crk	R	BRDG	2019		185	50,000		50,000												50,000	10/27/2020 E
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Bedford	9	1005	000	21366	S Loyalburg Beaver Ck Brg	F	BRDG	2024						185	150,000										150,000	
Bedford	9	1005	000	21366	S Loyalburg Beaver Ck Brg	R	BRDG	2024						185	20,000										20,000	
Bedford	9	1005	000	21366	S Loyalburg Beaver Ck Brg	C	BRDG	2025						185	1,452,000										1,452,000	09/04/2025 E
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Bedford	9	1016	01B	74395	2020 DF Bedford Box Culvert	C	BRDG	2021		185	175,000		175,000												175,000	01/21/2021 E
Bedford	9	1018	000	88124	Oppenheimer Run Bridge	P	BRDG	2023						185	50,000										50,000	
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Bedford	9	1019	002	96524	SR 1019 - PA 26 to PA 26	C	HRST	2020		581	1,800,000		1,800,000												1,800,000	02/20/2020 E
Bedford	9	1020	01B	106489	SR 1020 Pipers Run Bridge	C	BRDG	2019		185	300,000		300,000												300,000	12/13/2018 E
Bedford	9	1033	000	108153	SR 1033 - US 30 to SR 1001	C	HRST	2023						581	100,000										100,000	02/01/2022 E
Bedford	9	1034	01B	21362	Sandy Run Bridge	C	BRDG	2019		185	1,200,000		1,200,000												1,200,000	03/12/2020 E
Bedford	9	1042	01B	96778	SR 1042 Halter Ck Bridge	C	BRDG	2020		185	750,000		750,000												750,000	11/07/2019 E
Bedford	9	2002	000	108192	SR 2002 - PA 326 to PA 26	P	HRST	2026						581	100,000										100,000	
Bedford	9	2002	000	108192	SR 2002 - PA 326 to PA 26	+C	HRST	2027										STP	1,939,762						1,939,762	01/07/2027 E
Bedford	9	3003	01B	21464	Evitts Creek Bridge	C	BRDG	2020		185	940,000		940,000												940,000	10/24/2019 E
Bedford	9	3007	01B	88129	Trib to Sweet Root Creek Culvert	C	BRDG	2020		185	680,000		680,000												680,000	11/07/2019 E
Bedford	9	3011	000	74407	Evitts Creek Trib	P	BRDG	2025						185	50,000										50,000	
Bedford	9	3011	000	74407	Evitts Creek Trib	U	BRDG	2026						185	25,000										25,000	
Bedford	9	3011	000	74407	Evitts Creek Trib	R	BRDG	2026						185	25,000										25,000	
Bedford	9	3011	000	74407	Evitts Creek Trib	C	BRDG	2027										185	1,000,000						1,000,000	10/01/2026 E
Bedford	9	3021	000	88131	Cumberland Vly Run Br	P	BRDG	2023						185	75,000										75,000	
Bedford	9	3021	000	88131	Cumberland Vly Run Br	U	BRDG	2024						185	25,000										25,000	
Bedford	9	3021	000	88131	Cumberland Vly Run Br	R	BRDG	2024						185	20,000										20,000	
Bedford	9	3021	000	88131	Cumberland Vly Run Br	C	BRDG	2025						185	525,000										525,000	09/04/2025 E
Bedford	9	4009	01B	74411	Dunnings Creek Trib Bridge	+C	BRDG	2019	STP	1,000,000			1,000,000												1,000,000	11/07/2019 E

* Includes Conversion Amount

+ Indicates phase qualifies for TOLL funds

*PE-NEPA, PD-FSE CO, UTL-Fed, UTL-Ctr, ROW-Cond ROW, CON-Let

County	District	S.R.	Sec.	Project	Project Title	Ph	Area	Year	First Four Years					Second Four Years					Third Four Years					Totals	Milestones	
									Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.			State
Bedford	9	4009	02B	88133	Brush Run Bridge	+C	BRDG	2019	STP	1,000,000															1,000,000	11/07/2019 E
Bedford	9	7202	609	96030	T-609 Snyder Creek Road Bridge	+P	BRDG	2019	BOF	30,000															30,000	
Bedford	9	7202	609	96030	T-609 Snyder Creek Road Bridge	+R	BRDG	2019	BOF	10,000															10,000	
Bedford	9	7202	609	96030	T-609 Snyder Creek Road Bridge	+C	BRDG	2020	BOF	86,000															86,000	12/05/2019 E
Bedford	9	7203	575	88098	T-575 Cold Spring Road Bridge	+P	BRDG	2019	BOF	30,000															30,000	
Bedford	9	7203	575	88098	T-575 Cold Spring Road Bridge	+R	BRDG	2019	BOF	10,000															10,000	
Bedford	9	7203	575	88098	T-575 Cold Spring Road Bridge	+C	BRDG	2020	BOF	441,000															441,000	01/14/2021 E
Bedford	9	7204	357	96031	T-357 Harrieta Lane Bridge	+P	BRDG	2019	BOF	30,000															30,000	
Bedford	9	7204	357	96031	T-357 Harrieta Lane Bridge	+R	BRDG	2019	BOF	10,000															10,000	
Bedford	9	7204	357	96031	T-357 Harrieta Lane Bridge	+C	BRDG	2020	BOF	137,000															137,000	12/05/2019 E
Bedford	9	7207	545	22045	Oppenheimer Road Bridge	F	BRDG	2019	BOF	40,000																

County	District	S.R.	Sec.	Project	Project Title	Ph	Area	Year	First Four Years					Second Four Years					Third Four Years					Totals	Milestones						
									Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.			State	Local	Total			
Somerset	9	219	041	105980	US 219 - MD line to Meyersdale	F	HRST	2023								581	75,000										75,000				
Somerset	9	219	041	105980	US 219 - MD line to Meyersdale	U	HRST	2023								581	30,000											30,000			
Somerset	9	219	041	105980	US 219 - MD line to Meyersdale	R	HRST	2023								581	40,000											40,000			
Somerset	9	219	041	105980	US 219 - MD line to Meyersdale	+C	HRST	2024								NHPP	2,201,000											2,201,000	09/12/2024 E		
Somerset	9	219	041	105980	US 219 - MD line to Meyersdale	+C	HRST	2027																		NHPP	1,300,000		1,300,000	09/12/2019 E	
Somerset	9	403	001	96607	Wilbur Rd-Cambria Co Line	+F	HRST	2019	STP	800,000																			800,000		
Somerset	9	403	001	96607	Wilbur Rd-Cambria Co Line	U	HRST	2019			581	100,000																		100,000	
Somerset	9	403	001	96607	Wilbur Rd-Cambria Co Line	R	HRST	2019			581	150,000																		150,000	
Somerset	9	403	001	96607	Wilbur Rd-Cambria Co Line	C	HRST	2020			581	10,010,000																		10,010,000	12/05/2019 E
Somerset	9	601	0	110428	N Ferrellton PA 601 Trib Quema	P	BRDG	2023								185	100,000													100,000	
Somerset	9	601	0	110428	N Ferrellton PA 601 Trib Quema	U	BRDG	2024								185	20,000													20,000	
Somerset	9	601	0	110428	N Ferrellton PA 601 Trib Quema	R	BRDG	2024								185	15,000													15,000	
Somerset	9	601	0	110428	N Ferrellton PA 601 Trib Quema	+C	BRDG	2025								STP	700,000													700,000	
Somerset	9	601	01B	23566	PA 601/Shade Creek	F	BRDG	2020			185	400,000																		400,000	
Somerset	9	601	01B	23566	PA 601/Shade Creek	U	BRDG	2020			185	50,000																		50,000	
Somerset	9	601	01B	23566	PA 601/Shade Creek	R	BRDG	2020			185	150,000																		150,000	
Somerset	9	601	01B	23566	PA 601/Shade Creek	+C	BRDG	2021	STP	2,700,000																				2,700,000	10/22/2025 E
Somerset	9	601	10B	23450	Holopple Bridge	P	BRDG	2022			185	189,950																		189,950	
Somerset	9	601	10B	23450	Holopple Bridge	P	BRDG	2023								185	60,050													60,050	
Somerset	9	601	10B	23450	Holopple Bridge	F	BRDG	2023								185	200,000													200,000	
Somerset	9	601	10B	23450	Holopple Bridge	U	BRDG	2023								185	50,000													50,000	
Somerset	9	601	10B	23450	Holopple Bridge	R	BRDG	2023								185	25,000													25,000	
Somerset	9	601	10B	23450	Holopple Bridge	C	BRDG	2024								185	800,000													800,000	09/12/2024 E
Somerset	9	653	000	23462	PA653 Laurel Hill Ck Brg	P	BRDG	2023								185	400,000													400,000	
Somerset	9	653	000	23462	PA653 Laurel Hill Ck Brg	F	BRDG	2025								185	300,000													300,000	
Somerset	9	653	000	23462	PA653 Laurel Hill Ck Brg	U	BRDG	2025								185	25,000													25,000	
Somerset	9	653	000	23462	PA653 Laurel Hill Ck Brg	R	BRDG	2025								185	50,000													50,000	
Somerset	9	653	000	23462	PA653 Laurel Hill Ck Brg	+C	BRDG	2026								STP	1,100,000													1,100,000	10/02/2025 E
Somerset	9	985	000	23576	PA 985/Bens Run	P	BRDG	2023								185	75,000													75,000	
Somerset	9	985	000	23576	PA 985/Bens Run	F	BRDG	2024								185	150,000													150,000	
Somerset	9	985	000	23576	PA 985/Bens Run	U	BRDG	2024								185	75,000													75,000	
Somerset	9	985	000	23576	PA 985/Bens Run	R	BRDG	2024								185	25,000													25,000	
Somerset	9	985	000	23576	PA 985/Bens Run	C	BRDG	2025								185	1,150,000													1,150,000	10/10/2024 E
Somerset	9	985	01B	92699	PA985 Trb Beaverdam Rn Br	F	BRDG	2019			185	200,000																		200,000	
Somerset	9	985	01B	92699	PA985 Trb Beaverdam Rn Br	U	BRDG	2019			185	10,000																		10,000	
Somerset	9	985	01B	92699	PA985 Trb Beaverdam Rn Br	R	BRDG	2019			185	15,000																		15,000	12/24/2019 E
Somerset	9	985	01B	92699	PA985 Trb Beaverdam Rn Br	+C	BRDG	2020	STP	630,000																				630,000	02/13/2020 E
Somerset	9	985	02B	92700	PA985 Trb Bens Ck Br	+C	BRDG	2019	STP	1,150,000																				1,150,000	02/13/2020 E
Somerset	9	1004	000	74450	East Shanksville Bens Run	U	BRDG	2023								185	25,000													25,000	
Somerset	9	1004	000	74450	East Shanksville Bens Run	R	BRDG	2023								185	50,000													50,000	
Somerset	9	1004	000	74450	East Shanksville Bens Run	C	BRDG	2024								185	800,000													800,000	09/12/2024 E
Somerset	9	1007	03B	74452	North Shanksville Trib	U	BRDG	2019			185	50,000																		50,000	

* Includes Conversion Amount


+ Indicates phase qualifies for TOLL funds

*FE-NEPA, FD-PSE CO, UTL-Fed, UTL Clr, ROW-Cond ROW, CON-Let

County	District	S.R.	Sec.	Project	Project Title	Ph	Area	Year	First Four Years					Second Four Years					Third Four Years					Totals	Milestones						
									Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.			State	Local	Total			
Somerset	9	1007	03B	74452	North Shanksville Trib	R	BRDG	2019			185	25,000																	25,000	12/01/2020 E	
Somerset	9	1007	03B	74452	North Shanksville Trib	+C	BRDG	2021	STP	550,000																				550,000	01/21/2021 E
Somerset	9	1007	04B	91444	N. Shanksville Grove Run	U	BRDG	2019			185	30,000																		30,000	
Somerset	9	1007	04B	91444	N. Shanksville Grove Run	R	BRDG	2019			185	25,000																		25,000	12/01/2020 E
Somerset	9	1007	04B	91444	N. Shanksville Grove Run	+C	BRDG	2021	STP	525,000																				525,000	01/21/2021 E
Somerset	9	1015	03B	23589	Junata Rv Raystown Br Brg	U	BRDG	2019			185	25,000																		25,000	
Somerset	9	1015	03B	23589	Junata Rv Raystown Br Brg	R	BRDG	2019			185	50,000																		50,000	08/12/2020 E
Somerset	9	1015	03B	23589	Junata Rv Raystown Br Brg	C	BRDG	2021			185																				

Please contact Vince Greenland, P.E., Assistant District Executive – Design, PennDOT District 9-0, at (814) 696-7151 or vgreenland@pa.gov for information regarding transportation projects in the region. Please contact Brandon Peters, Transportation Manager, SAP&DC, at 814-949-6543 or bpeters@sapdc.org for information on transportation planning in the region. We appreciate the opportunity to respond and please contact me at 717.221.3440 or Jennifer.crobak@dot.gov for more information.

Very Respectfully,



Jennifer Crobak, AICP
Community Planner, FHWA PA Division

cc:

Terrence G. Harrington, USACE
Keith Lynch, FHWA PA Division
Matt Smoker, FHWA PA Division
Peter Nanov, FHWA PA Division
Vince Greenland, PennDOT District 9-0
Tom Yocum, PennDOT District 9-0
David Lybarger, PennDOT District 9-0
Frank Hampton, PennDOT
Brandon Peters, SAP&DC

TERRENCE G. HARRINGTON
MAJ, EN
Environmental Program Manager
Planning Division
North Atlantic Baltimore District (NAB) U.S. Army Corps of Engineers (USACE)
(410) 962-1846 (W)
NIPR- terrence.g.harrington@usace.army.mil

-----Original Message-----

From: Laura & Mike Jackson [mailto:jacksonlaura73@gmail.com]
Sent: Saturday, August 18, 2018 2:17 PM
To: Harrington, Terrence G MAJ USARMY CENAB (US) <Terrence.G.Harrington@usace.army.mil>
Subject: [Non-DoD Source] Comments regarding the EA for the Raystown Lake Project Master Plan Revision

Dear Mr. Harrington,

I just received notice that the USACE is soliciting input from agencies and the public regarding pertinent information to the environmental assessment (EA). I understand that USACE is preparing an EA to assess the impact of the Master Plan Revision to the human environment. I am the Vice-President of Juniata Valley Audubon Society (JVAS); our chapter area includes the Raystown Lake, so I plan to submit comments, but I hope you will clarify a few questions that I have:

1. The notice states that USACE will be assessing the impact to the "human environment," does this mean you are not looking for comments regarding possible impacts to wildlife or habitats? I thought the NEPA process involved evaluations of environmental, social, and economic effects. Our main concerns regard impact to rare habitats and wildlife. I'm really not sure what you mean by the "human environment."

Response: You are correct. NEPA evaluates the environmental, social and economic impacts on the Raystown Lake project and its immediate surroundings as a whole which would include the impact on wildlife or habitats.

2. I am attaching a letter from JVAS that we sent to the USACE regarding our environmental concerns. Please let me know if this is the type of comment letter you are requesting for the EA. If so, I will revise it to make it more relevant to the EA.
Response: Yes, your letter would be appropriate for the type of comments we are seeking at this time.

3. Does the USACE also plan to prepare an Environmental Impact Statement?
Response: We are currently in the preliminary stages of the EA. If the EA eventually concludes the update will cause "significant impact" then USACE will prepare an EIS.

4. Should we send our digital comments to your email address?
Response: Yes, you are free to send your comments to me at terrence.g.harrington@usace.army.mil or mailed to U.S. Army Corps of Engineers, Planning Division, Subject: Raystown Project, 2 Hopkins Plaza, Baltimore, MD 21201.

I look forward to hearing from you.

Sincerely,
Laura Jackson, VP and Conservation Chair Juniata Valley Audubon Society

-----Original Message-----

From: Bruce Thomas [mailto:xuva@verizon.net]
Sent: Saturday, September 15, 2018 1:49 PM
To: Harrington, Terrence G MAJ USARMY CENAB (US) <Terrence.G.Harrington@usace.army.mil>
Subject: [Non-DoD Source] ENVIRONMENTAL ASSESSMENT AT RAYSTOWN LAKE

Dear Mr Harrington,

Thank you to all of the USACE personnel and volunteers that maintain and improve the beauty of Raystown Lake. Your efforts have provided a wonderful recreational resource to everyone who visits the lake, as well as fulfilling the primary mission of flood control which is so important as witnessed by the recent flooding and the future of Hurricane Florence.

As a concerned citizen of Huntingdon, Pa for 41 years, I would like to provide some comments about the ENVIRONMENTAL ASSESSMENT of the Raystown Lake Master Plan Reassessment. I have attended several of the Public Meetings sponsored by USACE which have provided a great deal of knowledge about the environment around the lake. It is my understanding that environmental studies will be done on several moths(e.g. Southern Pine Looper Moth, etc) and a few underwater plants. There will be a study of the mussels below the dam on the Raystown Branch and in the shallows near Saxton which are not part of the Master Plan Reassessment(i.e. that study would have been done regardless). What I find lacking is a significant assessment of the fisheries, bird life, and soils in the EA.

It is my understanding that USACE will not be doing ANY studies on the fish in Raystown Lake. I have heard that USACE is relying on a private volunteer organization, the Pennsylvania Striped Bass Association, to perform these studies. However, I am not aware of any specific studies that are planned or financed for the fisheries at Raystown. Paradoxically, the Huntingdon County Commissioners indicated in The Huntingdon Daily News that USACE will be doing studies on the fisheries! It seems to me that there are several groups that are talking about studies on the fish, but I am not aware of any specific plans. We do have a great resource at Juniata College that has the expertise to evaluate fisheries. Associate Professor Uma Ramakrishnan is currently doing studies on the wild native brown trout in the Little Juniata River(TDN, 9/14/18, frontpage). I would suggest that USACE develop a plan in conjunction with all governmental, scientific, and volunteer organizations mentioned above to fund a study of the fisheries and oxygen levels at Raystown Lake as part of the Master Plan Reassessment.

I believe that more efforts should be made to study the BIRD LIFE at Raystown Lake. We have been fortunate to have many Bald Eagles nesting as permanent residents of the lake. There have been recent sightings of Golden Eagles with their young eaglets in the Northern part of the lake. We, also, have a significant MIGRATORY BIRD population with Snow Geese, Tundra Swans, Ospreys, Common Loons, Blue Herons, Cormorants, and numerous species of ducks. I would suggest that significant efforts and funding should be made to study the impact of new developments on the bird populations at Raystown Lake and partner with the Juniata Valley Audubon Society for these studies.

SOIL STUDIES seem to be an integral part of any new development. Raystown Lake is surrounded by shale barrens and xeric forests which are very vulnerable to erosion which can effect the animal and plant life in these areas. There are many unique and rare species found along the steep, dry slopes and xeric forests(e.g. noctuid moths, Allegheny woodrats, shale-baren evening-primrose, American beakgrass, etc.) that may be effected by "Changes in the surface flow of water and direct disturbance to the slope habitat could be detrimental to these communities" (Huntingdon County National Heritage Inventory). The shale around Raystown Lake is very vulnerable to water drainage which cuts deep channels into the rock formations as witnessed by the many cliffs along side of the river and lake. I have personally witnessed severe erosions several times a year on shale roads around the lake which require constant maintenance. BIOLOGICAL DIVERSITY AREAS(BDA) have been defined by the National Heritage Inventory as "An area containing plants or animals of special concern at state or federal levels, exemplary natural communities, or exceptional native diversity. BDAs include both the immediate habitat and surrounding lands important in the support of these special elements." Specifically, the RAYSTOWN DAM BDA in Juniata Township is managed by the USACE(bulk of the land in the BDA) and the recommendation from the National Heritage Inventory states "The Corp is aware of the presence of the rare species and communities, and is managing for their conservation. The shale barrens within the site have been designated as Natural Areas." Since the bulk of the land in the RAYSTOWN DAM BDA is managed by USACE, I believe it is up to USACE(and not local municipalities) to maintain this area(including Hawn's Peninsula) as a Natural Area or change it based upon USACE studies. I would suggest that appropriate soil and erosion studies be done by USACE as part of the master plan for any area around Raystown Lake.

Thank you for considering these recommendations.

Respectfully yours,

Bruce L. Thomas, MD

-----Original Message-----

From: Alice Fleischer [mailto:asf3@verizon.net]
Sent: Tuesday, September 11, 2018 3:17 PM
To: Harrington, Terrence G MAJ USARMY CENAB (US) <Terrence.G.Harrington@usace.army.mil>
Subject: [Non-DoD Source] Possible information for USACE Environmental Assessment

Dear Mr. Harrington,

I don't know whether the Raystown Branch below the dam is included for consideration in the Environmental Assessment being done along with the Raystown Lake Master Plan Revision. If so, it may be of interest to know that there is evidence of beavers on the short stretch of the river from the dam to the main stem of the Juniata.

If further information is needed, feel free to contact me by email or phone at 814-644-4984.

Sincerely,

Alice Fleischer



BUREAU OF FORESTRY

July 19, 2018

PNDI Number: 661402
Version: Final_1; 7/11/18

Tarrie Ostrofsky
USACE – Planning Division
2 Hopkins Plaza
Baltimore, MD 21201
Email: tarrie.ostrofsky@usace.army.mil (hard copy will not follow)

**Re: USACE Raystown Lake Master Plan Revision and Environmental Assessment
Bedford and Huntingdon Counties, PA**

Dear Tarrie,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Number **661402 (Final_1)** for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

PNDI records indicate that species under DCNR's jurisdiction are known to occur in the vicinity of the proposed project area. **Please see the attached table detailing species that may occur within the project area. Avoidance of suitable habitat is recommended and should be considered during the planning process as specific projects commence.**

This response represents the most up-to-date review of the PNDI data files and is valid for two (2) years only. If project plans change or more information on listed or proposed species becomes available, our determination may be reconsidered. Should the proposed work continue beyond the period covered by this letter and a permit has not been acquired, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative, description of project changes and accurate map). As a reminder, this finding applies to potential impacts under DCNR's jurisdiction only. Visit the PNHP website for directions on contacting the Commonwealth's other resource agencies for environmental review.

Should you have any questions or concerns, please contact Jason Ryndock, Ecological Information Specialist, by phone (717-705-2822) or via email (c-jryndock@pa.gov).

Sincerely

A handwritten signature in black ink that reads "Greg Podnieszinski".

Greg Podnieszinski, Section Chief
Natural Heritage Section

conserve sustain enjoy

P.O. Box 8552, Harrisburg, PA 17015-8552 717-787-3444 (fax) 717-772-0271

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August 31, 2018

U.S. Army Corps of Engineers
Raystown Lake
6145 Seven Points Road
Hesston, PA 16647

RE: RAYSTOWN LAKE MASTER PLAN REVISION

To Whom It May Concern:

The Governor's Advisory Council for Hunting, Fishing and Conservation is a group of twenty distinguished volunteers appointed by Governor Wolf to deliberate on a range of issues, including all forms of outdoor recreation, the preservation of our environment, and our hunting, fishing and trapping heritage.

We appreciate the fine work that the men and women of the Army Corps of Engineers perform daily to support and maintain the intrinsic, aesthetic and ecological features of Raystown Lake. We are also thankful for this opportunity to provide comment in your update of the 1994 Master Plan, as required by Section 1309 of the 2016 Water Infrastructure Improvement for the Nation Act. In that update, we ask that you consult your own language in Raystown Master Plan Revision Overview, which defines a Master Plan as "the strategic land use management document that guides the comprehensive management and development of all project recreational, natural and cultural resources throughout the life of the water resource development project."

The Governor's Advisory Council for Hunting, Fishing and Conservation interprets "strategic" in this context to mean a long-term view and approach to managing the Raystown Lake Project and its natural resources and regionally unique values. Consequently, we view elements of the 1994 Master Plan relating to conserving the Project's unique habitats, low-density recreational opportunities, and stellar scenic and aesthetic qualities to be as valid today as when they were conceived—indeed, consideration for these resources is more compelling than ever.

Visitors to Raystown remain awestruck by its natural beauty which inspires them and beckons their return. As a council, we believe that the expansive and largely undisturbed viewshed offered from the lake, or high atop Terrace mountain, is the most significant attribute this remarkable destination offers; it should be preserved. We found great comfort in the statement in section 2.3.2 which plainly states that the Corps' mission, under its Natural Resource Management Plan, is to, "manage and conserve those natural resources, consistent with ecosystem management principals, while providing quality public outdoor recreation experiences to serve the needs of present and future generations."

From Section 2.3.4:

Approximately 129 bird species, 47 mammal species, 45 fish species, 25 reptile species, and 24 species of amphibians can be found within the boundary of the project. Important wildlife game species in the project area include white tailed deer, wild turkey, ruffed grouse, gray squirrel,

eastern cottontail rabbit and various waterfowl. **Although the project provides a variety of wildlife habitats, increased habitat areas are desirable to provide additional food and cover.**

Council feels strongly that this objective should remain in place and that it starts with no net loss of available land for wildlife habitat. Further, increasing desirable habitat should remain a goal.

From Section 2.5:

Area residents and project user groups at Raystown have expressed concern with the amount, type, and placement of future development at the project, as well as the management of its recreation facilities and natural resources. Public opinion also clearly supports preserving the integrity and aesthetics of the lake and project lands and expanding the economic capabilities of the area. Throughout the master planning process, the public expressed strong displeasure for the concept of development activities that were directed toward private and exclusive use. However, the public was supportive of the concept of development "nodes," which would encourage new development in areas that have existing facilities and infrastructure. These public concerns were incorporated into the proposed plan.

While entirely subjective, we believe that public support for this section remains strong and relatively unchanged and that the most significant economic asset of Raystown is the natural environment in which she exists. Increased brick and mortar development chips away at the fundamental reason people visit the lake, to enjoy the mountainous topography, the unique forested viewshed, and the diverse living creatures inhabiting its varied habitats. Further human encroachment will deplete the primary natural assets Raystown offers to the region.

From Section 3.2.7.c

There are at least 11 Appalachian shale barrens, considered extremely rare in Pennsylvania, within the project boundaries. These barrens are located around the shoreline of Raystown Lake and support two rare plants, Kate's mountain clover, a state-designated endangered species that is currently being considered for federal listing, and the shale barrens' evening primrose, a state-designated threatened species. Other plants uncommon to the area may also be found on the shale barrens. The shale barren communities of Bedford, Fulton, and Huntingdon Counties are one of the most unusual, and most endangered, vegetational ecosystems in Pennsylvania. These areas are few in number and small in size, but contain plants species known only in these limited habitats. Thus, the small total acreage and harboring of rare endemic species makes the barrens important for natural area preservation.

Council supports changing the designation of all identified Appalachian shale barrens found within the project boundaries from "Natural Areas" to "Environmentally Sensitive Areas." Recently, it's come to council's collective attention that the Hawn's Bridge Peninsula is under threat of future development by corporate interests from Texas. We would strongly encourage carrying forward the language in the 1994 plan which pledges complete protection of Hawn's Peninsula with the aforementioned change in designation. We would also hope that Terrace Mountain's designation as a Low-Density Recreation Area remains.

From Section 3.6.2

The mass and man-made appearance of the dam is a strong nonconforming element which is visible from Ridenour Overlook and a road pull-off immediately below the dam. Other man-made elements on the project lands include the recreation facilities, roads, and abandoned

railroads. The recreation areas and roads located on the project lands were well-designed and blend in with the natural surroundings.

Council predicts and warns that the proposed Hawn's Peninsula resort development would not blend with the natural surroundings and instead would present a man-made intrusion inconsistent with the existing largely pristine viewshed, which is highly valued by the public.

From Section 4.1.2

The boating capacity of Raystown Lake is dependent upon two major factors, lake acres and available access to the lake...

Regarding boating activities, council believes that additional "no-wake" areas in strategic locations are warranted to reduce shore-line erosion, even if placed only during the summer months. The posting of more conspicuous signage about navigation rules would be helpful as well, especially for first-time visitors.

Council asks that you also consider the unique and constraining geometry of Raystown Lake as a factor affecting boating capacity and safety. Acknowledged, the lake contains 8,300 total acres, but its long and narrow shape concentrates boats to a greater degree than might be expected, otherwise, on a lake of this size. In this regard, Council points out the expressed concerns of the Pennsylvania Striped Bass Association (PSBA) whose members have invested countless volunteer hours, partnering with USACE, and the PA Fish and Boat Commission to improve the recreational fishery at Raystown. PSBA notes that the Hawn's Bridge Peninsula is the one area of the lake most important to the striped bass fishery and the angling effort it attracts. Greatly increased boat traffic, originating from a marina in that exact location, would disrupt this hard-earned fishery and increase the likelihood of boating accidents there.

The threat of development on Hawn's Peninsula has evoked broad concern from a unanimous council.

We believe:

- There is already too much recreational pressure on the lake and that the planned marina would increase boat traffic in an area that is prime Striped Bass territory.
- That recreational boating activity on Raystown is already at peak capacity and that the lake is now under threat of being "loved to death."
- That the absence of housing and man-made structures on the lake contributes to its economic vitality
- That it's getting tougher for the average angler to compete with the plethora of large boats, especially in the warmer months and on weekends.
- That the planned "environmental learning center" is a token gesture intended only to distract the public; it's counterintuitive in that the construction of the center will precipitate the loss of sensitive habitat in an area now designated for natural preservation.
- That development may seriously complicate the primary mission of the USACE, which is one of flood control. What happens if heavy rains or a hurricane is predicted and the Corps needs to reduce the lake level quickly in anticipation of the event? How will the proprietor of the new marina and its customers react and will the Corps be able to respond quickly?
- That the ongoing concerns raised by groups like the Juniata Chapter of the Audubon Society, the PA Striped Bass Association, Backcountry Hunters and Anglers, and the Coalition to Protect Hawn's Bridge, are credible and worthy of heeding.

- Current permitted usage of Raystown Lake and its surrounding recreation area, including seaplane operations, is working, and supports hiking, mountain biking, hunting, fishing, trapping and boating. Large commercial development decreases primitive recreational opportunities and may lead to marine congestion and unwarranted complaints about noise from traditional activities.
- Commercial interests may become overly influential regarding future permitted use due to their desire to earn maximum return on investment.
- In the years to come, the same commercial interest will deploy political leverage to grow their footprint, making it increasingly difficult for the corps to fulfill their mission to conserve the area's natural resources.

Many thanks for taking our concerns and suggestions into consideration. We wish you the best as you endeavor to balance the needs of competing interests and hope that you'll err on the side of caution, recalling the original vision of the 1994 Plan, which sought, pre-eminently, to sustain Raystown's unique natural attributes. Once developed, the sensitive barren lands will be unalterably changed and permanently lost to future generations. We hope that you'll exercise the same far-sighted vision for Raystown as those who created this marvelous landmark.

Respectfully submitted,

-The members of the Governor's Advisory Council on Hunting, Fishing and Conservation-

William Andahazy
Doug Austen
Charlie Burchfield
Jolene Connelly
Elizabeth Daugherty
Jay Delaney
Mike Dillon
Jim Foster
Craig Kindlin
Michele Kittell
Skip Klinger
Leo Lutz
Carolyn Mahan
Ben Moyer
Paula Piatt
Spencer Simon
Michael Steele
Dan Surra
Jose Taracido
Don Williams

Whitsel, Tara J CIV CENAB CENAD (US)

From: Harrington, Terrence G MAJ USARMY CENAB (US)
Sent: Tuesday, September 18, 2018 10:20 AM
To: RaystownMPRevision
Subject: FW: [Non-DoD Source] Comments for EA from the Pa Striped Bass Association
Attachments: Comments and Concerns PSBA.pdf

v/r
MAJ H
Planning Division
(410) 962-1846 (W)
NIPR- terrence.g.harrington@usace.army.mil
AKO- terrence.g.harrington.mil@mail.mil

-----Original Message-----

From: Nelson Wert [mailto:nelsonwert@comcast.net]
Sent: Thursday, September 13, 2018 9:11 PM
To: Harrington, Terrence G MAJ USARMY CENAB (US) <Terrence.G.Harrington@usace.army.mil>
Subject: [Non-DoD Source] Comments for EA from the Pa Striped Bass Association

Greetings,

The Pa Striped Bass Association asks your consideration of our comments regarding critical habitat for Striped Bass in Raystown Lake. As the current Master Plan points out, environmental conditions as water temperature and dissolved oxygen levels make the upper half of Raystown Lake unsuitable for Striped Bass during the summer months. Our members believe those unsuitable conditions extend all the way to Beer Barrel Bay based on observations of fish on sonar and catch locations. In our position paper, you will find that the area from Marker 4 to the dam is critical Striped Bass habitat during the summer months as that area does contain favorable environmental conditions for Striped Bass. The area around the Hawn's Bridge Peninsula contains critical underwater structures where Striped Bass locate and feed during this time. A map of those critical habitat structures is included.

Our Association knows that the building of marinas on both sides of the Hawn's Bridge Peninsula along with all the associated boat and jet ski activity will drive Striped Bass from this critical habitat area into other areas with undesirable environmental conditions and may cause increased mortality of these fish. We acquire most of the adult fish for the Raystown Lake Hatchery which we operate from the area around Hawn's Bridge Peninsula, and the development of this area would impact our efforts to spawn fish to stock in Raystown Lake for the public's benefit.. Our position paper will explain why our hatchery effort are critical to maintaining Raystown Lake as the premiere Striped Bass Fishery in the northeast. We are also a cooperative Nursery with the Pa Fish and Boat Commission.

It is critical to our efforts that the area around Hawn's Bridge Peninsula continues to be designated as an area of low density recreation. The most important point we ask you to consider is that what you do on land has major impacts on the critical underwater environment. From the perspective of anglers and as director of the Raystown Hatchery, we need environmental protection of most important 2 miles of shoreline around the Hawn's Bridge Peninsula. We are convinced that development of this area will have serious adverse affects on the Striped Bass fishery. As a result, it is highly likely that the work our Association does with all volunteer labor will likely be reduced or come to an end. We thank you for your genuine consideration of our comments.

Jim Tucker, Board Chairman

Dave Rhodes, President

Nelson Wert, VMD, Hatchery Director

Whitsel, Tara J CIV CENAB CENAD (US)

From: Harrington, Terrence G MAJ USARMY CENAB (US)
Sent: Tuesday, September 18, 2018 10:21 AM
To: RaystownMPRevision
Subject: FW: [Non-DoD Source] ENVIRONMENTAL ASSESSMENT AT RAYSTOWN LAKE

v/r
MAJ H
Planning Division
(410) 962-1846 (W)
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AKO- terrence.g.harrington.mil@mail.mil

-----Original Message-----

From: Bruce Thomas [mailto:xuva@verizon.net]
Sent: Saturday, September 15, 2018 1:49 PM
To: Harrington, Terrence G MAJ USARMY CENAB (US) <Terrence.G.Harrington@usace.army.mil>
Subject: [Non-DoD Source] ENVIRONMENTAL ASSESSMENT AT RAYSTOWN LAKE

Dear Mr Harrington,

Thank you to all of the USACE personnel and volunteers that maintain and improve the beauty of Raystown Lake. Your efforts have provided a wonderful recreational resource to everyone who visits the lake, as well as fulfilling the primary mission of flood control which is so important as witnessed by the recent flooding and the future of Hurricane Florence.

As a concerned citizen of Huntingdon, Pa for 41 years, I would like to provide some comments about the ENVIRONMENTAL ASSESSMENT of the Raystown Lake Master Plan Reassessment. I have attended several of the Public Meetings sponsored by USACE which have provided a great deal of knowledge about the environment around the lake. It is my understanding that environmental studies will be done on several moths(e.g. Southern Pine Looper Moth, etc) and a few underwater plants. There will be a study of the mussels below the dam on the Raystown Branch and in the shallows near Saxton which are not part of the Master Plan Reassessment(i.e. that study would have been done regardless). What I find lacking is a significant assessment of the fisheries, bird life, and soils in the EA.

It is my understanding that USACE will not be doing ANY studies on the fish in Raystown Lake. I have heard that USACE is relying on a private volunteer organization, the Pennsylvania Striped Bass Association, to perform these studies. However, I am not aware of any specific studies that are planned or financed for the fisheries at Raystown. Paradoxically, the Huntingdon County Commissioners indicated in The Huntingdon Daily News that USACE will be doing studies on the fisheries! It seems to me that there are several groups that are talking about studies on the fish, but I am not aware of any specific plans. We do have a great resource at Juniata College that has the expertise to evaluate fisheries. Associate Professor Uma Ramakrishnan is currently doing studies on the wild native brown trout in the Little Juniata River(TDN, 9/14/18, frontpage). I would suggest that USACE develop a plan in conjunction with all governmental, scientific, and volunteer organizations mentioned above to fund a study of the fisheries and oxygen levels at Raystown Lake as part of the Master Plan Reassessment.

I believe that more efforts should be made to study the BIRD LIFE at Raystown Lake. We have been fortunate to have many Bald Eagles nesting as permanent residents of the lake. There have been recent sightings of Golden Eagles with their young eaglets in the Northern part of the lake. We, also, have a significant MIGRATORY BIRD population with Snow Geese, Tundra Swans, Ospreys, Common Loons, Blue Herons, Cormorants, and numerous species of ducks. I would suggest that significant efforts and funding should be made to study the impact of new developments on the bird populations at Raystown Lake and partner with the Juniata Valley Audubon Society for these studies.

SOIL STUDIES seem to be an integral part of any new development. Raystown Lake is surrounded by shale barrens and xeric forests which are very vulnerable to erosion which can effect the animal and plant life in these areas. There are many unique and rare species found along the steep, dry slopes and xeric forests(e.g. noctuid moths, Allegheny woodrats, shale-barren evening-primrose, American beakgrain, etc.) that may be effected by "Changes in the surface flow of water and direct disturbance to the slope habitat could be detrimental to these communities" (Huntingdon County National Heritage Inventory). The shale around Raystown Lake is very vulnerabe to water drainage which cuts deep channels into the rock formations as witnessed by the many cliffs along side of the river and lake. I have personally witnessed severe erosions several times a year on shale roads around the lake which require constant maintenance. BIOLOGICAL DIVERSITY AREAS(BDA) have been defined by the National Heritage Inventory as "An area containing plants or animals of special concern at state or federal levels, exemplary natural communities, or exceptional native diversity. BDAs include both the immediate habitat and surrounding lands important in the support of these special elements." Specifically, the RAYSTOWN DAM BDA in Juniata Township is managed by the USACE(bulk of the land in the BDA) and the recommendation from the National Heritage Inventory states "The Corp is aware of the presence of the rare species and communities, and is managing for their conservation. The shale barrens within the site have been designated as Natural Areas." Since the bulk of the land in the RAYSTOWN DAM BDA is managed by USACE, I believe it is up to USACE(and not local municipalites) to maintain this area(including Hawn's Peninsula) as a Natural Area or change it based upon USACE studies. I would suggest that appropriate soil and erosion sudies be done by USACE as part of the master plan for any area around Raystown Lake.

Thank you for considering these recommendations.

Respectfully yours,

Bruce L. Thomas, MD

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