



Department of
Environmental
Conservation

Ontario Plains

UNIT MANAGEMENT PLAN

Towns of Antwerp, Le Ray, Theresa and Henderson

County of Jefferson

August 2019

DIVISION OF LANDS AND FORESTS

Bureau of State Land Management, Region 6

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Watertown, New York 13601

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MEMORANDUM

TO: The Record

FROM: Basil Seggos, Commissioner



SUBJECT: Ontario Plains UMP

The Ontario Plains Unit Management Plan has been completed. The Plan is consistent with Department policy and procedure, involved public participation and is consistent with the Environmental Conservation Law, Rules and Regulations. The plan includes management objectives for a ten year period and is hereby approved and adopted.

Ontario Plains

Unit Management Plan

A planning unit consisting of 2 State Forests and 1 Unique Area in Jefferson County

June 2017

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DEC's Mission

"The quality of our environment is fundamental to our concern for the quality of life. It is hereby declared to be the policy of the State of New York to conserve, improve and protect its natural resources and environment and to prevent, abate and control water, land and air pollution, to enhance the health, safety and welfare of the people of the state and their overall economic and social well-being." - Environmental Conservation Law 1-0101(1)

Vision Statement

State Forests on the Ontario Plains Unit will be managed in a sustainable manner by promoting ecosystem health, enhancing landscape biodiversity, protecting soil productivity and water quality. In addition, the State Forests on this Unit will continue to provide the many recreational, social and economic benefits valued so highly by the people of New York State. DEC will continue the legacy which started more than 80 years ago, leaving these lands to the next generation in better condition than they are today.

This plan sets the stage for DEC to reach these ambitious goals by applying the latest research and science, with guidance from the public, whose land we have been entrusted to manage.

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Preface

State Forest Overview

The public lands comprising this unit play a unique role in the landscape. Generally, the State Forests and Unique Area of the unit are described as follows:

- large, publicly owned land areas;
- managed by professional Department of Environmental Conservation (DEC) foresters;
- green certified jointly by the Forest Stewardship Council® (FSC®) & Sustainable Forestry Initiative® (SFI®);
- set aside for the sustainable use of natural resources, and;
- open to recreational use.

Management will ensure the **sustainability**, **biological diversity**, and protection of **functional ecosystems** and optimize the ecological benefits that these State lands provide, including the following:

- maintenance/increase of local and regional biodiversity
- response to shifting land use trends that affect habitat availability
- mitigation of impacts from invasive species
- response to climate change through carbon sequestration and habitat, soil and water protection

This unit also contains lands categorized as Wildlife Management Area. They are managed by DEC wildlife biologists, with different management priorities, described herein.

Legal Considerations

Article 9, Titles 5 and 7, of the Environmental Conservation Law (ECL) authorize DEC to manage lands acquired outside the Adirondack and Catskill Parks. This management includes **watershed protection**, production of **timber** and other forest products, **recreation**, and **kindred purposes**.

For additional information on DEC's legal rights and responsibilities, please review the statewide Strategic Plan for State Forest Management (SPSFM) at <http://www.dec.ny.gov/lands/64567.html>. Refer specifically to pages 33 and 317.

Management Planning Overview

The Ontario Plains Unit Management Plan (UMP) is based on a long-range vision for the management of Coyote Flats State Forest, Pulpit Rock State Forest and Henderson Shores Unique Area balancing long-term ecosystem health with current and future demands. This Plan addresses management activities on this unit for the next ten years, though some management recommendations will extend beyond the ten-year period. Factors such as budget constraints, wood product markets, and forest health problems may necessitate deviations from the scheduled management activities.

Public Participation

One of the most valuable and influential aspects of UMP development is public participation. Public meetings are held to solicit input and written and verbal comments are encouraged while

Preface

DEC's MANAGEMENT APPROACH and Goals

management plans are in draft form. Mass-mailings, press releases and other methods for soliciting input are often also used to obtain input from adjoining landowners, interest groups and the general public.

Strategic Plan for State Forest Management

This unit management plan is designed to implement DEC's statewide Strategic Plan for State Forest Management (SPSFM). Management actions are designed to meet local needs while supporting statewide and eco-regional goals and objectives.

The SPSFM is the statewide master document and Generic Environmental Impact Statement (GEIS) that guides the careful management of natural and recreational resources on State Forests. The plan aligns future management with principles of landscape ecology, ecosystem management, multiple use management and the latest research and science available at this time. It provides a foundation for the development of Unit Management Plans. The SPSFM divides the State into 80 geographic "units," composed of DEC administered State Forests that are adjacent and similar to one another. For more information on management planning, see SPSFM page 21 at <http://www.dec.ny.gov/lands/64567.html>.

DEC's Management Approach and Goals

Forest Certification of State Forests

In 2000, New York State DEC-Bureau of State Land Management received Forest Stewardship Council® (FSC®) certification under an independent audit conducted by the National Wildlife Federation - SmartWood Program. This certification included 720,000 acres of State Forests in DEC Regions 3 through 9 managed for water quality protection, recreation, wildlife habitat, timber and mineral resources (multiple-use). To become certified, the Department had to meet more than 75 rigorous criteria established by FSC. Meeting these criteria established a benchmark for forests managed for long-term ecological, social and economic health. The original certification and contract were for five years.

By 2005 the original audit contract with the SmartWood Program expired. Recognizing the importance and the value of dual certification, the Bureau sought bids from prospective auditing firms to reassess the Bureaus State Forest management system to the two most internationally accepted standards - FSC and the Sustainable Forestry Initiative® (SFI®) program. However, contract delays and funding shortfalls slowed the Departments ability to award a new agreement until early 2007.

Following the signed contract with NSF-International Strategic Registrations and Scientific Certification Systems, the Department was again audited for dual certification against FSC and additionally the SFI program standards on over 762,000 acres of State Forests in Regions 3 through 9. This independent audit of State Forests was conducted by these auditing firms from May until July 2007 with dual certification awarded in January 2008.

State Forests continue to maintain certification under the most current FSC and SFI standards. Forest products derived from wood harvested off State Forests from this point forward may now be labeled as "certified" through chain-of-custody certificates. Forest certified labeling on wood products may assure consumers that the raw material was harvested from well-managed forests.

DEC'S MANAGEMENT APPROACH and Goals

The Department is part of a growing number of public, industrial and private forest land owners throughout the United States and the world whose forests are certified as sustainably managed. The Department's State Forests can also be counted as part a growing number of working forest land in New York that is *third-party certified* as well managed to protect habitat, cultural resources, water, recreation, and economic values now and for future generations.



The mark of
responsible forestry
FSC® C002027



Ecosystem Management Approach

State Forests on this unit will be managed using an ecosystem management approach which will holistically integrate principles of landscape ecology and multiple use management to promote habitat biodiversity, while enhancing the overall health and resiliency of the State Forests.

Ecosystem management is a process that considers the total environment - including all non-living and living components; from soil micro-organisms to large mammals, their complex interrelationships and habitat requirements and all social, cultural, and economic factors. For more information on ecosystem management, see SPSFM page 39 at <http://www.dec.ny.gov/lands/64567.html>.

Multiple-use Management

DEC will seek to simultaneously provide many resource values on the unit such as, fish and wildlife, wood products, recreation, aesthetics, minerals, watershed protection, and historic or scientific values.

Landscape Ecology

The guiding principle of multiple use management on the unit will be to provide a wide diversity of habitats that naturally occur within New York, while ensuring the protection of rare, endangered and threatened species and perpetuation of highly ranked unique natural communities. The actions included in this plan have been developed following an analysis of habitat needs and overall landscape conditions within the planning unit (i.e. the geographical area surrounding and including the State Forests) the larger ecoregion and New York State.



Landscape ecology seeks to improve landscape conditions, taking into account the existing habitats and land cover throughout the planning unit, including private lands

Ecosystem Management Strategies

The following strategies are the tools at DEC's disposal,

Preface

DEC'S MANAGEMENT APPROACH and Goals

which will be carefully employed to practice landscape ecology and multiple-use management on the unit. The management strategy will affect species composition and habitat in both the short and long term. For more information on these management strategies, please see SPSFM page 81 at <http://www.dec.ny.gov/lands/64567.html>.

Passive Management

DEC foresters will employ passive management strategies through the designation of natural and protection areas, and buffers around those areas, such as along streams, ponds and other wetlands, where activity is limited.

Silviculture (Active Management)

DEC foresters will practice silviculture; the art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands, in an effort to promote biodiversity and produce sustainable forest products. There are two fundamental silvicultural systems which can mimic the tree canopy openings and disturbances that occur naturally in all forests; even-aged management and uneven aged management. Each system favors a different set of tree species. In general, even-aged management includes creating wide openings for large groups of trees that require full sunlight to regenerate and grow together as a cohort, while uneven-aged management includes creating smaller patch openings for individual trees or small groups of trees that develop in the shade but need extra room to grow to their full potential.

State Forest Management Goals

Goal 1 – Provide Healthy and Biologically Diverse Ecosystems

Ecosystem health is measured in numerous ways. One is by the degree to which natural processes are able to take place. Another is by the amount of naturally occurring species that are present, and the absence of non-native species. No single measure can reveal the overall health of an ecosystem, but each is an important part of the larger picture. The Department will manage State Forests so that they demonstrate a high degree of health as measured by multiple criteria, including the biodiversity that they support.

Goal 2 – Maintain Man-made State Forest Assets

Man-made assets on State Forests include structures, boundary lines, trails, roads and any other object or infrastructure that exists because it was put there by people. Many of these items need no more than a periodic check to make sure they are still in working order. Others need regular maintenance to counteract the wear of regular use. It is the Department's intent to ensure that all man-made items on State Forests are adequately maintained to safely perform their intended function.

Goal 3 – Provide Recreational Opportunities for People of all Ages and Abilities

State Forests are suitable for a wide variety of outdoor recreational pursuits. Some of these activities are entirely compatible with one another, while others are best kept apart from each other. Equally varied are the people who undertake these activities, as well as their abilities, and their desire to challenge themselves. While not all people will be able to have the experience they desire on the same State Forest, the Department will endeavor to provide recreational opportunities to all those who wish to experience the outdoors in a relatively undeveloped setting.

DEC'S MANAGEMENT APPROACH and Goals***Goal 4 – Provide Economic Benefits to the People of the State***

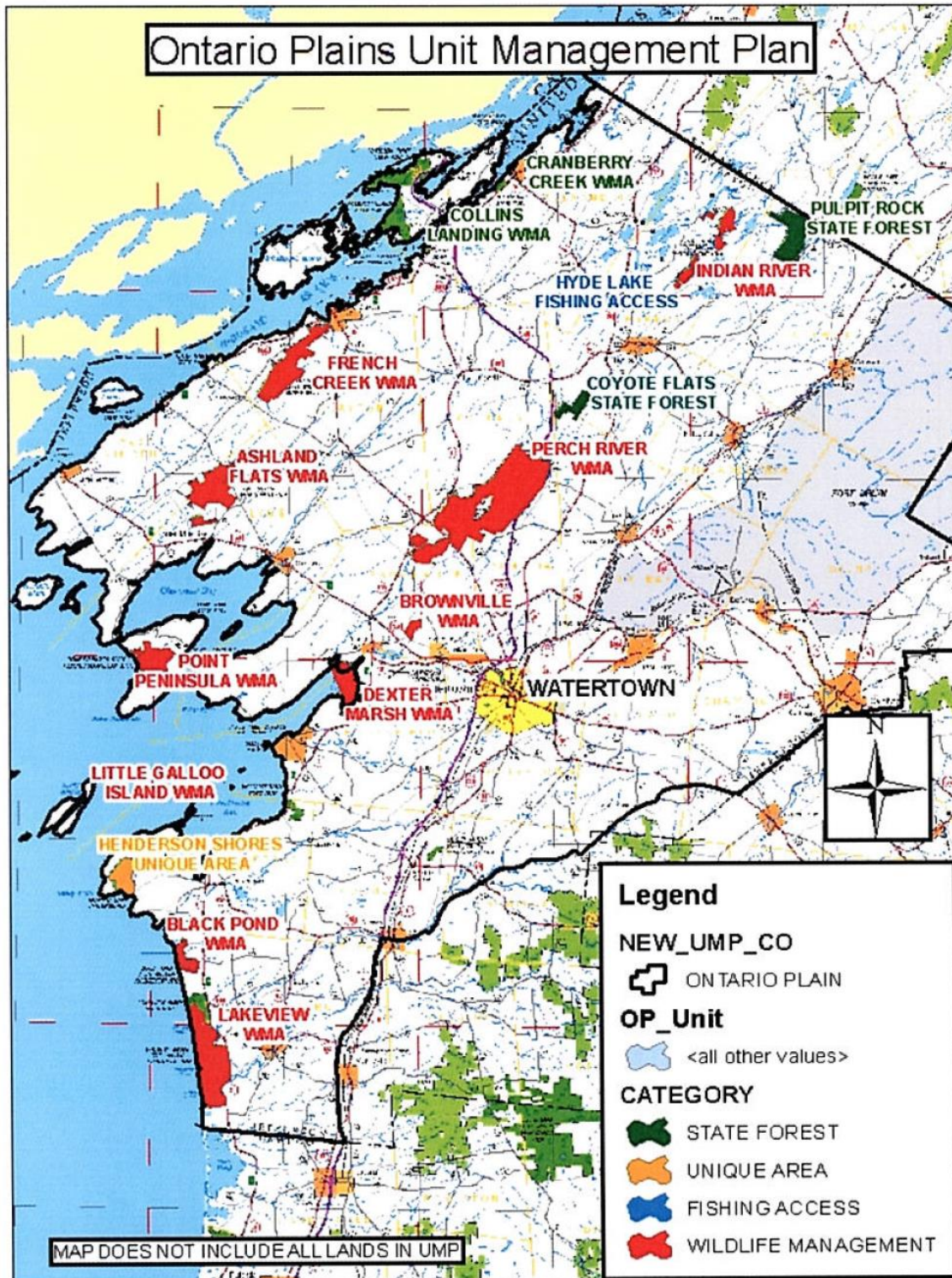
ECL §1-0101(1) provides in relevant part that “It is hereby declared to be the policy of the State of New York to conserve, improve and protect its natural resources and environment and to prevent, abate and control water, land and air pollution, in order to enhance the health, safety and welfare of the people of the state and their overall **economic** and social well-being.”

(Emphasis added) In considering all proposed actions, the Department will attempt to balance environmental protection with realizing potential economic benefit.

Goal 5 – Provide a Legal Framework for Forest Conservation and Sustainable Management of State Forests

Staff must have clear and sound guidance to direct their decisions and actions. Likewise, the public must have clear information regarding what they are and are not allowed to do on State Forests. Both of these are provided by well-written laws, regulations and policies. The Department will work to improve existing legal guidance that has proved to be inadequate, and create new guidance that is needed but does not yet exist.

Location Map



INFORMATION ON THE ONTARIO PLAINS UNIT

STATE LANDS IN THE UNIT

Information on the Ontario Plains Unit

State Lands in the Unit

Table I.A. contains the names of the state land facilities that make up this unit. A web page has been developed for each of the State Forests. Each web page features an updated map of the State Forest with recreational information and natural features.

| <i>Table I.A. – State Lands in the Unit</i> | | |
|---|-------------------|----------------|
| | Facility # | Acreage |
| Henderson Shores Unique Area – http://www.dec.ny.gov/lands/8041.html | Jefferson 11 | 890 |
| Coyote Flats State Forest – http://www.dec.ny.gov/lands/8054.html | Jefferson 10 | 553 |
| Pulpit Rock State Forest – http://www.dec.ny.gov/lands/8013.html | Jefferson 2 | 1603 |

State Land Not Included in this UMP

| <i>Table I.B – Facilities Not Included in this UMP</i> | | |
|--|-----------------|--|
| UNIT | FACILITY | ACREAGE GIS_Layer_New York State DEC Lands (NYSDEC) |
| Fishing Access Sites | | |
| Oswegatchie River at Oxbow FAS | 2531 | 4 |
| Indian River FAS (Kelsey Bridge) (Indian River Public Fishing Rights Area) | 0908 | 0.2 |
| Sixberry Lake FAS | 1216 | 1 |
| Moon Lake FAS | 1217 | 2 |
| Hyde Lake FAS | 1215 | 6 |
| Wildlife Management Areas | | |
| Ashland Flats WMA | Jefferson 90 | 2,025 |
| Black Pond WMA | Jefferson 95 | 542 |
| Brownville WMA | Jefferson 91 | 237 |

INFORMATION ON THE ONTARIO PLAINS UNIT

STATE LANDS IN THE UNIT

| | | |
|--------------------------|--------------|-------|
| Collins Landing WMA | Jefferson 85 | 52 |
| Cranberry Creek WMA | Jefferson 86 | 13 |
| Dexter Marsh WMA | Jefferson 87 | 1,240 |
| French Creek WMA | Jefferson 92 | 2,270 |
| Indian River WMA | Jefferson 94 | 941 |
| Lakeview WMA | Jefferson 96 | 3,442 |
| Little Galloo Island WMA | Jefferson 13 | 45 |
| Perch River WMA | Jefferson 97 | 8,046 |
| Point Peninsula WMA | Jefferson 89 | 1,122 |

Wildlife Management Areas within the Unit Boundaries

The unit's geographical boundary covers a large area of Northern Jefferson County. The Unit Management Plan will only focus its analysis and recommendations on the State Forest lands and Unique Areas within these boundaries. However, there are several Wildlife Management Areas located within this geographical boundary. The Wildlife Management Areas are managed by the NYS DEC Bureau of Wildlife, who are currently developing habitat management plans for these areas. This plan will briefly mention the WMAs and how the public is able to access them. To see a map of the specific Wildlife Management Area please visit the website listed.

Ashland Wildlife Management Area

<http://www.dec.ny.gov/outdoor/35474.html>

This 2,028-acre WMA is located in northern Jefferson County two miles northeast of the village of Three Mile Bay, along Ashland road. Much of the land borders Burnt Rock Road and County Route 8. Ashland is primarily an area of open grassland, wetlands, and deciduous forests. The Habitat Management Plan for Ashland WMA was finalized in 2015

https://www.dec.ny.gov/docs/wildlife_pdf/yfiashlandhmp.pdf and outlines the management goals of this area as:

- Managing approximately 7% of the WMA as young forest (0-10 years, 22% of forested landscape) to promote American woodcock, ruffed grouse, and golden-winged warbler habitat, and to restore native hardwoods over time;
- Maintaining approximately 24% as intermediate and mature forest;
- Managing a minimum of 25% as grasslands to provide high-quality grassland breeding bird and wintering raptor habitat;
- Managing approximately 38% as early successional shrublands; and
- Maintaining approximately 4% as wetlands to provide prime breeding and migratory stopover habitat for marsh birds and waterfowl.

The WMA is open for recreational opportunities such as hunting, bird watching, and trapping. No permits are required to use the area and the statewide seasons and hunting regulations

INFORMATION ON THE ONTARIO PLAINS UNIT

STATE LANDS IN THE UNIT

apply. This WMA is one of the stocking sites for pheasants in Jefferson County and is also a popular deer hunting site. There are 3 parking areas, 2 impounded wetlands, and a snowmobile trail for 1.86 miles managed by a local snowmobile club.

Black Pond Wildlife Management Area

<http://www.dec.ny.gov/outdoor/46385.html>

The Black Pond WMA, located in southern Jefferson County, is a natural wetland complex consisting of barrier beach, dune, open water, emergent marsh, and wooded/shrub swamp. Lakeshore barrier beach and wetland complexes such as this are rare in New York State. This 526-acre WMA has significant breeding and over-wintering habitat for birds and is located along the eastern shoreline of Lake Ontario, a critical migratory corridor. Black Pond WMA is open to the public year-round, but has special regulations restricting access times and access to sensitive areas. Users must obey all posted signs. Black Pond WMA features an accessible 0.4-mile trail passing through woodland, wetland and dune areas, ending on the Lake Ontario shoreline. The trail also provides opportunities for wildlife observation, a fishing pier and an observation deck. There is also a designated motorized access trail for people with disabilities leading into the forest. The area has 4 parking areas, 0.5 miles of Public Forest Access Road and a total of 1.6 miles of recreational trails.

Collins Landing Wildlife Management Area

<http://www.dec.ny.gov/outdoor/46404.html>

Collins Landing WMA is a total of 44 acres of land in 2 parcels, located in the towns of Alexandria and Orleans in Jefferson County next to the St. Lawrence River and in the shadow of the Thousand Island Bridge. Both parcels are accessed from Collins Landing Road. Collins Landing WMA offers recreational activities such as hunting, trapping, and bird watching. This location along the St. Lawrence River is a great area for bird watching. Many different species have been seen in the area including: Common Tern, American Bittern, and the Bald Eagle.

Cranberry Creek Wildlife Management Area

<http://www.dec.ny.gov/outdoor/46424.html>

The Cranberry Creek WMA is a 13.4-acre tract of land located at the northern tip of Jefferson County, north of the village of Alexandria Bay on state Route #12 and 1.5 miles on Swan Hollow Road. Despite its small size, Cranberry Creek WMA offers recreational activities such as hunting, fishing, trapping and bird watching. There is a short foot trail from the parking area allowing easy access to the memorial grave site and the waters' edge.

Dexter Marsh Wildlife Management Area

<http://www.dec.ny.gov/outdoor/40669.html>

Dexter Marsh WMA is a 1,232-acre marsh located at the eastern end of Lake Ontario, 2 miles southwest of the village of Dexter and 7 miles west of the city of Watertown. It is an extensive, relatively undisturbed example of a large bay-head marsh complex. The waters from Black River, Perch River and Muskalonge Creek flow through the marsh, which is continuous between the mouths of the three streams. One of the primary objectives of this WMA is to provide habitat for wetland associated wildlife populations. The area provides nesting grounds for large populations of marsh birds, and is important stopover for migrant waterfowl. This area is one of the most popular sites in this part of the state for waterfowl hunting. Private lands surround the marsh, limiting access to three State boat launching sites in addition to access via the public waters of Lake Ontario and Black River.

French Creek Wildlife Management Area

<http://www.dec.ny.gov/outdoor/40678.html>

This 2,300-acre WMA is located southwest of Clayton in Jefferson County. The Deferno, House, and Grant roads provide access from the southeast side of the unit. NYS Rt 12E and Crystal Springs Road provide access from the northwest side of the unit. French Creek and Bevins roads cross through the unit in the southwest corner and there is a small parking lot at the bridge on Bevins Road. Four unpaved Public Forest Access Roads provide approximately 3.3 miles of access into some of the WMA but foot travel is the primary means of movement through the area. Snowmobiles are allowed on this WMA, but are limited to the 3.1 miles of the 1000 Island Snowmobile Club Trail that winds through the WMA providing a scenic view of the winter landscape.

Honeyville Wildlife Management Area

<http://www.dec.ny.gov/outdoor/49634.html>

Honeyville WMA is located in Jefferson County, 8 miles south of Watertown and 2 miles east of Adams Center. Honeyville WMA is primarily an open water and emergent marsh impoundment of about 90 acres, with the remainder old field and shrub dominated uplands. These habitats combine for a total WMA size of 110 acres. The Habitat Management Plan for Honeyville WMA was finalized in 2017 and outlines the management goals of this area as:

- Retaining 66% of the WMA as impounded wetland to provide habitat for migratory waterfowl, marsh birds, amphibians, reptiles, and aquatic furbearers;
- Maintaining 19% as forest to provide habitat for forest-dependent species;
- Managing 11% as old field/grassland/shrubland habitat to provide diversity of habitats within the WMA; and
- Managing 4% of the WMA (16% of the forested acres) as young forest (0-10 years) to promote habitat for a suite of species including ruffed grouse, wild turkey, and American woodcock.

The WMA has a dike-enhanced pond visible to the north of State Route 177 at Honeyville. Current public access is very limited, consisting of a short section of road frontage on Fuller Road, marked with state WMA signs. There is a parking area on Fuller Road and a trail from there to the pond.

Indian River Wildlife Management Area

<http://www.dec.ny.gov/outdoor/49637.html>

Indian River WMA is a 968-acre tract of land located in the Town of Theresa, northern Jefferson County. One car top boat launch is located at the end of Red Lake Road, providing access to Red Lake and the other is off Nelson Road, providing access to the Indian River.

Lakeview Wildlife Management Area

<http://www.dec.ny.gov/outdoor/9328.html>

Lakeview WMA is part of the largest natural freshwater barrier beach system in New York State. Located in southern Jefferson County, Lakeview WMA borders Lake Ontario from Southwick State Park on the north to Montario Point to the south. This 3,444-acre area is located on state Route 3, 20 miles southwest of Watertown, or 15 miles northwest of Pulaski. The Habitat Management Plan for Lakeview WMA was finalized in 2018

(http://www.dec.ny.gov/docs/wildlife_pdf/yfilakeviewhmp.pdf) and outlines the management goals of this area as follows:

INFORMATION ON THE ONTARIO PLAINS UNIT

SOILS

- Maintaining 65% of the WMA as open water and wetland habitat to provide high-quality migratory waterfowl nesting, resting, and foraging habitat; prime waterfowl hunting, furbearer trapping, and fishing opportunities; and breeding habitat for endangered, threatened, or Species of Greatest Conservation Need (SGCN) bird species;
- Managing approximately 2% of the WMA (10% of the forested acres) as young forest (0-10 years) to promote habitat for American woodcock, ruffed grouse, wild turkey, white-tailed deer, migratory songbirds, and other SGCN;
- Maintaining approximately 17% as intermediate and mature forest;
- Maintaining approximately 3% as agricultural lands to provide forage for many wildlife game and non-game species;
- Managing approximately 2% as early successional shrublands and grasslands; and
- Protecting approximately 9% as Lake Ontario beaches and dunes.

The WMA offers three designated boat launch sites for canoes or car top boats with a 10-horsepower limit. There are four unpaved Public Forest Access Roads, totaling 1.6 miles. The WMA also has 4.5 miles of recreation trails, of which 0.7-miles are accessible for people of all abilities.

Perch River Wildlife Management Area

<http://www.dec.ny.gov/outdoor/46441.html>

This 7,862-acre WMA is located in central Jefferson County five miles northwest of the City of Watertown. State Route 12 runs through the lower third of the Perch River Marsh and WMA and there is a parking area accessible from State Route 12. The primary access points for recreationists are along the Vaadi, Dog Hill, and Allen roads. Perch River WMA is divided into three zones: refuge, restricted use, and public use. With the exception of an annual open house, where the entire WMA is open to the public for 2 weeks in late August, there is no public access allowed in the refuge areas. In the Restricted Area, there is no public access during most of the spring and summer, but controlled hunting and trapping are allowed during the fall and winter. Hunters must register to enter the area on each day they hunt. Trapping is by seasonal permit. The public use zone is open year-round. Rules and regulations are posted at the headquarters.

Point Peninsula Wildlife Management Area

<http://www.dec.ny.gov/outdoor/49643.html>

This 1,122-acre WMA is located on Lake Ontario in Jefferson County on the western edge of Point Peninsula, 8.5 miles southwest of the village of Three Mile Bay. It is divided by Beach, South Shore and Pine Woods roads. This area is managed for grassland and wetland habitat. There are no developed facilities other than two parking areas on this WMA.

Soils

Soils provide the foundation, both figuratively and literally, of forested ecosystems. They support an immense number of microorganisms, fungi, mosses, insects, herpetofauna and small mammals which form the base of the food chain. They filter and store water and also provide and recycle nutrients essential for all plant life. For information on DEC's policies for the protection of forest soils, as well as water resources please see SPSFM page 108 at <http://www.dec.ny.gov/lands/64567.html>.

Table I.C. - Soils (see Figure 1 for maps)

| Predominant Soil Type(s) | Drainage Class | Acres |
|--------------------------------------|------------------------------|-------|
| Coyote Flats State Forest | | |
| Galen Fine Sandy Loam | Moderately Well Drained | 150 |
| Deerfield Loamy Fine Sand | Moderately Well Drained | 142 |
| Wareham Loamy Fine Sand | Poorly Drained | 124 |
| Saprists & Aquepts, ponded | Very Poorly Drained | 77 |
| Pulpit Rock State Forest | | |
| Muskellunge Silt Loam | Somewhat Poorly Drained | 160 |
| Madalin Silt Loam | Poorly Drained | 30 |
| Insula/Milsite/Quetico Rock Outcrops | Well/Excessively Drained | 1164 |
| Henderson Shores Unique Area | | |
| Benson-Galoo Complex, very rocky | Somewhat Excessively Drained | 337 |
| Galoo-Rock Outcrop Complex | Excessively Drained | 340 |
| Newstead Silt Loam | Somewhat Poorly Drained | 150 |

Water Resources

DEC's GIS data contains an inventory of wetlands, vernal pools, spring seeps, intermittent streams, perennial streams, rivers and water bodies on the unit. This data is used to establish special management zones and plan appropriate stream crossings for the protection of water resources. Table I.D. contains a summary of water resources data on the unit.

Table I.D. – Water Resources (see Figure 2 for maps)

| | |
|------------------------------|---|
| Watersheds | |
| Northeast Lake Ontario Basin | |
| Henderson Shores UA | High Conservation Value Forest for Watershed Protection |
| | Mill Creek-Frontal Lake Ontario Watershed |
| Coyote Flats SF | Upper Perch River Watershed |
| Pulpit Rock SF | Red Lake-Indian River Watershed |
| | Muskellunge Lake-Indian River Watershed |
| | Vrooman Creek-Oswegatchie River Watershed |
| Wetlands | |

INFORMATION ON THE ONTARIO PLAINS UNIT

WATER RESOURCES

| | | |
|---------------------------------|----------------|----------------|
| Henderson Shores UA | | 217 ac. |
| Coyote Flats SF | | 60 ac. |
| Pulpit Rock SF | | 277 ac. |
| <i>Streams/Rivers</i> * | | |
| Perennial streams/rivers | Class C | Class D |
| Henderson Shores | 0.75 mi. | |
| Coyote Flats SF | 1.37 mi. | |
| Pulpit Rock SF | 0.64 mi. | 1.23 mi. |
| <i>Ponds</i> | | |
| Henderson Shores | | 0 |
| Coyote Flats SF | | 59 acres |
| Pulpit Rock SF | | 185 acres |

*For information regarding stream classifications please refer to <http://www.dec.ny.gov/permits/6042.html>

Watersheds, Major Streams, Rivers and Water Bodies

The Northeast Lake Ontario-St. Lawrence River (NELO-SLR) Basin is the second largest in New York State (NYS) in terms of land area, covering all or part of 9 counties and about 4.9 million acres, including all of St. Lawrence County, most of Franklin County, a large portion of Jefferson, Lewis, Herkimer and Hamilton counties, and small parts of Essex and Clinton counties.

Henderson Shores Unique Area has approximately 0.7 mile of Lake Ontario shoreline. Lake Ontario, the 14th largest lake in the world, is the smallest of the Great Lakes in surface area. Champlain first called it Lake St. Louis in 1632. On a Sanson map in 1656, it remained Lac de St. Louis. In 1660, Creuxius gave it the name Lacus Ontarius. Ontara in Iroquois means “lake” and Ontario, “beautiful lake”. ([Great Lakes Atlas](#), Environment Canada and U.S. Environmental Protection Agency, 1995). Henderson Shore along with a suite of state-owned parcels to the south that make up the Eastern Lake Ontario Barrier Beach and Wetland Complex provide natural shoreline habitat and riparian functions. Lake Ontario is an incredible resource whether it be for wildlife, recreation or a watershed protection.

Coyote Flats State Forest has some large open water beaver flow wetland complexes surrounded by low-lying forest. During forest inventory, this forest type was identified as forested wetland. (NYSDEC_L&F Forested Wetlands Inventory Category). The open water wetlands are creating good habitat for waterfowl, mink and beaver and also pre-emergent wetland vegetation. Coyote Flats has 10 acres of New York State regulated fresh water wetlands combined with 44 acres of Federally classified freshwater wetlands.

Pulpit Rock State Forest borders and has access to Payne Lake. Payne Lake is approximately 150 acres, at 345 feet elevation with the maximum depth 15 feet and about 2.9 miles of mixed private and public shoreline. The lake has no defined inlet waters and its outlet is an unnamed tributary of the Oswegatchie River. The lake provides kayaking, canoeing and boating opportunities as well as year-round fishing. Within the State Forest boundary there are 135 New York State classified wetlands mainly stacked atop 205 Federally classified wetlands.

Biodiversity

Information regarding biodiversity has been gathered to support the following goals:

- “Keep Common Species Common” by maintaining landscape-level habitat diversity and a wide variety of naturally occurring forest-based habitat as well as managing plantations according to DEC natural resources policy.
- Protect and, in some cases, manage known occurrences and areas with potential to harbor endangered plants, wildlife and natural communities.
- Consider other “at-risk species” whose population levels may presently be adequate but are at risk of becoming imperiled due to new incidences of disease or other stressors.

Common Species

The following information sources indicate which common species (among other species) are present over time:

| | | |
|------------------|-------------------------|-------------------------|
| Henderson Shores | NYS Breeding Bird Atlas | Block Numbers 3985 A, C |
| Coyote Flats SF | NYS Breeding Bird Atlas | Block Numbers 4289D |
| Pulpit Rock SF | NYS Breeding Bird Atlas | Block Numbers 4490 A, C |

Breeding Bird Atlas blocks can be searched at <http://www.dec.ny.gov/cfm/xtapps/bba/>

| | | | |
|------------------|------------|---------------|---------------|
| Henderson Shores | Herp Atlas | Block Numbers | stoneypoint |
| Coyote Flats SF | Herp Atlas | Block Numbers | theresa |
| Pulpit Rock SF | Herp Atlas | Block Numbers | muskulungelak |

Herp Atlas information on amphibians, toads, frogs, turtles, lizards and snakes can be found at <http://www.dec.ny.gov/animals/7140.html>

Game Species Harvest Levels WMU Numbers 6A, 6G
(Deer take, bear take, turkey harvest, etc.)

INFORMATION ON THE ONTARIO PLAINS UNIT

BIODIVERSITY

Habitat

The following information provides several representations of habitat types on the unit.

Vegetative Types and Stages

Table I.E. - Vegetative Types and Stages within Henderson Shores Unique Area (see Figure 4 for maps)

| Vegetative Type | Acres by Size Class | | | | % of Total |
|-----------------------------------|---------------------|-----------|--------|-------|------------|
| | 0 -5 in | 6 - 11 in | 12+ in | Other | |
| Natural Forest Hardwood | 0 | 95 | 24 | 0 | 13% |
| Natural Forest Conifer | 76 | 304 | 0 | 0 | 43% |
| Plantation Softwoods | 0 | 0 | 0 | 0 | 0% |
| Plantation Hardwoods | 0 | 0 | 0 | 0 | 0% |
| Forested Wetland | 183 | 44 | 78 | 0 | 34% |
| Wetland | 0 | 0 | 0 | 27 | 3% |
| Ponds | 0 | 0 | 0 | 0 | 0% |
| Open/Brush | 0 | 0 | 0 | 49 | 6% |
| Other (Roads, Parking lots, etc.) | 0 | 0 | 0 | 10 | 1% |
| % of Total | 29% | 50% | 11% | 10% | 100% |

Vegetative Types and Stages

Table I.F. - Vegetative Types and Stages for Coyote Flats SF (see Figure 4 for maps)

| Vegetative Type | Acres by Size Class | | | | % of Total |
|---|---------------------|-----------|--------|-------|------------|
| | 0 -5 in | 6 - 11 in | 12+ in | Other | |
| Natural Forest Hardwood (Forested Wetland) | 0 | 374 | 11 | 0 | 68% |
| Natural Forest Conifer | 0 | 76 | 0 | 0 | 14% |
| Plantation Softwoods | 0 | 8 | 0 | 8 | 1.5% |
| Plantation Hardwoods | 0 | 0 | 0 | 0 | 0% |
| Wetland | 0 | 0 | 0 | 20 | 4% |
| Ponds | 0 | 0 | 0 | 60 | 11% |
| Open/Brush | 0 | 0 | 0 | 0 | 0% |
| Other (Roads, Parking lots, etc.) | 0 | 0 | 0 | 8 | 1.5% |
| % of Total | 0 | 82% | 2% | 16% | 100% |

Vegetative Types and Stages

Table I.G. - Vegetative Types and Stages Pulpit Rock SF (see Figure 4 for maps)

| Vegetative Type | Acres by Size Class | | | | % of Total |
|-----------------------------------|---------------------|-----------|--------|-------|------------|
| | 0 -5 in | 6 - 11 in | 12+ in | Other | |
| Natural Forest Hardwood | 723 | 346 | 0 | 0 | 68% |
| Natural Forest Conifer | 0 | 132 | 0 | 0 | 8% |
| Plantation Softwoods | 0 | 98 | 0 | 0 | 6% |
| Plantation Hardwoods | 0 | 0 | 0 | 0 | 0% |
| Wetland | 0 | 0 | 0 | 106 | 6% |
| Ponds | 0 | 0 | 0 | 185 | 12% |
| Open/Brush | 0 | 0 | 0 | 0 | 0% |
| Other (Roads, Parking lots, etc.) | 0 | 0 | 0 | 13 | 0.1% |
| % of Total | 45% | 36% | 0% | 19% | 100% |

High Conservation Value Forest

High Conservation Value Forests (HCVF) are those portions of State Forests which have known high conservation values that the Department feels should take precedent over all other land use and management decisions. HCVFs may not be identified on every unit and State Forests that have an HCVF designated will not necessarily have multiple classifications. Areas that are identified as having exceptional values may be managed for timber, wildlife and/or recreation, however management activities must maintain or enhance the high conservation values present. Currently, HCVFs are assigned to one or more of five land classifications, four of which may be found on State Forests:

1. Rare Community - Forest areas that are in or contain rare, threatened or endangered ecosystems.
2. Special Treatment - Forest areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species, and refugia).
3. Cultural Heritage – Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health) and are critical to their traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).
4. Watershed - Forest areas that provide safe drinking water to local municipalities.
5. Forest Preserve* - Forest areas containing globally, regionally or nationally significant large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance.

INFORMATION ON THE ONTARIO PLAINS UNIT

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**Forest Preserve lands inside both the Adirondack and Catskills Park Blue line. Although Forest Preserve is not considered State Forest, they offer a significant high conservation value for lands managed by the Department.*

Portions of the Ontario Plains Unit have been identified as having high conservation value. Henderson Shores Unique Area is determined to be HVCF for Watershed Protection and Calcareous Pavement Barrens as rare communities. The priority in acquiring this property was preservation of the lake frontage. The main objective of the property is to provide natural shoreline habitat and riparian function. Acreage totals for designated HCVFs located within the unit can be found in the appropriate sections below. For more information on HCVFs please go to <http://www.dec.ny.gov/lands/42947.html>.

Representative Sample Areas

Representative Sample Areas (RSA) are stands which represent *common* ecological communities (i.e. forest types) of high or exceptional quality in their natural state. RSAs are setup to serve one or more of the following purposes:

1. To establish and/or maintain an ecological reference condition; or
2. To create or maintain an under-represented ecological condition (i.e. includes samples of successional phases, forest types, ecosystems, and/or ecological communities); or
3. To serve as a set of protected areas or refugia for species, communities and community types not captured in other protection standards such as an endangered species or a High Conservation Value Forest.

RSAs can simply be viewed as an effort to keep high quality examples of common ecosystems or assemblages from becoming rare in the landscape. An RSA designation does not prevent future management and in certain cases might require silvicultural treatment to achieve site conditions that will perpetuate the representative community. In addition, treatment of an RSA to mitigate unfavorable conditions that threaten the continuation of the target community will be allowed (ex. fire, natural pests or pathogens). Although allowed, silvicultural treatment or infrastructure development should not impact the RSA in a way that will degrade or eliminate the viability of the specific assemblage or community. For more information on RSAs please go to <http://www.dec.ny.gov/lands/42947.html>.

At this time, the unit does not have any stands identified as RSAs.

Matrix Forest Block and Linkages

The identification of large, unfragmented forested areas, also called Matrix Forest Blocks are an important component of biodiversity conservation and forest ecosystem protection. In addition, securing connections between major forested landscapes and their imbedded matrix forest blocks is important for the maintenance of viable populations of species, especially wide-ranging and highly mobile species, and ecological processes such as dispersal and pollination over the long term. Changes in both land use and climate will stimulate the alteration of movement patterns and range shifts for many species as they respond to changes in habitat availability and configuration along with changes in temperature, precipitation and the distribution of other

species. Ensuring large block of forest along with connectivity corridors remain may help to buffer the negative effects of these changes and allow species and communities to success.

Maintaining or enhancing matrix forest blocks and connectivity corridors must be balanced against the entire array of goals, objectives and demands that are placed on a particular State Forest. Where matrix forest block maintenance and enhancement is chosen as a priority for a given property, management actions and decisions should emphasize continuous forested conditions.

Pulpit Rock is contained in the Black Lake/Indian River Lake Matrix Forest. The importance of the matrix forest is in the diversity of forested species that are found in it, such as green ash, oaks, butternuts, hickories in company with the remoteness and underdeveloped nature of the area. Pulpit Rock has some stands with this richness for nut and mast bearing fruit. Management will focus on maintaining and enhancing this diversity.

More information regarding Matrix Forest blocks, connectivity corridors and associated management considerations can be found in the SPSFM page 85 at <http://www.dec.ny.gov/lands/64567.html>.

Resource Protection Areas

In the course of practicing active forest management, it is important to identify areas on the landscape that are either reserved from management activity or where activity is conducted in such a manner as to provide direct protection and enhancement of habitat and ecosystem functions. For more information on these protective measures, see SPSFM page 85 at <http://www.dec.ny.gov/lands/64567.html>.

Special Management Zones (SMZs) provide continuous over-story shading of riparian areas and adjacent waters, by retaining sufficient tree cover to maintain acceptable aquatic habitat and protect riparian areas from soil compaction and other impacts. DEC's buffer guidelines also maintain corridors for movement and migration of all wildlife species, both terrestrial and aquatic. Buffers are required within SMZs extending from wetland boundaries, high-water marks on perennial and intermittent streams, vernal pool depression, spring seeps, ponds and lakes, recreational trails, campsites and other land features requiring special consideration. See Figure 2 after the appendices for a map of the SMZs as applied on the unit. For more information regarding Special Management Zones please see www.dec.ny.gov/sfsmzbuffers.pdf

Important Bird Areas

The Important Bird Areas (IBAs) program is one of Audubon New York's flagship conservation programs. Across New York, more than 130 IBAs have been recognized as significant places for birds to survive and thrive. These areas are identified through a rigorous scientific process by leading avian experts. Each Recognized IBA meets one of three criteria: a place where birds congregate in large numbers at one time; a place for species that are at-risk; or a place that supports groups of birds representing certain habitats such as forests, wetlands, grasslands and shrublands.

INFORMATION ON THE ONTARIO PLAINS UNIT

BIODIVERSITY

| <i>Table I.H. – RSAs and Rare Community HCFVs within the Unit</i> | | | | |
|---|-----------------|-------------------------------|----------------|---------|
| Community Name | Vegetative Type | Facility Name / Stand Numbers | NYNHP Rank | Acreage |
| <i>Representative Sample Areas of Commonly Occurring Natural Communities</i> | | | | |
| NONE IDENTIFIED | | | | |
| <i>Rare Community HCVF</i> | | | | |
| Calcareous Pavement Barrens | | Henderson Shores Unique Area | Rare Community | 250 |
| Watershed Protection | | Henderson Shores Unique Area | | 890 |
| | | | | |
| <i>Forest Matrix Blocks and Linkages</i> | | | | |
| Black/Indian River Lakes | | Pulpit Rock State Forest | Tier I | 1603 |
| <i>Important Bird Areas</i> | | | | |
| E Lake Ontario Barrier Beach | | Henderson Shores Unique Area | | 890 |
| Perch River | | Coyote Flats State Forest | | 553 |
| Indian River/Black Lake | | Pulpit Rock State Forest | | 1603 |

At-Risk Species

The presence of at-risk species and communities within the Ontario Plains Unit and in the surrounding landscape has been investigated to inform appropriate management actions and protections. This investigation was conducted in development of this UMP and the associated inventory of State Forest resources. A more focused assessment will be conducted before undertaking specific management activities in sensitive sites. Appropriate protections may include reserving areas from management activity or mitigating impacts of activity. For more information on protection of at-risk species, please see SPSFM page 115 at

<http://www.dec.ny.gov/lands/64567.html>.

Investigation included the following:

- A formal plant survey was conducted on this unit in the spring of 2005 by the New York Natural Heritage Program.
- Element Occurrence Records for the New York Natural Heritage Program's Biological and Conservation Data System were consulted for information.
- Consultation of NHP species guides.
- Consultation of the NYS Comprehensive Wildlife Conservation Strategy

Table I.I. below lists the species confirmed or predicted on the State Forests that comprise this unit and in the larger landscape, as well as their required habitats.

INFORMATION ON THE ONTARIO PLAINS UNIT

BIODIVERSITY

*Table I.I. - At-Risk Species**

| Species Name | NYNHP Rank | Habitat | Record Source | NYS Status |
|---|-------------|--|---------------|------------|
| <i>Predicted within Henderson Shores Unique Area</i> | | | | |
| Lake Sturgeon | S1S2 | Freshwater Lakes | PRED | Threatened |
| Spiny Softshell | | | PRED | |
| Blackchin Shiner | S1 | Freshwater Lakes | PRED | Not Listed |
| Iowa Darter | S2 | Freshwater Lakes | PRED | Not Listed |
| Black Tern | S2B | Emergent Marsh | PRED | Endangered |
| Least Bittern | S3B, S1N | Freshwater marsh | PRED | Threatened |
| Upland Sandpiper | S3B | Grasslands | PRED | Threatened |
| Pied-billed Grebe | S3 | Freshwater Marsh | PRED | Threatened |
| Bald Eagle | S1 | Open Water/Mature Forest | PRED | Threatened |
| A Notodontid Moth | | | PRED | |
| Troublesome Sedge | S2S3 | Limestone Forest | PRED | Threatened |
| Marsh Horsetail | | Deep Emergent marsh/red maple-hardwood swamp | PRED | |
| Cork Elm | S2S3 | Limestone Woodlands | PRED/CONF | Threatened |
| Scarlet Indian-paintbrush | S1 | Sedge Meadow | PRED | Endangered |
| Calcareous Shoreline Outcrop | S2 | Terrestrial Community | CONF | Imperiled |
| Alvar Pavement Grassland | S2 | Terrestrial Community | CONF | Imperiled |
| Species Name | NYNHP Rank | Habitat | Record Source | NYS Status |
| <i>Predicted within Coyote Flats State Forest</i> | | | | |
| Lake Sturgeon | | | NOT LIKELY | |
| Sedge Wren | S2 | Grasslands | PRED | Threatened |
| Blanding's Turtle | S2S3 | Shallow marsh/Forested Wetland | PRED | Threatened |
| Iowa Darter | S2 | Freshwater Lakes | PRED | Not Listed |
| Least Bittern | S3B, S1N | Freshwater marsh | PRED | Threatened |
| Brook Snaketail | S3 | Freshwater Streams | PRED | Not Listed |
| Pied-billed Grebe | S3 | Freshwater Marsh | PRED | Threatened |
| Bald Eagle | S1 | Open Water/Mature Forest | PRED | Threatened |

INFORMATION ON THE ONTARIO PLAINS UNIT

BIODIVERSITY

| Upland Sandpiper | S3B | Grasslands | PRED | Threatened |
|---|---------------|--|------------------|-----------------|
| Hill's Pond Weed | S2 | Marsh headwater stream, deep emergent marsh | PRED | Threatened |
| Drummond's Rock- cress | S2 | Shale Cliff and Talus Community | PRED | Threatened |
| Rhodora | S2 | Shrub Wetland/Forested Wetland | PRED | Threatened |
| Species Name | NYNHP Rank | Habitat | Record Source | NYS Status |
| <i>Confirmed within Pulpit Rock State Forest</i> | | | | |
| Bald Eagle | S1 | Open Water/Mature Forest | NHEO -CONF | Threatened |
| Peregrine Falcon | S3B | Ledges or Faces of Rocky Cliffs | NHEO -CONF | Endangered |
| <i>Predicted within Pulpit Rock State Forest</i> | | | | |
| | | | | |
| Tiger Spiketail | S1 | Freshwater Streams | PRED | Not Listed |
| Brook Snaketail | S3 | Freshwater Streams | PRED | Not Listed |
| Extra-striped Snaketail | S2S3 | Freshwater Rivers | PRED | Special Concern |
| Brook Snaketail | S3 | Freshwater Rivers | PRED | Not Listed |
| Blackchin Shiner | S1 | Freshwater Lakes | PRED | Not Listed |
| Iowa Darter | S2 | Freshwater Lakes | PRED | Not Listed |
| Greater Redhorse | | Freshwater Lakes | PRED | |
| Lake Sturgeon | | | NOT LIKELY | |
| Timber Rattlesnake | S3 | Forests with rocky outcrops | PRED | Threatened |
| Longtail Salamander | S2S3 | NH-Hemlock Forest | NOT LIKELY | Threatened |
| Mooneye | | Freshwater Lakes | PRED | Threatened |
| Blanding's Turtle | S2S3 | Shallow marsh/ Forested Wetland | PRED | Threatened |
| Sedge Wren | S2 | Grasslands | PRED | Threatened |
| Least Bittern | S3B, S1N | Freshwater marsh | PRED | Threatened |
| Pied-billed Grebe | S3 | Freshwater Marsh | PRED | Threatened |
| Drummond's Rock- cress | S2 | Shale Cliff and Talus Community | PRED | Threatened |
| Back's Sedge | S2 | Calcareous Cliff and Limestone Forests | PRED | Threatened |
| Golden-seal | S2 | Maple-Basswood Mesic Forest | PRED | Threatened |
| Smooth Cliff Brake | S2 | Calcareous Cliff Community | PRED | Threatened |

INFORMATION ON THE ONTARIO PLAINS UNIT

VISUAL RESOURCES

| | | | | |
|-------------------|------|--|-----------|------------|
| Lake-cress | S2 | Shrub Swamp | PRED | Threatened |
| Hill's Pondweed | S2 | Marsh headwater stream, deep emergent marsh | PRED | Threatened |
| Cork Elm | S2S3 | Limestone Woodlands | PRED/CONF | Threatened |
| Purple Rock-cress | S2 | Limestone Woodlands | PRED | Threatened |
| | | | | |

*Defined as NYNHP rank S1, S2, S2-3, G1, G2 or G2-3 OR identified as an SGCN

Key to Codes

BBA - Breeding Bird Atlas

NHEO – Natural Heritage Element Occurrence

(PRED) - Predicted Species

(CONF) - Confirmed Species Status

E - Endangered Species (New York)

T - Threatened Species (New York)

PSC - Protected, Special Concern Species (New York)

SGCN - Species of Greatest Conservation Need

*Table I.J. – Moth Survey on Henderson Shores Unique Area**

| Scientific Name | Common Name | Site Description | Date |
|----------------------|---------------------------|------------------|------------|
| Catocala palaeogama | Oldwife Underwing | Wooded Edge | 10/20/2015 |
| Nephelodes minians | Bronzed Cutworm | Wooded Edge | 10/20/2015 |
| Tolype velleda | Large Tolype | Wooded Edge | 10/20/2015 |
| Agrotis gldiaria | Swardsman Dart Moth | Cedar Opening | 10/20/2015 |
| Caenurgina erechtea | Forage Looper Moth | Cedar Opening | 10/20/2015 |
| Lambdina fiscellaria | Hemlock Looper Moth | Cedar Opening | 10/20/2015 |
| Nepytia canosaria | False Hemlock Looper Moth | Cedar Opening | 10/20/2015 |

*In 2015, Natural Heritage Biologist performed moth surveys along Lake Ontario. Above chart describes the findings on Henderson Shores UA.

Visual Resources

The aesthetic quality of State Forests is considered in management activity across the unit. However, some areas have greater potential to preserve or create unique opportunities for public enjoyment. These especially scenic areas are documented below. For information on the protection of visual resources, please see SPSFM page 81 at

<http://www.dec.ny.gov/lands/64567.html>.

INFORMATION ON THE ONTARIO PLAINS UNIT

HISTORIC AND CULTURAL RESOURCES

This unit present some very scenic points of interest, whether its walking down Radar Public Forest Access Road to listen to the waves of Lake Ontario crash onto the rocky shores at Henderson Shores Unique Area, or hiking to the rock outcrops on Pulpit Rock State Forest to look over Payne Lake or over to Canada or birdwatching at Coyote Flat State Forest. The visual resources of our state forest are truly in the eye of the beholder, for some just the walk through a wooded landscape during autumn is the all the eye candy they need.

Historic and Cultural Resources

History of the Unit

Henderson Shores Unique Area

The area around Henderson Shores Unique Area has some interesting history. Stoney Point is on Lake Ontario just north of Henderson Shores. From the air, it's immediately apparent how Stoney Point must have received its name, as rocky ledges, extending from the point for some distance, can be seen through the clear waters of Lake Ontario."

(<http://www.lighthousefriends.com/light.asp?ID=310>). This point was an important reference for those wanting to enter Henderson Bay successfully. In 1837, it was determined that a lighthouse was needed on this point and in 1869 the original lighthouse was replaced by the current one. It was then raised in 1901 to its present height of 73 feet height to increase the range of the light. Its coordinates are 43°50'22N, 76°17'54W. The lighthouse, beginning in 2002, has been restored by private individuals and is not open to the public.

[https://en.wikipedia.org/wiki/Stony_Point_\(Henderson\)_Light](https://en.wikipedia.org/wiki/Stony_Point_(Henderson)_Light).

Henderson Shores Unique Area also adjoins Robert G. Wehle State Park. In 1990, Robert G. Wehle sold 1,067 acres to the NYS Department of Environmental Conservation (DEC), which lands were then managed out of the DEC Lowville Office. In August of 2003, the decision was made to transfer the land from DEC to Office of Parks, Recreation and Historical Preservation (OPRHP) for management as both a recreational facility and a facility which focuses on conservation. Following the transfer, the new State Park was created in 2004 to provide a place for patrons to enjoy scenic views of Lake Ontario, a trail system, camping, cabin rentals and other park facilities.

The Wehle Property, between 1895 and 1947, was a U.S. Military property and used for training purposes in preparation for warfare. The area was known as the Stoney Point Rifle Range and housed soldiers for several days at a time as they trained for land, oversea and air combat. The Stoney Point Range was the main firing range used by Pine Camp (now Fort Drum), Fort Ontario and Madison Barracks.

In the 1950's, after the military use of the property, Robert Wehle's father Louis Wehle, purchased the land with Thomas Nagle. Together, they used the land for cattle grazing and agriculture until 1964 when Louis Wehle passed away. In 1968, Robert Wehle acquired the land from his father's estate, and constructed several of the structures on the site today. Robert Wehle had a big interest in training and running bird dogs and was a sculptor as well. Some of the structures used for dog training are still around today (OPRHP.2010. Robert G. Wehle State Park Final Master Plan/Final Environmental Impact Statement).

Coyote Flats State Forest

There is very little history on Coyote Flats. The land was purchased from the Town of LeRay on July 16, 1949 as 3 parcels of approximately 553 acres for \$2,216.00. This acquisition is known as Proposal A for Jefferson Reforestation Area #10.

Pulpit Rock State Forest

Pulpit Rock State Forest is named for a unique nearby rock formation (possibly a glacial water carved pothole in bedrock) that once served as an outdoor podium from which traveling clergy preached to local pioneers.

Inventory of Resources

The term cultural resources encompass a number of categories of human created resources including structures, archaeological sites and related resources. The Department is required by the New York State Historic Preservation Act (SHPA) (PRHPL Article 14) and SEQRA (ECL Article 8) as well as Article 9 of Environmental Conservation Law, 6NYCRR Section 190.8 (g) and Section 233 of Education Law to include such resources in the range of environmental values that are managed on public lands. For more information on protection of historic and cultural resources, please see SPSFM page 139 at <http://www.dec.ny.gov/lands/64567.html>.

As a part of the inventory effort associated with the development of this plan the Department arranged for the archaeological site inventories maintained by the New York State Museum and the Office of Parks, Recreation and Historic Preservation to be searched in order to identify known archaeological resources that might be located within or near the unit. The two inventories overlap to an extent but do not entirely duplicate one another. The purpose of this effort was to identify any known sites that might be affected by actions proposed within the unit and to assist in understanding and characterizing past human use and occupation of the unit.

Henderson Shores and Pulpit Rock have possible archeological sites in or around the State Land. Also, although there is no evidence, it is suspected that there may have been Native American activity along the cliff/ledges at Payne Lake.

Historic and Archaeological Site Protection

The historic and archaeological sites located within the unit as well as additional unrecorded sites that may exist on the property are protected by the provisions of the New York State Historic Preservation Act (SHPA - Article 14 PRHPL), Article 9 of Environmental Conservation Law, 6NYCRR Section 190.8 (g) and Section 233 of Education Law. No actions that would impact known resources are proposed in this Unit Management Plan. Should any such actions be proposed in the future they will be reviewed in accordance with the requirements of SHPA. Unauthorized excavation and removal of materials from any of these sites is prohibited by Article 9 of Environmental Conservation Law and Section 233 of Education Law. In some cases, additional protection may be afforded these resources by the federal Archaeological Resources Protection Act (ARPA).

Archaeological Research

The archaeological sites located on this land unit as well as additional unrecorded sites that may exist on the property may be made available for appropriate research. Any future archaeological research to be conducted on the property will be accomplished under the auspices of all appropriate permits. Research permits will be issued only after consultation with

INFORMATION ON THE ONTARIO PLAINS UNIT

REAL PROPERTY

the New York State Museum and the Office of Parks, Recreation and Historic Preservation. Extensive excavations are not contemplated as part of any research program in order to assure that the sites are available to future researchers who are likely to have more advanced tools and techniques as well as more fully developed research questions.

Real Property

DEC's Bureau of Real Property GIS system contains maps and some deeds for State Forest properties. Original deeds were also consulted to complete the information below.

Boundary Lines

| <i>Table I.K. – Status of Boundary Lines</i> | | | |
|--|--------------------------|--------------------------|----------------------------|
| Facility Name | Length of Boundary (mi.) | Year of Last Maintenance | Next Scheduled Maintenance |
| Henderson Shores | 5.7 mi | 2014/2015 | 2020/2021 |
| Coyote Flats SF | 5.78 mi. | 2015/2016 | 2021/2022 |
| Pulpit Rock SF | 9.2 mi. | 2012/2013 | 2018/2019 |

For more information on boundary line maintenance, please see SPSFM page 153 at <http://www.dec.ny.gov/lands/64567.html>.

Exceptions and Deeded Restrictions

| <i>Table I.L. – Exceptions and Deeded Restrictions</i> | | | |
|--|-------------------|--|---------------------------------------|
| Facility Name | RA # | Description E.g., deeded ROW, easement, access lane, water rights, cemetery, etc. | Proposal ID (Surveyor's Reference) |
| Pulpit Rock SF Root ROW Road | Jeff RA# 2 | July 23, 1982 Liber 924 of Deeds, Page 355 Jefferson County Clerk ROW to provide public ingress and egress from Route 22 in a northerly and easterly direction to State Land. | |
| Pulpit Rock SF | Jeff RA# 2 | NYS In Fee Ownership Payne Lake Lot 16.00-1014 1.2 acres | |
| Pulpit Rock SF | Jeff RA# 2 | ROW to Payne Lake Lot | |
| Henderson Shores Unique Area | Jeff RA # 11 | Private ROW–Jackson Shore Road Boomer Cove 20 ft. ROW Liber 1137 of Deeds, Page 331 | Project E-UC Jeff 116 |
| | | | |

Use and Demand Related to Exceptions and Deeded Restrictions

Pulpit Rock State Forest– Root ROW Road - The State ROW over private land has a Road Use and Maintenance Agreement attached to it dated March 27, 1995. This agreement called for the department to install a gate off Route 22 which will be closed from the end of Deer Hunting

Season until May 15. **This ROW allows the Department motor vehicle access for administrative purposes and only foot traffic for the public.**

Henderson Shores Unique Area – Wehle Property – On April 17, 1990 Robert G. Wehle sold approximately 1,067 acres to the State of New York, Recorded in Jefferson County Book of Deeds 1218 page 0338. However, on August 11, 2003, the NYS Office of General Service executed an Order transferring jurisdiction of approximately 1,067 acres from NYS Department of Environmental Conservation to Office of Parks, Recreation, and Historic Preservation. OPRHP was a better agency to manage the historical and recreational opportunities of the property. With this transfer, a new State Park, Robert G. Wehle State Park was created.

Henderson Shores Unique Area – Boomer Cove ROW – The Jackson Shore Road is a Private Right of Way in which the Department has motor vehicle access for administrative purposes and only foot traffic for the public. This road is gated.

Encroachments

Well-marked boundary lines that are readily identifiable to the public reduce unintentional trespass. However, encroachments onto State Forest lands do sometimes occur. Such issues requiring resolution are listed in the following table.

| <i>Table I.M. – Encroachments</i> | | | |
|-----------------------------------|-----------|---|---------------------------------------|
| Facility Name | RA # | Description | Proposal ID (Surveyor's Reference) |
| Henderson Shores UA | Jeff # 11 | Historically there have been trespass issues on state land at the end of Jackson Shores ROW Road along the State Land boundary and private land. The boundary was re-staked and should continue to be monitored | |
| | | | |

Land Acquisition

Acquisition of property from willing sellers on the landscape surrounding the unit may be considered in the following priority areas:

- In-holdings and adjoining properties that would reduce management costs and benefit resource protection and public access goals
- the mineral estate wherever it is split from a State Forest tract
- properties within identified matrix forest blocks and connectivity corridors
- forested lands in underserved areas of the state
- forested lands in areas that are in need of watershed protection

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INFRASTRUCTURE

For more information on land acquisition, please see SPSFM page 147 at <http://www.dec.ny.gov/lands/64567.html>.

Infrastructure

State Forests are managed with a minimal amount of improvements to accommodate rustic, forest based recreational opportunities while providing for resource protection; public health and safety; and access for individuals of all ability levels. For more information on infrastructure policies, please see SPSFM page 157 at <http://www.dec.ny.gov/lands/64567.html>.

Roads and Trails

DEC's GIS data contains an inventory of public forest access roads, haul roads and multiple-use-trails on the unit, including a representation of the allowable uses along each road or trail segment. Table I.N. contains a summary of roads, trails and related infrastructure on the unit.

ADDITIONAL INFORMATION

DECinfo Locator – An interactive online mapper can be used to view properties, recreational assets and trails on this unit to help people plan outdoor activities. Located at DEC's Mapping Gateway: <http://www.dec.ny.gov/pubs/212.html>

Google Earth Virtual Globe Data - Some of DEC's map data, including accessible recreation destinations, boat launches, lands coverage, roads and trails on this unit can be viewed in Google Maps or Google Earth. (Also located at DEC's Mapping Gateway)

Table I.N. – Existing Access and Parking (see Figure 3 for maps)

| Category | Total Amount | Needing Improvement |
|-------------------------------|--------------|---------------------|
| Public Forest Access Roads | 2.3 mi. | 1.6 mi. |
| Haul Roads | 0.76 mi. | 0 mi. |
| Trails | 1.94 mi. | 0.2 mi. |
| Stream Crossings | | |
| Bridges | 0 | 0 |
| Culverts | 3 | 1 |
| Related Infrastructure | | |
| Parking Areas / Trailheads | 2 | 0 |
| Gates / Barriers | 1 | 0 |

Use and Demand on Roads, Haul Roads and Parking Areas

- **Henderson Shores Unique Area**

- Henderson Shores Unique area has good access to recreational opportunities on the property. Radar Public Forest Access Road has parking areas at both ends of the road. There is no sign standard identifying State Land at the County Road. The road, 0.7 miles, is in fairly good condition as long as regular maintenance is continued. The road gets heavy use during summer months and moderate use during big game hunting season. This road provides access to Lake Ontario.
- Jackson Shore Right-of-Way provides approximately 0.7 miles of foot travel for the public to access the interior of the property. This road is gated and maintained by the Jackson Shore private property owners on the lake.
- Wehle Walk Trail has a parking area and kiosk at the trail head. The foot trail is a little less than ½ mile and leads to Robert G. Wehle State Park and its extensive trail system. The trail receives moderate use and is in good condition as long as maintenance continues.

- **Coyote Flats State Forest**

- Coyote Flats State Forest is missing a sign standard identifying it as State Land. Coyote Public Forest Access Road provides approximately one mile of motor vehicle access into the property. The road receives moderate to high use by hunters and trappers. The road is in fair condition. The road bed has lost most of its gravel. In the next 1-3 years, it will need to be brushed back, 2 new culverts installed and resurfaced with crusher run/driveway mix gravel.

- **Pulpit Rock State Forest**

- Pulpit Rock State Forest is also missing a sign standard identifying State Land at the main road. Watson Public Forest Access Road was built as part of a timber sale but has not been properly maintained since then. It is approximately 0.7 miles long and allows access from the west off New Connecticut Road. However, most users park close to the main road because the PFAR is in poor condition. The property receives fair to moderate public use mainly from hunters looking for grouse, hare and deer. DEC resources might be more wisely used to gate off a majority of the road, at the culvert, and put money into developing a suitable parking area.
- Another access point to Pulpit Rock is by walking down the State owned Right-of-Way (ROW) off County Route 22. There is no good parking at this access point. There is a gate across the ROW but foot traffic is allowed for the approximately 0.8 mile until you reach the State Forest Boundary. The Right-of-Way has been surveyed and painted/marked with posts, however it is not an official marked trail. The Right-of-Way gets fair to moderate use.
- There is also access by boat. DEC owns, in fee, a road, parking area and gravel boat launch on Payne Lake. The boat launch has a 10hp motor restriction on boats. By way of the boat launch, the public can access Pulpit Rock State Forest. The south side of the State Forest, which is mostly rock face, borders the northern shore of the Lake. Groups from Fort Drum, among others, have accessed this portion of the State Forest to do rappelling exercises.

INFORMATION ON THE ONTARIO PLAINS UNIT

FORMAL AND INFORMAL PARTNERSHIPS AND AGREEMENTS

Non-recreational Uses

Off-Highway and All-Terrain Vehicle Use

For a comprehensive discussion of DEC's policy regarding ATV use on State Forests, please refer to page 213 of the SPSFM at www.dec.ny.gov/lands/64567.html. There is no ATV or off highway vehicle use allowed on any of these properties.

Formal and Informal Partnerships and Agreements

Conservation and stewardship partnerships are increasingly important, especially for public land management agencies. Considering the fact that resources will always be limited, collaboration across political, social, organizational and professional boundaries is necessary for long term success and sustainability. Encouraging the development of cooperative and collaborative relationships is and can be done through volunteer agreements with the department. For more information on these and other partnerships, please see SPSFM page 181 at <http://www.dec.ny.gov/lands/64567.html>.

New York State Office of Parks, Recreation and Historical Preservation has graciously worked with the DEC on Henderson Shores Unique Area. This is an informal partnership that helps to keep the maintenance of the Wehle Walk foot trail in good shape. The trail is a unique access point onto Wehle State Park, which is our neighbor. For several years the State Parks trail crew has brushed out the trail. DEC hopes to continue this relationship and share the maintenance of the trail. Thanks Parks!

Recreation

Recreation is a major component of planning for the sustainable use of State Forests on this unit. DEC accommodates diverse pursuits such as snowmobiling, horseback riding, hunting, trapping, fishing, picnicking, cross-country skiing, snowshoeing, bird watching, geocaching, mountain biking, and hiking. Outdoor recreation opportunities are an important factor in quality of life. We often learn to appreciate and understand nature by participating in these activities. However, repeated use of the land for recreational purposes can have significant impacts. For further discussion of recreational issues and policies, please see SPSFM page 187 at <http://www.dec.ny.gov/lands/64567.html>. The following section includes an inventory of recreational opportunities available on this unit as well as a description of use and demand for each activity. Recreational maps and geographic data are available at DEC's Mapping Gateway <http://www.dec.ny.gov/pubs/212.html> and the NYS GIS Clearinghouse in Google format (.kmz) and ArcMap format (.shp) or in the State Lands Interactive Mapper.

Exceptional Recreational Opportunities

- Payne Lake Fishing Access has public parking and access to Payne Lake. By boat across Payne Lake you can reach Pulpit Rock State Forest. Payne Lake boat launch has a boat motor restriction of 10 hp. The rocky outcrops and cliffs have been a destination point for some rock climbers. Troops from Fort Drum have applied for and received Temporary Revocable Permits to do rappelling off the cliffs.

Special Regulations Henderson Shores Unique Area

- As of February 20, 2013, and Pursuant to the provisions of Section 1-0101(3)(b), 3-0301 (1)(b), 3-0301 (2)(m), 9-0105 (1) & 9-0105 (3) of the Environmental Conservation Law, Henderson Shores Special Regulation 6 NYCRR section 190.10(f) states:
 - (1) All Camping shall be prohibited
 - (2) The area shall be closed to public use between the hours of 10:00PM and 5:00AM
 - (3) All campfires are prohibited
 - (4) No person shall possess glass containers

Wildlife-related Recreation

Hunting and Trapping

- All hunting and trapping is allowed on the three properties in the unit, within season and with legal licenses.

Fishing

- Payne Lake is the most productive of the Indian River Lakes. It is shallow, generally 20 feet deep or less, and has a uniform temperature from top to bottom during the summer months. All the Indian River Lakes support extensive beds of rooted aquatic vegetation. While the most abundant fish species in these lakes are yellow perch, black crappie, sunfish and brown bullhead, these lakes also support good populations of northern pike, largemouth bass and stocked Tiger musky. Smallmouth bass are present, but generally are not abundant. Walleye, while formerly abundant, have declined in recent years and now provide only a limited fishery.

Camping

- Henderson Shores Unique Area, camping is not allowed
- Coyote Flats and Pulpit Rock State Forests do provide primitive, back-country camping as allowed by DEC rules and regulations. For more information, you can refer to the **SPFSFM** page 193 <http://www.dec.ny.gov/lands/64567.html> or visit **Back-Country Camping** www.dec.ny.gov/outdoor/41282.html

Water-based Recreation

- Henderson Shores and Pulpit Rock both have exceptional water-based recreational opportunities. Henderson Shores does not have a boat-launch, but kayaks can be carried to the shore. The shore at Henderson Shores is mainly limestone rock, with a small amount of sandy, gravelly shore, where swimming and wading can be enjoyed. Pulpit Rocks's access to Payne Lake, which is managed by DEC's Bureau of Fisheries, presents plenty of water-based recreational opportunities.

INFORMATION ON THE ONTARIO PLAINS UNIT

UNIVERSAL ACCESS

Trail-based Recreation

*Table I.O. – Multiple Use Trails**

(see Figure 3 for maps)

| Use | Length (mi.) |
|----------------------|--------------|
| Foot Trail Use | 4.6 |
| Cross Country Skiing | 3.8 |
| Mountain Biking | 3.3 |
| Equestrian | 2.5 |
| Snowmobile | 0 |

* Length available for each use includes use on PFARs; does not include municipal roads

Overall Assessment of the Level of Recreational Development

It is important that recreational use is not allowed to incrementally increase to an unsustainable level. DEC must consider the impact on the unit from increased use on other management goals or other recreational uses. DEC must consider the full range of impacts, including long term maintenance and the balancing of multiple uses.

Universal Access

DEC has an essential role in providing universal access to recreational activities that are often rustic and challenging by nature, and ensuring that facilities are not only safe, attractive and sustainable, but also compatible with resources. For more information on universal access policies, please see SPSFM page 173 at <http://www.dec.ny.gov/lands/64567.html>.

Application of the Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA), along with the Architectural Barriers Act of 1968 (ABA) and the Rehabilitation Act of 1973; Title V, Section 504, have had a profound effect on the manner by which people with disabilities are afforded equality in their recreational pursuits. The ADA is a comprehensive law prohibiting discrimination against people with disabilities in employment practices, use of public transportation, use of telecommunication facilities and use of public accommodations. Title II of the ADA requires, in part, that reasonable modifications must be made to the services and programs of public entities, so that when those services and programs are viewed in their entirety, they are readily accessible to and usable by people with disabilities. This must be done unless such modification would result in a fundamental alteration in the nature of the service, program or activity or an undue financial or administrative burden.

Title II also requires that new facilities, and parts of facilities that are newly constructed for public use, are to be accessible to people with disabilities. In rare circumstances where accessibility is determined to be structurally impracticable due to terrain, the facility, or part of facility is to be accessible to the greatest extent possible and to people with various types of disabilities.

Consistent with ADA requirements, the Department incorporates accessibility for people with disabilities into the planning, construction and alteration of recreational facilities and assets supporting them. This UMP incorporates an inventory of all the recreational facilities or assets

supporting the programs and services available on the unit, and an assessment of the programs, services and facilities on the unit to determine the level of accessibility provided. In conducting this assessment, DEC employs guidelines which ensure that programs are accessible, including buildings, facilities, and vehicles, in terms of architecture and design, transportation and communication to individuals with disabilities.

Any new facilities, assets and accessibility improvements to existing facilities or assets proposed in this UMP are identified in the section containing proposed management actions.

The Department is not required to make each of its existing facilities and assets accessible as long as the Department's programs, taken as a whole, are accessible.

For copies of any of the above-mentioned laws or guidelines relating to accessibility, contact the DEC Universal Access Program Coordinator at 518-402-9428 or UniversalAccessProgram@dec.ny.gov.

Coyotes Flats State Forest

Coyote Trail, off Drake Road (0.99 miles) is a designated motorized access route for people with qualifying disabilities for hunting and wildlife viewing. A [Motorized Access Program for People with Disabilities \(MAPPWD\)](#) permit can be obtained from the nearest DEC office.

Other Accessible Destinations within the Unit

Black Pond Wildlife Management Area

Black Pond WMA features an accessible 0.4-mile trail through woodland, wetland and dune areas, ending on Lake Ontario shoreline. The trail provides opportunities for Wildlife observation, a fishing pier and an observation deck.

Lakeview Wildlife Management Area

Lakeview WMA has an accessible loop trail that is approximately 0.7 miles in length. It travels through a wooded upland segment of the Lakeview WMA and Southwick Beach State Park. The trail provides opportunities for wildlife observation and access for hunting. An accessible parking lot is located at the west end of the trail and an additional parking lot is located at the east end of the loop that offers public access. They are both open from sunrise to sunset.

Mineral Resources

Oil, Gas and Solution Mining Exploration and Development

Oil and gas production from State Forest lands, where the mineral rights are owned by the state, are only undertaken under the terms and conditions of an oil and gas lease. As surface managers, the Division of Lands and Forests will evaluate any concerns as they pertain to new oil or natural gas leases on State Forest lands. Consistent with past practice, prior to any new leasing activity, DEC will hold public meetings to discuss all possible leasing options and environmental impacts. A comprehensive tract assessment will be completed as part of this

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SUPPORTING LOCAL COMMUNITIES

process. For more information on natural gas and other mineral resource policies, please see SPSFM page 225 at <http://www.dec.ny.gov/lands/64567.html>.

There are currently no existing oil and gas leases on the unit and none are likely to be established in the future.

Mining

Any excavation of material in excess of the regulatory threshold of 750 cubic yards or 1,000 tons removed within any 12 successive calendar months is subject to jurisdiction under the Mined Land Reclamation Law and requires a New York State mining permit. There are no mining contracts, permits, or operations located within the limits of any of the State Forests associated with the Ontario Plains Unit. Under Article 7 of the New York consolidated Laws/Public Lands, any citizen of the United States may apply for permission to explore and/or extract any mineral on state lands. However, current Department policy is to decline any commercial mining application(s) associated with state lands.

Although there are no permitted mines within the state land associated with this unit, there are a few active sand and gravel operations in the area located close to lands comprising the Ontario Plains Unit. Most of the mines in the area are small and permitted by either the local municipalities or local construction companies. An active sand and gravel facility is located approximately 2.3 miles to the northeast of Coyote Flats State Forest and another is located approximately 3.5 miles to the southeast of Pulpit Rock State Forest. No other active sand and gravel operations exist within 5 miles of this unit.

There are also several small to medium limestone quarries in the area. An active limestone quarry lies approximately 3.5 miles to the east-southeast of the Henderson Shores Unique Area and another lies approximately 3.5 miles south-southeast of the Coyote Flats State Forest. There are no other active quarries within 5 miles of this unit.

Supporting Local Communities

Tourism

State Forests can be an economic asset to the local communities that surround them. It is estimated that more than three out of every four Americans participate in active outdoor recreation of some sort each year. When they do, they spend money, generate jobs, and support local communities. For more information, please see SPSFM page 245 at <http://www.dec.ny.gov/lands/64567.html>.

Taxes Paid

The New York State Real Property Tax Law provides that all reforestation areas are subject to taxation for school and town purposes. Some reforestation areas are also subject to taxation for county purposes. Most unique areas and multiple use areas are exempt from taxation, including Henderson Shores. All of these lands subject to taxation are assessed as if privately owned.

Detailed tax information can be obtained by contacting Jefferson County Tax Department or visit on-line <http://www.jeffersoncountyoh.com/OnLineServices/RealEstateSearch.aspx>. The following taxes are projected for State lands in this unit for the 2015 tax year:

Table I.P. – Taxes Paid on State Lands for the Unit

| Town | Parcel # | Acres | Town Tax | School Tax | County Tax | Special Tax |
|-------------------------------|--------------|----------------|--------------------|------------|------------|-------------|
| Antwerp | 16.00-1-3.1 | 1342.02 | \$3,133.08 | \$2,135.00 | \$3,242.69 | \$581.00 |
| | 16.00-1-3.2 | 234.1 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Le Ray | 44.00-3-3 | 79.4 | \$70.58 | \$191.58 | \$0.00 | \$67.80 |
| Theresa | 33.00-2-38 | 485.1 | \$353.17 | \$978.77 | \$0.00 | \$166.76 |
| Henderson | 105.00-1-1.1 | 829.1 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Taxes Paid on the Unit | | | 3,556.83 | \$3,305.35 | \$3,242.69 | \$815.56 |
| Total | | 2969.72 | \$10,920.43 | | | |

Forest Products

Timber

Timber management provides a renewable supply of sustainably-harvested forest products and can also enhance biodiversity. The products harvested may include furniture quality hardwoods, softwoods for log cabins, fiber for paper making, firewood, animal bedding, wood pellets, biofuel, and chips for electricity production. For more information, please see SPSFM page 251 at <http://www.dec.ny.gov/lands/64567.html>.

Timber production is not a main objective for any of these three parcels of land in the unit. The soils are generally poor with either very shallow soil atop limestone bedrock or very wet soils with low productivity. Moreover, the poor access and quality of wood present will make it challenging to have any large timber sales but there are definitely opportunities for smaller firewood sales as long as access is available. What is important with the forest resource of these properties is the amount of species diversity they offer. The number of different tree species growing on these 3 parcels is much different than any other State Forest Lands managed in Jefferson County. Where there are some opportunities to increase the health and vigor of the standing trees through management, strong emphasis will be placed on maintaining that level of species diversity.

Information on upcoming timber expected to be produced from timber management activities on the unit is contained in the land management action schedules in Part III of this plan.

The authority to sell forest products from DEC administered lands is provided by the Environmental Conservation Law. To perpetuate the growth, health and quality of the forest resources, the Department has implemented a sustained yield timber management program for State Forest lands.

Forest areas being considered for timber harvesting are prioritized based on the following criteria:

- 1) Adequate access;
- 2) Wildlife considerations;
- 3) Present and future forest health concerns (including invasive plants and pests);

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- 4) Current distribution of vegetative stages within the unit management land area and surrounding landscape, including the eco-regional habitat gaps as per the Strategic Plan for State Forest Management and the desired 10% young forest on Wildlife Management Areas as –per the Strategic Plan for Implementing the Young Forest Initiative;
- 5) Ability to regenerate stands (if a regeneration harvest);
- 6) Existing timber and vegetation management needs from other unit management plans;
- 7) Market conditions;
- 8) Potential growth response of stands to treatment

By law, any trees to be removed in a harvest must be designated, and paid for prior to removal. Designation is made by DEC Forestry or Wildlife staff. After designation is completed, a fair market appraisal is conducted. No products may be sold at less than the fair market value. Forest stands are prioritized based on the criteria outlined above, and the desired future conditions identified by this Unit Management Plan. Prioritization is done by DEC Forestry staff, with input by wildlife staff.

The Environmental Conservation Law requires that different procedures are employed based on the appraised value of a timber sale. Sales that are appraised greater than \$10,000 are called revenue sales and sales that are appraised at less than \$10,000 are known as local sales. Revenue sales contracts must be approved by DEC's Central Office staff, and revenue sale contracts valued at \$25,000 or more must be approved by the Office of the State Comptroller. The Regional Forester has the authority to execute local sale contracts. All sales valued at more than \$500 (and those less than \$500 which are thought to have substantial public interest) are publicly advertised and competitively bid.

Forest Health

Forest health is pursued with the goal of maintaining biodiversity. Any agent that decreases biodiversity can have a deleterious effect on the forest as a whole and its ability to withstand stress. Forest health in general should favor the retention of native species and natural communities or species that can thrive in site conditions without interrupting biodiversity. For more information on forest health, please see SPSFM page 277 at <http://www.dec.ny.gov/lands/64567.html>.

Invasive Species

As global trade and travel have increased, so have the introduction of non-native species. While many of these non-native species do not have adverse effects on the areas in which they are introduced, some become invasive in their new ranges, disrupting ecosystem function, reducing biodiversity and degrading natural areas. Invasive species have been identified as one of the greatest threats to biodiversity, second only to habitat loss. Invasive species can damage native habitats by altering hydrology, fire frequency, soil fertility and other ecosystem processes.

Zebra and quagga mussels

Both zebra and quagga mussels are small fresh water mussels that were introduced to the United States through ballast water discharge of transoceanic ships. They are native to the Caspian Sea region of Russia, and spread to Europe through canals in the 1700s and 1800s.

Both mussels are filter feeders. Their presence reduces the availability of tiny food particles (zooplankton and phytoplankton) in the water which serve as a primary food source in the aquatic ecosystems. Furthermore, increased water filtration improves water clarity which results in higher populations of aquatic vegetation that can be a nuisance for boating and recreation. Zebra mussels can also reduce native mussel and crayfish populations as zebra mussels can attach to the shells and exoskeletons of these native species and suffocate them.

The best management practice to prevent the spread of aquatic invasive species such as zebra and quagga mussel, is to carefully CHECK, CLEAN and DRY any boat, trailer or boating equipment that comes into contact with water. For more detailed information, the New York State Department of Environmental Conservation has “A New York Boaters Guide to Cleaning, Drying and Disinfecting Boating Equipment” which can be found at <http://www.dec.ny.gov/animals/50267.html>.

Table I.Q. – Ontario Plains UMP Invasive Species List – source, imap invasives

| Land Unit | Species Name | Described Location | Organization | Date Observed |
|---|-------------------|---|--------------|---------------|
| Pulpit Rock SF Jefferson R.A. # 2 | | No known Invasive species are on record at this time. 12/17/2015 | | |
| Coyote Flats SF Jefferson R.A. # 10 | | No known Invasive species are on record at this time. 12/17/2015 | | |
| Henderson Shores Jefferson R.A. # 11 | Pale Swallow-wort | Northwestern property boundary along Wehle property | NYNHP | 6/25/2008 |
| | Pale Swallow-wort | Westside of Windmill Road | NYNHP | 9/10/2015 |
| | Pale Swallow-wort | Northside of Lighthouse road | NYNHP | 9/10/2015 |
| | Meadow Timothy | Northside of Lighthouse road | NYNHP | 9/26/2007 |
| | Pale Swallow-wort | South of Lighthouse road | NYNHP | 9/26/2007 |
| | Meadow Timothy | South of Lighthouse road | NYNHP | 9/26/2007 |
| | Common Buckthorn | South of Lighthouse road | NYNHP | 9/26/2007 |
| | Canada Bluegrass | South of Lighthouse road | NYNHP | 9/26/2007 |
| | Round Goby | Shoreline of Lake Ontario | NYSDEC | 7/7/2010 |

Henderson Shores contains an extensive infestation of the invasive plant pale swallow-wort (*Cynanchum rossicum*). This is an aggressive invasive species from the milkweed family that can form dense parches that crowd out native plant species and impact wildlife habitat. In addition to being a long-lived perennial, pale swallow-wort is a prolific seeder and produces allelochemicals that inhibit the development of neighboring plants. These adaptations likely play a strong role in pale swallow-wort’s ability to almost completely take over habitats in both sunny old-fields and shaded forests. As pale swallow-wort densities increase, the physical and chemical ecology of these areas are altered. Swallow-wort can adversely affect grassland bird populations and insects such as monarch butterflies in infested areas (<http://www.nps.gov/plants/alien/>). Pale swallow-wort’s aggressive spread is the biggest

FOREST HEALTH

threat to rare and imperiled ecological communities of Calcareous Pavement Barrens and Alvar Pavement Grassland.

Swallow-wort is not only a serious problem for biodiversity at Henderson Shores but also presents challenges for maintenance and enjoyment for the public. Maintenance and management have been minimized for fear of expanding the infestation. Research is being conducted at Wehle State Park with the US Department of Agriculture on the control of pale swallow-wort and hopefully some useful treatments will be found. As it stands now, this is the biggest environmental problem Henderson Shores is facing.

Summary of Eco-Region Assessments

To practice ecosystem management, foresters, must assess the natural landscape in and around the management unit. State Forest managers utilized The Nature Conservancy Eco-Region Assessments to evaluate the landscape in and around this unit. The Ontario Plains UMP falls within the Great Lakes Eco-Region.

Eco-Region Summary

Great Lakes Ecoregion

The Great Lakes (GL) Ecoregion encompasses 234,000 square miles in parts of eight Midwestern states and one Canadian province (The Nature Conservancy, Great Lakes Ecoregional Planning Team 1999). The ecoregion extends from northern Minnesota across to north central New York, and south to northern Indiana and Ohio. The entire landscape was glaciated during the last Ice Age, and is characterized by level lake plains, level to gently rolling lowlands, and hillier upland areas. Elevation across the ecoregion ranges from 300 to over 2,000 feet. Michigan's Porcupine and Huron Mountains and Minnesota's North Shore are some of the areas with higher elevations, while the southern shores of Lake Michigan, Erie and Ontario have lower elevations and less relief.

In New York, the Great Lakes Ecoregion represents the watershed of the Finger Lakes, Lake Ontario and Lake Erie, including the Mohawk River Valley. Historically, the northern part of the ecoregion was dominated by northern hardwood forest, pine forest, and spruce-fir forests. The vast majority of these forests were cut over by 1910, and are now in second growth. Much of the Great Lakes Ecoregion in New York was dominated by tall grass prairies and savannas, with some beech-maple and other hardwood forests mixed in. This area has been almost completely converted to agriculture and urban or residential uses. The primary disturbance events that helped to shape these ecosystems were fire, blowdowns, and insect and disease outbreaks in the forested parts of the ecoregion, and fire in the grasslands and savannas.

SUMMARY OF ECO-REGION ASSESSMENTS

ECO-REGION ASSESSMENT

Eco-Region Assessment

Table II.A. Land Use and Land Cover for the Landscape Surrounding Ontario Plains

| Land Use and Land Cover | Approximate Acreage | Percent of Landscape |
|---|---------------------|----------------------|
| Conifer Forest | 23,629 | 3% |
| Deciduous Forest | 199,555 | 27% |
| Mixed Forest | 7,575 | 1% |
| Shrub and Brush Range Land (includes seedling/sapling type) | 54,761 | 7% |
| Grasslands | 30,225 | 4% |
| Residential | 40,526 | 6% |
| Other Urban/Built-up Land | 9,347 | 1% |
| Mixed Urban/Built-up Land | | |
| Barren Land (rock/sand) | 1,425 | 1% |
| Lakes | 16,760 | 3% |
| Forested Wetland | 69,145 | 9% |
| Non-forested Wetlands | 14,336 | 2% |
| Crop Land and Pasture | 198,931 | 27% |
| Other Agricultural Land | 65,728 | 8% |
| Old Growth | 0 | 0% |
| Total | 731,943 | 100 |

Local Landscape Conditions

The landscape analysis of the Ontario Plains Unit is very extensive. It covers nearly the entire northern portion of Jefferson County including the Ontario Lake Shoreline and St. Lawrence River Valley. While some units across the state could cover this same amount of area and have relatively very little landscape diversity, such as the Adirondacks or Tug Hill Plateau, this is not the case for the Ontario Plains Unit. The landscape cover analysis shows an almost even balance between forested cover and shrub land/agriculture land. The extensive acreage of farmland abandoned 25-30 years ago is now undergoing succession and provides valuable habitat for grassland and shrub birds. This fact, along with the unit being squeezed by two very important waterbodies, makes the landscape rich with wildlife, especially migrating grassland bird species.

While Henderson Shores, Coyote Flats and Pulpit Rock don't necessarily play a huge role in providing grassland bird habitat for these migrating species, DEC's Division of Wildlife manages

approximately 20,000 acres of Wildlife Management Areas (WMAs) to address the habitat needs of these important species.

Henderson Shores has underlying limestone, sometimes right at the surface, often with shallow layer of wet soil, so it provides an unusual habitat for a variety of very specialized plants. Another unique characteristic of the area is the “high banks”, a series of limestone cliffs rising perpendicularly from the surface of Lake Ontario. Heavily sculptured by wave action, these banks are a very significant feature along Lake Ontario.

Coyote Flats is a forested landscape consisting almost entirely of low lying, wetland forest bisected by open water wetlands created naturally or by beavers.

Pulpit Rock State Forest’s most identifying feature is the granite plateau ranging in character from bare rock outcrops to relatively fertile valleys. A sheer stone cliff over 100 feet high rises from Payne Lake. Also on the property is an interior wetland pond with a 10-acre forested island. On the island, as well as the entire State Forest, there is an abundance of forest tree species, including many mast producing trees such as beech, hickory, walnut and oak.

Habitat Related Demands

The Ontario Plains Unit is covered by three Important Bird Areas (IBA), as identified by New York’s Audubon chapters: Eastern Lake Ontario Barrier Beaches, Perch River Complex and Indian River/Black Lakes. The full report and analysis on each IBA can be found at [New York Important Bird Areas | Audubon](#).

Henderson Shores Unique Area is located within the Eastern Lake Ontario Barrier Beaches IBAs. This IBA extends roughly from the Little Salmon River north to Black River and east inland to Route 3. It contains the remains of one of the largest inland dune systems in the Eastern Great Lakes and some of the highest quality freshwater marshes in the state. This vitally important wetland complex supports many migrating and breeding species, including at-risk species such as American Black Duck (winter), Common Loon (winter), Pied-billed Grebe (present in breeding season), American Bittern (present in breeding season), Least Bittern (breeds), Northern Harrier (breeds), Common Tern (has bred), Black Tern (breeds) and Sedge Wren (present in breeding season). The biggest threat present on Henderson Shores is invasive species.

Coyote Flats is located adjacent to the Perch River Complex IBA. This IBA encompasses various wetlands, included flooded valleys, wooded swamps and wet meadows in the St. Lawrence River Valley. This area supports an exceptional wetland bird community, with a diverse array of wetland and grassland associated birds. This site is not only important to the diversity of birds but the number of birds it supports. At risk species like Bald Eagle, Northern Harrier, Upland Sandpiper, Black Tern and Henslow’s Sparrow have been observed during the breeding season. The biggest concern for the IBA is working with farmers to conserve agricultural lands beneficial to grassland birds.

Pulpit Rock is within the Indian River Lakes/Black Lake Important Bird Area. Species such as Common Loon, Osprey, Golden-winged Warbler and Cerulean Warbler, which are all at-risk, and have been observed during breeding season. This area contains a variety of wetlands as well as agricultural areas, shrub land and forest.

SUMMARY OF ECO-REGION ASSESSMENTS

HABITAT RELATED DEMANDS

Any management on Henderson Shores, Coyote Flats and Pulpit Rock should consider whether the action might alter habitat of the bird species associated with the Important Bird Area. The forested wetland habitat common on these state lands may be best served as a refugia amongst the landscape of grasslands and open wetlands. Some forest management that results in the cutting of trees and manipulation of vegetation is acceptable, as some may be needed to enhance habitat associated with certain species. The forest component along with specific habitat needs of individual bird species should be a major consideration of future management.

Management Goals and Recommendations

Land Management Goals and Recommendations

Implement the Strategic Plan for State Forest Management in Unit Management Plans

Management Recommendation - Develop and subsequently adopt this UMP with future amendments as needed and periodic updates at least every ten years.

Management Recommendation - Create/update the web page for each State Forest and Unique Area in this unit, including an electronic, printable map showing the location of recreational amenities.

Sustainably Manage Forest Resources on State Forest Lands

Management Recommendation - Manage the forest resource through the extraction of forest products. The forest resource will be managed through timber harvests to create conditions that improve and enhance tree growth and forest habitat while maintaining diversity and water quality.

Identify Stands that are High Conservation Value Forests and Representative Sample Areas

Management Recommendation - Protection areas already identified in the unit as Representative Sample Areas and High Conservation Value Forests will be managed as such during timber harvest planning, recreation planning and facilities maintenance to ensure the areas will not be negatively impacted. Natural Heritage Program will be consulted on any management actions proposed for these communities or in immediately adjacent areas.

Management Recommendation - Be observant during forest inventory and other routine operations for newly found areas that may be considered High Value Conservation Forest due to rare communities, Special Treatment, cultural heritage, watershed values and Forest Preserve lands, while monitoring the Watershed Protection and Calcareous Pavement Barrens HCVF on Henderson Shores for any changes or issues.

Management Recommendation - Be observant during forest inventory and other routine operations for Representative Sample Areas which represent common ecological communities of high or exceptional quality in their natural state. Stands to look for are spruce-fir stands, northern hardwood-hemlock, balsam swamps and upland stands with high diversity of mast producing trees, but any natural community could be categorized as a RSA. High quality stands of significant size should be identified, mapped and specific management guidelines developed for each stand which sustains/stabilizes the community. The Important Bird Area designation may provide opportunity to develop more extensive areas of HCVF and RSA in both wetland and upland types over the long term. If ideal areas are identified it is important to set up a monitoring schedule to ensure no new threats, like invasive species or increased deer browse, have negatively impacted the site.

Develop a Sustainable Harvest Schedule

Management Recommendation- Complete a sustainable timber harvest schedule for the entire Ontario Plains Unit.

MANAGEMENT GOALS AND RECOMMENDATIONS

TEN-YEAR LIST OF MANAGEMENT ACTIONS

Monitor and Manage Invasive Species

Invasive species, especially on Henderson Shores Unique Area, are the biggest threat to species diversity and habitat degradation. Managing this goal should be the highest priority for this property. While invasive species management is a priority for the entire unit, Henderson Shores has an established population of aggressive pale swallow-wort which needs a rapid response and eradication plan.

Management Recommendation - Follow the recommendations in the Strategic Plan for State Forest Management for using Integrated Pest Management (IPM) to control particular invasive species. Henderson Shores will be first in-line to receive resources toward this effort. IPM should include, but not be limited to, mechanical control, biological control and herbicide treatments. If biological control becomes available, especially for pale swallow-wort, Henderson Shores would be an ideal location for release. Keep in contact with Wehle State Park staff on advances they are making with the fight against pale swallow-wort and work with the local Saint Lawrence Eastern Lake Ontario (SLELO) Partnership for Regional Invasive Species Management (PRISM) on the invasive species issues.

Management Recommendation - Continue to build the GPS database as new infestations become known. Encourage the public to “be on the lookout” and upload any new infestations into iMapsinvasives.org. This is a public sourced web-based database to tract invasive species occurrences in New York State. Information about iMaps should be included on any kiosks along with information on the possible invasive plants that they might find.

Management Recommendation - Conduct rapid response and eradication of small, manageable, newly found populations of invasive species.

Management Recommendation - Management entries, road work and illegal dumping tend to be the biggest threat to spreading invasive plant species into the forest. Equipment needs to be thoroughly cleaned prior to arriving on the job site and before moving to another site. Monitoring recently harvested stands and road work for the first years after completion will lead to a more rapid response for identification and eradication, while also continuing to monitor historic illegal dumping spots.

Recreation Goals and Recommendations

Identify State Lands

Management Recommendation - Henderson Shores, Coyote Flats and Pulpit Rock should each have sign standards visibly placed at a main road to identify to the public the state-owned land. These sign standards should also be maintained regularly.

Maintain facilities at current level

Management Recommendations - Brush, grade and rake 1.7 miles of existing Public Forest Access Roads each year. This mileage excludes a portion of Watson PFAR located on Pulpit Rock State Forest.

Management Recommendation - Every year the multi-use trails should be cleared of brush and debris.

MANAGEMENT GOALS AND RECOMMENDATIONS

FISH AND WILDLIFE GOALS AND RECOMMENDATIONS

Routine improvements on Coyote Public Forest Access Road

Management Recommendation - Coyote PFAR is in fair to poor condition. Within the next three years, the road will need improvement in order to keep Class-A designation. The road will need to have at least two culverts installed for cross drainage, and resurfaced with gravel to a minimum 6-inch depth and graded.

Change the Access at Watson Public Forest Access Road, Pulpit Rock State Forest

Management Recommendation - Stop maintaining the last 0.5 miles of Watson PFAR as a Class-A forest road.

Management Recommendation - Install a metal gate and signage at the large culvert on Watson PFAR, approximately 0.1 miles down the road.

Management Recommendation - Develop and install a 3-4 car graveled parking area before the new gate, approximately 0.1 miles on Watson PFAR

Management Recommendation - Maintain the existing 0.5 miles of Watson PFAR as a CP-3 trail through mowing and brushing.

Maintenance on Wehle Walk Trail on Henderson Shores Unique Area

Management Recommendation - The trail receives a lot of use and is starting to show signs of wear. In 1-3 years, some more intensive upkeep will be needed on the trail.

Approximately 0.2 miles of the trail will need fill/gravel placed in the low-laying areas that are becoming chronic wet holes. A skid-steer placing about 20 ton of gravel should be enough to address the problem.

Designate an official trail to the rock outcrops on Pulpit Rock State Forest

Management Recommendation - Develop 3-4 car parking spaces for the public to access the Root Right-of-Way off Route 22. The existing gate would need to be relocated west of the new parking area. 3-4 parallel parking spaces will be created within the ROW. A trail register and informational kiosk will also be installed to monitor use and inform the public.

Management Recommendation - Approximately 1.0 miles of the Root ROW Access should be officially brushed out and signed as a foot trail.

Use natural materials when maintaining and creating new facilities

Management Recommendation - Natural materials such as wood and stone will be used for most structures, such as kiosks, observation and fishing deck structures, etc., including using barriers such as large boulders to line parking lots and block roads (the latter instead of gates where administrative access is not regularly needed).

Keep the State Forest web-pages current for the Unit.

Management Recommendation - As facilities change or are created the web page will be updated while also including the electronic, printable map showing the location of recreational amenities on the State Forest.

Fish and Wildlife Goals and Recommendations

The Comprehensive Wildlife Conservation Strategy (CWCS) was completed by the Division of Fish, Wildlife and Marine Resources of DEC in 2005 to address the wildlife species in greatest need of conservation in the state. The CWCS utilizes the best available data on the status of fish and wildlife species to define a vision and establish a strategy for state wildlife conservation

MANAGEMENT GOALS AND RECOMMENDATIONS

TEN-YEAR LIST OF MANAGEMENT ACTIONS

and funding. The CWCS is a collaborative effort among agencies, organizations and individuals with an interest in New York's wildlife. Conservation recommendations are developed and implemented by watershed basins. Ontario Plains is located almost equally within the Southeast Lake Ontario Basin and the Northeast Lake Ontario Basin. The management recommendations in this UMP correspond with the management recommendations made in the Basin-wide strategies and actions. Similar actions include: maintain and increase the amount of early successional forest in the basin through timber harvesting; maintain and increase habitat suitability of grasslands through properly timed mowing; maintain or enhance habitats for Species of Greatest Conservation Needs (SGCN) that occur on existing public lands; and limit seasonal use of wheeled off-road vehicles in specific areas where SGCN may be adversely affected.

Some of the Ontario Plains region is located within a designated grassland bird focus area and supports several threatened and endangered grassland bird species. Maintaining quality grassland habitat and utilizing the best management practices for breeding and wintering grassland birds is a priority for this area. There are also several high-quality wetlands found in this region. Protection and enhancement of this landscape will be encouraged in efforts to protect wetland species such as Black Terns, Least Bitterns, and Pied-billed Grebes.

The goal of fisheries management in New York is to provide sustainable benefits to society through the use of fish for food, recreation, culture, ecological function and aesthetics by sustaining or increasing the abundance of desirable fish and providing access to them.

This is achieved by regulating fishery harvest, judicious fish stocking, protecting, restoring and creating fish habitat and reducing the spread of fish disease. Other key elements of fishery management include maintaining public access to fishery resources and providing information that will allow people to use these resources carefully and effectively.

Henderson Shores Unique Area. This area is adjacent to Lake Ontario, one of the largest fishery resources in New York State. Responsibility for Lake Ontario fisheries management is shared by the Ontario Ministry of Natural Resources and Forestry (OMNRF) for the Province of Ontario and DEC. The overall goal of Lake Ontario fishery management is to provide a diverse fishery based on robust stocks of warmwater fish (e.g. bass), coolwater fish (e.g. walleye), and coldwater fish (e.g. trout and salmon). A notable objective is to have trophy Chinook salmon as a major component of the fishery. Management activities include extensive annual surveys of fish populations, surveys of angler use, and stocking of brown trout, steelhead, Atlantic salmon, Coho salmon and Chinook salmon. The Lake is managed under Great Lakes Regulations. Stocking rates and regulations will be adjusted if information is developed that indicates a need.

Pulpit Rock State Forest. This area is adjacent to Payne Lake. Payne Lake is managed as a warm water fishery. Its major native gamefish is largemouth bass, which is naturally sustained. Tiger muskellunge are stocked annually. The lake is surveyed periodically and is managed under Statewide Regulations. Stocking rates and regulations will be adjusted if information is developed that indicates a need.

MANAGEMENT GOALS AND RECOMMENDATIONS

SOIL AND WATER GOALS AND RECOMMENDATIONS

All other waters in this unit are sustained by natural reproduction and managed under Statewide Regulations. No changes are anticipated.

Consult with DEC Wildlife Biologist, Audubon New York or others when considering land management actions.

Management Recommendation – When considering timber harvesting or other landscape manipulations wildlife biologist and other wildlife professional will be consulted to see if there are possibilities to incorporate habitat improvements.

Soil and Water Goals and Recommendations

The primary soil and water goals of the plan is to ensure watershed protection, wetlands protection and perennial and intermittent stream protection. Additional goals and recommendations follow.

Evaluate current wetland and stream conditions and revise classifications.

Management Recommendation - DEC Bureau of Fisheries will, as time and staffing allow, review stream classifications of waters in the vicinity of the unit and upgrade designations based upon new field data collected. Current stream classifications are outdated and stream and wetland characteristics have changed since the original designation. Updated stream and wetland classification based upon current data will improve the protection of waters on and surrounding the unit.

Enforcement and Protection Goals and Recommendations

The primary enforcement and protection goal for the unit is to preserve, protect and enhance the state's forest resources and provide for the safety and well-being of the public using these resources. Additional goals and recommendations follow.

Resolve encroachment issues

Management Recommendation – At this time there are no known encroachment issues. Boundary line maintenance and monitoring will help to quickly identify any new problems that occur. Any new encroachments will be handled by certified letters delivered to the landowners that are encroaching on state lands of the unit. The letter will ask for the proof from the landowner of their rights to have their property on and/or over state land. If the landowner provides no documentation, then the landowner will be asked to end the encroachment or legal actions will be pursued.

Execute priority survey requests

Management Recommendation - The best-case scenario would involve researching all acquisition deeds for the unit and completing surveys on the exterior boundary. If approximately 2 miles of exterior boundary lines were surveyed every year the unit could be completed in 10 years.

Management Recommendation - The Division of Lands & Forest staff will work with the Division of Operations to identify any missing boundary lines or survey work identified during

MANAGEMENT GOALS AND RECOMMENDATIONS

TEN-YEAR LIST OF MANAGEMENT ACTIONS

annual boundary line maintenance. An updated annual survey request will then be submitted to the Bureau of Real Property.

Management Recommendation - The boundary lines on the unit will be maintained on a minimum 7-year cycle. There is approximately 20 miles of exterior boundary lines which means 3 miles/year needs to be maintained. Generally, the entire State Forest or Unique area will be completed in the same year; refer to Table I.K Boundary Line Status. State Forest and Unique Area signs will be maintained along roads and property boundaries spaced at 300 feet. This is critical for protecting state lands from encroachment, littering and other inappropriate uses. It is also essential for the safety of users and for preventing trespass onto private land from the public.

Mineral and Alternate Energy Goals and Recommendations

There is very little opportunity to develop mineral or alternative energy opportunities on these State-owned parcels. The unique natural communities, geologic features and watershed protection that these State-owned parcels provide far outweigh the potential for mineral or energy development.

Management Recommendation - At this time, DEC would not be willing to explore mineral or alternative energy rights on the properties of the Ontario Plains Unit.

Open Space Goals and Recommendations

Protecting and managing open space is a key part of the DEC mission. This philosophy is shaped not just by the number of citizens who wish to participate in outdoor activities, but also on the value of the natural resources themselves to present and future generations.

The overall framework of land conservation in New York is identified in the 2016 New York State Open Space Conservation Plan. The plan was prepared by the Office of Parks, Recreation and Historical Preservation and the Department of Environmental Conservation, in consultation with nine regional Advisory Committees appointed by county governments and the State, representing a spectrum of open space advocates, natural resource and recreation professionals, local governments and concerned citizens. The plan ensures that the State of New York conserves its cherished open space resources as a critical part of efforts to improve the economy and the quality of life in New York communities.

The 2016 New York State Open Space Conservation Plan lists conservation projects identified by Region 6 Open Space Advisory Committee that encompasses exceptional ecological, wildlife, recreational, scenic and historic values. There are two projects in the Plan that support acquisition of lands for adding to or enhancing the existing State Forests and Unique Area of the Ontario Plains Unit. The Working Forest Lands project identifies the need to acquire easements on large tracts of timber producing lands to assure long term sustainable forestry, to minimize development and to provide public recreational opportunities where appropriate. The State Forest, Unique Area & Wildlife Management Area Protection project emphasizes acquisition to improve access, eliminate inholdings that complicate management, and provide buffers to protect resources, as well as enhance recreational opportunities. The third priority project is the

MANAGEMENT GOALS AND RECOMMENDATIONS

OPEN SPACE GOALS AND RECOMMENDATIONS

Statewide Small Projects which provides for the acquisition of small unique parcels which could be standalone parcels or adjacent to existing state land. All projects in these categories are eligible for land acquisition funding from the State's Environmental Protection Fund established by ECL Article 54.

Continue to identify and evaluate land acquisition opportunities as they arise

Management Recommendation - Certain kinds of properties will be given a higher priority when acquisition by the State for inclusion in this unit is being considered. Highest priority will be given to acquisitions that protect unique natural communities, threatened, endangered or rare species, minimize private in-holdings, improve access to State lands, create a more contiguous unit and protect or enhance the State's natural resources. Acquisitions must qualify in at least one of the priority project categories listed above.

MANAGEMENT GOALS AND RECOMMENDATIONS

TEN-YEAR LIST OF MANAGEMENT ACTIONS

Ten-Year List of Management Actions

Actions to be Completed within the First 5-years of the Plan

Action 1

Develop and subsequently adopt this UMP with future amendments as needed and periodic updates at least every ten years.

Action 2

Create/update the web page for each State Forest in this unit, including an electronic, printable map showing the location of recreational amenities.

Action 3

Follow the harvest schedule

Action 4

Monitor and conduct Rapid Response to invasive species as appropriate.

Action 5

Construct and install sign standards for Henderson Shores Unique Area, Coyote Flats State Forest and Pulpit Rock State Forest

Action 6

Coyote Flats Public Forest Access Road: install culverts, resurface and grade

Action 7

Watson Public Forest Access Road: gate, install parking area and mow and brush the foot access portion of the road.

Action 8

Wehle Multi-Use Trail: resurface portion and fill in chronic wet areas of the trail.

Action 9

Root ROW: relocate gate farther down the Right of Way. Grade and resurface with crushed stone an area approximately 25x60 feet parallel to the existing Right of Way footprint to allow 3-4 car parking. Officially designate, mark and brush out entire trail to the rock outcrops overlooking Payne Lake.

Land Management Action Schedules

Forest Type Codes

Natural Forest Types

- 10 Northern Hardwood
- 11 Northern Hardwood-Hemlock
- 13 Northern Hardwood-Spruce-Fir
- 12 Northern Hardwood-White Pine
- 14 Pioneer Hardwood
- 15 Swamp Hardwood
- 16 Oak
- 17 Black Locust
- 18 Oak-Hickory
- 19 Oak-Hemlock
- 20 Hemlock
- 21 White Pine
- 22 White Pine-Hemlock
- 23 Spruce-Fir
- 24 Spruce-Fir-Hemlock-White Pine
- 25 Cedar
- 26 Red Pine
- 27 Pitch Pine
- 28 Jack Pine
- 29 Tamarack
- 30 Oak-Pine
- 31 Transition Hardwoods (NH-Oak)
- 32 Other Natural Stands
- 33 Northern Hardwood-Norway Spruce
- 97 Seedling-Sapling- Natural
- 99 Non-Forest
- 99 Null

Plantation Types

- 40 Plantation: Red Pine
- 41 Plantation: White Pine
- 42 Plantation: Scotch Pine
- 43 Plantation: Austrian Pine
- 44 Plantation: Jack Pine
- 45 Plantation: Norway Spruce
- 46 Plantation: White Spruce
- 47 Plantation: Japanese Larch
- 48 Plantation: European Larch
- 49 Plantation: White Cedar
- 50 Plantation: Douglas Fir
- 51 Plantation: Balsam Fir
- 52 Plantation: Black Locust
- 53 Plantation: Pitch Pine
- 54 Plantation: Misc. Species (Pure)
- 60 Plantation: Red Pine-White Pine
- 61 Plantation: Red Pine-Spruce
- 62 Plantation: Red Pine-Larch
- 63 Plantation: White Pine-Spruce
- 64 Plantation: White Pine-Larch
- 65 Plantation: Scotch Pine-Spruce
- 66 Plantation: Scotch Pine-Larch
- 67 Plantation: Larch-Spruce
- 68 Plantation: Bucket Mixes
- 70 Plantation: Pine-Natural Species
- 72 Plantation: Misc. Hardwood
- 98 Plantation: Seedling-Sapling
- Habitat Management (HM)

Management Direction Codes

- Wildlife (WL)
- Experimental (EXP)
- Recreation (REC)
- Protection (PRO)
- Non-Management (NM)
- Sugar Bush/Maple Tapping (SB)
- Timber Management:
 - Even Age (T-EA)
 - Un-Even Age (T-UE)
 - Non-Silvicultural (T-NS)

Size Class Codes

- Seedling/Sapling <5" DBH (S-S)
- Pole Timber 6"-11" DBH (PT)
- Small Saw Timber 12"-17" DBH (SST)
- Medium Saw Timber 18"-23" DBH (MST)
- Large Saw Timber > 24" DBH (LST)

Treatment Type Codes

- Harvest (HV)
- Release (RL)
- Salvage (SL)
- Sanitation (SN)
- Thinning (TH)
- Regeneration (RG)

MANAGEMENT GOALS AND RECOMMENDATIONS

LAND MANAGEMENT ACTION SCHEDULES

Land Management Action Schedules

**Table III.H. –Land Management Action Schedule for
Henderson Shores Unique Area Jefferson #11**

| Stand | Acres | DBH | Forest Type | Status | Species | Treatment Type | Action Interval/ Prescription Year |
|-------|-------|-----|------------------------------------|-------------------|------------|----------------|--|
| A-1 | 76 | S-S | Cedar | Natural Forest | ERC-IWD-WA | NONE | – |
| A-2 | 24 | SST | Transition Northern Hardwood | Natural Forest | WA-RO-WO | NONE | – |
| A-3.1 | 78 | – | – | Forested Wetlands | SM-WA-BA | NONE | – |
| A-3.2 | 27 | – | – | Wetlands-Open | – | NONE | – |
| A-4 | 95 | PT | Swamp Hardwood | Natural Forest | BA-GA-WO | NONE | – |
| A-5 | 154 | PT | Cedar | Natural Forest | ERC-GA-WC | NONE | – |
| A-6 | 30 | – | – | Forested Wetlands | WC-GA-BA | NONE | – |
| A-7 | 37 | SST | Cedar | Natural Forest | ERC | NONE | – |
| A-8 | 183 | – | – | Forested Wetland | BA-ELM-RM | NONE | – |
| A-9 | 145 | PT | Cedar | Natural Forest | WC-ERC-WA | NONE | – |
| A-10 | 7 | PT | Cedar | Natural Forest | ERC | NONE | – |
| A-11 | 14 | – | – | Forested Wetlands | GA-WA-WC | NONE | – |
| A-12 | 11 | – | – | Brushy Fields | – | NONE | – |

MANAGEMENT GOALS AND RECOMMENDATIONS

LAND MANAGEMENT ACTION SCHEDULES

**Table III.G. -Land Management Action Schedule for
Coyote Flats State Forest Jefferson #10**

| Stand | Acres | DBH | Forest Type | Status | Species | Treatment Type | Action Interval/ Prescription Year |
|-------|-------|-----|------------------------------|----------------|-----------|---------------------|--|
| A-1 | 373 | PT | Northern Hardwood | Natural Forest | RM-ASP-BE | Small Patch Cuts | 6-10 |
| A-2 | 22 | PT | Northern Hardwood-Hemlock | Natural Forest | HEM-RM-WP | Protection | – |
| A-3 | 59 | – | – | POND | – | Protection | – |
| A-4 | 54 | PT | Northern Hardwood-WP | Natural Forest | WP-RM-BC | Thinning | 6-10 |
| A-5 | 6 | PT | Red Pine | Plantation | RP-RM-BC | Thinning | 0-5 |
| A-6 | 20 | – | – | Wetlands/Alder | – | Protection | – |
| A-7 | 2 | PT | White Spruce | Plantation | WS | NONE | – |
| A-8 | 11 | SST | Pioneer Hardwood | Natural Forest | RM-ASP-GB | FW Thinning | 6-10 |
| | | | | | | | |
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MANAGEMENT GOALS AND RECOMMENDATIONS

LAND MANAGEMENT ACTION SCHEDULES

**Table III.F. -Land Management Action Schedule for
Pulpit Rock State Forest Jefferson # 2**

| Stand No. | Acres | DBH | Forest Type | Status | Species | Treatment Type | Action Interval/ Prescription Year |
|-----------|-------|-----|----------------------------------|----------------|-----------|----------------------------------|--|
| A-1 | 32 | PT | White Pine | Plantation | WP-ELM-WS | Thinning | 0-5 |
| A-2 | 29 | PT | Northern Hardwood-WP | Natural Forest | WP-HM-BH | FW Thinning | 0-5 |
| A-3 | 11 | – | – | POND | – | Protection | – |
| A-4 | 15 | PT | Swamp Hardwood | Natural Forest | ELM-HM-BH | Re-evaluate | 16-20 |
| A-5 | 46 | PT | White Pine | Plantation | WP-ELM-HM | Poor Access | NONE |
| A-6 | 188 | S-S | Northern Hardwood-WP | Natural Forest | HM-IWD-BH | FW Thinning | 16-20 |
| A-7 | 301 | PT | Northern Hardwood- Hemlock | Natural Forest | RM-IWD-SH | FW Thinning | 16-20 |
| A-8 | 18 | – | – | POND | – | Protection | – |
| A-9 | 200 | S-S | Oak-Pine | Natural Forest | IWD-RM-RO | NONE | – |
| A-10 | 64 | – | – | POND | – | Protection | – |
| A-11 | 25 | – | – | POND | – | Protection | – |
| A-12 | 334 | S_S | Northern Hardwood-WP | Natural Forest | RM-RO-WP | Salvage Thinning/ Poor Access | 0-5 |
| A-13 | 93 | – | – | Wetland/Open | – | Protection | – |
| A-14 | 132 | PT | Northern Hardwood- Hemlock | Natural Forest | HEM-WP-RM | NONE | – |
| A-15 | 20 | PT | White Pine- White Spruce | Plantation | WS-RM-WP | Thinning | 0-5 |
| A-16 | 10 | – | – | Wetland/Open | – | Protection | – |
| A-17 | 4 | – | – | Wetland/Alder | – | Protection | – |
| A_18 | 66 | – | – | POND | – | Protection | – |

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Glossary

Access trails - may be permanent, unpaved and do not provide all-weather access with the unit. These trails are originally designed for wood product removal and may be used to meet other management objectives such as recreational trails. These trails are constructed according to Best Management Practices.

Age class - trees of a similar size originating from a single natural event or regeneration activity.

Basal area - the cross-sectional area, measured in square feet, of a single stem, including the bark, measured at breast height (4.5ft above the ground).

Beech bark disease - an insect and disease pathogen complex involving a scale insect (*Cryptococcus fagi*) and a nectria fungus (*Nectria coccinea* var. *faginata*). The insect pierces the bark to feed, allowing a place for the fungus to enter the tree. Fungal activity interrupts the tree's normal physiological processes and a severely infected tree will most likely die.

Best management practices - a practice or a combination of practices that are designed for the protection of water bodies and riparian areas, and determined to be the most effective and practicable means of controlling point and non-point source water pollutants.

Biological diversity (Biodiversity) - the variety, abundance, and interactions of life forms found in areas ranging in size from local through regional to global. Biodiversity considers both the ecological and evolutionary processes, functions, and structures of plants, animals and other living organisms, as well as the variety and abundance of species, communities, gene pools, and ecosystems.

Biological legacy - an organism, living or dead, inherited from a previous ecosystem - *note* biological legacies often include large trees, snags, and downed logs left after timber harvesting.

Browse - portions of woody plants including twigs, shoots, and leaves consumed by animals such as deer.

Buffer zone / Buffer strip - a vegetation strip or management zone of varying size, shape, and character maintained along a stream, lake, road, recreation site, or different vegetative zone to mitigate the impacts of actions on adjacent lands, to enhance aesthetic values, or as a best management practice.

Cavity tree / Den tree - a tree containing an excavation sufficiently large for nesting, dens or shelter; tree may be alive or dead.

Clear cut - a harvesting and regeneration technique that removes all the trees, regardless of size, on an area in one operation. This practice is done in preparation of the re-establishment of a new forest through reforestation, stump sprouting, or changing habitats, i.e., from forest to brush or grass cover.

Climax forest - an ecological community that represents the culminating stage of a natural forest succession for its locality / environment.

Coarse Woody Material (CWM) - any piece(s) of large dead woody material on the ground in forest stands or in streams.

Conifer - a cone-bearing tree, also referred to as softwood; *note* the term often refers to gymnosperms in general.

Conversion - a change from one silvicultural system to another or from one tree species to each other.

Coppice - an even-aged silvicultural practice designed to stimulate the production of new stems from the cut stumps of the parent vegetation.

Corridor - a linear strip of land identified for the present or future location of a designed use within its boundaries. *Examples:* recreational trails, transportation or utility rights-of-way. When referring to wildlife, a corridor may be a defined tract of land connecting two or more areas of similar management or habitat type through which a species can travel from one area to another to fulfill any variety of life-sustaining needs.

Cover type - the plant species forming a majority of composition across a given area.

Crop tree - any tree selected to become a component of a future commercial timber harvest.

Crown - the part of a tree or woody plant bearing live branches and foliage.

Cultural resources - significant historical or archaeological assets on sites as a result of past human activity which are distinguishable from natural resources.

Cutting cycle - the number of years between harvest or regeneration cuts in a stand.

Cutting interval - the number of years between treatments in a stand.

Deciduous - tree and shrub species that lose their leaves in autumn.

Defoliation - the partial or complete loss of leaves, usually caused by an insect, disease, or drought.

Designated recreational trail - a Department authorized recreational trail that is signed and/or mapped.

Diameter (at) breast height (DBH) - the diameter of the stem of a tree (outside bark) measured at breast height (4.5ft) from the ground.

Disturbance - a natural or human-induced environmental change that alters one or more of the floral, faunal, and microbial communities within an ecosystem. Timber harvesting is the most common human disturbance. Windstorms and fire are examples of natural disturbance.

Ecological Community - an assemblage of plants and animals interacting with one another, occupying a habitat, and often modifying the habitat; a variable assemblage of plant and animal populations sharing a common environment and occurring repeatedly in the landscape.

Ecosystem - a spatially explicit, relatively homogeneous unit of the earth that includes all interacting organisms and components of the abiotic environment within its boundaries - *note* an ecosystem can be of any size, e.g., a log, pond, field, forest or the earth's biosphere.

Ecosystem management - the appropriate integration of ecological, economic, and social factors in order to maintain and enhance the quality of the environment to best meet our current and future needs. Means keeping natural communities of plants, animals, and their environments healthy and productive so people can benefit from them year to year.

Edge - the more or less well-defined boundary between two or more environmental features, e.g. a field adjacent to a woodland or the boundary of different silvicultural treatments.

Endangered species - any species of plant or animal defined through the Endangered Species Act of 1976 as being in danger of extinction throughout all or a significant portion of its range and published in the Federal Register.

Even-aged - a class of forest or stand composed of trees of about the same age. The maximum age difference is generally 10-20 years.

Even-aged system - a program of forest management directed to the establishment and maintenance of stands of trees having relatively little (10-20 yrs) variation in ages. The guidelines to be applied in using this system at all stages of tree development are uniquely different from the uneven-aged system.

Exotic - a plant or species introduced from another country or geographic region outside its natural range.

Eyas - A nestling (unfledged) hawk or falcon, especially one to be trained for falconry.

Fine Woody Material (FWM) - any piece(s) of small dead woody material on the ground in forest stands or in streams.

Forest - an assemblage of trees and associate organisms on sites capable of maintaining at least 60% crown closure at maturity.

Forest Stewardship Council - A non-profit organization devoted to encouraging the responsible management of the world's forests.

Forestry - the profession embracing the science, art, and practice of creating, managing, using, and conserving forests and associated resources for human benefit and in a sustainable manner to meet desired goals, needs, and values.

Forest type - a category of forest usually defined by its vegetation, particularly its dominant vegetation as based on percentage cover of trees.

Forested wetland - an area characterized by woody vegetation where soil is periodically saturated with or covered by water.

Fragmentation - the process by which a landscape is broken into small islands of forest within a mosaic of other forms of land use or ownership - islands of a particular age class that remain in areas of younger-aged forest - fragmentation is a concern because of the effect of

noncontiguous forest cover on connectivity and the movement and dispersal of animals in the landscape.

Grassland - land on which the vegetation is dominated by grasses, grass-like plants, or forbs.

Group selection - an uneven-aged silvicultural practice where mature trees are removed in small groups (typically the diameter of the grouping is twice the average tree height) for the purpose of establishing a new age class of trees within the stand.

Habitat - the geographically defined area where environmental conditions (e.g., climate, topography, etc.) meet the life needs (e.g., food, shelter, etc.) of an organism, population, or community.

Hardwoods - broad-leafed, deciduous trees belonging to the botanical group Angiospermae.

Haul roads - permanent, unpaved roads, not designed for all-weather travel, but are constructed primarily for the removal of wood products and provide only limited access within the unit. As such, these roads may or may not be open for public use. The standards for these roads are those of Class C roads.

Herbicide - a chemical used for killing or controlling the growth of plants.

High-grading - the removal of the most commercially valuable trees (high-grade trees), often leaving a residual stand composed of trees of poor condition or species composition.

Hydrofracking – The hydraulic fracturing process used to release natural gas from limited porosity formations. Fluids are injected into the formation under pressure.

Invasive species - a species that is non-native to the ecosystem under consideration; and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

Late Successional Forest – Those areas where there is a significant component of trees greater than 140 years old. Forests in this age are beginning to develop old-growth characteristics such as large size, large snags, large cavities, rough bark and large dead trees and fallen logs.

Mast - all fruits of trees and shrubs used as food for wildlife. Hard mast includes nut-like fruits such as acorns, beechnuts, and chestnuts. Soft mast includes the fleshy fruits of black cherry, dogwood and serviceberry.

Mesic - of sites or habitats characterized by intermediate moisture conditions, i.e., neither decidedly wet nor dry.

Multiple use - a strategy of land management fulfilling two or more objectives, e.g. forest products removal and recreation.

Native species - an indigenous species that is normally found as part of a particular ecosystem.

Natural area - an ecological community where physical and biological processes are allowed to operate without direct human intervention. (Helms, 1998)

Natural regeneration - the establishment of a forest stand from natural seeding, sprouting, suckering or layering.

Northern hardwood forest - a forest type usually made up of sugar and red maple, American beech, yellow birch, and to a lesser extent black cherry and white ash. This type represents about 70 percent of all forests in New York State.

Old growth -

1.) forests that approximate the structure, composition, and functions of native forest prior to European settlement. They vary by forest type, but generally include more large trees, canopy layers, standing snags, native species, and dead organic matter than do young or intensively managed forests.

2.) the definition of "Old Growth Forest" involves a convergence of many different, yet interrelated criteria. Each of these criteria can occur individually in an area that is not old growth; however, it is the presence of all of these factors that combine to differentiate "Old Growth Forest" from other forested ecosystems. These factors include: An abundance of late successional tree species, at least 180 - 200 years of age in a contiguous forested landscape that has evolved and reproduced itself naturally, with the capacity for self perpetuation, arranged in a stratified forest structure consisting of multiple growth layers throughout the canopy and forest floor, featuring (1) canopy gaps formed by natural disturbances creating an uneven canopy, and (2) a conspicuous absence of multiple stemmed trees and coppices. Old growth forest sites typically (1) are characterized by an irregular forest floor containing an abundance of coarse woody materials which are often covered by mosses and lichens; (2) show limited signs of human disturbance since European settlement; and (3) have distinct soil horizons that include definite organic, mineral, illuvial accumulation, and unconsolidated layers. The understory displays well developed and diverse surface herbaceous layers.

Overstory - that portion of the trees in a forest forming the upper or uppermost canopy layer.

Pioneer - a plant capable of invading bare sites (newly exposed soil) and persisting there or colonizing them until supplanted by successional species.

Pit and mound topography - an example of microsite topography that is the result of tree uprooting where the depression or pit is formed at the former location of the root structure and the mound is formed from the up-thrown roots and soil mass; creates heterogeneous soil and microclimatic conditions in ecosystems predisposed to tree uprooting.

Plantation - a stand composed primarily of trees established by planting or artificial seeding - a plantation may have tree or understory components that have resulted from natural regeneration.

Public forest access roads - permanent, unpaved roads marked for motor vehicle use. They may be designed for all-weather use depending on their location and surfacing. These roads provide primary access within the unit. The standards for these roads are those of the Class A and Class B access roads.

Pulpwood - low grade or small diameter logs used to make paper products, wood chips, etc.

Recruitment (legacy) tree - A live tree permanently retained to eventually develop into a cavity tree, snag, or downed woody material (CWD and FWM) within the stand or to retain a unique feature on the landscape.

Reforestation - the re-establishment of forest cover by natural or artificial means.

Regeneration - naturally or artificially established seedlings or saplings existing in a forest stand.

Release -

1.) a treatment designed to free trees from undesirable, usually overtopping, competing vegetation.

2.) a treatment designed to free young trees not past the sapling stage from undesirable competing vegetation that overtops or closely surrounds them.

Residual stand - a stand composed of trees remaining after any type of intermediate harvest.

Riparian zone - an area adjoining a body of water, normally having soils and vegetation characteristic of floodplains or areas transitional to upland zones. These areas help protect the water by removing or buffering the effects of excessive nutrients, sediments, organic matter, pesticides, or pollutants.

Rotation - the period of years required to establish and grow timber crops to a specified maturity. Rotation being the predetermined time frame between successive harvest/regeneration cuts in a given stand under even-aged management.

Sapling - a small tree, usually defined as being between 1 and 5 inches diameter at breast height.

Sawtimber - trees that are generally 12 inches and larger diameter at breast height.

Seedling - a young tree originating from seed that is less than 4 feet tall.

Seedling/sapling - trees less than 6 inches diameter at breast height.

Seed tree cut/method - the removal of the mature timber in one cutting, except for a small number of trees left singly, or in small groups, as a source of seed for natural regeneration.

Selective cut - a type of exploitation cutting that removes only certain species (a) above a certain size, (b) of high value; known silvicultural requirements and/or sustained yields being wholly or largely ignored or found impossible to fulfill. (Ford-Robertson, F. C. 1971)

Selection system - the removal of trees over the entire range of size classes either singly or in groups at relatively short intervals, resulting in continuous establishment of reproduction. Individual trees are chosen for removal due to their maturity because they are of poor quality or thinning is needed to improve the growth rate of the remaining trees.

Shade tolerance - the ability of a tree species to germinate and grow at various levels of shade.

Shade tolerant: having the capacity to compete for survival under shaded conditions.

Shade intolerant: having the capacity to compete for survival only under direct sunlight conditions; light demanding species.

Shelterwood cut/method - a regeneration action designed to stimulate reproduction by implementing a series of cuts over several years that will gradually remove the overstory trees. Gradual reduction of stand density protects understory trees and provides a seed source for stand regeneration.

Silviculture - the art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands to meet the diverse needs and values of landowners and society on a sustainable basis.

Snags - standing, dead trees, with or without cavities; function as perches, foraging sites and/or a source of cavities for dens, roosting and/or nesting for wildlife.

Softwoods - generally refers to needle and/or cone bearing trees (conifers) belonging to the botanical group Gymnospermae.

Species - the main category of taxonomic classification into which genera are subdivided, comprising a group of similar interbreeding individuals sharing a common morphology, physiology, and reproductive process.

Stand - a contiguous group of trees sufficiently uniform in age-class distribution, composition, and structure, and growing on a site of sufficiently uniform quality, to be a distinguishable unit.

Stand structure - the horizontal and vertical distribution of components of a forest stand including the height, diameter, crown layers, and stems of trees, shrubs, herbaceous understory, snags, and downed woody debris.

State Forest / State Reforestation Area - lands owned by the State of New York, administered by the Department of Environmental Conservation and authorized by Environmental Conservation Law to be devoted to the establishment and maintenance of forests for watershed protection, the production of timber and other forest products, and for recreation and kindred purposes. These forests shall be forever devoted to the planting, growth and harvesting of such trees (Title 3 Article 9-0303 ECL).

Stumpage - The value of timber as it stands uncut.

Succession - the natural series of replacements of one plant community (and the associated fauna) by another over time and in the absence of disturbance.

Sustainable forest management - management that maintains and enhances the long-term health of forest ecosystems for the benefit of all living things, while providing environmental, economic, social and cultural opportunities for present and future generations.

Temporary Revocable Permit (TRP) - a Department permit which authorizes the use of State land for a specific purpose for a prescribed length of time.

Thinning - a silvicultural treatment made to reduce stand density of trees primarily to improve growth of remaining trees, enhance forest health, or recover potential mortality.

Threatened species - a species likely to become endangered in the foreseeable future, throughout all or a significant portion of its range, unless protected.

Timber stand improvement (TSI) - pre-commercial silvicultural treatments, intended to regulate stand density and species composition while improving wood product quality and fostering individual tree health and vigor, through the removal of undesirable trees.

Understory - the smaller vegetation (shrubs, seedlings, saplings, small trees) within a forest stand, occupying the vertical zone between the overstory and the herbaceous plants of the forest floor.

Uneven-aged system - a planned sequence of treatments designed to regenerate a stand with three or more age classes.

Uneven-aged stand/forest - a stand with trees of three or more distinct age classes, either intimately mixed or in small group

Variable retention - an approach to harvesting based on the retention of structural elements or biological legacies (trees, snags, logs, etc.) in the harvested stand to achieve various ecological objectives (i.e. structural complexity, riparian protection, habitat improvement). The structural elements may be retained singly or in patches.

Watershed - a region or area defined by a network of stream drainage. A watershed includes all the land from which a particular stream or river is supplied.

Wetland - a transitional area between aquatic and terrestrial ecosystems that is inundated or saturated for periods long enough to produce hydric soils and support hydrophytic vegetation.

Appendices & Figures

Appendix A - Summary of Comments During Public Scoping Sessions

Start a permitting system to restrict the number of hunters and trappers on Coyote Flats State Forest.

Increased access and promotion of Coyote Flats State Forest will only encourage more illegal camping, bonfires and lost persons cases.

Concerns about illegal trespass onto private lands from State Forest lands.

Root Right-of-Way, Pulpit Rock State Forest, off ST Rt 22 has historically created a litter nuisance on private property when the public was allowed to access with motor vehicles.

Exploring opportunities to incorporate some woodcock and Golden-winged Warbler habitat recommendations into the wildlife management recommendations for Pulpit Rock SF and Coyote Flats SF, both of which fall in the focus area for the Golden-winged Warbler.

APPENDICES & FIGURES

APPENDIX A - SUMMARY OF COMMENTS DURING PUBLIC SCOPING SESSIONS

Appendix B - Responsiveness Summary to Public Comments

Comment: Start a permitting system to restrict the number of hunters and trappers on Coyote Flats State Forest.

Response: At this time the hunting and trapping pressure on Coyote Flats State Forest does not appear to be negatively affecting the resource. However, if at some point pressures increase, some sort of user study will be performed to determine more exact numbers.

Comment: Increased access and promotion of Coyote Flats State Forest will only encourage more illegal camping, bonfires and lost persons cases.

Comment: Concerns about illegal trespass onto private lands from State Forest lands.

Response: Illegal activity on State Lands, such as littering, loitering and trespass onto private property is a constant concern for land managers. The increased presence of DEC Rangers and other law enforcement will help to mitigate that threat.

Comment: Root Right-of-Way, Pulpit Rock State Forest, off County Rt 22 has historically created a litter nuisance on private property when the public was allowed to access with motor vehicles.

Response: Access to Pulpit State Forest through the Root Right-of-Way off County Rt 22, will continue to be gated and only allow the public to access it on foot.

Comment: Exploring opportunities to incorporate some woodcock and Golden-winged Warbler habitat recommendations into the wildlife management recommendations for Pulpit Rock SF and Coyote Flats SF, both of which fall in the focus area for the Golden-winged Warbler.

Response: The land manager would be thrilled to work with Audubon New York and a DEC Biologist to explore the opportunity to create Golden-winged Warbler habitat or other needed wildlife habitat when land management opportunities arise.

APPENDIX C - STATE ENVIRONMENTAL QUALITY REVIEW (SEQR)**Appendix C - State Environmental Quality Review (SEQR)****State Environmental Quality Review (SEQR)**

This Plan and the activities it recommends will be in compliance with State Environmental Quality Review (SEQR), 6NYCRR Part 617. The State Environmental Quality Review Act (SEQRA) requires the consideration of environmental factors early in the planning stages of any proposed action(s) that are undertaken, funded or approved by a local, regional or state agency. The Strategic Plan for State Forest Management (SPSFM) serves as the Generic Environmental Impact Statement (GEIS), regarding management activity on State Forests. To address potential impacts, the SPSFM establishes SEQR analysis thresholds for each category of management activity.

Management actions in this Plan are within the thresholds established in the SPSFM, therefore these actions do not require additional SEQR. Any future action that does not comply with established thresholds will require additional SEQR prior to conducting the activity.

STATE ENVIRONMENTAL QUALITY REVIEW ACT

This Unit Management Plan (UMP) does not propose pesticide applications of more than 40 acres, any clearcuts of 40 acres or larger, or prescribed burns in excess of 100 acres. Therefore, the actions in the plan do not exceed the thresholds set forth in the Strategic Plan/Generic Environmental Impact Statement for State Forest Management.

This Unit Management Plan also does not include any of the following:

1. Forest management activities occurring on acreage occupied by protected species ranked S1, S2, G1, G2 or G3
2. Pesticide applications adjacent to plants ranked S1, S2, G1, G2 or G3
3. Aerial pesticide spraying by airplane or helicopter
4. Any development of facilities with potable water supplies, septic system supported restrooms, camping areas with more than 10 sites or development in excess of other limits established in this plan.
5. Well drilling plans
6. Well pad densities of greater than one well pad in 320 acres or which does not comply with the limitations identified through a tract assessment
7. Carbon injection and storage or waste water disposal

Therefore, the actions proposed in this UMP will be carried out in conformance with the conditions and thresholds established for such actions in the Strategic Plan/Generic Environmental Impact Statement, and do not require any separate site-specific environmental review (see 6 NYCRR 617.10[d]).

Actions not covered by the Strategic Plan/Generic Environmental Impact Statement

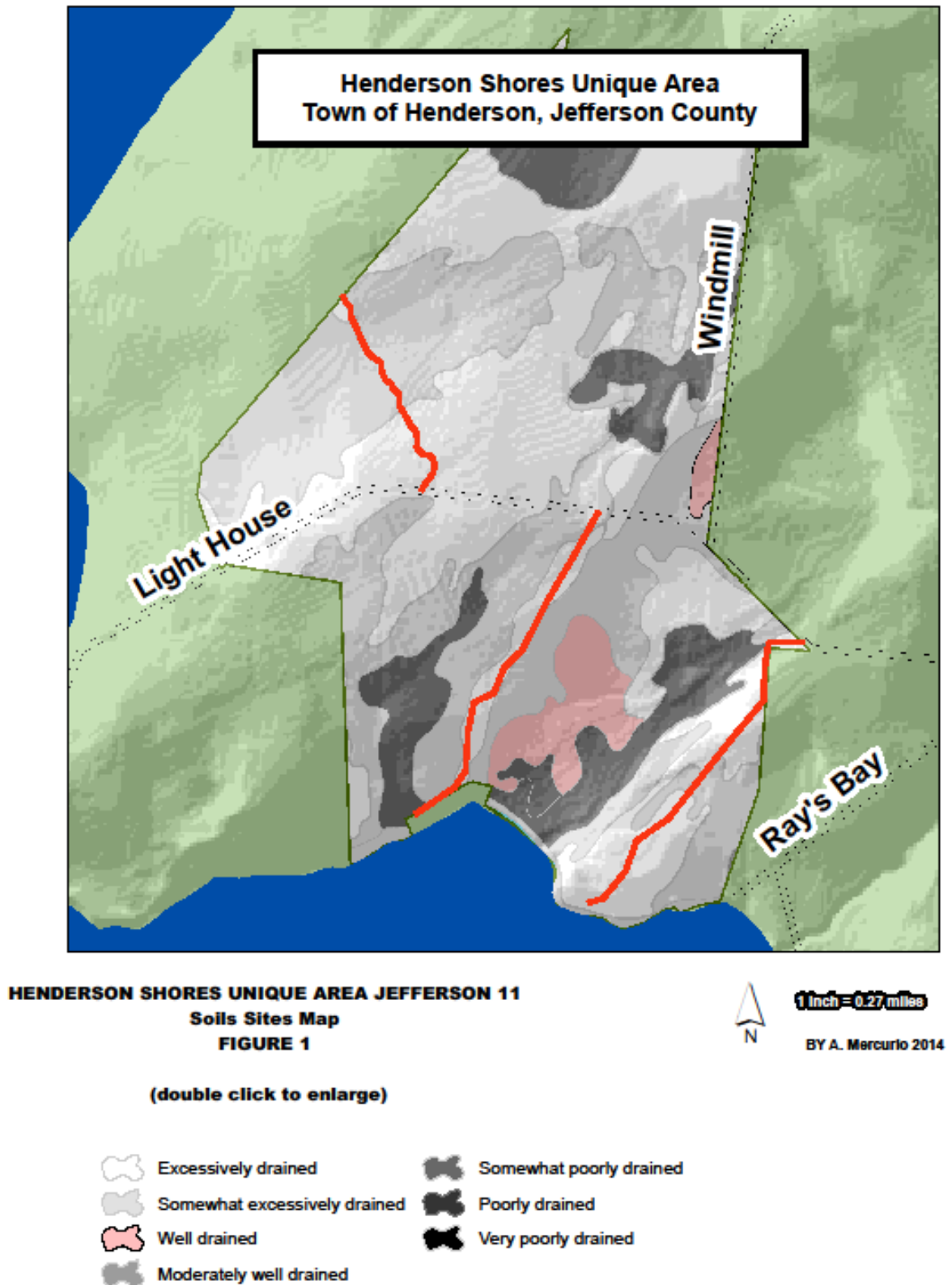
APPENDICES & FIGURES

APPENDIX C - STATE ENVIRONMENTAL QUALITY REVIEW (SEQR)

Any action taken by the Department on this unit that is not addressed in this Unit Management Plan and is not addressed in the Strategic Plan/Generic Environmental Impact Statement may need a separate site-specific environmental review.

FIGURE 1. – SOILS AND TOPOGRAPHY MAPS

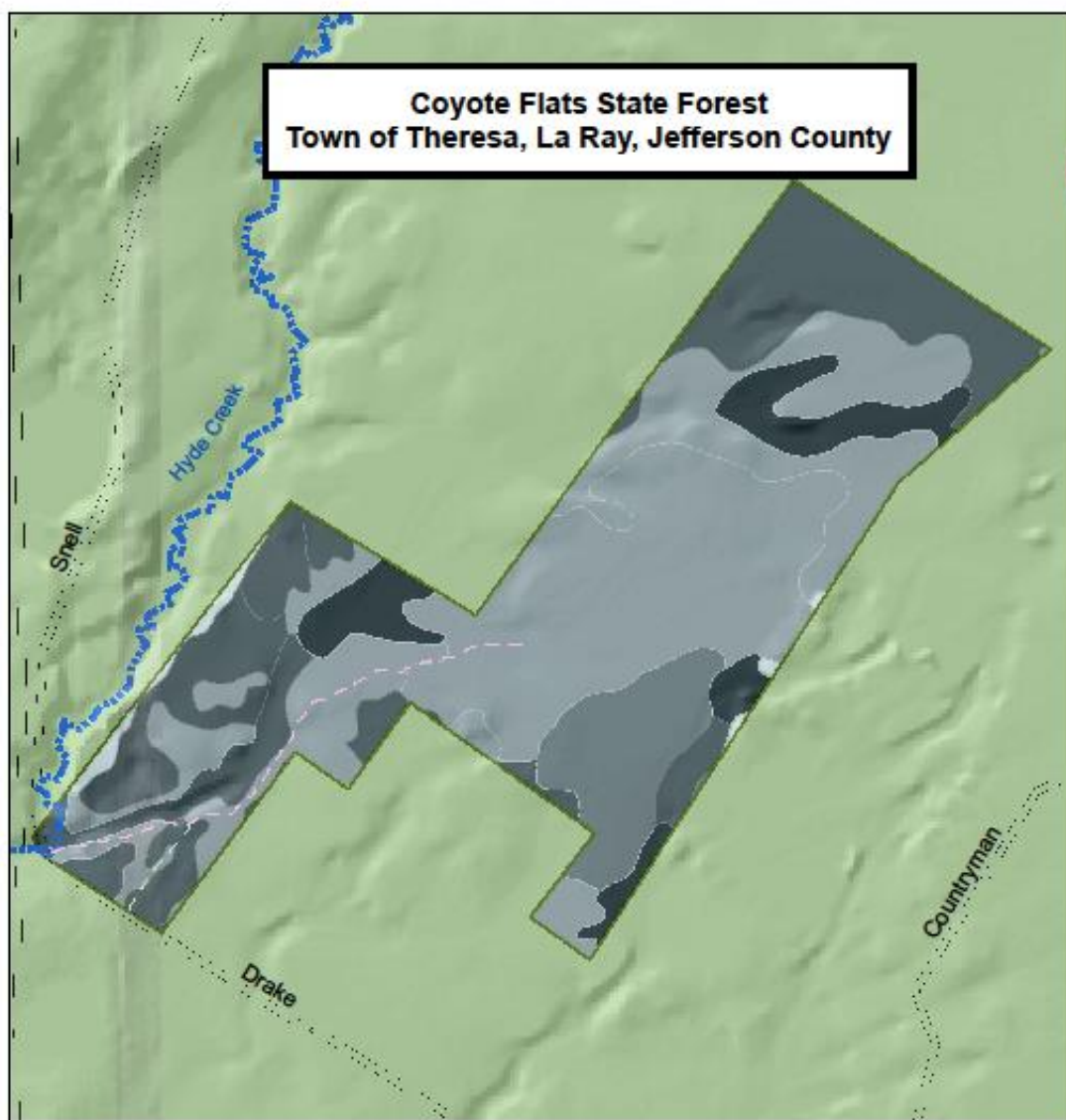
Figure 1. – Soils and Topography Maps



APPENDICES & FIGURES

FIGURE 1. – SOILS AND TOPOGRAPHY MAPS

Figure 1. – Soils and Topography Maps



COYOTE FLATS STATE FOREST JEFFERSON 10
Soils Sites Map
FIGURE 1



1 inch = 0.27 miles

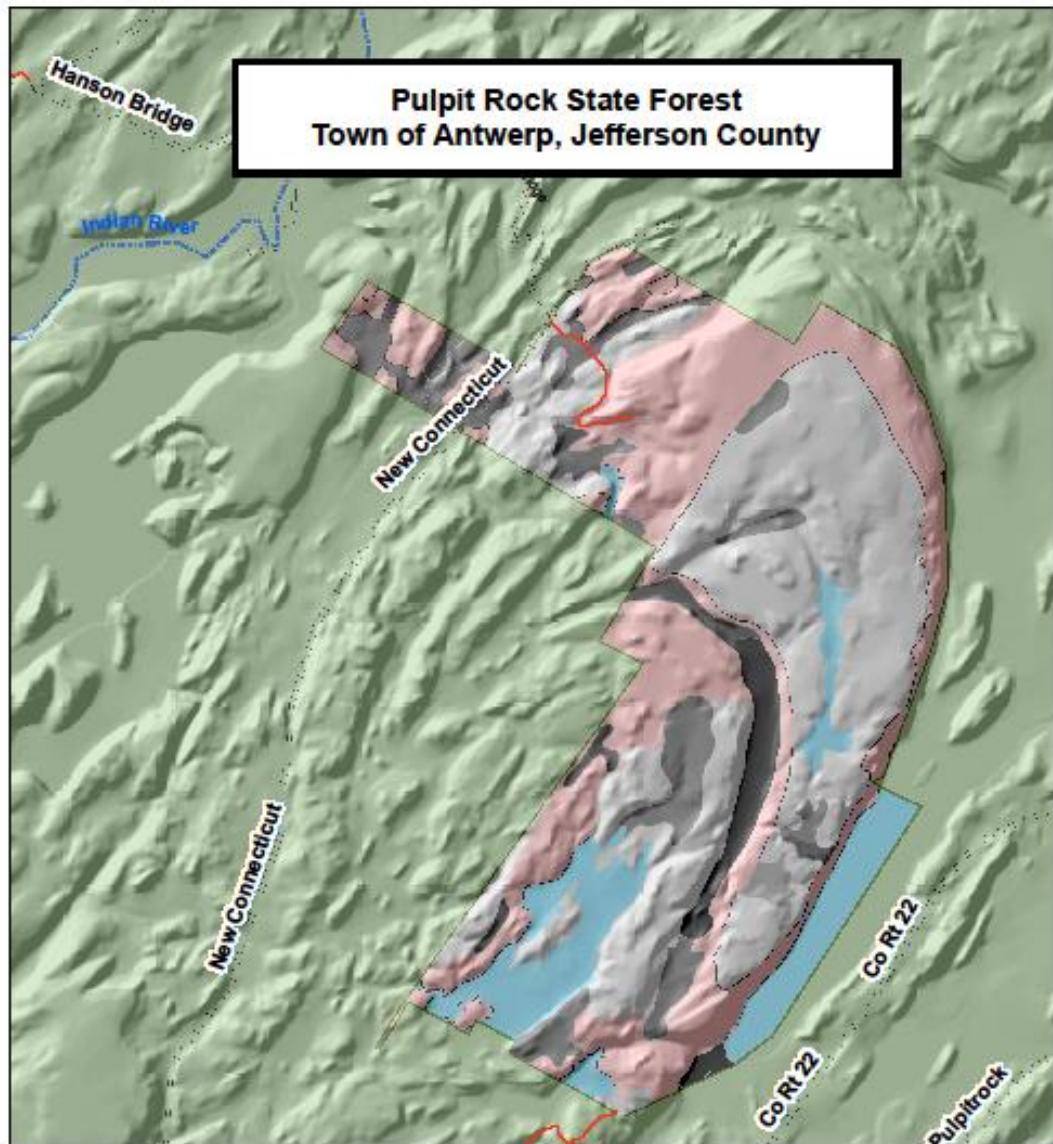
BY A. Mercurio 2014

(double click to enlarge)

- | | |
|------------------------------|-------------------------|
| Excessively drained | Somewhat poorly drained |
| Somewhat excessively drained | Poorly drained |
| Well drained | Very poorly drained |
| Moderately well drained | |

FIGURE 1. – SOILS AND TOPOGRAPHY MAPS

Figure 1. – Soils and Topography Maps



**Soils Sites Map
FIGURE 1**

(double click to enlarge)



1 inch = 0.46 miles

BY A. Mercurio 2014

- | | |
|------------------------------|-------------------------|
| Excessively drained | Somewhat poorly drained |
| Somewhat excessively drained | Poorly drained |
| Well drained | Very poorly drained |
| Moderately well drained | |

APPENDICES & FIGURES

FIGURE 2. – WATER RESOURCE AND SPECIAL MANAGEMENT ZONES MAPS

Figure 2. – Water Resource and Special Management Zones Maps

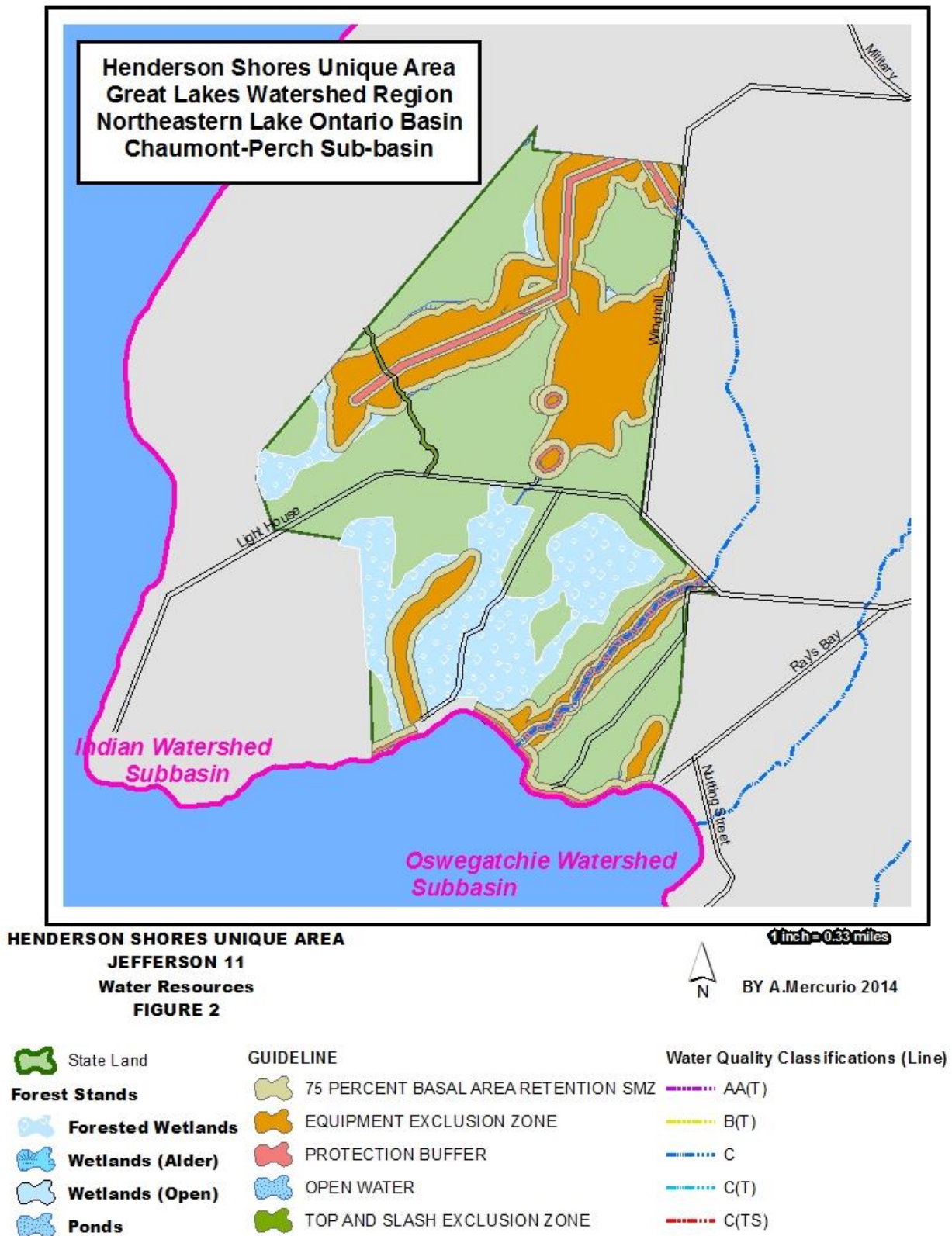
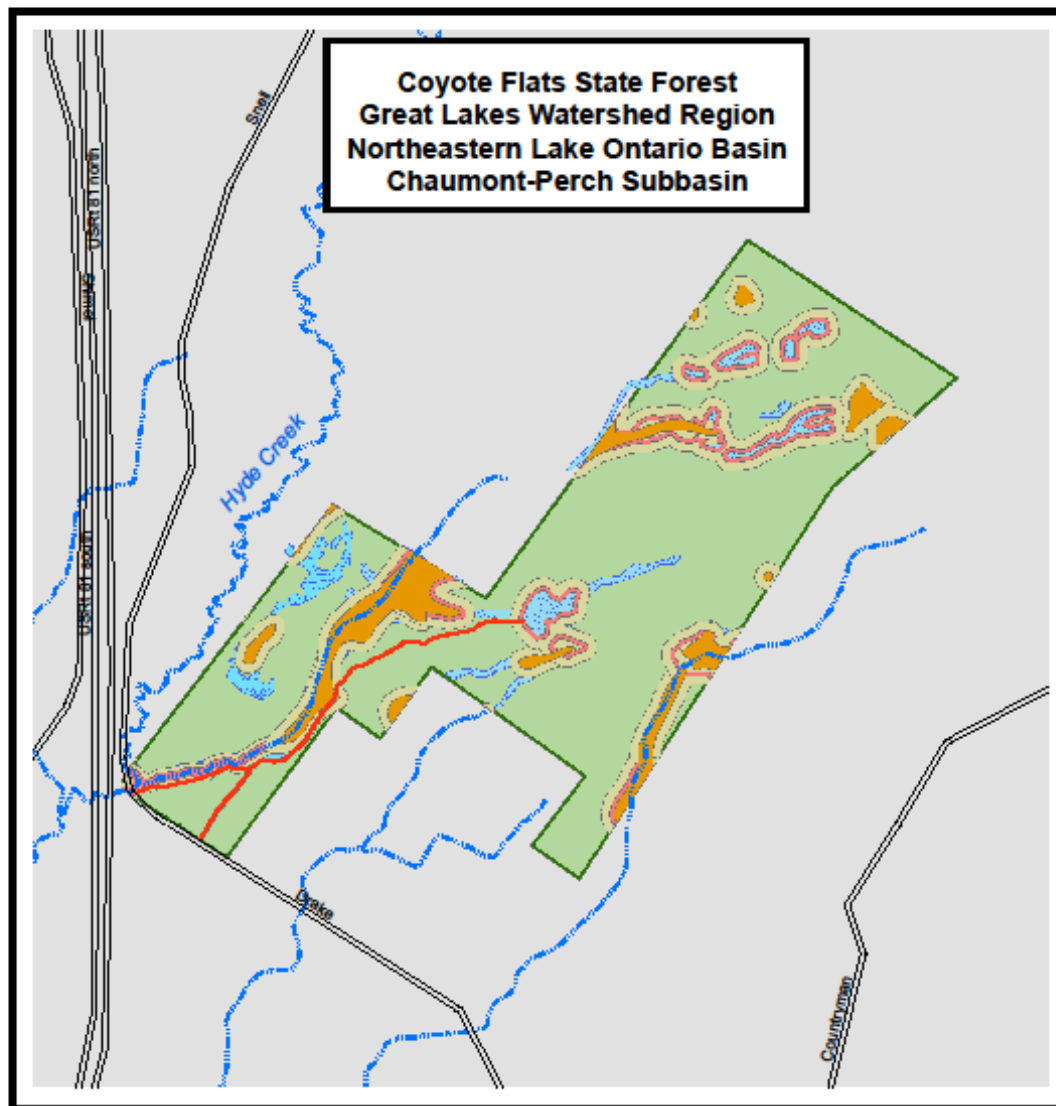


FIGURE 2. – WATER RESOURCE AND SPECIAL MANAGEMENT ZONES MAPS

Figure 2. – Water Resource and Special Management Zones Maps



COYOTE FLATS STATE FOREST JEFFERSON 10

Water Resources

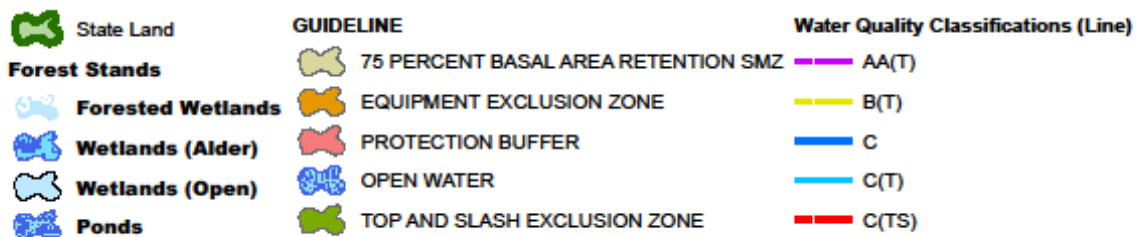
FIGURE 2

(double click to enlarge)

1 inch = 0.32 miles



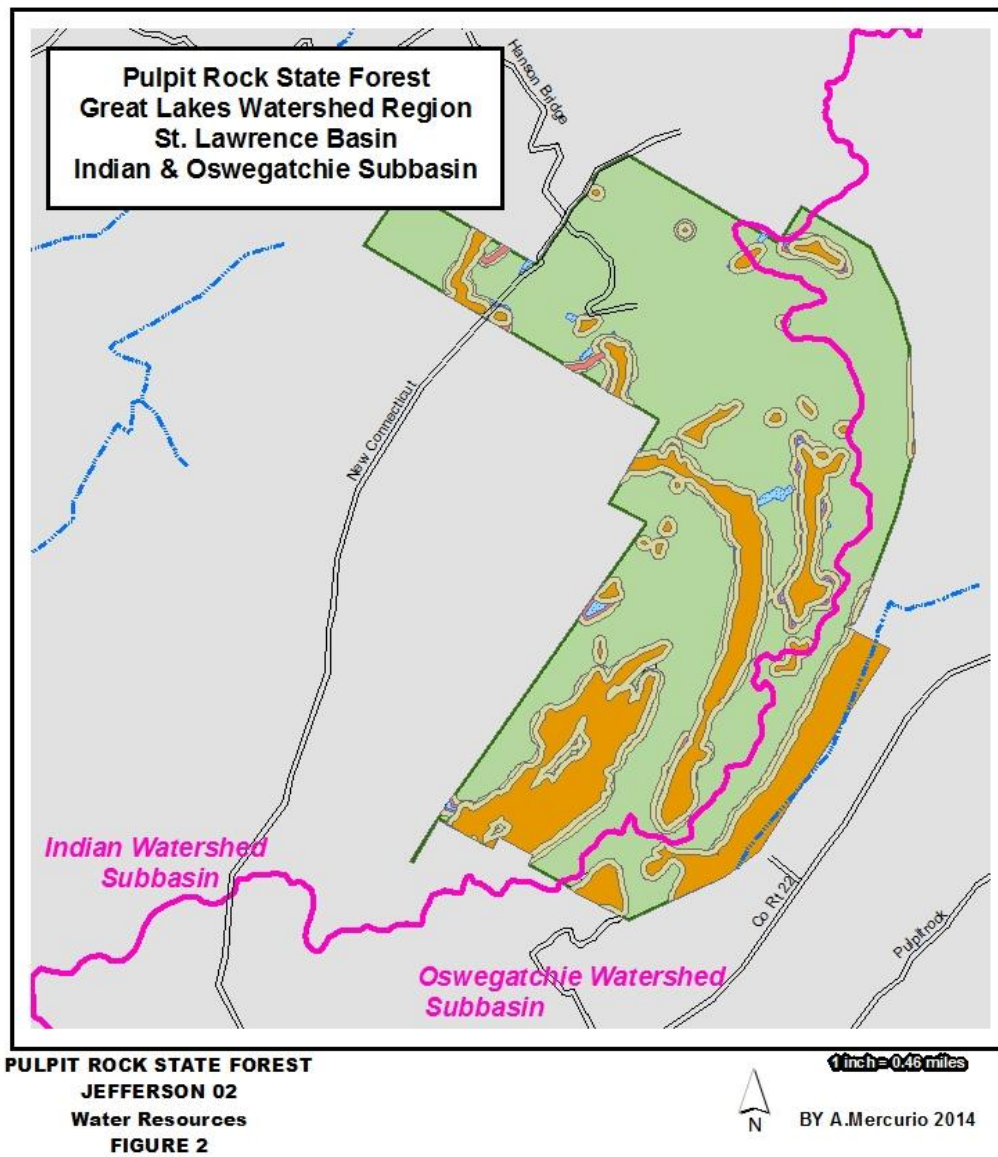
BY A.Mercurio 2014



APPENDICES & FIGURES

FIGURE 2. – WATER RESOURCE AND SPECIAL MANAGEMENT ZONES MAPS

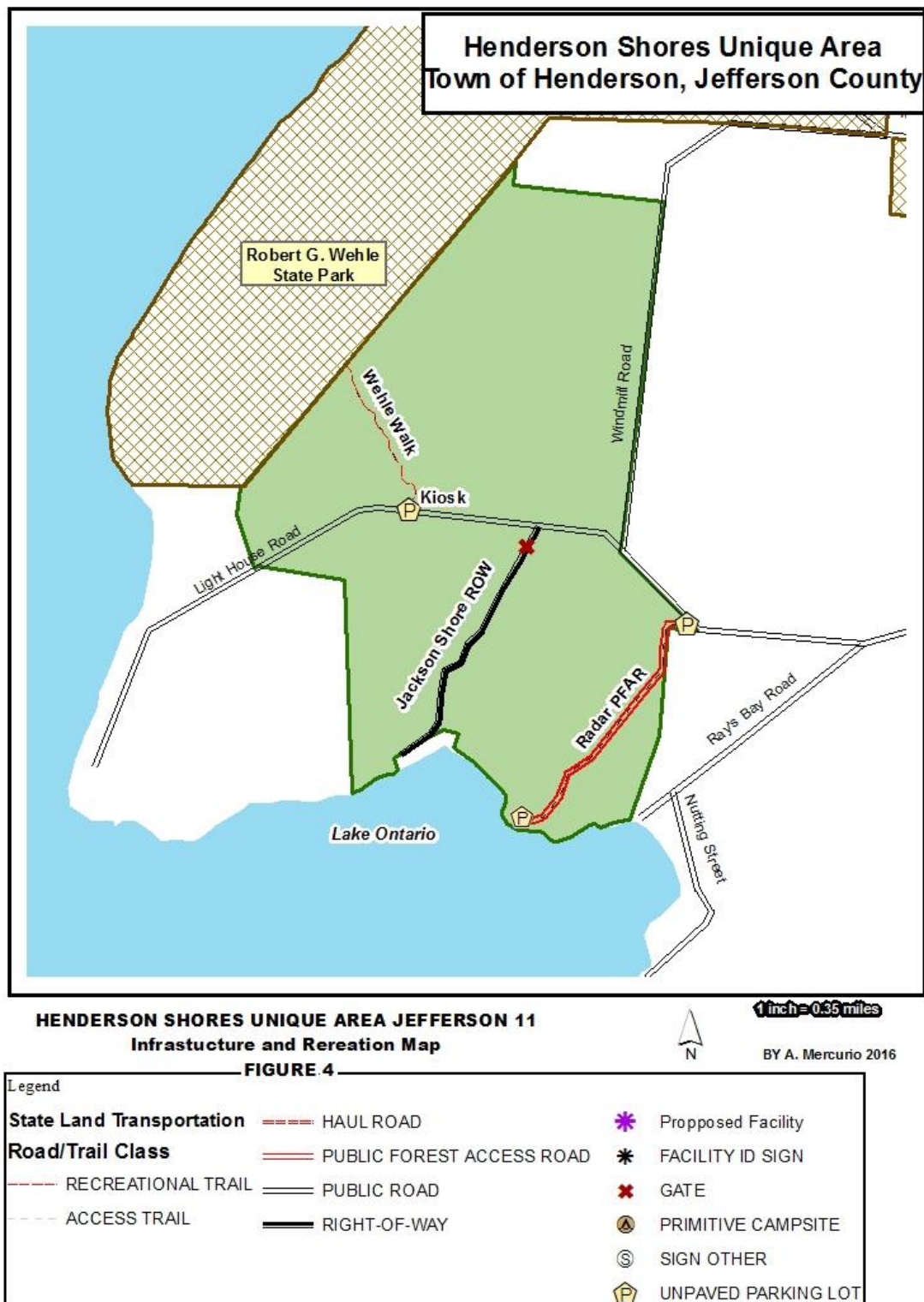
Figure 2. – Water Resource and Special Management Zones Maps



| | | |
|----------------------|-------------------------------------|---|
| State Land | GUIDELINE | Water Quality Classifications (Line) |
| Forest Stands | 75 PERCENT BASAL AREA RETENTION SMZ | AA(T) |
| Forested Wetlands | EQUIPMENT EXCLUSION ZONE | B(T) |
| Wetlands (Alder) | PROTECTION BUFFER | C |
| Wetlands (Open) | OPEN WATER | C(T) |
| Ponds | TOP AND SLASH EXCLUSION ZONE | C(TS) |

FIGURE 3. – INFRASTRUCTURE AND RECREATION MAPS

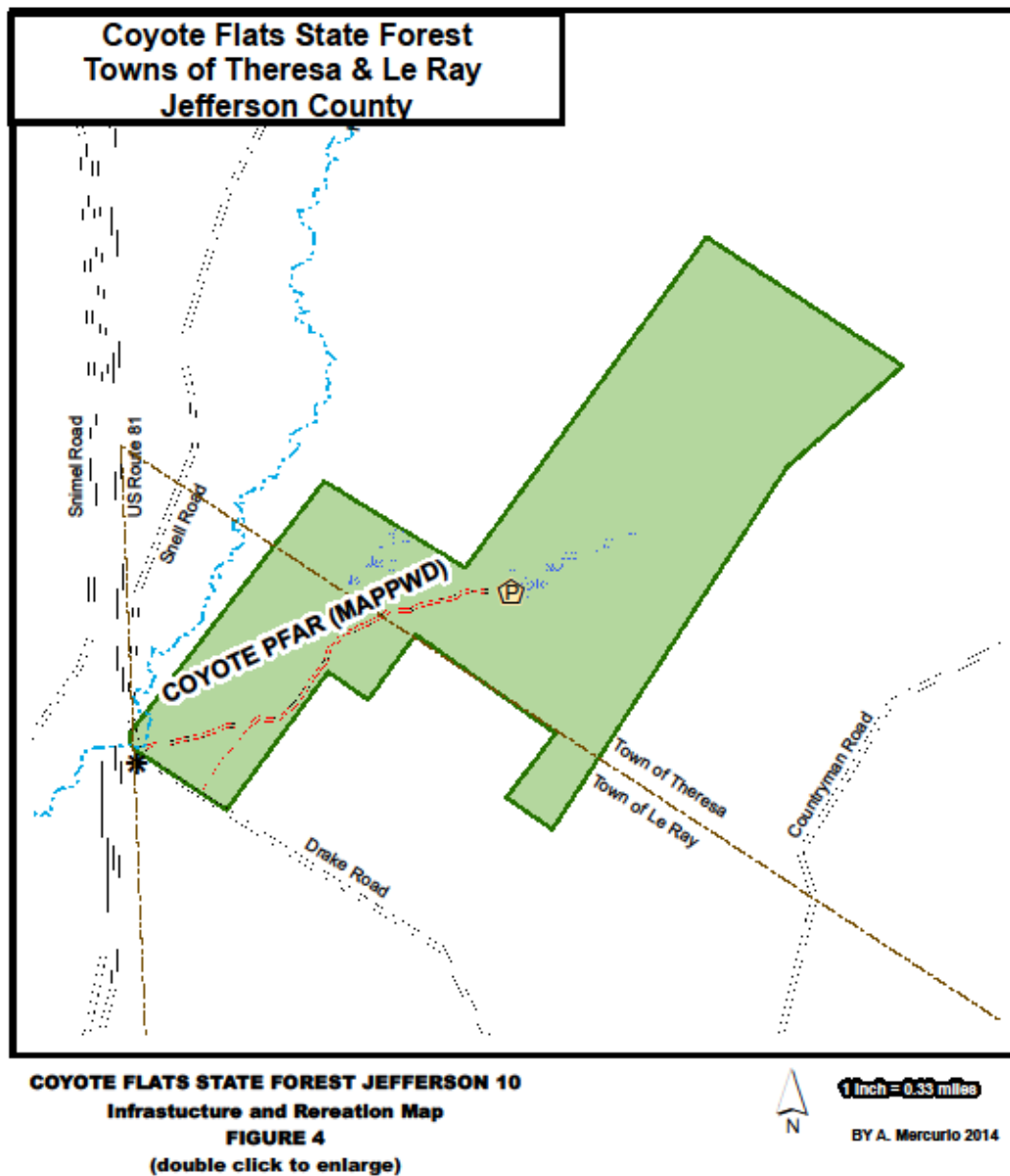
Figure 3. – Infrastructure and Recreation Maps



APPENDICES & FIGURES

FIGURE 3. – INFRASTRUCTURE AND RECREATION MAPS

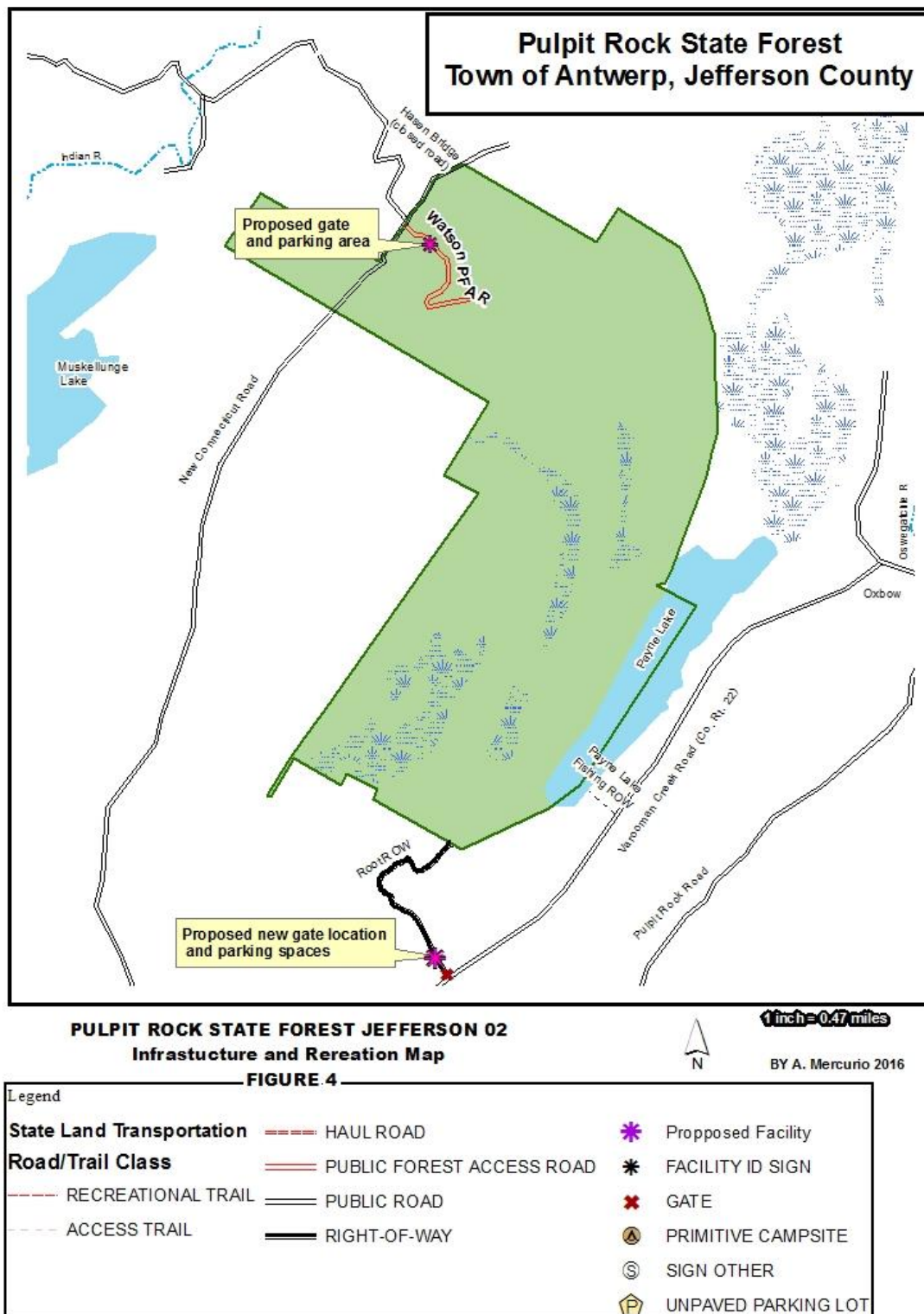
Figure 3. – Infrastructure and Recreation Maps



| Legend | | |
|---------------------------|---------------------------|-----------------------|
| State Land Transportation | HAUL ROAD | * FACILITY ID SIGN |
| Road/Trail Class | PUBLIC FOREST ACCESS ROAD | * GATE |
| RECREATIONAL TRAIL | PUBLIC ROAD | * PRIMITIVE CAMPSITE |
| ACCESS TRAIL | RIGHT-OF-WAY | * SIGN OTHER |
| | | * UNPAVED PARKING LOT |

FIGURE 3. – INFRASTRUCTURE AND RECREATION MAPS

Figure 3. – Infrastructure and Recreation Maps



APPENDICES & FIGURES

FIGURE 4. – CURRENT FOREST TYPE AND STAND IDENTIFICATION NUMBER

Figure 4. – Current Forest Type and Stand Identification Number

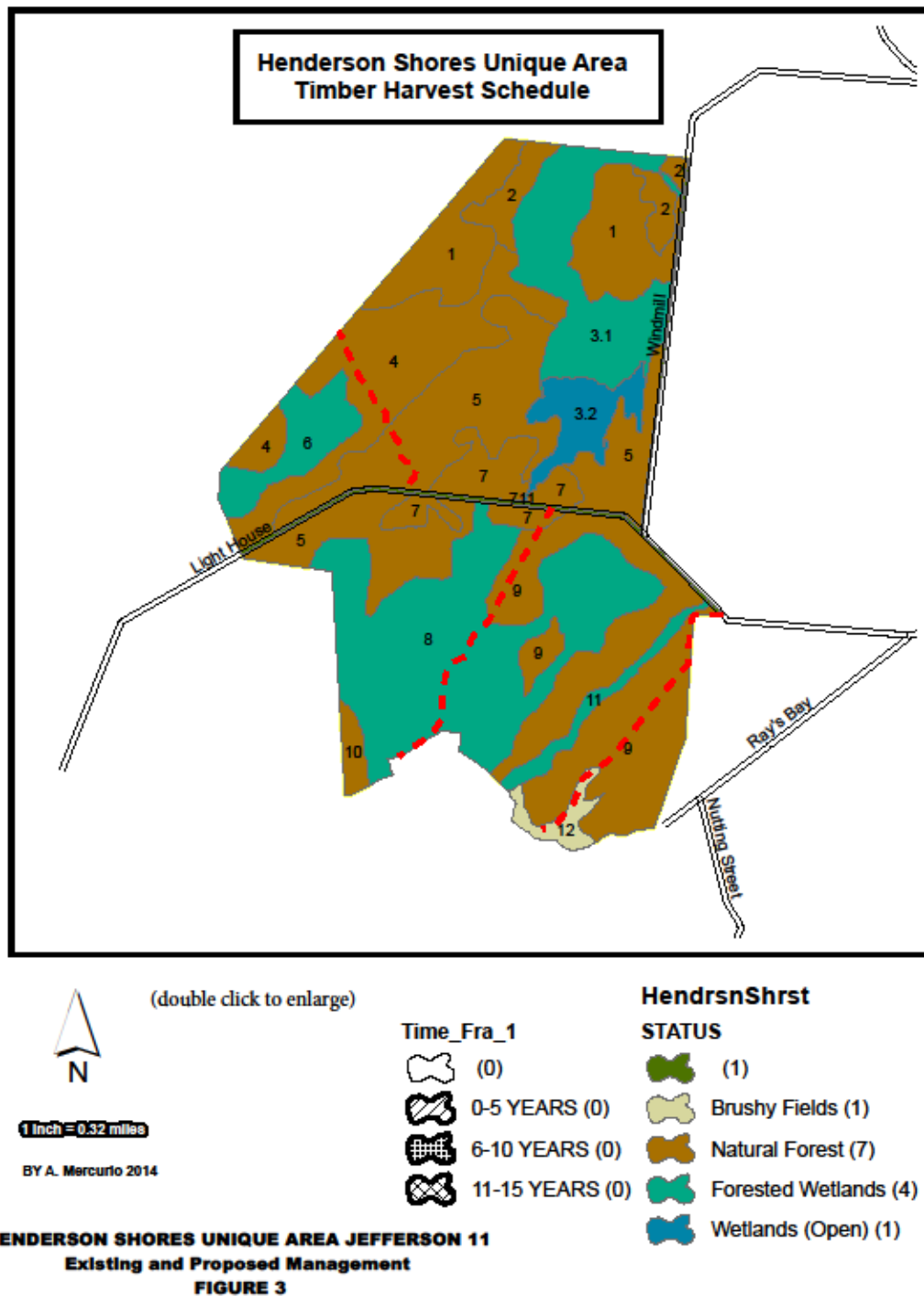
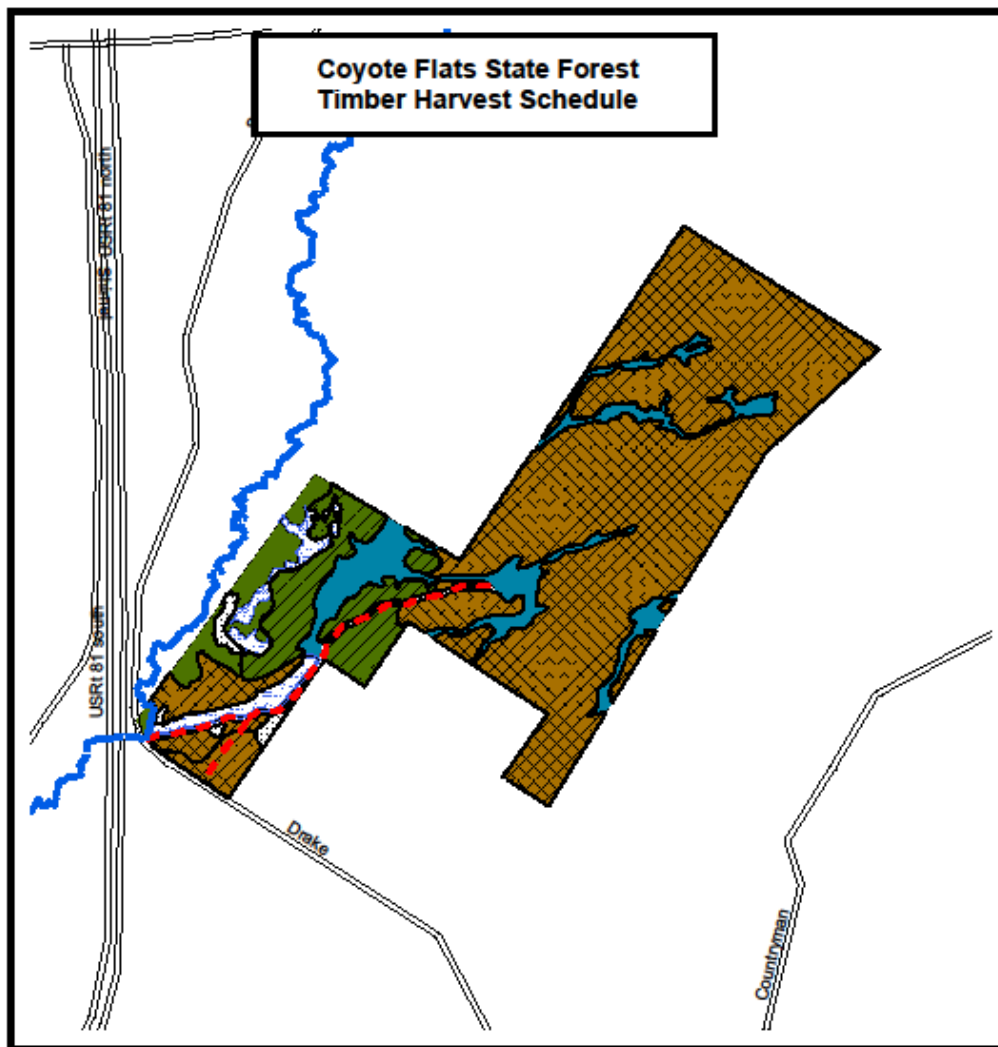


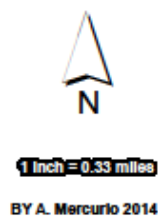
FIGURE 4. – CURRENT FOREST TYPE AND STAND IDENTIFICATION NUMBER

Figure 4. – Current Forest Type and Stand Identification Number



COYOTE FLATS STATE FOREST JEFFERSON 10
Existing and Proposed Management
FIGURE 3

(double click to enlarge)



**CoyoteFlats
STATUS**

- Plantation (4)
- Natural Forest (2)
- Ponds (1)
- Wetlands (Alder) (1)

**CoyoteFlats
Time_Fra_1**

- (0)
- 0-5 YEARS (1)
- 6-10 YEARS (1)
- 11-15 YEARS (2)

**CoyoteFlats
Mgt_Yr**

- 0 (5)
- 2017 (1)
- 2023 (1)
- 2028 (2)

APPENDICES & FIGURES

FIGURE 4. – CURRENT FOREST TYPE AND STAND IDENTIFICATION NUMBER

Figure 4. – Current Forest Type and Stand Identification Number

