



Department of
Environmental
Conservation

NORTHERN FINGER LAKES UNIT MANAGEMENT PLAN

DRAFT

**Towns of Avon, Springwater Bristol, Canadice, Canandaigua,
Gorham, Naples, Richmond, Rush, Middlesex, South Bristol,
Junius and Ovid**

Counties of Ontario, Livingston, Yates, Monroe, and Seneca

December 2016

DIVISION OF LANDS AND FORESTS
Bureau of State Land Management, Region 8

DIVISION OF FISH AND WILDLIFE
Bureau of Wildlife, Region 8

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NYS Department of Environmental Conservation'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, in order 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)

Preface

It is the policy of the New York State Department of Environmental Conservation (NYS DEC) to manage state lands for multiple benefits to serve the people of New York State. This Unit Management Plan (Unit) is the first step in carrying out that policy. The plan has been developed to address management activities on this unit for the next 10 year period. Some management recommendations may extend beyond the 10 year period.

Factors such as budget constraints, wood product markets, and forest health problems may necessitate deviations from the scheduled management activities.

The Unit Management Planning Process

New York State's management policy for public lands follows a multiple use concept established by New York's Environmental Conservation Law. This allows for diverse enjoyment of state lands by the people of the state. Multiple use management addresses all demands placed on these lands, such as: watershed management, timber management, wildlife management, mineral resource management, rare plant and community protection, recreational use, taxes paid, and aesthetic appreciation. For more information regarding the Unit Management Planning (UMP) process please refer to the Strategic Plan for State Forest Management (SPSFM) at www.dec.ny.gov/lands/64567.html.

In this plan, an initial resource inventory and other information is provided, followed by an assessment of existing and anticipated uses and demands. This information is used to set goals and management objectives. Management actions tables provide an estimated cost and timetable for accomplishing these objectives.

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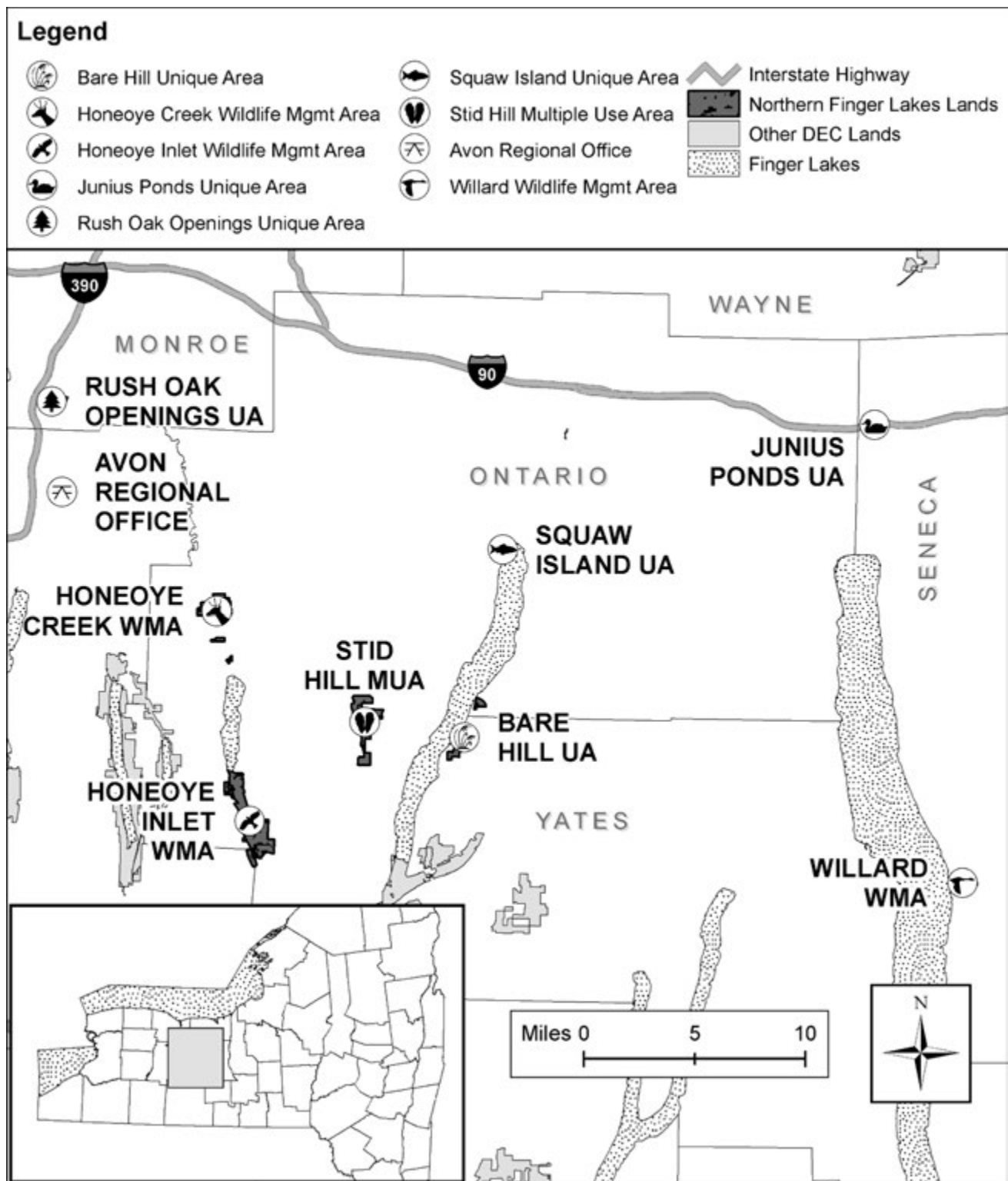
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NORTHERN FINGER LAKES UNIT LOCATION MAP

Additional maps are in Appendix N: Maps, starting on page 243.



INTRODUCTION

History of the Northern Finger Lakes Unit

The five Unique Areas, three Wildlife Management Areas, one Multiple Use Area, and one Regional Office included in the Northern Finger Lakes Unit Management Plan (Unit) has seen numerous changes in the landscape.

Pre-European settlement, the geographic area that is today considered Ontario and Seneca County was the homeland of the Seneca and Cayuga Native American tribes. These tribes were a part of a larger group, known as the Iroquois Confederacy. The Iroquois, or Haudenosaunee – meaning “people of the long house” - consist of six tribes or nations: the Mohawks, the Oneidas, the Onondagas, the Cayuga’s, the Seneca’s and the Tuscarora’s (joining the confederacy in 1722). The Iroquois thrived by hunting, fishing and farming on the local landscape; their population was estimated around 9,000 just before the outbreak of the American Revolutionary War in 1775.

The American Revolution became a major turning point for the Iroquois. Initially remaining neutral, the Iroquois eventually sided with the British and the Loyalists forces to fight against the colonists and defend their tribal lands. In 1779, the decision was made to send out a military force to strike quick in the heart of the Iroquois’ homeland. The aim of this attack was “total destruction and devastation” of Iroquois villages. Known as the Sullivan Campaign, General John Sullivan led the march of approximately 4,000 troops from Elmira in the fall of 1779 up along the east side of Seneca Lake destroying villages, and burning crops. The effects of the Sullivan Campaign were devastating on the Iroquois. The destruction of croplands coupled with a severe winter left the Iroquois reliant on the British for food when typically, the Iroquois had helped supplement the British food supply. By 1794, the Iroquois population was estimated at only 4,000, less than half of what it had been two decades previous.

The destruction and devastation of the Seneca homeland by the Sullivan-Clinton Campaign of 1779 resulted in the opening of Seneca lands, as well as other Haudenosaunee lands, to American expansion. The Campaign was ordered by General George Washington during the middle of the American Revolution in order to deal both with a perceived threat of potential Indian alliances on the Colonies’ western frontier, as well as retribution for actual alliances some Haudenosaunee made with the British in response to the Revolution. The Campaign came close to achieving its essential goal that Indian country “not be merely overrun, but destroyed”.

In 1788, Oliver Phelps and Nathaniel Gorham purchased 2,600,000 acres from the State of Massachusetts, which owned all the land known as “western” New York. The pre-emption line delineated the boundary between New York and “western” New York. In 1789 part of this land was granted by quick-claim deed to Arnold Potter. After this Potter offered the land to settlers at very low prices. In 1790, they sold 1,250,000 acres to Robert Morris, who sold 750,000 acres to William Pulteney. Colonel Charles Williamson was the chief land agent for the Pulteney purchase. He sub-divided the Pulteney tract and sold by contract to individual homesteaders.

Information on the Unit

European Settlers came to the valleys in the late 1700's, recent European immigrants competed with settlers moving west from Vermont, Massachusetts, Connecticut, New Jersey and eastern New York for offers of large tracts of land for farming. Forest lands outside the Adirondack and Catskill regions owe their present character, in large part, to the impact of this pioneer settlement.

Up to 91% of New York woodlands were cleared of tree growth to make way for crops or pasture land for grazing. A walk in most woodlots shows evidence of stone fences or old hedgerows. Lands not cleared for crops were cut for wood to supply the water powered sawmills that sprang up all over the area. This early timber industry supplied wood via railroads and canals all over the eastern United States.

The farming boom was short-lived however. After one or two generations, the heavy clay soils and short growing season discouraged farming. Many farmers moved on to settle the Midwest, Oregon and Washington territories. The Great Depression of the 1930's bankrupted many of the marginal hillside farms in this area of New York. The stage of succession was set and new forests of young saplings re-occupied the ground once cleared.

In 1933, the Civilian Conservation Corps (CCC) was begun. Thousands of young men were assigned to plant millions of trees on the newly acquired state and national lands. In addition to tree planting, these men were engaged in road and trail building, erosion control, watershed restoration, forest protection, and other projects.

During the war years of 1941-1945, little was accomplished on the state and national areas. Plans for further planting, construction, facility maintenance, and similar tasks had to be curtailed. However, through postwar funding, conservation projects once again received needed attention.

The Park and Recreation Land Acquisition Act of 1960 and the Environmental Quality Bond Acts of 1972, 1986 and 1996 contained provisions for the acquisition of State Forest lands, unique properties, and areas which provide open space or special recreational opportunities. These lands would serve multiple purposes involving the conservation and development of natural resources, including the preservation of scenic areas, watershed protection, forestry, and recreation. Today parcels purchased under these acts are known as Unique Areas, Multiple Use Areas or included with other parcels purchased earlier as State Forests or Wildlife Management Areas.

Wildlife Management Areas in New York, have a varied history of acquisition. Many were gifted to the New York State by the Federal Government or other cooperating public or private organization. Some parcels were purchased with Bond Act funds or Federal Aid in Wildlife Restoration Program funds. The latter which is commonly called the Pittman-Robertson Act is a federal fund supported by hunters from their purchase of hunting licenses, firearms and ammunition.

Today there are over 775,000 acres of State Forests, 840,000 acres of Conservation Easements, and over 200,000 acres of Wildlife Management Areas throughout the state. The use of these lands is important to the economy and to the health and well-being of the people of the state.

Avon Regional Office

Prior to 1970, the regional office of what was then called the Conservation Department was located along the Genesee River in the City of Rochester. 1970 marked two major changes for the Department. The Fish, Wildlife, and Forestry Units of the Conservation Department joined with the Engineering and Environmental Quality units of the State Health Department to become today's Department of Environmental Conservation. At the same time, the regional headquarters moved to a 24 acre site, purchased in 1966, on Routes 5 and 20 between Avon and Lima. Today the Avon office houses dedicated professionals concerned with virtually every aspect of environmental management for the region's 11 county jurisdiction, including natural resources, environmental quality, environmental permitting, regional operations and facilities management, and environmental law enforcement.

In 1974, with political support from local sportsmen, including the Livingston County Sportsmen's Federation, and area assemblymen, NYS DEC purchased an additional 59 acres adjacent to the Avon office property with the intent to provide the public with environmental education opportunities showcasing DEC programs, natural habitats, and demonstrating habitat enhancement techniques. This additional parcel of former agricultural lands includes an A-Frame building, several nature trails, a pond, and several acres of marsh.

For approximately 20 years, the larger tract and A-frame functioned as the Twin Cedars Environmental Area, designed to emphasize the natural and human-made aspects of environmental conservation. In addition to serving as conference space and office space for some DEC Natural Resource staff, the A-frame served as an interpretive center including changing displays and exhibits for visitors to learn more about their natural surroundings, as well as emerging environmental issues. Due to budgets constraints and staffing shortages, the A-frame building was recently taken out of use for these purposes; however, the pond and trail system continue to receive substantial recreational use from the public, for fishing, hiking, bird watching, picnicking, kayaking, canoeing, and cross country skiing.

Bare Hill Unique Area

The Bare Hill Unique Area is composed of approximately 393 acres formed by a southern and northern tract. There are approximately 298 acres in the southern tract and an additional 95 acres in the northern tract.

Southern Tract

Bare Hill, from which the parcel gets its name, is located on the southern tract of the parcel. This portion of the unit is composed of approximately 298 acres located in the town of Middlesex in Yates County. The majority of the parcels that compose this tract were purchased by NYS DEC between 1989 and 1991.

The hill was bare when the European settlers took possession. When Arnold Potter owned the land he raised wheat. After Perry and John Collins purchased it they sowed grass seed and the land was used for pasture. For several years it was used for this purpose.

Information on the Unit

Farmers who owned the land would drive their sheep to pasture for the summer and take them back to their farms for the winter. There was a saying in Middlesex that “You should go over a hill as though there was a flock of sheep on the other side.” This word of caution was necessary as they were driven on the main roads. As small farms and sheep flocks disappeared from the area the land began to be overgrown with brush and trees. Now, on a walk, it is almost impossible to see the lake.

In 1920 the Town of Middlesex Highway Dept. used the stones which were thought to be part of an “Indian Fort” for road fill. All that is left of the fort is a three foot deep hole in the ground about 45 feet wide and 75 feet long.

In 1986 Allen Loomis announced a plan to create a subdivision for 33 homes on land that he owned on Bare Hill. Local residents and Seneca natives objected. In June 1988 he sold 106 acres to the Trust for Public Land for \$172,500.00 and another 50 acres that he owned jointly with Robert VanEpps for \$52,000.00. The Trust also acquired a 50 acre parcel that the East Shore Cottagers had previously bought from Albert Bates. Afterwards the Trust bought another 90 acres from Ann Arnold. The Trust sold all the land to NYS DEC in 1989, thus the original parcel was purchased because of its cultural and aesthetic significance. This is now the site for the bonfire that signals the “Ring of Fire” on Canandaigua Lake.

The following projects describe the acquisition history of the southern tract of the Bare Hill Unique Area:

- 1989 – 206.194 acres acquired from The Trust for Public Land.
- 1990 – 1.357 acres acquired to create permanent easement for Van Epps Road, and 2.611 acres acquired in fee to appropriate road way/access. These rights were taken rather than purchased as the ownership was undeterminable.
- 1991 - 82.92 acres acquired from The Trust for Public Land.

Northern Tract

The northern tract of Bare Hill Unique Area is composed of approximately 95 acres in the town of Gorham within Ontario County. This parcel was acquired by NYS DEC from the Finger Lakes Land Trust in 2007.

The majority of this tract is composed of abandoned agricultural lands. The remains of the old fields are still evident today. However, most of the area has become overgrown with a combination of multiflora rose, thorn apple and honey suckle. This combination of vegetation provides excellent cover for limited wildlife (deer, grouse, rabbits and some song birds) but makes traversing the tract very difficult.

Since taking ownership the NYS DEC has provided limited maintenance to keep the old road, now trail open.

The Haudenosaunee/Seneca Nation and Bare Hill Unique Area

-By G. Peter Jemison, provided for the 2002 Bare Hill UMP

Today the Seneca Nation and Bare Hill are linked together by a story of mythological proportions. Dr. Arthur C. Parker in 1948 sought to discover the early record of this link and the origin of the great serpent legend. Briefly, he traced the story to the third edition of the biography The Life of Mrs. Mary Jemison written by James Seaver.

The earliest written account describing the origin of the Seneca people appears in a history written by David Cusick, Tuscarora, titled "Ancient History of the Six Nations". What appeared in the third edition of the Mary Jemison book was not something that Mary herself related but it was something added by a later informant. Dr. Parker was himself part Seneca, he directed the institution that became the Rochester Museum and Science Center and earlier the New York State Museum. His careful analysis of the artifacts from Bare Hill and South Hill both located on Lake Canandaigua led him to conclude that South Hill was more closely linked to the Seneca Nation. Bare Hill known in Seneca as Genundewah produced artifacts from a cultural group Parker describes as Algonkin. South Hill known in Seneca as Nundawao and located at the head of Lake Canandaigua produced Seneca artifacts.

Dr. Parker was further persuaded that Nundawao the earliest Seneca town existed just south of South Hill in a bowl of land not far from Naples, New York. By his account the descriptions of the Seneca Nation's hill of origin all pointed to South Hill. In the Seneca language we call ourselves Onundowahgah or people of the great hill. Therefore, the great hill associated with the Seneca Nation Dr. Parker concluded must be South Hill.

However, the legend of Bare Hill persists today and in many ways Parker's work in the 1950's added to its life. Arthur C. Parker wrote a number of pageants that were performed by the Nundawaga Society they drew attention to both Bare Hill and South Hill. He began lighting a huge bonfire on top of Bare Hill to commemorate the Harvest season and draw to a close summer along Canandaigua Lake. A similar fire was also lit on Keuka Lake, interestingly both on Bare Hill and on Keuka Lake the tradition continues the Saturday evening before Labor Day.

The Seneca people believe we originate as a people on Turtle Island or North America. We don't believe the Bering Strait land bridge provided our access to this continent from Asia. Our earliest stories after our emergence from the earth describe great beasts of the type that roamed North America after the last ice age. The Seneca people do have a story about enormous snakes that inhabit the lakes. Arthur Parker collected a newspaper account of a sixty-foot snake that was seen by people aboard a cruise boat on one of the Great Lakes in the 1950's.

The Seneca Nation is part of the confederacy of Six Nations known as the Haudenosaunee called by others the Iroquois confederacy. The Seneca Nation is the Keeper of the Western Door and one of the Elder Brothers of the confederacy. The other members include the Cayuga Nation, Onondaga Nation, Oneida Nation, Mohawk Nation and the last to join, the Tuscarora Nation. This confederacy of Indian Nations was founded on the message of Peace, Power and Righteousness about a thousand years ago.

Where then does this leave our beloved Bare Hill? It is situated squarely within original Seneca territory that was bounded on the east by the ridge running between Cayuga and Seneca Lake. Bounded on the north by Lake Ontario and bounded on the west by the Genesee River its southern boundary ran south of the western Finger Lakes approximating

the contemporary Pennsylvania border. That territory existed until the 1654-57 period when the Seneca Nation defeated the Neutral and Erie Nations and extended their western border out to the Ohio River.

I myself have taken a number of Seneca Elders to Bare Hill in the past and could not find among them any that knew of the legend connecting the great serpent to the Seneca Nation's origin. I was told by Chief Corbet Sundown from the Tonawanda Band of Seneca "that's a white man's story." In the end Dr. Parker concluded that the story was an allegory for a war that took place between the Seneca and the Snakes, the Susquehannoks, a Native American nation the Seneca ultimately defeated.

My Seneca Elders caution me not to make up stories to fit people's preconceived notions about Bare Hill. They see no harm in continuing the Seneca Heritage Day begun by the Middlesex Historical Society nor is the Ring of Fire harmful. I don't see any harm associated with the great boulder moved to the hill's crest. It becomes a destination for hikers. However, I don't believe we can describe it as significant to the Seneca Nation.

In conclusion I support the effort to protect Bare Hill and its fragile environment and I anticipate a plan that will allow for the use of the hill by many diverse people. Safety and respect are the key words I'd emphasize when designing its use by the public.

Honeoye Creek Wildlife Management Area

Located north of the hamlet of Honeoye in Ontario County, the bulk of the 745-acre Honeoye Creek Wildlife Management Area was purchased in 1988 with funds from the 1986 Environmental Quality Bond Act. Four smaller parcels, purchased with the same funding source, were added in 1989 and 1990, and currently the area is comprised of three separate parcels of 664, 55, and 26 acres spread over a distance of three miles directly north of Honeoye.

NYS DEC's original plan was to acquire the bulk of the Class I wetland immediately north of the village of Honeoye, along with some associated uplands, and make it a new Wildlife Management Area totaling over 2,000 acres. Because of the size, location, resource value and potential of public opposition, an Environmental Impact Statement (EIS) was prepared, and the project was dubbed the Honeoye Creek Wetlands Project. To bring the plan to fruition, all of the land would have to be purchased from willing sellers. Ultimately, the plan met with significant local opposition, largely over concerns about loss of agricultural land and property tax revenue, and ungrounded fears of land acquisition via eminent domain. Plans for the Honeoye Creek Wetlands Project were scrapped in 1990 after over a decade of planning.

In 1982, several years prior to the termination of the large wetlands project, a 612-acre parcel surrounding the intersection of County Roads 37 and 15 in the Town of Richmond became available from local resident Emil Muller. If acquired, this parcel would become the northern quarter of the wetlands project, but time for purchase was of the essence. Unfortunately, no land in the area could be acquired by the state until finalization of the Wetland Project EIS and approval by the local community, DEC Commissioner, and others. This had not yet happened.

Fortunately, The Nature Conservancy (TNC), as a private entity, was not encumbered by this regulatory restriction. They stepped in and accepted the 612 acres as a generous donation from Mr. Muller, and became an important partner in later NYS DEC acquisition of Honeoye Creek WMA. When plans for the wetlands project were scuttled several years later, the restriction on local land acquisition by the State was removed, clearing the way for DEC to obtain the land. TNC generously sold the property to New York State for only a sum of money representing their administrative costs in holding the parcel. This property became the largest parcel and most northerly of the new Honeoye Creek Wildlife Management Area. The fact that the area is comprised of three separate parcels, while somewhat unusual for a WMA, remains a remnant of the NYS DEC's past plans to acquire a larger area, parcel by parcel.

Honeoye Inlet Wildlife Management Area

Due to its steep slopes and extensive wooded wetland, the valley immediately south of Honeoye Lake has remained relatively undeveloped throughout history. The Honeoye Inlet, originating several miles to the south, runs north through the valley floor, receiving waters from the many intermittent gully streams coming off the surrounding hillsides. These lands feeding the inlet comprise the largest of the lake's several watersheds, and fill a critical role in filtering and purifying water entering Honeoye Lake. In so doing, the lands, and in particular the wetlands, reduce nutrient load into the lake, thus reducing unwanted aquatic weed and algae growth in this shallowest of the Finger Lakes.

Between the time of the massive Phelps-Gorham land purchase in 1788 and the early 21st century, the lands of the now Honeoye Inlet WMA were in private ownership. When local real estate developer Emil Muller and his wife Florence drove through the area in 1966, they discovered what they referred to as "a jewel in the Honeoye Valley" and purchased some 3,000 acres of the valley floor and surrounding hillsides. Mr. and Mrs. Muller were active outdoor and nature enthusiasts who were very interested in seeing the southern Honeoye Valley permanently protected from human development. They moved there in 1967 where Emil resided until his death in 1989, with Mrs. Muller subsequently moving to Rochester in the late-90s.

By the mid-90s, Florence Muller's views on the protection of the valley, which she shared with her late husband, had long been known to NYS DEC, and NYS DEC had developed an active interest in the possibility of public ownership of some or all of the valley landholdings. The watershed's role in water quality, together with the presence of one of the state's largest intact silver maple-ash swamps and deer wintering areas made these lands a natural fit for State stewardship and open-space preservation. State ownership would permanently protect habitat for a wide variety of fish and wildlife, including wood ducks, walleye, deer, black bear, furbearers, songbirds, reptiles, amphibians, and a host of other species. The long, relatively straight channel dug by a previous landowner through the wooded wetland which circumvented the natural inlet would cease to be maintained. State ownership would protect the magnificent scenic vistas of the Honeoye Valley and Bristol Hills, and create many new public recreational opportunities such as hiking, hunting, canoeing, fishing, bird watching, and nature study. Lastly, the valley is in close proximity to other large expanses of conservation land such as the Harriet Hollister Spencer State Recreation Area, Cumming Nature Center, Cutler Boy Scout Camp, and the then City of Rochester water supply property surrounding

Canadice and Hemlock Lakes. Acquisition of some or all of the southern Honeoye Valley could make connections between all these lands an intriguing possibility sometime in the future, making the Western Finger Lakes unique in the amount of interconnected land protected from development and under conservation-minded stewardship.

Negotiations began in 1998 between a private owner and the Western New York office of The Nature Conservancy (TNC) in Rochester, to purchase 421 acres of previously farmed open fields on the valley floor (the former “Wild Rose Ranch”) at the south end of what is now the Honeoye Inlet WMA. TNC partnered with DEC and served a vital role by being able to expeditiously purchase the land, with the intent of later selling it to the State. A year later, although not part of the now WMA, Mrs. Muller donated 42 acres of land adjacent to County Road 36, including the Muller residence, to the Finger Lakes Community College, for use as a Biological Field station and satellite classroom. The Muller Field Station has been in use ever since, and has become an integral part of the College’s conservation program. In 2000, Florence Muller gifted the 670-acre wooded wetland portion of the now WMA immediately south of the lake to TNC, which in turn held the property for later NYS DEC purchase, as it had for the Wild Rose Ranch parcel to years prior. Lastly, in 2003, NYS DEC purchased 890 acres of predominantly wooded hillside at the southwest portion of the now WMA from the Emil Muller Trust, as well as the two parcels held by TNC to complete the acquisition of the entirety of the lands of the WMA, amounting to close to 2,000 acres in total. The area was christened the *Honeoye Inlet Wildlife Management Area* at a ceremony later that year, in honor of its predominant physical feature.

Since acquisition, the Honeoye Inlet WMA has had relatively little work done other than parking lot maintenance and field mowing. Immediately after becoming a WMA, the high fence surrounding much of the valley floor was removed. Mowing the area’s open fields on a regular basis keeps out the establishment of woody invasives and maintains this type of open cover type that is lacking in this area of the Finger Lakes. In mid-2000’s the Genesee Valley Chapter of Pheasants Forever planted switchgrass at the south end of the area to improve habitat for pheasants and other ground-nesting birds.

Today, the Honeoye Inlet Wildlife Management Area, is a popular destination for local residents and those visiting the Finger Lakes. Hunters, bird watchers, canoeists, students, and nature lovers of all kinds enjoy the accessibility and varied habitat found there.

Junius Ponds Unique Area

Home to several rare and protected species in New York and host to a diverse array of high quality rare plant communities, the Junius Ponds have long been recognized by New York State, the Town of Junius and conservation partners as important natural areas. The area of interest is a chain of kettle-hole ponds and their associated wetlands nestled among glacially deposited gravel hills in the western side of the Town of Junius. The ponds, carved out by glaciers thousands of years ago, are meromictic, meaning that the pond waters do not mix. The unique character of the Junius Ponds area is dependent on the underlying geomorphology of the site. Groundwater seeping through the underlying layers of bedrock and gravel deposits develops high concentrations of minerals, creating ideal growing conditions for wetland communities known as fens. The Junius Ponds supports a variety of

fens unique in New York. The wetlands, in turn, provide habitat for an abundance of plants and animals, including some rare, threatened, or endangered species of plants and animals.

Long-term conservation of the site depends on protecting both the quality and quantity of groundwater feeding it and minimizing the impact of invasive nonnative species. Threats to the complex include peat mining, sand and gravel mining, illegal specimen collections, runoff from the New York State Thruway and agriculture, and commercial development pressures on adjacent lands. The site has been protected over the years by informed private landowners including the Girl Scouts of NYPENN Pathway's Council which, until recently, has been headquartered on adjacent property. Additionally, the Village of Lyons owned a portion of the site and used it as a municipal drinking water source. With the support of Town of Junius Planning Board Members and many conservation groups, NYS DEC purchased property from the Village and an adjacent private landowner, establishing the Junius Ponds Unique Area in 2008. Three parcels totaling 77 acres were purchased from the Village of Lyons for a cost of \$104,500; and 30 acres were purchased from a private landowner for an undisclosed cost.

The site was used as the village of Lyons water supply for nearly 100 years before the delivery system became corroded and unusable. Citing expensive repair costs and the potential for contamination from runoff coming from the Thruway, the village decommissioned the line in December 2003.

Long ago, when the site was being considered as a water source for the Village of Lyons, a weir was installed on Pond Brook, the outlet of the ponds and readings of this weir were continued daily. During the driest period, lasting about two months, the lowest recorded flow was not less than 530,000 gallons per twenty four hours.

Rush Oak Openings Unique Area

Recognition of the rarity and importance of maintaining the remaining oak openings for both biological and historical reasons prompted The Nature Conservancy to begin acquisition efforts at the Rush site, and in 1988 they purchased 12 acres. In 1990 as part of the 1986 Environmental Quality Bond Act, NYS DEC acquired 123 acres on the east side with road frontage on Honeoye Falls- 5 Points Rd. from the Quinn family. In 1997, with the assistance of the Nature Conservancy and the Environmental Protection Fund, NYS DEC purchased an additional 105 acres on the west side with road frontage on West Henrietta Rd/US Rte. 15 from the Goff/Spink family, bringing the total to 228 acres owned by NYS DEC and 12 by The Nature Conservancy.

Prior to European settlement, Oak Openings were quite common throughout the Midwest states extending eastward into western New York, and Ontario, Canada. Local historical accounts indicate Oak Openings were found throughout the length of Genesee Valley, Irondequoit Creek drainage, plus Victor, Perinton, East Rochester, Chili, Wheatland, Mendon, LeRoy, Bloomfield and Honeoye Falls. Other areas of the Southern Tier may also have contained "Prairie" like communities. It is likely the "Wadsworth Oaks", listed in the NYS Historic Tree Registry, were at one time part of an Oak Opening Community. Local historical accounts are described further in articles in An Ecological Survey of the Vegetation of Monroe County, New York and Central and Western New York Natural History Trivia.

Information on the Unit

Oak Openings are fire dependent plant communities similar to the prairies of the plains states. Although some of the fires were likely due to lightning strikes, the Native American Indians had a profound effect on the maintenance and enhancement of this plant community. Native Americans routinely set fires for a variety of purposes, to keep land clear for their agriculture, to clear areas for village sites (open areas around villages had fewer mosquitos and other insect pests, were less damp and safer, since enemies could not attack by surprise), and to drive game for hunting. "Among the early events that now occur to me, was the firing of lands by the Indians for the purpose of taking game... they set a train of fire which enclosed an area of about seven miles square, of the oak openings between the Canascraga [Canaseraga Creek] and Conesus Lake." (Development of Central & Western New York, Clayton Mau, 1958). It is also likely Indians understood the wildlife habitat benefits of Oak Openings. These areas would have produced much more game (food) than old growth forests.

This area of western New York was first surveyed in 1792 as part of the Phelps and Gorham Purchase. European settlement began in earnest about 1800. Early pioneers found Oak Openings easy spots to settle compared to areas of old growth forests. Trees did not have to be cleared for agriculture, there was ready pasture for animals, and plentiful game. This made survival the first couple winters much easier until a good cabin could be constructed and additional land cleared for agriculture. This intensive agriculture and pasturing, suppression of fire, plus the introduction of non-native species, such as white sweet clover, and cool season grasses for forage, destroyed most of the Oak Opening plant communities.

Historical accounts of both the Goff and Quinn family (See Appendix I: Historical Documents, pg 230) indicate the site at Rush was burned from time to time for both agricultural purposes and possibly by accident. The Quinn family tried leasing the land for pasture, but found it too hard to maintain fences, in addition, the soils were not well suited for good pasture. The fact that the property was not intensively farmed helped preserve the Oak Opening plant community. Raymond Goff did ditch the creek bed to improve drainage, however beavers have now altered this drainage, probably back to its original level.

Squaw Island Unique Area

A sign overlooking Squaw Island at the end of the Canandaigua City Pier describes the island, at less than a quarter-acre, as the smallest State Park in the New York. While at one time this may have been true, Squaw Island is now managed by NYS DEC's Bureau of Wildlife, and so it might be more accurate to call it the State's smallest Wildlife Management Area. It's also one of only two naturally-occurring islands in the Finger Lakes, and in addition to these distinctions, Squaw Island has also had a long and colorful past.

Legend has it that during the late 1700's, during the Revolutionary War, the local Seneca's hid their women and children on the tiny island to protect them from marauding federal troops. It may also have been a staging area for Iroquois warriors mobilizing against the Clinton – Sullivan expedition.

In 1900 John M. Clarke published a paper about a rare type of oncolite which accumulates on the islands north shore, this is one of only a few places worldwide, where

one can find “water biscuits”. Water biscuits are flat, whitish cakes of lime, round or oval in shape, and three-quarters to an inch across they are strong when wet, but when dried out become brittle enough to break by hand. They are formed when layers of lime, brought down by nearby Sucker brook, are deposited over small objects such as pebbles or twigs.

As for its geologic beginnings, Squaw Island was likely formed some 11,000 years ago, as water from Sucker Brook collided with lake currents at the north end of the lake, each depositing their sediment load as the waters met and slowed. Interestingly though, the island probably started out life as a peninsula. Old photos and reports confirm the presence of a low, thin peninsula, and as ephemeral as it might have been due to fluctuating lake levels, it largely persisted into the early 1900’s when the Canandaigua City Pier was constructed. According to geologists, when the pier interrupted the counter-clockwise currents at the north end of Canandaigua Lake, the process of silt and sand deposition which had created Squaw Island slowed or stopped altogether, opening the door for erosive wave action to chip away at the island’s size unimpeded. History seems to bear this theory out, as centuries-old accounts indicate an island of over two acres in size; much more than the current one-fifth acre.

At the turn of the 20th century, Squaw Island was a popular local destination for picnickers, boaters, sunbathers, fishermen and waterfowl hunters. Its size at the time even accommodated grazing livestock, and a concession stand could even be found there to serve ice cream to visitors on a hot summer day.

Squaw Island was acquired by the State as a gift in 1918. In 1919 Mary Clark Thompson, of Canandaigua, had a large granite boulder, with an explanatory plaque affixed to the center, moved to the center of the island. From 1918 to 1952, it was under the jurisdiction of the Education Department, and was maintained as an historic site due to its presumed legendary past and geologic uniqueness. A 1952 law change removed Squaw Island as an historic site, and it was subsequently deemed “unappropriated State land”, languishing for the next two decades. In the 1970s, DEC acquired administrative jurisdiction via a legislative addendum to the Environmental Conservation Law called the “State Nature and Historical Preserve Trust”, and with no entity within DEC to administer the area, a decision was made to assign it to the Bureau of Wildlife. Wildlife oversight thus earned the island its quasi-distinction as the smallest WMA in the state, but in actuality, it is technically designated a “Unique Area”.

Because of its small size and relative inaccessibility, the island has received little in the way of attention over the years from NYS DEC. Two projects, however, designed to protect its receding southern shoreline were implemented, in 1977, and again in 1999; the latter prompted by a very successful local campaign by concerned citizens. The island shoreline was first fortified with cedar logs to slow down erosion of the shoreline, then later covered by large limestone boulders and sheet pile driven in.

Although the range in recreational activities occurring on Squaw Island today is less than in its glory days of the past, it still receives its share of visitors, if only boaters looking to rest or explore, or waterfowl hunters looking for a convenient natural blind.

Stid Hill Multiple Use Area

The first humans known to have settled in the region, the ancestors of the Iroquois Native American tribes, probably did not live on the top of this hill. There is the possibility that some habitation and use was made of the valley bottoms.

NYS DEC acquired Stid Hill under the Parks and Recreation Bond Acts of 1962 and 1964. Previous to acquisition by the State, these lands were primarily used as pasture, being rather steep for cultivation by the tools of the day.

Most parcels purchased as Multiple Use Area's under the Bond Acts, which are not adjacent to existing Wildlife Management Area, are managed by staff from the Bureau of State Land Management. In this case, in 1984 a Memorandum of Understanding (MOU) was signed that transferred management responsibilities to the Division of Fish and Wildlife from the Division of Lands and Forests. See

Appendix I: Historical Documents Appendix I: Historical Documents (pg 230).

Willard Wildlife Management Area

Willard Wildlife Management Area is located in Seneca County which lies between Seneca and Cayuga Lake. Located within the heart of the Finger Lakes region, this area has a rich and unique history.

European settlement came to the area post-Revolutionary war. The Sullivan Campaign destroyed nearly all of the native villages, displacing a majority of the population. The earliest settlers were mostly veterans who had either marched with General Sullivan or had heard of the beauty and economic potential of the area from those who did. A Military Tract of 1.5 million acres was surveyed in the area (Seneca County today, represents the western most portion of this tract). A portion of the Military Tract (64,000 acres) was set aside along the northern end of Cayuga Lake as the Cayuga Indian Reservation.

The region continued to swell with settlers with agriculture as the primary land use. That's why in 1842, when the Agriculture Society was pushing for an agriculture school, the central Finger Lakes region seemed like a good fit. After much debate about location and finally the proper political support, Ovid was chosen as the spot and 600 hundred acres was purchased along the eastern shore of Seneca Lake in the towns of Romulus and Ovid. A main building was constructed and the New York State College of Agriculture opened in late 1860. The timing for the college could not have been worse as the pending American civil war broke out in 1861 after the attack on Fort Sumter. Shortly after it opened, the agricultural college closed in 1862. However, a new agricultural school opened up shortly thereafter in nearby Ithaca as part of Cornell University and is still in existence today.

The building and the property in Ovid would not go to waste, though. In 1866, the New York Legislature passed an act to locate the new Willard Asylum for the Insane on the former agricultural college site. The asylum accepted its first patient in 1869 and would continue in operation for more than a century.

Over the years the State Hospital tried to be as self-sustaining as possible, raising a variety of livestock (cows, pigs and chickens) for food as well as dairy. The property had numerous gardens and agricultural fields tended to in part by the steward as well as inmates. At times, the gardens were pretty profitable for the Hospital when weather and supervision permitted. The Hospital also had a shoe repair shop as well as a sewing shop and a basket, mat and brush shop. The hospital acquired more property over the years, mostly for farming purposes. Farm operations were discontinued in 1963 at which time the 164 acres of land that is today called Willard Wildlife Management Area was transferred to the NYS DEC.

Unique Areas and State Nature and Historic Preserve Trust

The Commissioner of NYS DEC has broad statutory authority to acquire lands “for any of the purposes or functions of the Department” (ECL 3-0305). The specific authority to establish Unique Areas is found at (ECL 51-0703 (4)). This law states, in part: “A state project to acquire lands of special natural beauty, wilderness character, geological, ecological or historical significance for the state nature and historical preserve and similar lands within a forest preserve county outside the Adirondack and Catskill parks”

Unique Area definition: A parcel of land owned by the state acquired due to its special natural beauty, wilderness character, or for its geological, ecological or historical significance for the state nature and historical preserve, and may include lands within a forest preserve county outside the Adirondack and Catskill Parks.

Unique Areas are usually declared by the legislature and may consist of new acquisitions or lands already owned by the state. For purposes of real property tax, Unique Areas are tax exempt.

There are a number of Unique Areas statewide, this Unit includes all of the current Unique Area’s located within NYS DEC’s Region 8.

The State Nature and Historic Preserve Trust was established by the New York State Constitution, Article XIV Section 4. Article XIV, Section 4 is reproduced below:

“§4. The policy of the state shall be to conserve and protect its natural resources and scenic beauty and encourage the development and improvement of its agricultural lands for the production of food and other agricultural products. The legislature, in implementing this policy, shall include adequate provision for the abatement of air and water pollution and of excessive and unnecessary noise, the protection of agricultural lands, wetlands and shorelines, and the development and regulation of water resources. The legislature shall further provide for the acquisition of lands and waters, including improvements thereon and any interest therein, outside the forest preserve counties, and the dedication of properties so acquired or now owned, which because of their natural beauty, wilderness character, or geological, ecological or historical significance, shall be preserved and administered for the use and enjoyment of the people. Properties so dedicated shall constitute the state nature and historical preserve and they shall not be taken or otherwise disposed of except by law

Information on the Unit

enacted by two successive regular sessions of the legislature. (Added by vote of the people November 4, 1969.)”

These areas are further codified in the Environmental Conservation Law, as follows: [ECL 45-0117 (3)]: Lands dedicated to the preserve (State Nature and Historic Preserve as referred to in Section 4 of Article XIV of the State Constitution) are declared to be put to their highest, best and most important use and are to be held for one or more of the following purposes:

- As natural communities for maintaining plants, animals and natural communities;
- As reservoirs of natural materials and ecological processes that contribute to the state's biological diversity;
- As field laboratories for scientific research and education in the natural sciences, including the fields of biology, conservation, ecology, natural history and paleontology; and
- As places of natural and historical interest and beauty which provide the public with passive recreational opportunities including, where appropriate, fishing, hunting and trapping, or commercial fishing opportunities that are compatible with protecting the ecological significance, historic features and natural character of the area.

State Nature and Historic Preserve definition: A parcel of land owned by the state acquired to protect the biological diversity of plants, animals and natural communities and may provide a field laboratory for the observation and education in these relationships. The areas may also provide for the protection of places of historic and natural interest. The areas may be used for passive recreational pursuits by the public.

The same law establishes the Commissioner of NYS DEC as the sole trustee of the State Nature and Historic Preserve Trust and establishes the duties of the trustee, including:

- To prepare and submit to the Governor and legislature an annual report on the activities of the trust, prior to February 1st of the subsequent year.
- To undertake research and studies related to activities of the trust.
- To maintain a current inventory of all real property so designated.
- To request assistance from any state agency in carrying out the purpose of the act.
- To make such rules and regulations as the trustee may determine necessary for the purpose of properly carrying out his functions.

ECL 45-0117 also sets out which properties are a part of the Preserve Trust; in this Region these properties are Squaw Island Unique Area, and two portions of High Tor Wildlife Management Area (Parrish Gully and Clark Gully).

- The description of the Squaw Island area is set out in Chapter 352 of the Laws of 1975.
- The description of Parish Gully is set out in Chapter 133 of the Laws of 1977.
- The description of Clark Gully is set out in Chapter 133 of the Laws of 1977.

NYS DEC may not allow these areas to be taken or otherwise disposed of, except by action by two successive sessions of the legislature. It may, however, contract with other state agencies or cities, counties, towns, or villages to provide for management and care, custody, and control of these areas.

INFORMATION ON THE UNIT

Identification

The approximately 4,549 acre Northern Finger Lakes Unit is comprised of one Regional Office, four Unique Areas (UA), three Wildlife Management Areas (WMA), and one Multiple Use Area (MUA). These nine parcels are managed by two different Bureaus within NYS DEC; Under the Division of Fish, Wildlife & Marine Resources - Bureau of Wildlife or, under the Division of Lands & Forests - Bureau of State Land Management.

The foresters and forest technician's within the Bureau of State Land Management manage more than 780,000 acres of State Forests, which include Reforestation Areas, Multiple Use Areas, Unique Areas, State Nature and Historical Preserves, and approximately 800,000 acres of Conservation Easements throughout the State. These lands are managed by the Bureau to provide watershed protection, wildlife habitat, ecosystem health, timber production, and recreation opportunities. Within this Unit that includes the parcels of Bare Hill Unique Area and Rush Oak Openings Unique Area.

The Bureau of Wildlife is responsible for managing all the wildlife species in the State of New York, in addition, wildlife biologists and technicians are responsible for more than 200,000 acres of land has been purchased by the State and designated as Wildlife Management Areas or occasionally Unique Areas. These lands are managed by the Bureau to provide quality wildlife habitat and recreational opportunities. Within this Unit that includes the property surrounding the Avon Regional Office, Honeoye Creek WMA, Honeoye Inlet WMA, Junius Ponds UA, Squaw Island UA, Stid Hill MUA and Willard WMA.

The Division of Operations serves as the centralized support service unit to design, build, operate and maintain NYS DEC's infrastructure.

The Avon Regional Office parcel includes the main office for NYS DEC's Region 8 and the largest maintenance garage for maintaining NYS DEC's vehicles and properties. This plan does not cover activities taking place within the buildings, parking lots, or lawn adjacent to them.

Table 1: Size of the State Lands in this Unit Management Plan

Name	Managed by Bureau of:	Acreage	Est. Boundary Line (Total Exterior)	Est. Road Frontage
Avon Regional Office	Wildlife and Operations	83 Acres	2.4 miles	0.3 mile
Bare Hill Unique Area	State Land Management	397 Acres	6.1 miles	0.9 mile
Honeoye Creek Wildlife Management Area	Wildlife	745 Acres	10.2 miles	2.1 miles
Honeoye Inlet Wildlife Management Area	Wildlife	1,981 Acres	19.2 miles	5.1 miles
Junius Ponds Unique Area	Wildlife	105 Acres	2.8 miles	0.8 mile
Rush Oak Openings Unique Area	State Land Management	230 Acres	3.9 miles	0.4 mile
Squaw Island Unique Area	Wildlife	0.2 Acres	0.07 mile	none
Stid Hill Multiple Use Area	Wildlife	844 Acres	11.3 miles	1 mile
Willard Wildlife Management Area	Wildlife	164 Acres	2.9 miles	0.2 miles
Total		4,549 acres	58.9 miles	10.8 mile +

Table 2: Web Page and Location

Name	NYS DEC Web Page	County	Town(s)	WMU
Avon Regional Office	www.dec.ny.gov/about/617.html	Livingston	Avon	8H
Bare Hill Unique Area	www.dec.ny.gov/lands/37438.html	Yates and Ontario	Gorham and Middlesex	8N
Honeoye Creek Wildlife Management Area	www.dec.ny.gov/outdoor/31111.html	Ontario	Richmond	8H
Honeoye Inlet Wildlife Management Area	www.dec.ny.gov/outdoor/101157.html	Ontario and Livingston	Canadice, Richmond, South Bristol, Naples and Springwater	8N

Name	NYS DEC Web Page	County	Town(s)	WMU
Junius Ponds Unique Area	Junius Ponds Unique Area is not open for any public use, we ask visitors to respect this very sensitive area.	Seneca	Junius	8J
Rush Oak Openings Unique Area	www.dec.ny.gov/lands/100035.html	Monroe	Rush	8H
Squaw Island Unique Area	www.dec.ny.gov/outdoor/101178.html	Ontario	Canandaigua	8N
Stid Hill Multiple Use Area	www.dec.ny.gov/outdoor/24444.html	Ontario	South Bristol and Bristol	8N
Willard Wildlife Management Area	www.dec.ny.gov/outdoor/24448.html	Seneca	Ovid	8S

Terrain

The nine parcels that make up this Unit are relatively flat, when compared to the rest of New York State.

The land associated with the Avon Regional Office has very little elevation difference, only 810 to 910 feet above sea level, the high point is part of a drumlin along the east side and includes dammed up ponds in the center of the property.

Bare Hill Unique Area's elevations range from 950 feet to 1,540 feet. The southern tract offers a view of Canandaigua Lake from the east side. Fisher Gully forms a portion of the northern boundary of northern tract.

Honeoye Creek WMA is north of the hamlet of Honeoye in Ontario County. There is a variety of agricultural fields, brush lots, woodlands and swamps that cover this terrain. The elevation ranges from about 820 to 1,020 feet above sea level.

Honeoye Inlet WMA is located at the south end of Honeoye Lake. This area provide wildlife habitat as well as protect the watershed to the inlet of Honeoye Lake. Some sections of the steep terrain reaches beyond 40% slope. Elevation tops out at 2,170 feet which is some of the highest in the area.

Junius Pond Unique Area is a small piece of property with little variation in elevation, 460 to 580 feet above sea level. The terrain is formed by a low glacial drumlin.

Rush Oak Openings Unique Area has only minor elevation change, 610 to 660 feet. Slopes do not exceed 15%. It was created by sedimentary formations that made shale, although today a covering of glacial deposits conceals the underlying rock.

Squaw Island Unique Area is located near the north end of Canandaigua Lake, near the city of Canandaigua. Its elevation is about 690 feet above sea level. Squaw Island was formed by alluvial deposits from nearby Sucker Brook.

Information on the Unit

Stid Hill Multiple Use Area is another two-part parcel with many steep hills, gullies, ravines, as well as few flatter sections. Its elevations range from 920 to 2,070 feet above sea level.

Willard Wildlife Management Area is located in the Town of Ovid in Seneca County. This parcel is located on the east side of Seneca Lake. Elevation varies from 450 to 770 feet above sea level.

Climate

Climatic data is supplied by the United States Department of Agriculture (USDA) Natural Resource Conservation Service.

Ontario County

The average length of the freeze-free growing season in Ontario County is 138 days. The average daily high temperature in winter is 37° F and the average daily minimum temperature is 19°F. In summer, the average daily high temperature is 79°F and the average daily minimum temperature is 53°F. Ridge tops are markedly cooler than the lowland areas.

Ontario County annual precipitation averages 30 inches. Precipitation is well distributed throughout the year and is usually adequate for all crops.

Average seasonal snowfall is 65 inches. In winter snow depths vary greatly with elevation, but on the average, snow depths are measurable for 3 months. Monthly totals of 8 to 20 inches of snow are common from December through March.

Sunshine occurs for 65% of daylight hours in the summer and 30% in the winter. The prevailing wind is from the west to southwest. Average wind speed is at its highest, 12 mph, in February.

Monroe County

The average length of the freeze-free growing season in Monroe County is 163 days. The average daily high temperature in winter is 32° F and the average daily minimum temperature is 19°F. In summer, the average daily high temperature is 77°F and the average daily minimum temperature is 56°F. The Lakeshore may be significantly cooler than normal.

Monroe County annual precipitation averages 34.34 inches. Precipitation is well distributed throughout the year and is usually adequate for all crops.

Average seasonal snowfall is 99 inches. In winter snow depths vary greatly with elevation, but on the average, snow depths are measurable for 4 months. Monthly totals of 8 to 28 inches of snow are common from December through March.

Sunshine occurs for 65% of daylight hours in the summer and 30% in the winter. The prevailing wind is from the west to southwest. Average wind speed is at its highest, 12 mph, in February.

Yates County

The average length of the freeze-free growing season in Yates County is 143 days. The average daily high temperature in winter is 32° F and the average daily minimum temperature is 19°F. In summer, the average daily high temperature is 77°F and the average daily minimum temperature is 56°F.

Yates County annual precipitation averages 34.30 inches. Precipitation is well distributed throughout the year and is usually adequate for all crops.

Average seasonal snowfall is 56 inches. In winter snow depths vary greatly with elevation, but on the average, snow depths are measurable for 4 months. Monthly totals of 8 to 28 inches of snow are common from December through March.

Sunshine occurs for 65% of daylight hours in the summer and 30% in the winter. The prevailing wind is from the west to southwest. Average wind speed is at its highest, 19 mph, in September.

Seneca County

The average length of the freeze-free growing season in Seneca County is 163 days. The average daily high temperature in winter is 32° F and the average daily minimum temperature is 17°F. In summer, the average daily high temperature is 68°F and the average daily minimum temperature is 53°F.

Seneca County annual precipitation averages 35.31 inches. Precipitation is well distributed throughout the year and is usually adequate for all crops.

Average seasonal snowfall is 35 inches. In winter snow depths vary greatly with elevation, but on the average, snow depths are measurable for 4 months. Monthly totals of 8 to 28 inches of snow are common from December through March.

Sunshine occurs for 65% of daylight hours in the summer and 30% in the winter. The prevailing wind is from the west to southwest. Average wind speed is at its highest, 12 mph, in February.

Livingston County

The average length of the freeze-free growing season in Livingston County is 159 days. The average daily high temperature in winter is 32° F and the average daily minimum temperature is 17°F. In summer, the average daily high temperature is 68°F and the average daily minimum temperature is 53°F.

Livingston County annual precipitation averages 31.03 inches. Precipitation is well distributed throughout the year and is usually adequate for all crops.

Average seasonal snowfall is 52 inches. In winter snow depths vary greatly with elevation, but on the average, snow depths are measurable for 5 months. Monthly totals of 8 to 28 inches of snow are common from December through March.

Sunshine occurs for 65% of daylight hours in the summer and 30% in the winter. The prevailing wind is from the west to southwest. Average wind speed is at its highest, 14 mph, in February.

Taxes

Based on their classifications: Unique Areas, Wildlife Management Areas, and Multiple Use Areas, all of these properties should be tax exempt. However, a special arrangement was made at the time of acquisition for portions of Honeoye Inlet Wildlife Management area, and as a result taxes are paid for part of that parcel. In 2015 just under \$35,000 was paid in taxes, see Appendix C: Taxes paid on NYS DEC Lands (pg 186) for additional details.

The real property tax rolls for town, county, village, and city taxes (as well as most school districts) are divided into eight sections, with Roll Section 1 being fully taxable properties and Roll Section 8 being wholly exempt from real property tax.

Most State Forest properties are taxable for Town, School District, and Special Levy taxes. These properties should be carried on Roll Section 5 – Taxable State Lands. These payments are governed by the Real Property Tax Law Section 534.

Landscape View of Existing Uses

The purpose of this section is to attempt to take a brief look at land use patterns beyond the boundaries of NYS DEC ownership. This plan only applies to the nine Northern Finger Lakes parcels, but it does not exist in a vacuum. The uses and conditions of the nearby private and/or publicly owned land will impact the area and will be considered when planning actions on the Unit. This type of “landscape look” is valuable in helping to place the state land in its proper context.

For this broad – scale, landscape level look at land uses and land cover we use the 2011 USGS Land Use and Land Cover data. As shown in Table 3, all the towns are well forested; in general, the towns furthest to the north show somewhat less forested land, due to the prevalence of better agricultural land in these locations, and agricultural abandonment becomes much more prevalent in the south.

Table 3: USGS Land Use and Land Cover Data

Please note that this data was extracted from the USGS Land Use and Land Cover data. Also note that the data is displayed, by town, for the entire town. See Table 2: Web Page and Location (pg 24) and Appendix N: Maps (pg 243) for which parcels area in which town.

	Avon	Bristol	Canadice	Canandaigua City	Canandaigua	Gorham	Junius	Middlesex	Naples	Ovid	Richmond	Rush	South Bristol	Springwater
Open Water	0.63%	0.11%	7.85%	4.74%	9.27%	8.19%	0.45%	9.69%	0.08%	20.58%	4.41%	0.62%	7.24%	0.08%
Developed Open Space	5.34%	4.49%	3.88%	29.10%	6.15%	4.13%	4.03%	3.85%	3.79%	4.11%	4.11%	6.48%	4.08%	4.06%
Dev. Low Intensity	2.70%	0.27%	0.28%	29.99%	2.04%	0.68%	1.33%	0.14%	0.49%	1.20%	0.55%	1.61%	0.29%	0.26%
Dev. Medium Intensity	0.88%	0.01%	0.00%	11.92%	0.84%	0.12%	0.18%	0.05%	0.16%	0.18%	0.23%	0.21%	0.11%	0.04%
Dev. High Intensity	0.25%	0.00%	0.00%	3.40%	0.28%	0.04%	0.02%	0.00%	0.01%	0.04%	0.07%	0.01%	0.00%	0.00%
Barren Land	0.18%	0.00%	0.00%	0.05%	0.11%	0.02%	0.36%	0.00%	0.01%	0.03%	0.01%	0.11%	0.76%	0.02%
Deciduous Forest	8.41%	39.03%	45.81%	4.68%	13.71%	10.04%	9.14%	30.15%	49.96%	6.48%	29.92%	18.37%	55.07%	37.17%
Evergreen Forest	0.11%	3.68%	7.10%	0.02%	0.70%	0.29%	0.38%	3.33%	4.00%	0.81%	2.14%	0.29%	3.33%	4.74%
Mixed Forest	2.12%	12.24%	13.31%	2.64%	4.87%	3.03%	1.78%	10.17%	8.63%	1.33%	4.05%	3.62%	7.49%	9.43%
Shrub / Scrub	3.07%	8.00%	5.43%	1.66%	3.35%	1.55%	0.58%	8.83%	8.21%	3.65%	4.61%	3.58%	10.21%	8.04%
Grassland	0.69%	0.18%	0.27%	0.65%	0.34%	0.10%	0.04%	0.20%	0.46%	0.12%	0.15%	0.45%	0.40%	0.47%
Pasture / Hay	30.42%	25.11%	9.72%	5.29%	37.08%	33.19%	23.69%	24.50%	15.00%	28.35%	36.54%	29.13%	8.78%	17.34%
Cropland	42.71%	3.28%	1.74%	0.92%	17.91%	33.81%	44.21%	7.40%	7.40%	31.65%	7.44%	27.58%	1.03%	15.29%
Woody Wetlands	1.53%	2.58%	4.22%	4.29%	2.61%	4.43%	12.84%	1.39%	1.51%	1.20%	4.67%	6.44%	1.05%	2.32%
Herbaceous Wetlands	0.96%	1.02%	0.39%	0.65%	0.74%	0.38%	0.97%	0.30%	0.29%	0.27%	1.10%	1.50%	0.16%	0.74%

Roads

The State Forest Transportation system provides for both public and administrative access to the unit. The Northern Finger Lakes Unit is accessed by a combination of Town, County and State Highways and public forest access roads (for those areas administered by the Division of Lands & Forests) or the same categories of public highways and administrative access roads (for those areas administered by the Division of Fish and Wildlife).

Some portions of these roads are not maintained for winter travel. Many abandoned roads and old farm lanes are used as recreational trails. Roads and trails are constructed to standards that will provide reasonably safe travel and to keep maintenance costs at a minimum. There are six types of transportation corridors providing different levels of access, depending on the standards to which they are constructed. NYS DEC reserves the right to limit access to state lands when public safety or resource damage issues occur.

The next several paragraphs give brief descriptions of the six types of roads that can be found on lands administered by the Division of Lands & Forests.

Public Forest Access Roads - Permanent, unpaved roads which may be designed for all-weather use depending upon their location, surfacing and drainage. These roads provide primary access for administration and public use within the unit. The design standards for these roads are those of the Class A and Class B access roads as provided in the Unpaved Forest Road Handbook (8/04)

Haul Roads - Permanent, unpaved roads which are not designed for all weather travel, but may have hardened or improved surfaces with artificial drainage. They are constructed according to best management practices primarily for the removal of forest products or other management needs. They provide limited access within the unit for log trucks and other heavy equipment. These roads may or may not be open for public motor vehicle use, depending on management priorities and objectives. They may serve as recreational access corridors, but are not maintained according to specific standards or schedules. The design standards for these roads are below those of the Class B access roads as provided in the Unpaved Forest Road Handbook.

Access Trails - Temporary, unpaved roads which do not provide all weather access within the unit. They are not designed for long term and repeated use by heavy equipment. These corridors were originally constructed for the seasonal removal of forest products by skidding to landings or other staging areas. Constructed according to best management practices, these trails may be used to support other management objectives such as recreational access corridors. Maintenance is limited to activities which minimally support seasonal access objectives.

Recreational Trail - Unpaved recreational corridors which do not provide all weather access within a unit, and are designed to achieve specific recreational access objectives. Constructed according to best management practices, and following accepted regional standards for design, these trails may be used to support multiple types of seasonal

recreation access. Maintenance is limited to activities which minimally support the access objectives and design.

Public Road - Permanent, paved or unpaved roads primarily designed for motor vehicle travel which are maintained by federal, state or local government. These roads may or may not provide year round access.

Rights-Of-Way(ROW) - Permanent, paved or unpaved roads which allow the NYS DEC access to state forest properties while crossing private land, or, corridors across state forests allowing access to private in-holdings.

The public forest access roads and haul roads are all maintained by the NYS DEC and the access trails that are accessible by mower are also maintained. The public forest access roads are open to the public use all year round but are not maintained during the winter months. The haul roads and access trails are used by the public for hiking, biking, cross country skiing, and snowshoeing. The public forest access roads, haul roads and some of the access and recreation trails are used by the NYS DEC for administrative access. See Appendix N: Maps (pg 243) for names and types of roads and trails. There are also many other unmarked trails connecting some of the access trails.

This Unit is oriented around numerous small parcels of state lands. In general, the various parcels are well served by State, County, and Town roads systems. Several of the individual parcels are also served by interior, limited access roads and trails.

All town and county highways are assumed to exist as a result of a prescriptive easement. Stated another way, they were established by use, rather than through a specific legal dedication process, and there are no deeds conferring the right to construct them. Since these are prescriptive easements they are limited to the width actually occupied by the highway, subject to a 49.5 foot (3 Rods) maximum width. The only exception to this might be where recent road or bridge projects necessitated acquisition of a dedicated easement. The prescriptive easement is for highway purposes only; no right exists to "sub-let" the easement to utility companies.

All state highways were acquired through appropriation by NYS DOT. The deeds from the previous owners to NYS DEC generally excepts these areas. The boundaries depicted in this plan for the state highways are reasonably accurate. However, prior to beginning projects which involve the state highways, reference should be made to the actual appropriation documents for the pertinent highway segment.

Table 4: State, county, and town highways which serve the various state lands in this plan.

Area	Road Name	Jurisdiction
Avon Regional Office	US Route 20	NYSDOT
	State Route 5	NYSDOT
	Dutch Hollow Road	Town of Avon
	Interior Roads and Parking	NYSDEC
Bare Hill Unique Area	Van Epps Road	Town of Middlesex
	Bare Hill Road	Town of Middlesex
	Interior Haul Roads and Trails	NYSDEC
Honeoye Creek Wildlife Management Area	Briarcliff Square	Hamlet of Honeoye / Town of Richmond
	Church Street	Hamlet of Honeoye / Town of Richmond
	County Route 37	Ontario County
	County Route 15	Ontario County
	Old Shelter Road	Town of Richmond
	Allen's Hill Road	Town of Richmond
Honeoye Inlet Wildlife Management Area	County Route 36	Ontario County
	Old West Lake Road	Town of Naples
	Cross Road	Town of Springwater
	Blueberry Hill Road	Unknown
	Interior Lanes and Access Trails (includes Blueberry Hill)	NYSDEC
Junius Ponds Unique Area	State Route 318	NYSDOT
	Bostwick Road	Town of Junius
	NYS Thruway / Interstate 90	NYS Thruway Authority
Rush Oak Openings Unique Area	State Route 15	NYSDOT
	Five Points Road	Town of Rush
	Interior Haul Roads	NYSDEC
Squaw Island Unique Area	None	None
Stid Hill Multiple Use Area	State Route 64	NYSDOT
	Dugway Road	Town of Bristol
	Interior Roads and Access Trails	NYSDEC

Area	Road Name	Jurisdiction
Willard Wildlife Management Area	County Route 131	Seneca County
	Interior Lanes and Access Trails	NYSDEC

Rights of Way, Concurrent Use & Occupancy, and Deeded Exceptions

No concurrent occupancy and use agreements or boundary line agreements are known for these areas.

Both Willard and Honeoye Creek Wildlife Management Areas have acreage under active agricultural leases.

There are several encroachments and/or trespasses, which are listed in Appendix M: Known Encroachments and/or Trespass (pg 241).

There are deeded exceptions for utility rights of way and easements as they may exist on the date of acquisition by the state for all areas in this Unit Management Plan. As part of our inventory efforts we have created, what we believe to be an accurate GIS coverage, of the utilities in place as of the summer/fall/winter of 2014.

Utility companies include:

- Electricity: National Grid / NYSEG
- Telephone: Frontier Communications / Verizon / Verizon Fiber Optic
- Natural Gas: National Grid / NYSEG / National Fuel Gas
- *Municipal Water and Sewer: Honeoye Water District / Honeoye Lake County Sewer District

*These entities are listed for reference only. Honeoye Creek WMA probably has service from Honeoye Water District (has fire hydrants on WMA)

Deeded exceptions for minerals are shown in the minerals section.

Exterior rights – of – way exist in favor of the state appear in the following areas:

Avon Regional Office: None

Bare Hill Unique Area:

- There may be a right – of – way running from the southerly boundary of the southern tract (proposal 29.4) of Bare Hill Unique Area to Vine Valley Road.
- NYS DEC also appears to have conducted a taking against Van Epps Road and the road or property gore running north – south from Van Epps Road.
- There is also a right – of – way across lands of Arthur Swartele from the east line of the state to Bare Hill Road.

Needs, Issues and Policy Constraints

Honeoye Creek Wildlife Management Area:

- Leading to the old Stone parcel (through Briarcliff Square area) directly off of Main Street, Honeoye village (Rte. 20A)
- Old Mazerbo parcel at end of Church Street (short, dead-end street off 20A in Honeoye village)
- North property line of old Zerdoner parcel on CR 37, NW of Honeoye, to allow access to Bergen Swamp Society property to the east.

Honeoye Inlet Wildlife Management Area:

- Approx. 2,100' long ROW from West Lake Rd (CR36) across Finger Lakes Community College property for NYS DEC access to the channel.
- Approx. 750' ROW across private property from East Lake Road from east to west to access state land
- Blueberry Hill road up hill on east side of valley at southern end of WMA (for a couple local camps so that they didn't have to build a second, parallel road to access their land)
- Approx. 2,700' long ROW from West Lake Rd (CR36) east to East Lake Rd. across open field portion of WMA at southern end. Starts at Wholschlegel residence across from northern terminus of Old West Lake Road. Held by Wild Rose Ranch and Emil Muller, heirs and assigns etc.

Junius Ponds Unique Area: None

Rush Oak Openings Unique Area: None

Squaw Island: None

Stid Hill Multiple Use Area:

- A right – of – way associated with historic use of an old town road (former Stid Hill Road) running southerly from Dugway Road to the state boundary. This right – of – way is located in the Town of Bristol. This ROW is currently managed as an access trail.
- A right – of – way associated with State Route 64. This right – of – way is approximately 20 feet wide and runs from State Route 64 to, what is believed to be, the east boundary of the area. Note that the survey of this area (from 1972) shows the parcel where this right – of – way ends as “in dispute”. Also note that current tax records and orthophotos indicate that this tract is in private hands, and that significant structures have been constructed on this area. Discussions with the Real Property staff indicate that the intention was to convey a ROW from State Route 64 to the easterly bounds of the property being conveyed. It is currently unclear if this actually happened. This is **not** a situation which can be resolved by survey. It will require a legal opinion. This right – of - way is located in the Town of South Bristol.

Willard Wildlife Management Area: None

Recreation

The nine parcels of the Northern Finger Lakes Unit Management Plan recreational opportunities within an hour or two drive of metropolitan Rochester or Syracuse. Most of the parcels in this unit are small, especially when compared to other state lands available within the region. Primarily low impact recreational use has been encouraged due to the unique nature of most of these parcels, and potential conflicts with recreational activities which may be hard on the plant and animal communities. As is often the case, recreational use can be concentrated in certain areas and have seasonal variation.

Junius Ponds Unique Area is not open for any public use, we ask visitors to respect this very sensitive area.

Recreational uses of Wildlife Management Areas are for wildlife-dependent recreational activities

Many of the recreation facilities started out as farm lanes, skid roads, town roads, log landings, etc. After they were no longer used for the original purpose they were converted to recreational use. On occasion, as part of the active timber management, sections trails, roads, parking lots, etc. may need to be temporarily closed to public use.

Additional information on the planned actions related to recreation can be found in the Public Recreation and Use section on page 128.

Recreation Opportunity Spectrum

The Recreation Opportunity Spectrum (ROS) is a USDA Forest Service developed scale of recreational settings, activities, and opportunities. This rainbow of opportunities ranges from an urban park to the primitive wilderness. Although NYS DEC does not follow the precise categories that the Forest Service does, and NYS DEC properties are not divided into the same categories, it is a useful guideline when considering recreational use and expectations of an area. State Wildlife Management Area, Unique Areas and Multiple Use Areas fall near the primitive/wilderness end, in that it has much less development than Central Park in NY City, but more than can be found in most of the backcountry of Alaska.

The Forest Service web site at www.treesearch.fs.fed.us/pubs/6014 has additional information on the Recreation Opportunity Spectrum.

Recreation Opportunities on the Unit Include:

- Fishing
- Hunting
- Trapping
- Hiking/Running
- Canoe/kayak/boating
- Wildlife observation
- Mountain biking
- Snowmobiling
- Geocaching
- Cross country skiing
- Snowshoeing
- Picnicking
- Photography
- Nature study
- Orienteering

Depositing or leaving rubbish or waste material is prohibited. Cutting, removing, or destroying any living, or standing dead trees or plants is prohibited. Hunting, trapping, and

fishing are allowed during legal season; consult the NYS DEC Hunting and Trapping, and the Fishing Regulations Guides for seasons, hours, and bag limits.

Restricted Use Areas

Junius Ponds Unique Area is not open for any public use, please respect this very sensitive area.

Activities in Northern Finger Lakes Unit are subject to DEC's Rules and Regulations for the Use of State Lands, 6 NYCRR Part 51 and 190, as well as any other applicable state statutes, rules and regulations.

Off-Road Vehicle Use

There are no designated Off-Road Vehicle (ORV) trails on this Unit. New York State Vehicle and Traffic Law prohibits All-Terrain Vehicle (ATV) use on Public Highways which, by definition, also include Public Forest Access Roads, unless such roads are specifically designated for ATV use. ATV and ORV riding is not a specific program offered on Public Lands owned in fee and managed by the NYS DEC. Existing management actions, poor soils, conflicts with other uses, impacts on neighboring residents, safety concerns, maintenance costs and challenges, and existing issues with illegal ATV and ORV use were some of the factors which have prevented the NYS DEC from developing ORV or ATV trails in the past. However, people with qualifying mobility impairments who possess a valid permit from the NYS DEC may operate ATVs on specifically designated and signed accessible trails. See Access for Persons with Disabilities, page 41, or visit www.dec.ny.gov/outdoor/2574.html. For more information regarding ATV access to State Forest please refer to the Strategic Plan for State forest Management, found online at www.dec.ny.gov/lands/64567.html.

Public Fishing Rights (PFR)

Since 1935, NYS DEC has worked with private landowners to ensure access to the prime fishing waters of the state. During that time, more than 1,300 miles of public fishing rights (PFR) easements have been purchased on more than 400 streams across the state. PFRs are permanent easements purchased by the DEC from private landowners, giving anglers right-of-way access to fish and walk along the bank. Fishing rights also allow the public to park in designated parking areas and to access the stream via marked footpaths. Please note: NYS DEC has only purchased “access” rights for the public to fish along a stream corridor, not the land itself. The land where PFR exists remains in private ownership. See Appendix D: Facilities (pg 188) for a list of PFR’s near this Unit.

Fishing Access Sites (FAS)

Fishing Access Sites (FAS) consist of NYS DEC owned land with the primary purpose of providing public fishing access. This includes boat launches on public waters and parking areas along streams and rivers to provide shoreline fishing. See Appendix D: Facilities for a list of FAS’s near this Unit.

No Camping

Camping is **not** allowed on most of the parcels in this Unit. As of the writing of this plan, the current exceptions are Bare Hill UA and Stid Hill MUA, in that case overnight camping is allowed for groups less than 10 and for up to 3 nights. Longer stays and/or larger groups are allowed to camp with a permit obtained from the NYS DEC Forest Rangers, at the Bath sub-office. Check current regulations prior to arriving.

Hunting and Trapping

Hunting and trapping are valuable wildlife management methods and popular outdoor activities on the lands and waters of the unit (see the Recreation (pg 35), Fish, Wildlife and Habitat (pg 60) and Timber and Vegetation (pg 51) sections). For hunting, both small game and big game opportunities exist, with white-tailed deer being the most popular species hunted. As of the writing of this plan, deer are overabundant in three out of the four Wildlife Management Units (WMUs) making up the Unit (8H, 8N and 8J) and in the fourth, 8S, populations are currently near desired levels. Management strategy for deer in the majority of these WMUs is thus to reduce populations by encouraging increased hunting participation and providing an ample number of Deer Management Permits (DMPs). DMP issuance is the cornerstone of the state's deer management program, and allows for the harvest of antlerless deer only, the majority of which are adult females.

High deer populations can cause major impacts to understory vegetation and forest regeneration. This over browsing can negatively impact plant and animal species diversity and richness, and contribute to the establishment of unwanted invasive vegetation. High deer numbers also lead to increased local farm crop damage and higher deer-vehicle collisions on nearby roadways. Deer hunters perform a valuable service to the State and local communities by controlling deer numbers on the lands of the NFL Unit, and the harmful effects they can cause. As on all State lands, permanent tree stands are prohibited on the Unit. Also prohibited are any equipment that damages trees, including screw-in steps, and eye hooks etc.

Ruffed grouse, woodcock, cottontail rabbit, grey squirrel, turkey, and raccoon are favorite small game species pursued. Because of the proximity of Unit lands to several of the Western Finger Lakes, waterfowl hunting is a particularly popular pursuit here, and many species of waterfowl are present. For trapping, all the major furbearers of Western New York are present, including mink, muskrat, red fox, grey fox, raccoon, coyote, skunk, and opossum. Although no specific harvest or population estimates exist for any hunted or trapped species on Unit lands themselves, DEC compiles and maintains estimates for most of the species mentioned on a WMU, County, or Management Zone basis. Results for these larger areas containing the Northern Finger Lakes Unit are shown in Appendix H: Wildlife Harvests and Hunting Use (pg 225).

The timing of hunting and trapping seasons on the Unit mirror those for the four component WMUs that exist there, and span early September through late March. The bulk of hunting and trapping activity occurs October through December, however. There is no public access allowed on the Junius Ponds Unique Area, and thus no hunting, fishing, or trapping. And although the public is welcome on the Avon Regional Office property, there is

no hunting or trapping allowed. Fishing is allowed there, however, but boats can only be of the car-top variety.

On the properties of the Unit that allow hunting and trapping, all existing state and federal regulations apply, as do those specific to the five counties represented. As an example, Livingston, Ontario, Seneca and Yates counties currently allow rifles to be used for big game hunting, while Monroe County currently does not (this as of 2016). If regulations differ by state WMU, the regulations specific to the WMU where the individual land unit lies apply. No additional restrictions, bag limit changes, or special permits other than those described above, are required on these state lands, or are foreseen in the near future.

Fishing

Fishing opportunities within the Unit range from extremely limited, to a few significant fishing sites. This Unit contains small streams with limited fish resources as well as larger streams and lakes that support significant fisheries that are important in this region.

The Avon Regional Office contains an approximately 20 acre pond that provides significant fishing opportunities. Black Crappie, Bluegills, Pumpkinseeds, and Largemouth Bass are the most common fish species in this pond that support the fishery. Tiger Muskellunge have also been stocked in the past and provide a limited fishery. Most of the shoreline of this pond is accessible for fishing and small boats can be launched in a few locations. Ice fishing is also available during most winters.

Bare Hill Unique Area contains a few small streams that are dry for much of the year and therefore do not provide any fishing opportunities.

Honeoye Creek Wildlife Management Area includes Honeoye Creek and a few small tributaries which all provide limited fishing opportunities. The section of Honeoye Creek that is located on the WMA contains relatively small numbers of Bluegills, Pumpkinseeds, Largemouth Bass and Smallmouth Bass that provide a limited fishery.

Honeoye Inlet Wildlife Management Area includes Honeoye Inlet and some small tributaries. Honeoye Inlet contains Wild Brook, Brown, and Rainbow Trout that support a relatively good quality fishery. Brown Trout provide the most significant fishing opportunities in the portion of the stream located on the WMA. NYS DEC Fisheries staff and Finger Lakes Community College students have both sampled the Honeoye Inlet on WMA property and found good numbers of Brown Trout with some exceeding 18 inches. Most of the Brook Trout are generally found upstream of the WMA.

Junius Ponds Unique Area contains the Junius Ponds (Newton Pond to the north and Lowery Pond on the south), and a small creek named Pond Brook. These waters are not open to fishing.

Rush Oak Openings Unique Area contains several small streams that do not support any significant fishing opportunity.

Squaw Island Unique Area is located near the north end of Canandaigua Lake. This part of Canandaigua Lake has a good fishery for largemouth Bass, Pumpkinseeds, Bluegills, Yellow Perch, and Chain Pickerel.

Stid Hill MUA includes Ganargua/Mud Creek and some small tributaries. Ganargua/Mud Creek contains a small wild Brown Trout population that provides a modest fishing opportunity. The portion of the stream located on Stid Hill MUA has a large amount of bank vegetation that provides good shelter for Wild Trout but makes fishing difficult.

Willard WMA contains a small length of shoreline access on the east side of Seneca Lake. Shore fishing access is possible and fishing can be productive for a variety of species, depending on the time of year. Smallmouth Bass, Yellow Perch, Northern Pike, Lake Trout, Rainbow Trout, Brown Trout, and Atlantic Salmon can all be caught at this location.

Trails

There are some designated recreation trails on the Northern Finger Lakes Unit, in addition to old roads, skid trails, and deer trails on the Unit to explore, a few of these trails are currently marked and mapped, others are not. No attempt has been made to catalog these informal "herd paths" which exist on the unit. Wildlife Management Areas are for wildlife-dependent recreational use. All trails on the Unit can be used for walking, running, cross-country skiing, biking, and snowshoeing. Motorized vehicle use is prohibited. See the tables in Appendix D: Facilities (pg 188) and maps in Appendix N: Maps (pg 243).

Junius Ponds Unique Area is not open for any public use, we ask visitors to respect this very sensitive area.

There are more than two miles of walking trails at the Avon Regional Office, around and to the east of the pond there. The east side trails are situated on a west-facing hillside overlooking the pond. All the trails are all interconnected with no less than five loops of varying lengths comprising the system. Totally encircling the pond requires one to walk the internal road on the property for some 1,000 feet. The trail system receives good use not only from the public, but by DEC staff who work there as well. From the bench, located at the highest point in the trail system on the eastern hill, a hiker or skier may rest and take in a view of the entire property, including the pond.

The main body of Bare Hill Unique Area is served by two sections of Access Trails. Public access to this road is limited to foot, cross-country ski, equestrian, and bicycle traffic. Access by motorized vehicles is prohibited, except for administrative needs. Access is controlled by a gate on Van Epps Road. There are numerous "herd paths" which are not part of the official system and are not maintained. There is an off highway parking area at the end of VanEpps Road. The northern parcel of Bare Hill Unique Area has a network of old access trails and lanes. None of these maintained to current standards for either roads or trails. Access to these old trails and lanes is controlled by topography, earthen berms, and ditches along the edge of East Lake Road. The northern parcel is served by a small, rough, off highway pull off on the edge of East Lake Road, and has issues with limited sight distances.

Honeoye Creek WMA has a short section of the Hill & Valley Snowmobile trail, but no other recreation trails. Other than that, it does have a couple of loops of Haul Road. These

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are grass laneways primarily for administrative access, but are often used as walking/skiing trails, and as access trails by hunters.

There are no official recreation trails on the Honeoye Inlet WMA, but the area does have over five miles of Haul Road and Access Trail, both in the valley and up the wooded hillside at the south end of the area (Blueberry Hill Road). In the valley the grassy Haul Road runs along the west side of the Honeoye Inlet channel, for a distance of some 1.5 miles. This is a favorite destination for hikers, skiers, hunters, and because of the adjacent channel, canoeists and kayakers.

Junius Ponds Unique Area is not open for any public use, please respect this very sensitive area, and as a result there are no recreational trails on it.

Rush Oak Openings Unique Area has no recreation trails, it does have the central haul road and fire control lines. Other assets include off highway parking on Route 15 and Five Points Road. Public access to this road is limited to foot, cross-country ski, and bicycle traffic. Access by motorized vehicles is prohibited, except for administrative needs. Access is controlled by gates on Five Points Road and Route 15.

Due to its small size and inaccessibility, there are no trails on Squaw Island.

Stid Hill has over four miles of trails, with the northern parcel having most of them. The trails on this northern portion can be accessed either by the parking lot on CR 64, or by an abandoned town roadway off of Dugway Road to the north. One large loop exists on this Dugway portion, and two loops on the CR 64 portion. A steep connecting trail links these two portions, one low in the valley, and the other high on Stid Hill.

Willard WMA has one trail, starting at the western parking lot, which runs about 1,500 feet straight west to Seneca Lake. There, it extends north and south 500 feet or so, on a bluff overlooking the Lake.

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.

Consistent with ADA requirements, NYS DEC 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. A federal agency known as the Access Board has issued the ADA Accessibility Guidelines (ADAAG) for this purpose.

An assessment was conducted, in the development of this UMP, to determine appropriate accessibility enhancements which may include developing new or upgrading of existing facilities or assets. (See the Recreation page 35, Summary of Identified Issues page 77, Access Management page 90, Public Recreation and Use Management page 128, Appendix D: Facilities page 188, and Appendix N: Maps page 243 sections.) NYS DEC is not required to make each of its existing facilities and assets accessible so long as NYS DEC's programs, taken as a whole, are accessible. Any new facilities, assets and accessibility improvements to existing facilities or assets proposed in this Unit Management Plan are identified in the Public Recreation and Use Management (pg 128) section of the GOALS AND OBJECTIVES chapter.

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

Access for Persons with Disabilities

Wheelchairs are allowed anywhere pedestrians are allowed on state lands. The Federal/ADA definition of a wheelchair is:

Wheelchair - A manually-operated or power-driven device designed primarily for use by an individual with a mobility disability for the main purpose of indoor, or of both indoor and outdoor locomotion. This definition does not apply to Federal wilderness areas; wheelchairs in such areas are defined in section 508(c)(2) of the ADA, 42 U.S.C. 12207 (c)(2).

Currently there are no trails or roads that meet the federal standard for wheelchair accessibility on the Northern Finger Lakes Unit. In many cases the ground is not firm and stable enough, and/or the slope is too steep, and/or the path is too narrow. Any construction of new trails will include an accessibility assessment.

While no general ATV trails currently exist on this Unit, specific routes may be opened to allow ATV use by permitted persons with disabilities, pursuant to NYS DEC Commissioners Policy #3 (CP-3). This program is known as the Motorized Access Program for People with Disabilities (MAPPWD). A permit must first be obtained from NYS DEC. Individuals with qualifying disabilities may apply for a permit to operate an ATV or other vehicle on routes designated by the NYS DEC. The Haul Roads on Honeoye Creek WMA are part of the MAPPWD system. For further information, contact the NYS DEC at 7291 Coon Road, Bath, New York 14810. Planned changes to the MAPPWD routes on the Unit are located in the Public Recreation and Use Management (pg 128) section of the GOALS AND OBJECTIVES chapter. (See also Recreation pg 35, Appendix D: Facilities pg 188 and Appendix N: Maps

(pg 243). of this plan or the Strategic Plan for State forest Management, found online at www.dec.ny.gov/lands/64567.html.)

Geology

Most surface geology in the Finger Lakes region and Southern Tier of New York was influenced by the processes of glaciation that occurred during the Pleistocene Epoch. Ice sheets from the last glaciation episode (Wisconsinan glaciation episode) retreated from the area approximately 10,000 years ago, leaving behind numerous sedimentary deposits and surficial features; including elongated scour features. Some of these scour features filled with water creating numerous lakes, small and large; the larger ones are now call the Finger Lakes.

Most soils and sediments in the region are related to past glacial activity, and subsequent weathering and erosion processes over the last 20,000 years. The underlying parent rocks (rocks that were subjected to the processes of glaciation, weathering and erosion) of this region are sedimentary rocks; specifically shale, sandstone and minor limestone that were deposited in shallow seas that existed in this region during the Devonian Period of the Paleozoic Era, approximately 370 million years ago. Any post Devonian rocks have been eroded from the region. The presence of rounded igneous and metamorphic clasts is indicative of past glacial activity transporting material into the region from the Canadian Shield to the north. The resulting surface geology of the State lands included in this unit management plan are similar due to their close proximity.

Soils

Soils are defined as the upper layer of earth; that portion of the earth's crust where plants grow. Under ordinary circumstances it is a black, dark brown, gray, or yellowish material, typically consisting of a mixture of organic remains, sand, silt, clay, and rock particles.

Each county in New York has a soil survey conducted by the USDA, which maps the soil type (in which similar soils are grouped together) and the slope and drainage classes. This survey also contains numerous other products relating to soil use and soil management.

The information below, for each individual parcel, has been compiled from their respective county soil surveys. In view of the small size of many of the individual parcels, we have chosen to use the SSURGO2 database, which gives finer scale results than the more commonly used STATSGO database. SSURGO2 was originally mapped at scales ranging from 1:12,000 to 1:63,360. STATSGO was originally mapped at 1:250,000. Very specific descriptions of the various soil types may be found at: <https://soilseries.sc.egov.usda.gov/osdname.asp>

The full soil data for each parcel is listed and mapped in Appendix N: Maps (pg 243). This table contains the top three soil types found on each parcel, along with the major drainage class, also for the top three soil types.

Table 5: Soils

State Land Name	Major Soil Type and Drainage Information
Avon Regional Office	<p>The soils in this parcel are dominated by loam soils. The top three soil types are Colwood, Ontario, and Palmyra and Howard (undifferentiated). There is also a significant area (over 25% of the total area) classed as open water.</p> <p>Colwood and Ontario are typed as fine grained loams. Palmyra and Howard are gravelly soils on somewhat steeper slopes. The major drainage class is extremely variable, ranging from very poorly drained to well drained. The open water area has no drainage class assigned.</p>
Bare Hill Unique Area	<p>The soils in this parcel are dominated by silt loam soils. The top three soil types are Lordstown, Manlius, and Aurora. There is also a significant area of “steep, broken land” associated with the Ontario County portion of this parcel.</p> <p>All of these soils are typed as silt loams or channery silt loams (channery refers to an accumulation of thin, flat, coarse fragments of sandstone, shale, slate, limestone, or schist with diameters up to 6 inches). The major drainage class falls between moderately well drained and well drained</p>
Honeoye Creek Wildlife Management Area	<p>The soils of this parcel are dominated by silt loams and silty clay loams. The top three soil types are Schoharie silty clay loam, Odessa silt loam, and Eel silt loam. All of these soils are similar, with the exception of silty clay loam, where the finer soil particles restrict internal soil drainage. The drainage class for these soils ranges from somewhat poorly drained to moderately well drained.</p>
Honeoye Inlet Wildlife Management Area	<p>The soils of this parcel are dominated by organic soils and silt loams. The top three soil types are Freshwater marsh, which is an organic soil saturated, with water, to the surface; Lordstown silt loam, on very steep slopes; and Wayland silt loam, on flat slopes. Note that some of the acreage typed as freshwater marsh could be typed as open water.</p> <p>Also note that the areas typed as Lordstown silt loam on steep slopes are extremely variable as concerns depth to bedrock. In some areas bedrock outcrops at the surface, while in other locations (fairly close by) the bedrock is covered with three feet of soil. The drainage class for these soils ranges from very poorly drained, for the freshwater marsh to well drained for the Lordstown silt loam.</p>
Junius Ponds Unique Area	<p>The soils in this parcel are highly variable. The top three soil types are deep muck, Arkport loamy fine sand, and Palmyra and Howard soils (undifferentiated). Obviously, there is also a significant area in open water. Deep Muck is an organic soil, with the depth of the organic layer ranging from 40 inches to over 17 feet. Arkport is a loamy fine sand, and Palmyra and Howard are gravelly soils on steep slopes. The major drainage class ranges from very poorly drained in the deep Muck to well drained in the Arkport, Plamyra, and Howard soils.</p>

State Land Name	Major Soil Type and Drainage Information
Rush Oak Openings Unique Area	<p>The soils in this area are highly variable. The top three soil types are Rock land, Benson, and Lamson. Benson is a channery silt loam, while Lamson is a very fine sandy loam. Rock land is dominated by very large pieces of rock with very little soil. In this case, most of the blocks of stone are limestone with various sizes of “vugs” or holes in them. While limestone vugs, in other locations, commonly hold quartz crystals that is not the case here.</p> <p>The major drainage is probably best described as moderately well drained. It is interesting to note that, in direct contrast to most other state land parcels, this area contains nearly 20% of its total area in soils classed as somewhat <i>excessively</i> drained. Areas classed as Rock land or open water are assigned no drainage class.</p>
Squaw Island Unique Area	<p>The soil survey for this parcel indicates there is no soil in this area, with the entire parcel being classed as open water</p> <p>From observation, the soil in this location is primarily a fluvial fan with numerous soil textures represented. It is thought that this island was formed by fluvial deposits from Sucker Brook. Drainage class is believed to vary from unassigned to moderately well drained.</p>
Stid Hill Multiple Use Area	<p>The soils in this parcel are classed as silt loams or channery silt loams. The top three soil types are Lordstown silt loam, Lordstown and Manlius silt loam (undifferentiated), and Mardin channery silt loam.</p> <p>Drainage class varies from poorly drained to well drained, across the parcel. The top three types are either moderately well drained or well drained.</p>
Willard Wildlife Management Area	<p>The soils in this parcel are characterized as silt loams. The top three types are Honeoye Silt loam, Darien-Danley-Cazenovia silt loams, and Lima silt loam.</p> <p>There is a small area of water, along the shore of Seneca Lake, with no drainage class assigned. The balance of the top three soils are classed as moderately well drained to well drained.</p>

Surface Geology

Parent material, or surficial deposits, that overly the bedrock in the Unit are predominantly glacial till with intermittent bedrock outcrops on the flanks and crests of ridges and hills and most likely due to erosion of overlying glacial till causing the exposure of the bedrock. Kame moraine sand and gravel deposits are associated with glacial melt-water fluvial systems and deposition adjacent to the ice. Some of these deposits are found only near Junius Ponds UA. Deposits of lacustrine silt, clay and sand are found intermittently in the Unit that were deposited in or are associated with proglacial lakes. Swamp deposits exist overlying lacustrine deposits in wetland areas within the Unit. Detailed descriptions of the surficial geologic materials deposited around the state lands within this unit are provided in Table 6: Parent Material and Bedrock (pg 46).

Further information on the surface geology of the region is provided by the: Surficial Geologic Map of New York, New York State Museum - Geologic Survey - Map and Chart series #40, 1986.

Bedrock Geology

Bedrock underlying the Finger Lakes region and Allegheny Plateau of the Southern Tier of New York is inclusive of sedimentary rock units deposited in association with ancient seas and their marine-fluvial-deltaic environments of deposition during the Cambrian [550-500 million years ago (mya)], Ordovician (500-440 mya), Silurian (440-400 mya) and Devonian (400-350 mya) Periods of the Paleozoic Era.

Younger bedrock units deposited during the post-Devonian periods (such as Mississippian and Pennsylvanian periods) have been subsequently eroded away by erosional and glacial processes. Underlying the Paleozoic rocks are pre - Paleozoic Era rocks or Pre-Cambrian rocks generally considered to be composed of igneous and metamorphic rocks. These rocks are generally referred to as "basement" rocks.

Subsurface rock formations dip (become deeper) to the south-southwest at an average dip angle of about one degree or deepens 100 feet per each mile traveled to the south/southwest. The Geologic map of New York - Finger Lakes Sheet #15, 1970, depicts progressively older rock units outcropping farther to the north, confirming the southerly dip of strata in the region.

Geologic structural features in the region generally trend in a northeast to southwest direction. North-south trending faults have also been identified in the region. Additional information regarding area structural features can be obtained from the Preliminary Brittle Structures Map of New York, New York State Museum-Map and Chart Series No.31E, 1974.

Bedrock of the Northern Finger Lakes Unit

The majority of the state lands within this Unit contain bedrock that are shales, siltstones, sandstones and intermittent limestones of the Hamilton Group, Genesee Group, Sonyea Group, and West Falls Group that were deposited during the Middle and Upper Devonian Periods. Commonly these rock units are at the surface (outcropping) or near the surface beneath surficial deposits (subcropping). The older rock formations form the bedrock in the northern parcels of the Unit due to the structural dip to the south. The older Onondaga Limestone forms the bedrock beneath Rush Oak Openings UA and the Silurian Akron/Bertie Dolostone and the Camillus Shale and Syracuse formations form the bedrock beneath Junius Ponds UA.

Further information on the bedrock geology of the region is provided by the: Geologic Map of New York - Finger Lakes Sheet - New York State Museum and Science Service - Map and Chart Series #15, 1970.

Table 6: Parent Material and Bedrock

State Land Name	Parent Material and Bedrock
Avon Regional Office	<p>Glacial Till Moraine - Deposition of clay, silt, sand, and gravel through boulder size adjacent to ice.</p> <p>Bedrock – Shales and siltstones of the Middle Devonian Ludlowville formation of the Hamilton Group.</p>
Bare Hill Unique Area	<p>Glacial Till - Deposition of clay, silt, sand, gravel, cobbles, and boulders beneath glacial ice. Comprises the surficial deposits on the northern portion of the UA.</p> <p>Bedrock - Shales, siltstones and minor sandstones of the Upper Devonian West Falls Group on the hill top beneath the southern property with shales of the Upper Devonian Sonyea Group along the slopes that outcrop or subcrop near surface. Shales of the Devonian Genesee and Sonyea Groups comprise the bedrock beneath the northern portion of the UA with the Tully Limestone formation and Middle Devonian Hamilton Group shales present along the western slopes.</p>
Honeoye Creek WMA	<p>Glacial Till - Deposition of clay, silt, sand, gravel, cobbles, and boulders beneath glacial ice. Located at higher elevations in the northeast corner of the northern property.</p> <p>Lacustrine Deposits – Deposition of laminated clays and silts in proglacial lakes.</p> <p>Swamp Deposits – Peat, muck organic silt and sand in poorly drained unoxidized areas that overlie lacustrine deposits.</p> <p>Bedrock - Shales, siltstones, and sandstone of the Middle Devonian Moscow formation of the Hamilton Group at lower elevations. Genesee Group West River shale is found at higher elevations on WMA properties.</p>
Honeoye Inlet WMA	<p>Glacial Till - Deposition of clay, silt, sand, gravel, cobbles, and boulders beneath glacial ice. Located in the southern portion of the WMA along the slopes near the valley floor</p> <p>Swamp Deposits – Peat, muck organic silt and sand in poorly drained unoxidized areas that overlie lacustrine deposits. Located at south end of lake.</p> <p>Bedrock – Shales of the Upper Devonian Sonyea Group Cashaqua Shale member in the valley with shales, siltstone and sandstones of the Upper Devonian West Falls Group outcropping along the slopes on the east, west, and south sides of the lake valley.</p>
Junius Pond Unique Area	<p>Kame moraine - Deposition of sand, gravel and boulders at an ice margin during deglaciation.</p> <p>Bedrock - Silurian Akron/Bertie Dolostone beneath southern property and the Camillus Shale and Syracuse formations of the Silurian Salina Group beneath the northern property.</p>

State Land Name	Parent Material and Bedrock
Rush Oak Openings SF	Glacial Till - Deposition of clay, silt, sand, gravel, cobbles, and boulders beneath glacial ice. Very thin to non-existent with bedrock at or close to the surface in most areas. Bedrock – Middle Devonian Onondaga Limestone formation.
Squaw Island	Recent Alluvial Deposits - Deposition of silt, sand, and gravel from the mouth of Sucker Brook extending into Canandaigua Lake to form the island. Bedrock – Shales and minor limestones of the Middle Devonian Skaneateles formation of the Hamilton Group.
Stid Hill MUA	Glacial Till - Deposition of clay, silt, sand, gravel, cobbles, and boulders beneath glacial ice. Bedrock - Shales, siltstones, and sandstones of the Upper Devonian West Falls Group Beers Hill Shale member and West Hill formation with shales, siltstones and sandstones of the Upper Devonian Sonyea Group Cashaqua Shale member at lower elevations within the valley and along the western slopes of the MUA properties. Bedrock outcrops commonly on the MUA properties along the western slopes.
Willard WMA	Glacial Till - Deposition of clay, silt, sand, gravel, cobbles, and boulders beneath glacial ice. Very thin to non-existent with bedrock at or close to the surface in most areas. Bedrock – Shales and minor limestones of the Middle Devonian Hamilton Group Moscow formation and Tully Limestone outcropping along the slopes near the lake. Early Upper Devonian West River Shale formation of the Genesee Group is the bedrock upslope to the east.

Mineral Resources

Oil and Gas

Oil and gas production from NYS DEC 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 and Division of Fish and Wildlife will evaluate any concerns as they pertain to new natural gas leases on State lands. Consistent with past practice, prior to any new leases, NYS 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 process. For more information on natural gas and other mineral resource policies, please see Strategic Plan for State Forest Management (SPSFM) page 225 at www.dec.ny.gov/lands/64567.html

Section 23-1101 of the Environmental Conservation Law and State Finance Law authorizes NYS DEC to make leases on behalf of the State for exploration, production and development of oil and gas on State lands. On all State lands, gas well drilling, pipelines, and related road development must be in compliance with the Governor's and Commissioner's directives, Tract Assessments, the Generic Environmental Impact Statement on the Oil, Gas

and Solution Mining Regulatory Program (1992), this Unit Management Plan and any other relevant documents. In addition, Rush Oak Openings UA and Bare Hill UA are included in the Strategic Plan for State Forest Management (2011).

The Final Supplemental Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program for Horizontal Drilling and High-Volume Hydraulic Fracturing to Develop the Marcellus Shale and Other Low-Permeability Gas Reservoirs (FSGEIS) was issued May 2015 and the subsequent Findings Statement issued in June 2015. These documents constitute the NYS DEC's findings in accordance with the State Environmental Quality Review Act with respect to whether permits related to high-volume hydraulic fracturing in the Marcellus Shale and other low-permeability gas reservoirs. The findings conclude that high-volume hydraulic fracturing is prohibited in the state.

New York State manages the surface estate through the NYS DEC Division of Lands and Forests or the NYS DEC Division of Fish and Wildlife, and the mineral estate is managed through the NYS DEC Division of Mineral Resources.

Historical Drilling & Production

The drilling of the first commercial oil well in the United States occurred in Titusville, Pennsylvania in 1859. The results of this drilling activity carried over into neighboring New York State in 1863. Eventually this activity extended into western and central New York.

Numerous wells have been drilled in the area surrounding state lands in the Northern Finger Lakes Unit, targeting natural gas production from the Medina Sandstone at depths typically ranging between 1400 and 2000 ft. in the northern portion of the area, to as deep as 3500 ft. in the southern portion of the area as the rock formations dip and increase in depth to the south. Gas has been historically produced from the Medina Sandstone in the Avon, West Bloomfield, East Bloomfield, Vincent, and Honeoye Fields. Drilling has also occurred to obtain gas production from shales of the Middle Devonian Hamilton Group (which includes the Marcellus Shale) within the Unit area. Natural gas has been produced historically from the shales of the Hamilton Group in the Rushville, Bristol, and East Bloomfield Fields at depths typically less than 1000 ft. See Appendix N: Maps (pg 243).

Drilling began in 1890 in the area with the discovery of natural gas from the Medina Sandstone in the West Bloomfield Field. This field is located within the Towns of West Bloomfield, East Bloomfield, Bristol, and Richmond, Ontario County within one to two miles north of Honeoye Creek WMA. Drilling in the field continued through 1920 with a few additional wells drilled in later years. From 1907 through 1941, wells were also being drilled in the Vincent Field targeting the Medina Sandstone at depths ranging from 2200 to 2900 ft. The Vincent Field is located in the Town of Bristol, Ontario County and is approximately four miles east of Honeoye Creek WMA. Two additional wells were drilled in 1976 and are currently producing gas for residences. There are currently no commercially productive gas wells within these fields.

At the time the West Bloomfield and Vincent Fields were being developed, wells were drilled to target gas production from shales in the Hamilton Group in the Rushville Field. The Rushville Field is located in the Town of Gorham, Ontario County and the Towns of Potter and Middlesex, Yates County and is approximately two to three miles east of Bare Hill UA. In

1914 through 1918, 14 wells were drilled to obtain gas from shales in the Devonian Hamilton Group in the Bristol Field. The Bristol Field is located in the Town of East Bloomfield, Ontario County approximately four miles northeast of Honeoye Creek WMA. These wells were drilled to depths that typically ranged from 650 to 900 ft. None of these gas wells are commercial gas producers; however, some wells are still used to provide natural gas to residences.

During the late 1950's, natural gas was discovered in the Honeoye Field located in the Towns of Bristol and Richmond, Ontario County. The Honeoye Field is located between Honeoye Creek WMA and Stid Hill MUA. One well in the field is located approximately a quarter mile northeast of one part of Honeoye Creek WMA. Commercial gas production was from the Medina Sandstone formation at approximate depths ranging from 2000 to 2500 feet. The Medina Sandstone became depleted of natural gas and the wells are currently used for natural gas storage at a facility operated by Honeoye Storage Corporation. In the late 1970s, several wells were drilled in this field targeting the Oriskany Sandstone at approximate depths of 1100 to 1300 ft. Only one well was productive and has since been plugged.

Natural gas drilling and exploration expanded to the east into the Towns of East Bloomfield and Canandaigua, Ontario County from 1960 through 1992 with gas production from the Medina Sandstone at depths typically ranging from 1900 to 2100 ft. in the East Bloomfield Field. Many of the wells in this field are currently producing and as recently as 2008, five additional Medina Sandstone gas wells were drilled and put into production. During the 1980s, natural gas was developed from the Avon Field located in the Town of Avon, Livingston County with producing wells approximately two miles west of the Avon Regional Office. The most recent wells were drilled within this field in 2004 and many of these wells are currently producing.

Further to the east near Junius Pond UA, there were numerous wells drilled and produced from the Lockport Dolomite formation in the Geneva Field during the mid-1930s at depths typically ranging from 900 to 1200 ft. The closest current natural gas production to Junius Pond UA is located approximately five and one-half miles to the south in the Rose Hill and Fayette-Waterloo Fields. Wells in these fields are producing from the Queenston Sandstone at depths typically ranging from 2000 in the north to 2600 ft. at the southern end of the field. The closest natural gas production to the Willard WMA is located approximately seven miles to the west in Yates County in the North Penn Yan Pools. Wells in these pools are also producing from the Queenston Sandstone at depths typically ranging from 2900 to 3400 ft. Willard WMA is also approximately seven and one-half miles south of producing wells in the Fayette-Waterloo Field.

Recent Drilling and Production

Since 2008, there has been no drilling activity near the parcels within this Unit. Wells that are currently producing commercially near state lands within this Unit area are producing from the Medina Sandstone in the Avon and East Bloomfield fields.

Leasing Activity

Initial title review indicates that the mineral estate associated with the areas covered by this unit are as follows:

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- Avon Regional Office, Bare Hill UA, Honeoye Inlet WMA, Junius Ponds UA, Rush Oak Openings UA, Squaw Island UA, Stid Hill MUA, and Willard WMA - There is nothing in the documents vesting title in the People of the State of New York to indicate a split mineral estate.
- Honeoye Creek WMA - The documents vesting title in the People of the State of New York are fairly clear that some of the parcels which make up this area have reserved mineral rights. There is also a possible issue with a lease associated with one of these parcels within the Honeoye Storage Corporation natural gas storage field.

This information is offered with the qualification that further mineral reservations may exist and that no expressed or implied warranty of title is offered in this document. See also Appendix N: Maps (pg 243).

Future Leasing Activity

In the future the NYS DEC may receive requests to nominate lands contained in this unit for oil and gas leasing. In the unlikely event of this occurrence, the procedures outlined in Appendix K: Procedures for Oil & Gas Procurement section on page 238 will be used. Additional information related to oil and gas leasing of state land can be found on the Division of Mineral Resources website at www.dec.ny.gov/energy/1528.html, in the Strategic Plan for State Forest Management at www.dec.ny.gov/lands/64567.html and in the Mineral Resource Management (pg 144) section of this plan.

Previous interest in exploration for natural gas has been in developing production from the Medina Sandstone. Little interest has been shown in leasing, drilling, and exploration for natural gas in the Unit area since 2008. Gas prices and economic incentive will dictate if there will be any interests in developing production from the Medina Sandstone or other conventional natural gas reservoirs in the area.

There has been considerable interest in the state with the prospect of horizontal drilling and high-volume hydraulic fracturing of the Marcellus Shale and other low-permeability natural gas reservoirs. It is unlikely that leasing and drilling for natural gas in the Marcellus Shale will occur in this area because of the limited gas reserve potential due to the limited thickness and much shallower depths (at surface to 2,000 feet) of the formation within the area. No exploration or extraction of the Marcellus Shale using high volume hydraulic fracturing will be considered for permitting on state lands per the May 2015 FSGEIS and June 2015 Findings Statement that recommended that high-volume hydraulic fracturing should not move forward in New York State.

Mining

Sand, Gravel, Hard Rock and Other Mineable Materials

There are no mining contracts, permits or operations located on state lands included in this 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 NYS DEC policy is to decline any commercial mining application(s) associated with State lands.

Gravel and hard rock resources do exist in the areas surrounding and including some of the state parcels in this Unit. The parent geology of several of the parcels mostly consists of poorly sorted glacial till of variable texture along with exposed or near surface (within one meter) Paleozoic bedrock outcrops. Where the Onondaga Limestone is at or near the surface, it has been quarried in many locations. Sand and gravel mines are common in areas of glacial kame, kame moraine, and outwash deposits, or more recent alluvial deposits that are generally found in stream or lake valleys. In the northern portion of the area, there are also till moraine deposits that are being mined for sand and gravel. At the south end of Honeoye Lake and within the Honeoye Creek WMA, lacustrine silt and clay deposits exist along with swampy deposits consisting of peat and muck. Peat is a resource that is mined throughout the state.

Although there are no mines within the state lands comprising this Unit, mining operations do exist adjacent to or within a mile or two of the parcels of this Unit, see Appendix N: Maps (pg 243). Many of these mine sites are no longer in operation and have undergone reclamation returning the land to productive use. Sand and gravel resources in kame moraine deposits exist beneath Junius Ponds UA. There is an active 55 acre sand and gravel mine adjacent to the eastern boundary of Junius Ponds UA's southern parcel that is operated by Seneca Meadows Inc. as a borrow area for landfill operations. Numerous other sand and gravel mines that are currently active or reclaimed exist within one to three miles west of Junius Ponds.

There is a hard rock quarry immediately to the east of the Rush Oak Openings UA. Onondaga Limestone is being mined by Hanson Aggregates New York LLC at their Rochester plant. There are also several sand and gravel mines located one to three miles to the north of Rush Oak Openings SRA and the DEC Avon Office.

A 9.5 acre sand and gravel mine exists immediately adjacent to the southern portion of the Honeoye Inlet WMA. Kame deposits in the valley south of the WMA are being mined by Wohlschlegel Construction. There are a few sand and gravel mining operations located two to three miles of Bare Hill UA, Stid Hill WMA, Willard WMA, and Honeoye Creek WMA. However, surficial deposits surrounding these state lands are generally glacial till or lacustrine deposits that would not yield large amounts of sand and gravel. Most of the mines in the area are small and are permitted by the towns or local construction companies.

Timber and Vegetation

Current Vegetative Types and Stages

Plant communities are by nature dynamic and ever changing. Young stands of trees get older, and species composition changes with time. Disturbances from fire, wind, insects, disease, timber harvest, and other land-use practices have been an important part of the history of New York forests and have determined the composition and structure of today's landscape. By applying different management or silvicultural practices, land managers can affect change in vegetative types and stages and associated use by wildlife. The production of forest products is a clearly stated goal in the Reforestation Law of 1929 and is consistent with the proposed management actions in Northern Finger Lakes Unit Management Plan.

Needs, Issues and Policy Constraints

Future management is covered in the Timber and Vegetation Management section starting on page 95 and in Appendix F: Vegetation Management (pg 206) and in Appendix N: Maps (pg 243). For more information regarding timber management on State Forest please refer to Chapters 2 and 6 of the Strategic Plan for State Forest Management at www.dec.ny.gov/lands/64567.html. In addition to this Unit Management Plan, Wildlife Management Areas have a Habitat Management Plan (HMP) which also covers the timber and vegetation management on the property.

The Northern Finger Lakes Unit vegetation contains a mix of species, but the forested portion is dominated by oak-hemlock, northern hardwood, oak, transition hardwood, and swamp hardwood, mostly pole timber or sawtimber sized natural hardwood forests. The dominant species of trees are red oak, green ash, sugar maple, hemlock, and red maple, other species present to a lesser extent include hickories, white and black oaks, white ash, white and red pine, aspen, birches, walnut, cottonwood, beech, Norway spruce and apple.

In the Finger Lakes region of New York, northern hardwood forests predominate on the north facing slopes and oak-hickory forests occupy the south facing slopes. Past man-made disturbances have created even more diversity. Many of the formerly agricultural fields, for example, have reverted back to pioneer forest types comprised of aspen, red maple and white pine. On the Unit there are almost no seedling/sapling size stands. These stands are typically even-aged. (All of the trees in a stand are approximately the same age.)

Non-forest land consists of a large portion of this Unit, and includes wetland, pond, road, grassland and brushy cover. Most of the Unique Area parcels were acquired by NYS DEC because of the non-forested vegetative types present.

The softwood component is very small, consisting of mostly natural conifer/conifer hardwood stands, with the most common conifer species of hemlock and white pine. In addition, some of the hardwood forest stands have a small softwood component made up of white pine and/or hemlock.

A stand is a group of plants with similar characteristics that are analyzed and treated as a single unit. Each parcel is divided into one or more compartments, and each compartment is divided into stands. Compartments are given a letter designation, and stands a number. This letter-number combination is used for tracking, mapping and planning the actions and activities that happen in and on NYS DEC owned land.

The following two tables list vegetative types and stages for the Northern Finger Lakes Unit. These records are estimated from the most recent inventory available. Current division of Lands and Forests guidance requires that a forest inventory be conducted every 10 years and whenever stands are changed by any silviculture operation or by the forces of nature. Forest inventory is accomplished by a statistical analysis of stands. Samples are taken from random locations (called plots) within each stand. Information collected during a forest inventory includes, among other items, species, forest type, tree density, forest health issues, topography, drainage, previous management, and site limiting factors. The required number of plots for each stand varies according to the variability of the stand, subject to a minimum number. For each plot, data is recorded in the field on a hand held data recorder, and then electronically transferred via the internet to servers in Albany. Maps are digitally drawn using

ArcGIS on the computer over top of corrected aerial photos, and then the computer program is used to calculate acreage.

The Unit has been split into two tables, one summarizing the vegetative types and stages for the Wildlife Management Areas, and the other for the Unique Areas and Avon Regional Office. This Unit has an unusually diverse array of habitat's, at least when compared to other Unit's. Because of this diversity, the more Unique parcels have been combined, and the more average ones combined. Summaries of each parcel, and information on each stand, is available in Appendix F: Vegetation Management (pg 206), and maps are available in Appendix N: Maps (pg 243).

Table 7: Vegetative Types and Stages for Honeoye Creek, Honeoye Inlet, Stid Hill and Willard WMAs portion of the Unit**

Inventory completed in 2012-2015		Acres by Ave. Tree Diameter Size Class				Total (Acres)	% of Total
Vegetative Type		0-5 in (seedling-sapling)	6-11 in (pole)	12+ in (sawtimber)	Other		
Natural Forest Hardwood		18	576	929		1,523	40.7%
Natural Forest Conifer/Conifer Hardwood*				32		32	0.9%
Plantation						0	0%
Wetland (Forest)			693	114		807	21.6%
Wetland (Open / emergent and/or Shrub)					33	33	0.9%
Ponds (not including Canandaigua or Honeoye Lakes)					38	38	1.0%
Open/Brush					1,198	1,198	32.0%
Other (Road, ROW, Parking, ownership conflict, etc.)					103	103	2.8%
Total (Acres)		18	1,269	1,075	1372	3,734	
% of Total		0.5%	34.0%	28.8	36.7%		100%

*Total percent of all conifer species is 33%, or more, of the total for the stand.

** Stid Hill has 12 acres not inventoried because of an ownership conflict.

Table 8: Vegetative Types and Stages for the Avon Regional Office, Bare Hill, Junius Ponds, Rush Oak Openings UAs portion of the Unit

Inventory completed in 2011-2015		Acres by Ave. Tree Diameter Size Class				Total (Acres)	% of Total
Vegetative Type		0-5 in (seedling-sapling)	6-11 in (pole)	12+ in (sawtimber)	Other		
Natural Forest Hardwood		9	216	136		361	44%
Natural Forest Conifer/Conifer Hardwood*			18			18	2%
Plantation			26			26	3%
Wetland (Forest)			4	20		24	3%
Wetland (Open / emergent and/or Shrub)					89	89	11%
Ponds					64	64	8%
Open/Brush					212	212	26%
Other (Road, ROW, Parking, etc.)					21	21	3%
Total (Acres)		9	264	156	386	815	
% of Total		1%	33%	19%	47%		100%

*Total percent of all conifer species is 33%, or more, of the total for the stand.

Green Certification of State Forests

Only two parcels out of the entire Unit are included in the certificate – Bare Hill Unique Area and Rush Oak Openings Unique Area. The remaining seven parcels are not green certified for timber production. However, Best Management Practices for water and timber production are followed on all NYS DEC lands.

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 NYS DEC 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 was 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 Bureau's 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 NYS DEC's ability to award a new agreement until early 2007.

Following the signed contract with NSF-International Strategic Registrations and Scientific Certification Systems, NYS DEC 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.

NYS DEC 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. NYS DEC'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.

High Conservation Value Forest (HCVF)

Under the Green Certificate, High Conservation Value Forests are those portions of State Forests which have known high conservation values that NYS DEC feels should take precedent over other land use and management decisions. Areas identified as having exceptional values may be harvested, but 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.

As of the writing of this plan, only Bare Hill UA and Rush Oak Openings have been analyzed for areas of HCVF. All of Bare Hill UA was designated as Watershed, a total of 397 acres. Rush Oak Openings UA has a total of about 40 acres of Special Treatment and about 55 acres of Rare Community, about 21 acres overlap with more than one category.

Everywhere is part of one watershed or another, from the tip of the Adirondack Mountains to the shores of Long Island, some area's drain directly into a drinking water reservoir, others much more indirectly. In addition, the founding legislation for the State Forest system, the State Reforestation Law of 1929 also listed watershed protection, so number 4) Watershed applies to all of the of the Unit, however in this Unit only those acres that directly feed into Canandaigua Lake was specifically identified as areas of HCVF. See also the Strategic Plan for State Forest Management (www.dec.ny.gov/lands/64567.html) and Wetlands and Water Resources (pg 69), Watershed and Wetlands Protection Management (pg 117), and Timber and Vegetation Management (pg 95), sections for further information on watershed protection. See www.dec.ny.gov/lands/42947.html and Appendix N: Maps (pg 243).

Special Management Zones

Under the Green Certificate, Special Management Zones (SMZ) have been mapped out on the included properties. SMZ's are areas around specific features (intermittent streams, vernal pools, wetlands, etc.) where management must be modified as compared to what is permissible in the general forest zone. See Appendix N: Maps (pg 243) for maps showing computer generated locations of these zones, the actual configuration of the zones can only be done during sale layout, following field reconnaissance, which is beyond the scope of this plan. See also the Fish, Wildlife and Habitat (pg 60), Fish and Wildlife Habitat Management (pg 120) and, Watershed and Wetlands Protection Management (pg 117) sections for further details.

Significant Plants and Communities

An ecological community is a variable assemblage of interacting plant and animal populations that share a common environment. As part of the New York Natural Heritage Program inventory, a classification has been developed to help assess and protect the biological diversity of New York State. The Natural Heritage Program inventory is a regularly updated database of information on rare animals, rare plants, and significant natural communities of New York State.

Communities and rare species are the mapping units or "elements" of the Heritage inventory. Each community and species element is assigned and "element rank" consisting of a combined global and state rank. The global rank reflects the rarity of the element throughout the world and the state rank reflects the rarity within New York State (The Nature Conservancy 1982). Global ranks for communities are not currently standardized by The Nature Conservancy, so the ranks listed in the community descriptions are estimated global ranks. (Ecological Communities of New York State. Carol Reschke, 1990).

- Global Ranks – reflects the rarity of the element throughout the world.
 - G1 = Critically imperiled throughout its range due to extreme rarity (5 or fewer occurrences, or very few remaining individuals, acres, or miles of stream) or extremely vulnerable to extinction due to biological factors.
 - G2 = Imperiled throughout its range due to rarity (6 – 20 occurrences, or very few remaining individuals, acres, or miles of stream) or highly vulnerable to extinction due to biological factors.

- G3 = Either very rare throughout its range (21 – 100 occurrences), with a restricted range (but possibly locally abundant), or vulnerable to extinction due to biological factors.
- G4 = Apparently secure throughout its range (but possibly rare in parts of its range).
- G5 = Demonstrably secure throughout its range (however it may be rare in certain areas).
- TU = Status of the subspecies or variety unknown.
- State Ranks – reflects the rarity within New York State.
 - S1 = Typically 5 or fewer occurrences, very few remaining individuals, acres, or miles of stream, or especially vulnerable to extirpation in New York State for other reasons.
 - S2 = Typically 6 – 20 occurrences, few remaining individuals, acres, or miles of stream, or very vulnerable to extirpation in New York State for other reasons.
 - S3 = Typically 21 – 100 occurrences, limited acreage, acres, or miles of stream New York State.
 - S4 = Apparently secure in New York State.
 - S5 = Demonstrably secure in New York State.
 - SH = No extant sites known in New York but it may be rediscovered.

Avon Regional Office has no identified significant plants or communities according to the Natural Heritage Programs definitions.

Bare Hill UA has no identified significant plants or communities according to the Natural Heritage Program's definitions. However, it is possible the grassland, or bare portion of the hill top, was an Oak Opening plant community prior to European settlement. In addition there is an interesting park-like area of Appalachian-Oak-Hickory forest in the southern portion of stand A-10. This area has not achieved crown closure and contains an impressive understory dominated by five foot high black cohosh (*cimicifuga racemosa*) plants and also contains grasses and sedges as well as garlic mustard, an invasive weed.

Honeoye Creek WMA contains one significant ecological community, a silver maple-ash swamp G4 S3. This is part of the wetlands associated with Honeoye Creek, the majority of this community is located on private land rather than on NYS DEC's Wildlife Management Area. Historically Spreading Globeflower (*Trollius laxus*) was found in the area, but it has not been observed in the area in decades.

Honeoye Inlet WMA contains two significant ecological communities, a silver maple-ash swamp G4 S3 adjacent to the Honeoye Inlet, and Appalachian oak-hickory forest G4G5 S4 on the east hill side. Historically Spreading Globeflower and Northern Wild Comfrey were found in the area, but neither one has been observed in the area in decades.

Junius Ponds UA contains seven significant ecological communities, a rich shrub fen G3G4 S1S2, rich graminoid fen G3 S1S2, marl fen G1 S1, meromictic lake G3G4 S1S2, marl pond shore G3G4 S1, red maple-tamarack peat swamp G3G4 S2S3, and shallow emergent marsh G5 S5. Eight rare plants, New England northern reedgrass (*Calamagrostis stricta* ssp. *Inexpansa*) G5T5 S2, Brown Bog Sedge (*Carex buxbaumii*) G5 S2, livid sedge (*Carex livida*) G5 S1, Sartwell's sedge (*Carex sartwellii*) G4G S1S2, Ohio goldenrod (*Oligoneuron*

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ohioense) G4 S2, sweet coltsfoot (*Petasites frigidus* var. *palmaris*) G5T5 S1, low nutrush (*Scleria verticillata*) G5 S1, marsh arrow-grass (*Triglochin palustre*) G5 S2. Historically brown bog sedge, creeping sedge, cypress-knee sedge, scarlet Indian-paintbrush and button-brush dodder were also present, but haven't been observed in the area in almost a century.

Rush Oak Opening UA has three major ecological communities, Oak Openings (a.k.a. Oak savannahs) G2S1, Limestone woodland G3G4 S2S3, and Vernal Pool G4 S3S4. Seven threatened or endangered plants have been found there, Carey's sedge (*Carex careyana*) G4G5 S1S2, James sedge (*Carex jamesii*) G5 S2, troublesome sedge (*Carex molesta*) G4 S2S3, reflexed sedge (*Carex retroflexa*) G5 S2S3, wild potato-vine (*Ipomoea pandurata*) G5 S1, goosefoot corn-salad (*Valerianella chenopodiifolia*) G5 S1, and northern bog violet (*Viola nephrophylla*) G5 S10. Historically nodding trillium and handsome sedge may have been present, but haven't been observed in the area in about a century.

Squaw Island UA has no identified significant communities according to the Natural Heritage Programs definitions, it is within the possible historical record of the blue-hearts plant (*Buchnera Americana*), but it has not been observed in the area in over a century.

Stid Hill MUA has wide spread occurrences of the Appalachian oak-hickory forest community, covering a large portion of the parcel.

Willard WMA has no identified significant plants or communities according to the Natural Heritage Programs definitions.

Grassland Focus Areas

Grasslands are an important and yet increasingly rare habitats across New York State. These dynamic habitats are home to many types of birds and other wildlife, including the endangered Short-eared Owl and the threatened Henslow's Sparrow and Upland Sandpiper. Due to changing land-use patterns, natural vegetative succession, and development, in many areas grasslands are fragmenting and disappearing.

The New York State Grassland Focus Areas are parts of New York State that are of special importance to grassland birds, these focus areas were determined by analyzing the data from the 2000-2005 Breeding Bird Atlas (BBA) blocks for grassland birds across the entire state. To further refine the focus areas, NYS DEC conducted point counts during the spring and summer of 2005. In this way important geographical areas for rare grassland birds have been identified. The target grassland bird species are: Northern Harrier, Upland Sandpiper, Short-eared Owl, Horned Lark, Sedge Wren, Vesper Sparrow, Grasshopper Sparrow, Henslow's Sparrow, Bobolink, Eastern Meadowlark, and Savannah Sparrows. Six of these were found in BBA blocks that overlapped the Northern Finger Lakes Unit. The last three species listed are native grassland birds, and although their populations have declined significantly, they remain fairly widespread and abundant in New York; for now their populations appear secure. As a result, NYS DEC concentrated on the rarer species and larger unbroken expanses when determining the Grassland Focus Areas.

The Western New York (Area Number 1) Grassland Focus Areas overlaps the Rush Oak Openings UA, the Avon Regional Office area, and the Honeoye Creek WMA area. The Finger Lakes Region (Area Number 3) overlaps the Junius Ponds UA and Willard WMA area. See

Appendix N: Maps (pg 243), Appendix B: Animals of the Northern Finger Lakes Unit Management Plan Area (pg 167), Timber and Vegetation Management (pg 95) and Fish and Wildlife Habitat Management (pg 120) for further details.

This plan does not, and cannot, cover any actions or activities on private land within the Grassland Focus Area, but outside the boundaries of the Northern Finger Lakes Unit. For assistance in managing your own grassland, please contact the NYS DEC Bureau of Wildlife for help. Visit www.dec.ny.gov/pubs/32891.html or call the Bath or Avon offices.

Oak Openings

Rush Oak Openings, located in southern Monroe County, contains a globally rare plant community commonly referred to as an "oak opening" or "oak savannah". Oak Openings were very common in the Midwest (where the prairie met eastern forests) prior to European settlement.

Oak openings are composed of native prairie grasses and associated plants usually surrounded by oak/hickory forests.

Characteristic species are Indian grass, a.k.a. buffalo grass (*Sorghastrum nutans*), little bluestem grass (*Schizachyrium scoparium*), thimbleweed (*Anemone cylindracea*), butterfly-weed (*Asclepias tuberosa*), and wild bergamot (*Monarda fistulosa*). Associated tree species include chinquapin oak, other oaks, and hickories.

The woods buffalo, now extirpated from the United States, was once a prominent mammal habituating oak openings. Woodland Elk were also a feature of Oak Opening communities.

Oak Openings are maintained by periodic burning. Historically, fires were set by Native Americans or caused by lightning strikes. Oak Openings can be variable in size, from just an acre to several thousand acre complexes.

European pioneer accounts include descriptions such as: "[Oak] Openings about Bloomfield so clear of trees and bushes that in many places deer could be seen from half to three quarters of a mile off." "The oaks forming open thin groves, or being present as scattered clumps or individuals, with the ground being occupied by grasses and other herbaceous vegetation."

Management activities have focused on maintaining and improving the health, vigor and species composition of the Oak Opening ecological community. Emphasis was placed on the grassland component, which was nearly gone at the time of acquisition. Fire control in the past 40 years combined with natural plant succession had caused many grassland areas to revert to shrub and forest. A major restoration effort was undertaken in 2003 – 04 with many areas of honeysuckle and other invaders removed. Seed was harvested from areas on the parcel which could support this activity, cleaned, and used in re-seeding the cleared areas. The restoration effort was largely successful, roughly doubling in size the acres of grassland, however the process is never completely done, in that invasive honeysuckle etc. are always ready to re-invade the area.

Forest Matrix Blocks and Least Cost Path Corridors

The identification of large, unfragmented forested areas, also called matrix forest blocks, is an important component of biodiversity conservation and forest ecosystem protection. 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.

Research that combines data from natural, dynamic disturbance processes (e.g., fires, tornados, downbursts, ice storms, etc.) with the habitat needs of forest dwelling species in the Northeast U.S. has generated suggestions for how large forest blocks need to be in order to provide adequate blocks of continuous closed forests space for maintaining viable populations of a number of species. The two principal factors used to assess and recommend an appropriate size for proposed conservation areas of forested ecosystems, within a given ecoregion, are the home range of wide-ranging animal species and historical patch sizes that result from natural disturbance events within the landscape. Based on these assessments, a set of priority matrix forest blocks have been identified within four of the terrestrial Ecoregions within New York.

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. Identifying, maintaining, and enhancing these connections represents a critical adaptation strategy if species are to shift their ranges in response to climate change and other landscape changes. Various nonprofit, state, and federally funded connectivity modeling efforts have been completed or are underway around New York State. Using these models, least cost path (LCP) corridors between identified matrix forest blocks have been predicted. An LCP corridor represents the most favorable dispersal path for forest species based on a combination of percent natural forest cover in a defined area, barriers to movement, and distance traveled.

One of those forest blocks is located over top of Honeoye Inlet WMA and just south of Honeoye Creek WMA. See Appendix N: Maps (pg 243) and Chapter 2 of the Strategic Plan for State Forest Management at www.dec.ny.gov/lands/64567.html. The forested acres of the Northern Finger Lakes Unit that are outside the Forest Matrix Block will still be primarily managed for forest, along with all the other things listed in the GOALS AND OBJECTIVES chapter.

In addition, this plan does not, and cannot, cover any actions or activities on private land within the Forest Matrix Block but outside the boundaries of the Unit. For assistance in managing your own forest, please contact the NYS Bureau of DEC Private Land Services for help. Visit www.dec.ny.gov/lands/4972.html or call the Bath or Avon offices.

Fish, Wildlife and Habitat

The fish, wildlife and their habitats found here are products of the landscape's history. Like many places in Western New York, European settlement in the 1700s and the decline of

Native American cultures set the stage for widespread changes in the distribution and richness of wildlife resources. Human-induced changes in land cover, along with unregulated exploitation of fish and wildlife resources, caused the decline of many wildlife species. Forests were either cut heavily or burned, resulting in most of the land being cleared for farming and pasturing. Most big game animals as well as native brook trout and other creatures of pristine and wild environments were either eliminated or their populations greatly reduced. Streams filled with sediments. Wetlands were filled. Wild fires were suppressed. Very little of the landscape was left untouched.

In the 1930s the depression set the stage for the landscape pendulum to swing in a different direction. As farms failed, a large portion of the area started to revert back toward mature hardwoods. The resulting young forests lacked significant age to provide timber products, but the wildlife species that were adapted to these transitional habitats quickly colonized these areas and rapidly moved back onto the landscape. Cottontail rabbit and other farm wildlife that once were in great supply diminished, and species of young forests such as grouse and deer took advantage of the maturing woodlands. Today, forests have matured and the wildlife species present on the Northern Finger Lakes Unit are those commonly associated with such habitats. Black bear (in the southern parcels), white-tail deer, bald eagle, beaver, otter and fisher now roam where farm wildlife species thrived at the beginning of the 20th century.

Although numerous wildlife habitat types are found on the Northern Finger Lakes Unit, slightly less than half of the land area is upland forest. Consequently, a good deal of the upland wildlife found on the area are those that favor forested ecosystems, such as deer, wild turkey, raccoon, woodpeckers, owls, and grey squirrels. Old fields, shrubby fields, or grasslands make up about 30% of the land area, and provide needed interspersions amidst the forests. Woodcock, vesper sparrows, meadow voles, and northern harriers and short-eared owls are some of the species using this habitat type. Freshwater wetlands make up the remainder of the undeveloped land of the Unit. At only about one quarter of the area's natural land, wetlands nonetheless are perhaps its most productive wildlife habitats, and are home to many species of reptiles, amphibians, shore birds, waterfowl, aquatic mammals, fish, invertebrates, and insects. All or parts of nine different NYS protected freshwater wetlands can be found on the Unit, in addition to many smaller Federally-protected wetlands.

Ecological Zones and EcoRegions

The Northern Finger Lakes Unit lies within four different Ecological Subzones including the Erie Ontario Plain (Avon Regional Office, Honeoye Creek WMA, Rush Oak Openings UA, Squaw Island UA, and Willard WMA), the Central Appalachians Subzone (Honeoye Inlet WMA and Stid Hill MUA), the Finger Lakes Highlands Subzone (Bare Hill UA), and the Drumlin Subzone (Junius Ponds UA). See Appendix N: Maps (pg 243).

The Lake Ontario Plain Subzone is some 5,200 square miles in size, and is characterized by relatively flat topography, good soils and an abundance of agriculture. Together with a mixture of small woodlots, abundant wetlands, and old fields makes for diverse wildlife habitat and a large assemblage of species.

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The Central Appalachian Subzone encompasses an area of approximately 8,830 square miles, with elevations ranging between 1,000-2,200 feet above sea level. The landscape is dominated by forests, reverting farm lands and occasional dairy farms. Habitat present for wildlife includes numerous structural types from old field and brush land, to mature forest.

The Finger Lakes Highlands is a relatively small Subzone, at about 1,100 square miles, and is characterized by broad hilly terrain interspersed by wide valleys.

The Drumlin Subzone, at about 1,100 acres is also fairly small, but topographically unique with its numerous small north-south drumlins carved out by the retreating glacier at the end of the last ice age.

The Northern Finger Lakes Unit is located on the transition between the New York Great Lakes Ecoregion (GL) and the New York High Allegheny Plateau Ecoregion (HAP). The Nature Conservancy has defined an ecoregion as an area of ecological homogeneity, which is defined by similarities in soil, physiography, climate, hydrology, geology and vegetation. EcoRegions are mapped with well-defined boundaries, but rarely in nature do such abrupt changes occur. Maps are created with sharply defined lines, but rarely in nature does such a sharp change occur. See Appendix N: Maps (pg 243) showing the north and west side of the Unit in GL and the southeastern corner in HAP.

The Great Lakes Plain ecoregion extends from northeastern 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 Lakes Michigan, Erie and Ontario have lower elevations and less relief. The Northern Finger Lakes Unit is located on both the Appalachian Plateau ecoregion and the Great Lakes Plain ecoregion.

Historically, the northern part of the Great Lakes Ecoregion was dominated by northern hardwood forests, pine forests, and spruce-fir forests. The vast majority of these forests were cut over by 1910, and is now in second growth; some areas are even in third growth. Much of the GL Ecoregion in New York was dominated by tallgrass prairies and savannas, with some beech-maple and other hardwood forests mixed in.

The High Allegheny Plateau ecoregion is mostly located along the southern tier of New York and the northern tier of Pennsylvania. The ecoregion is defined by high elevation features at the northern end of the Appalachian Plateau. Most of this ecoregion is above 1200 feet. Many northern species and communities reach their southern limit in HAP, while many southern species extend into the ecoregion but not beyond.

Many northern species and communities reach their southern limit in the High Allegheny Plateau ecoregion, while many southern species extend into the ecoregion but not beyond. The general land form of the area is mid-elevation hills separated by numerous narrow stream-cut valleys. One of the main features of the ecoregion is an abundance of rivers and streams. The Delaware, Susquehanna, and Allegheny Rivers and their many tributaries cover the entire ecoregion. These three different drainages contribute to the high overall aquatic

diversity in the ecoregion. The northern and eastern portions of the ecoregion were glaciated, including the area of the Northern Finger lakes Unit.

White-Tail Deer and Bear

The Northern Finger Lakes Unit spans four different Wildlife Management Units (WMUs), 8H, 8N, 8J, and 8S. There are 92 Wildlife Management Units in the state, ranging in size from approximately 100 to 3,000 square miles each. Each WMU not only encompasses land containing similar physical attributes such as topography, soils, land cover, and elevation, but also of similar human-related attributes such as population density, development, and road density.

Deer populations in each of the state's WMUs are managed at levels recommended by Citizen Task Forces (CTFs); committees of citizen stakeholders representing various deer-related stakes. The deer management target in each WMU is expressed as a Buck Take Objective (BTO), NYS DEC's primary index to deer population size. The Buck Take Objectives for the four WMUs comprising the Northern Finger Lakes Unit, as well as the last five years of actual buck harvests per sq. mi. are shown in Table 8 below. See also Appendix H: Wildlife Harvests and Hunting Use (pg 225) for tables on the number of animals harvested.

Table 9: Buck Take Objectives and Recent Buck Takes Per Sq. Mi. for the Four WMUs in the Northern Finger Lakes Unit

WMU	BTO	2010	2011	2012	2013	2014
8H	2.8	4.1	4.3	4.7	4.9	4.8
8N	4.6	5.0	5.9	5.9	6.0	5.9
8J	2.1	2.7	3.0	3.2	3.3	2.9
8S	2.8	3.4	3.4	3.5	3.4	2.9

All WMUs except 8S are currently substantially over objective, meaning the deer populations in WMUs 8H, 8N, and 8J are all currently higher than preferred. Deer Management Permits (DMPs) are permits to harvest antlerless deer (mostly adult females), and are NYS DEC's primary means of managing deer populations. Fewer DMPs are issued if the goal is to raise the population a particular WMU, and more DMPs are issued to reduce deer populations in a given WMU. Many DMPs have been available in all the Northern Finger Lakes WMUs for several successive years, but despite this availability, deer populations remain high. Since the limit of effectiveness of deer management via increasing DMP issuance has been reached on these, and other units, NYS DEC is now examining additional methods that will allow for increased harvest of adult female deer, which are the reproductive base of the population.

These historically high deer populations have taken their toll on the forests of the Northern Finger Lakes WMUs through increased browsing on the understory, and forest regeneration has generally been poor in many areas as a result. Because of this damage, as well as damage to agriculture, landscape plantings, and the incidence of car-deer collisions, reducing deer populations here, and in the northern half of Western New York, is a top priority of NYS

DEC. Deer hunting is currently allowed in six of the nine parcels comprising the Northern Finger Lakes Unit Management Plan. Junius Ponds UA, the Avon Regional Office, and Squaw Island currently offer no deer hunting opportunities.

The northward expansion of black bear populations into the western Finger Lakes has been well-documented, and although no bears have been harvested to date on the Northern Finger Lakes Unit, recent expansion of bear hunting opportunity into virtually all of upstate New York provides the opportunity for this to take place. Because of the largely forested habitat found on Honeoye Inlet WMA, Stid Hill MUA, and Bare Hill UA, these three parcels of the Unit are the most likely to harbor permanent black bear populations now and in the future.

Small Mammals, Reptiles, and Birds

The habitats of the Northern Finger Lakes Unit are home to most, if not all, of the common furbearers of Western New York including beaver, muskrat, red fox, grey fox, raccoon, coyote, mink, opossum, and skunk. Fisher, bobcat and river otter are all expanding their range in Western New York and have been documented in Ontario and Livingston Counties. If not already permanent residents of the unit, these species could well be present in the near future.

Upland game birds of the Unit include wild turkey, ruffed grouse, woodcock, and crow. Due to low numbers in New York State generally, and the lack of substantial suitable habitat on the unit in particular, wild ring-necked pheasants are rare.

Indigenous waterfowl include Canada goose and several species of both diving and puddle ducks such as mallards, wood ducks, teal, mergansers, ring-necks and bufflehead. Common loons are occasional visitors as well.

Common small mammals include red and grey squirrel, cottontail rabbit, white-footed mouse, meadow vole, weasel, and several species of bats, although numbers of the latter have declined in recent years due to the effects of White-nose Syndrome.

Common reptiles found within the unit include the milk, water and garter snakes, and snapping turtles and painted turtles, both turtles are found in lakes and ponds. Painted turtles can often be viewed sunning themselves on logs or along the shore. Both of these species are almost entirely aquatic except when they come on shore to find appropriate soils to lay their eggs. See Appendix B: Animals of the Northern Finger Lakes Unit Management Plan Area (pg 167) for lists from the most recent Breeding Bird Atlas and Herp Atlas projects.

Invertebrates

Invertebrates are the largest component of animal diversity within the Northern Finger Lakes Unit, of which the most notable groups are: annelids (e.g., earthworms), arachnids (e.g., spiders, ticks), crustaceans (e.g., crayfish, woodlice), insects, and molluscs (e.g., snails, mussels). Due to this large diversity and the associated difficulty for comprehensive survey, little is known about the characteristic habitats, natural assemblages, or the current status of many of these species. By managing for a diversity of habitats, the Unit will best provide the requirements of these numerous invertebrates.

Certain invertebrates have received far more attention than others, due to their conspicuous behavior and appealing coloration, such as butterflies and dragonflies, and especially those listed as Endangered, Threatened, or classified as a Species of Greatest Conservation Need (pg 69).

Regional and statewide efforts to identify invertebrate species presence and abundance have documented occurrences within the Unit. These efforts include: NYS DEC staff survey of native freshwater mussels, the New York State Dragonfly and Damselfly Survey, dragonfly and damselfly surveys at the Avon Regional Office, and butterfly surveys at Rush Oak Openings UA. See Appendix B: Animals of the Northern Finger Lakes Unit Management Plan Area (pg 167) for a list of the species detected during these surveys.

Two invertebrate species observed on the Unit are classified as Species of Greatest Conservation Need: Eastern Pondmussel (*Ligumia nasuta*) G4 S2S3 found on Honeoye Creek WMA in 2009, and Arrowhead Spiketail (*Cordulegaster obliqua*) G4 S3 found on Stid Hill MUA in 1996.

Threatened, Endangered or Special Concern Species

The unit is home to one State Endangered species, two Threatened species, three Special Concern species, and eight Species of Greatest Conservation Need (SGCN). In some cases, management on lands of the unit is carried out to favor the preferred habitat types of rare species known to occur. In other cases, the presence of some of the species below was a contributing factor in acquisition of individual land parcels. In still other cases, the species listed below exist where they do in part because their habitat on state lands is protected from disturbance and development. See Appendix B: Animals of the Northern Finger Lakes Unit Management Plan Area (pg 167) for lists of known species located on or near the Northern Finger Lakes unit. Additional information can be found in the Fish and Wildlife Habitat Management section on page 120.

At the Avon Regional Office in the 1980's wildlife staff compiled a list of all birds, mammals, reptiles and amphibians that have been known to live or that have been sighted on the property. As for rare species on that list is the pie-billed grebe (*Podilymbus podiceps*), which was a documented breeder, and the Northern harrier (*Circus cyaneus*), a spring and fall migrant.

A Bureau of Wildlife biologist positively identified a single passing Black tern (*Chlidonias niger*), likely a migrant, flying low over the pond in spring 2015. The Black tern is listed as Endangered in NY and is a SGCN. It has a State Rank of S2B (Imperiled), and a Global Rank of G4 (Apparently Secure).

Bare Hill UA has had no rare species reported.

Honeoye Creek WMA may have several rare species. Possibilities include the coal skink, pie-billed grebe, Eastern pondmussel, sandhill crane, short-eared owl, and grasshopper sparrow.

The coal skink (*Plestiodon anthracinus*) is a small lizard, 5-7 inches in length, occupying wooded hillsides with an abundance of loose flat rocks. It is a Species of Greatest

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Conservation Need (SGCN, see description below) with a state status listed as “No Open Season” (State Conservation Rank of S2S3). It carries a Global Conservation Rank of G5 (Secure Globally). Historical records exist from the early 1970s from a site approximately 2.5 miles from the southernmost parcel of the Honeoye Creek WMA. While it is possible a population exists on the WMA, it is unlikely due to the absence of preferred habitat.

The pie-billed grebe (*Podilymbus podiceps*) is a small, stocky diving bird frequenting freshwater ponds, small lakes, and emergent wetlands. It is threatened in NYS, with a State Rank of S3B, S1N (breeding population vulnerable), and is a SGCN. Its Global Rank is G5 (Secure Globally). While to our knowledge this bird has not been documented on Honeoye Creek WMA, suitable habitat does exist, and the majority of the Management Area falls within a Breeding Bird Atlas (BBA) block where the Pie-billed grebe’s latest breeding status is listed as “Possible”.

The eastern pondmussel (*Ligumia nasuta*), is a relatively large freshwater mussel favoring sandy to gravelly stream substrates, where it imbeds itself into the stream bottom and filter feeds. It is listed as Special Concern in New York, and is also a Species of Greatest Conservation Need (SGCN). It has a State Rank of S2S3 (Imperiled) and a Global Rank of G4 (Apparently Secure Globally). Recent records exist of the presence of Eastern Pondmussels, or their shells, in Honeoye Creek which bisects the Management Area.

The sandhill crane (*Grus canadensis*) is a tall gray bird of open grasslands, meadows and wetlands. Their NYS status is “Unlisted”. Although they are found in good numbers elsewhere in the US, they are relatively rare (but increasing) in NY. They have been routinely spotted by Dept. staff and others on the WMA for a decade or more, and while there is a good likelihood they have bred in the large wetland immediately north of the village of Honeoye (HO-4), part of which is on the WMA, breeding has not been confirmed as of this writing.

The short-eared owl (*Asio flammeus*) is a medium-sized owl of large, open grasslands and marshes. It is listed as Endangered in New York and is also a high priority SGCN. It has a State Rank of S2 (Imperiled) and a Global Rank of G5 (Secure Globally). New York is within the southern limit of short-eared owl breeding range, and although instances of nesting have declined significantly, the state remains an important over-wintering area. Recent records show them utilizing suitable habitat in winter within the Finger Lakes, including fields at Honeoye Creek WMA.

The northern harrier (*Circus cyaneus*) is a medium-sized hawk of open grasslands and marshes. It is listed as Threatened in New York and is also a SGCN. It has a State Rank of S3B, S3N (breeding population vulnerable) and a Global Rank of G5 (Secure Globally). Instances of breeding in New York are uncommon, however over-wintering individuals are more easily observed. Recent records show them utilizing suitable habitat within the Finger Lakes, including fields at Honeoye Creek WMA. The entire WMA falls within two Breeding Bird Atlas (BBA) blocks where the northern harrier’s latest breeding status is listed as “Possible”.

The New York Natural Heritage Program published a report in 1997 entitled Honeoye Creek Wildlife Management Area- Biodiversity Inventory Final Report. The report was prepared pursuant to Return a Gift to Wildlife (RAGTW) project number W-11, Biodiversity Inventories of DEC Wildlife Management Areas. The goals of this project were to 1) provide,

accurate, up-to-date information on uncommon animals and plants, and rare or exemplary ecological communities that occur on WMAs, and 2) to produce 1:24,000 (USGS)-scale maps showing the boundaries of all ecological communities identified during the field surveys. The data provided was intended to supplement existing information used for land use management planning on New York WMAs. No rare animal species were documented on the WMA during field reconnaissance prior to the writing of the report.

Honeoye Inlet WMA has historical as well as recent records of coal skinks (see species description above) existing on the wooded hillsides of Honeoye Inlet WMA. The small lizards were observed as recently as 1995. Historical records exist, but prior to 1977.

The timber rattlesnake (*Crotalus horridus*), a threatened species in NYS and a SGCN, was historically found in suitable rocky, hillside habitat on and near the Honeoye Inlet WMA, but recent sightings are lacking. It was last documented, as a road kill, in 1981. It carries a State rank of S3 (Vulnerable) and a Global Rank of G4 (Apparently Secure). The spiny softshell turtle (*Apalone spinifera*), a “Special Concern” species in New York, has been found in Honeoye Lake (a small part of which exists on the Honeoye Inlet WMA) as recently as 2008. It was first observed in 1996. The spiny softshell turtle is a SGCN with a State Rank of S2S3 (Imperiled) and a Global Rank of G5 (Secure).

Junius Ponds unique Area supports several listed species of fish and wildlife, and is known for over a century for its many unique community types and natural features. This site is recognized and has been the focus of recent research by numerous entities including the NYS DEC, Natural Heritage Program, The Nature Conservancy, Cornell University, SUNY-ESF, SUNY-Oswego, Finger Lakes Community College and American University. It is limnologically unusual as one of the few rare meromictic ponds in the region. The pond shorelines contain relatively intact rare calcareous fen habitats including a rich graminoid fen, a marl fen, and a rich shrub fen. These habitats are considered high-quality occurrences of rare community types, including several that are globally uncommon. Nowhere else in NYS are all three of these habitats types found at the same site. Additional imperiled, rare community types include red maple-tamarack peat swamp and marl pond. In addition, seven NYS endangered or threatened-listed rare and imperiled plants are known from Junius Ponds. These include New England Northern Reedgrass (*Calamagrostis stricta* ssp. *inexpansa*), Sartwell’s Sedge (*Carex sartwellii*), Ohio Goldenrod (*Oligoneuron ohioense*), Brown Bog Sedge (*Carex buxbaumii*), Sweet Coltsfoot (*Petasites frigidus* var. *palmatius*), Low Nutrush (*Scleria verticillata*), and Livid Sedge (*Carex livida*). There is also one NYS endangered and federally threatened reptile known from this site. This species is subject to endangerment due to illegal collecting and for that reason, will not be named in this section (or in this public document). Iowa darter (*Etheostoma exile*) is a rare and imperiled fish known from one of the Junius Ponds immediately upstream of Lowery Pond. It carries a State rank of S2 and a Global rank of G5. Coal Skink (*Plestiodon anthracinus*) is a SGCN reptile known from the area.

Rush Oak Openings UA has one State Threatened species, the pie-billed grebe, is listed in the latest edition of The Second Atlas of Breeding Birds in New York State as a possible breeder in the Atlas block encompassing Rush Oak Openings. The likelihood of it being found there is slim, however, due to a lack of open water habitat. A northern harrier (*Circus cyaneus*), a field-foraging hawk, was observed several times in June and July, 2003 in fields near Rush Oak Openings UA. It was reported as a female, and due to the time of year, a

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breeding female. Although the sightings were not on state land, the bird's home range is estimated to overlap portions of the Unique Area. Northern harriers have a State Ranking of S3B,S3N (Vulnerable in NY), and a Global Ranking of G5 (Secure). It is also a species of Greatest Conservation Need.

Squaw Island UA has had no rare species reported on Squaw Island, but the island is located in Canandaigua Lake, a documented winter waterfowl concentration area. This habitat type is deemed "Vulnerable" in NY with a State Ranking of S3S4 (Vulnerable in NY, Apparently Secure), and carries a Global Ranking of GNR (species not yet ranked). Winter waterfowl concentrations on Canandaigua Lake were first documented in 1949 during the then Conservation Department's mid-winter aerial waterfowl surveys. The waterfowl concentrations were last documented in 1995, but they persist to present day. From 1973-1994 this area contained over 30% of the estimated New York wintering population of Redheads (*Aythya Americana*). Other species wintering on Canandaigua Lake include black duck (*Anas rubripes*), mallard (*Anas platyrhynchos*), lesser scaup (*Acthya affinis*), canvassback (*Aythya valisneria*), common goldeneye (*Bucephala clangula*), American coot (*Fulica Americana*), common merganser (*Mergus merganser*), and in some years, long-tailed duck (*Clangula hyemalis*).

Stid Hill MUA has recent reports of coal skinks (see species description above) on two occasions as recently as 1995. The arrowhead spiketail dragonfly (*Cordulegaster oblique*), a relatively rare but State unlisted species, was sighted at Stid Hill in 1996. No previous sightings have been documented. Two individuals were spotted in an Appalachian oak hickory/chestnut oak forest habitat. It is a SGCN with a State Rank of S3 (Vulnerable) and a Global Rank of G4 (Apparently Secure).

The New York Natural Heritage Program published a report in 1997 entitled Stid Hill Multiple Use Area- Biodiversity Inventory Final Report. The report was prepared pursuant to Return a Gift to Wildlife (RAGTW) project number W-11, Biodiversity Inventories of DEC Wildlife Management Areas. The goals of this project were to 1) provide, accurate, up-to-date information on uncommon animals and plants, and rare or exemplary ecological communities that occur on WMAs, and 2) to produce 1:24,000 (USGS)-scale maps showing the boundaries of all ecological communities identified during the field surveys. The data provided was intended to supplement existing information used for land use management planning on New York WMAs. Two previously-mentioned rare species, the coal skink (*Plestiodon anthracinus* or *Eumeces anthracinus*), and the arrowhead spiketail dragonfly (*Cordulegaster oblique*) were found on Stid Hill MUA during field surveys performed prior to the writing of this report (see above for details).

Willard WMA has had no rare species documented as existing on Willard WMA, but the area fronts Seneca Lake, a known winter waterfowl concentration area (see above for description and ranking of this habitat). Species documented congregating in winter on Seneca Lake include: Black duck (*Anas rubripes*), Mallard (*Anas platyrhynchos*), Lesser Scaup (*Acthya affinis*), Canvassback (*Aythya valisneria*), Common goldeneye (*Bucephala clangula*), American coot (*Fulica Americana*), Common merganser (*Mergus merganser*), Greater scaup (*Aythya marila*), Redhead (*Aythya americana*), Bufflehead (*Bucephala albeola*), and Canada goose (*Branta canadensis*).

The New York Natural Heritage Program published a report in 1997 entitled Willard Wildlife Management Area- Biodiversity Inventory Final Report. The report was prepared pursuant to Return a Gift to Wildlife (RAGTW) project number W-11, Biodiversity Inventories of DEC Wildlife Management Areas. The goals of this project were to 1) provide, accurate, up-to-date information on uncommon animals and plants, and rare or exemplary ecological communities that occur on WMAs, and 2) to produce 1:24,000 (USGS)-scale maps showing the boundaries of all ecological communities identified during the field surveys. The data provided was intended to supplement existing information used for land use management planning on New York WMAs. No rare wildlife species were found during field work associated with this report.

Species of Greatest Conservation Need

The State Wildlife Grants program is a federal program that provides funds at the state level for conservation efforts aimed at preventing fish and wildlife populations from declining, reducing the potential for these species to be listed as endangered. In order to access these grant funds, New York State was required to develop a State Wildlife Action Plan (SWAP) that focuses on the “species of greatest conservation need.” This includes those species that are deemed rare, imperiled and those for which status has not been established. NYS DEC staff produced a list of 366 Species of Greatest Conservation Need (SGCN), of which 167 are High Priority SGCN. The list of species is certainly not exhaustive, but includes those species for which systematic assessments had been made by staff of the NYS DEC Division of Fish and Wildlife and the New York Natural Heritage Program. For further information on how the list was compiled, visit the web site www.dec.ny.gov/animals/7179.html which also has the entire list of species.

High Priority Species of Greatest Conservation Need observed on lands of the Unit include, but are not limited to: timber rattlesnake, spiny softshell turtle, short-eared owl, and black tern. Species of Greatest Conservation Need observed on lands of the Northern Finger Lakes Unit include, but not limited to: eastern pondmussel, northern harrier, coal skink, and arrowhead spiketail dragonfly.

Wetlands and Water Resources

Streams

Portions of the Unit are located within the Genesee River and Oswego River basins. The streams within the Unit range from intermittent, meaning that stream flow does not occur year round, to high quality trout streams with year round flow. The majorities of the streams are class “C” and have fishery resources consisting of sucker and minnow species.

Honeoye Inlet flows through Honeoye Inlet WMA and provides a good fishery for wild brown and rainbow trout. The headwaters also contain wild brook trout. The lower portions of this stream, near Honeoye Lake, also seasonally contain warm water fish such as black crappie, bluegills, largemouth bass, pumpkinseeds, and walleye.

Mud Creek flows through Stid Hill MUA and provides a good fishery for wild brown trout.

Aquifers

Information about aquifers comes from two GIS data sets maintained by NYS DEC as part of the Master Habitat Databank. These sets are titled as Primary Aquifers and Unconsolidated Aquifers @ 250K. As per the above data sets, portions of the Northern Finger Lakes Unit do not overlay any primary aquifers, however other parcels overlay other types. Parts of the Avon Regional office is over a Moraine Aquifer, Honeoye Creek and Honeoye Inlet WMAs both have a Confined, No overlying surficial Aquifer under portions of them, an Unconfined, Mid Yield aquifer is located under all of Junius Ponds UA and under a small portion of Rush Oak Openings UA, and parts of Stid Hill MUA has a Confined, Unknown Depth and thickness aquifer. Use of Best Management Practices for water quality has been shown to protect both surface water and ground water quality. Further information on these BMP's is provided by the publication: New York State Forestry Best Management Practices for Water Quality: BMP Field Guide.

Wetlands

Wetlands (swamps, marshes, bogs, and similar areas) are areas saturated by surface or ground water sufficient to support distinctive vegetation adapted for life in saturated soil conditions. Wetlands serve as natural habitat for many species of plants and animals and absorb the forces of flood and tidal erosion to prevent loss of soil. Wetlands cleanse water by filtering out natural and many manmade pollutants, which are then broken down or immobilized. In wetlands, organic materials are also broken down and recycled back into the environment, where they support the food chain. Wetlands are one of the most productive habitats for feeding, nesting, spawning, resting and cover for fish and wildlife, including many rare and endangered species.

Information about wetlands in this plan comes from two GIS data sets maintained by NYS DEC as part of the Master Habitat Databank. These sets are titled as New York Regulatory Freshwater Wetlands and National Wetlands Inventory. Considerable further information has also been developed from personal observation by cooperating partners and NYS DEC staff.

There are nine New York State-protected freshwater wetlands located within the state lands of the Northern Finger Lakes unit.

Table 10: NYS Freshwater Wetlands on the Northern Finger Lakes Unit

Wetland	Location	Size on NYS DEC	Class	Type
BC-12	Stid Hill MUA, along Mud Creek	33.4 ac.	II	Palustrine; Forested/shrub and Emergent subtypes
GN-6	Junius Ponds UA, northern section	22.4 ac.	I	Palustrine; Forested/shrub, Emergent and Pond subtypes

Wetland	Location	Size on NYS DEC	Class	Type
GN-7	Junius Ponds UA, southern section	52.4 ac.	I	Lacustrine, Palustrine; Forested/shrub, Emergent and Pond subtypes
HO-4	Honeoye Creek WMA, along Honeoye Creek	102.7 ac.	I	Palustrine; Forested/shrub and Emergent subtypes
RH-7	Avon Regional Office, east of buildings	42.9 ac.	I	Lacustrine, Palustrine; Forested/shrub and Emergent subtypes
RU-17	Rush Oak Openings UA, east side	20.2 ac.	III	Palustrine; Forested/shrub and Emergent subtypes
RU-18	Rush Oak Openings UA, south side	10.1 ac.	II	Palustrine; Forested/shrub subtype
RU-30	Rush Oak Openings UA, along US Route 15	30.2 ac.	II	Palustrine; Forested/shrub, Emergent and Pond subtypes
SP-3	Honeoye Inlet WMA, south end of lake	684.0 ac.	I	Palustrine; Forested/shrub and Emergent subtypes

In addition, there are numerous large and small wetlands identified in the National Wetlands Inventory coverage, the majority of which overlap the state wetlands described above.

Table 11: National Wetlands Inventory of the Northern Finger Lakes Unit

Wetland Type	Number of Each Type	Acres*
Palustrine, emergent	33	86.2
Palustrine forested/shrub	49	851.4
Pond	23	24.7
Lacustrine (lake)	6**	37.2
Totals	111	999.4

*This water acreage will change with water level and field delineation.

** This includes Lowery Pond (Junius Ponds), the pond at the Avon Regional Office, and small portions of Canandaigua, Honeoye and Seneca Lakes.

Please see also the map in Appendix N: Maps (pg 243) for spatial information and site specific data, Appendix E: Water Resources (pg 201) and Appendix G: Glossary (pg 217) for definitions.

Wetlands, though sometimes difficult to define, are easily accepted as valuable assets to the watersheds involved. Wetlands come in many shapes and sizes, some more obvious than others; however our ability to notice them has nothing to do with how important they are

to the environment. They have many widely recognized benefits including flood attenuation, water quality improvement, wildlife habitat, and groundwater recharge. Wetlands also play a major role in the global carbon cycle because they are an important carbon sink for atmospheric carbon dioxide. Despite their small proportion of land area, wetlands constitute as much as 25 percent of global terrestrial carbon.

One wetland type that is particularly easy to overlook is the vernal pool. Vernal Pools (vernal meaning spring) in the Northeast are generally found in forests and are typically wet on a seasonal basis. In addition to being only seasonally wet, they tend to be extremely small, usually only fragments of an acre in size. No matter how inconspicuous they are, their contribution to the forest ecosystem in which they are found is monumental. Spotted Salamanders, Wood Frogs, and many other amphibians depend on these pools as breeding sites.

Fens

Of particular significance and sensitivity within the Northern Finger Lakes Unit are the wetlands known as fens found at Junius Ponds UA. A fen is a type of wetland with a peaty alkaline soil, and a ground water source that produces characteristic flora (such as sedges and reeds). These fen wetlands are host to many rare plants, animals and rare community types. Three types of fens are found on Junius Ponds UA: rich graminoid, rich shrub, and marl fen. Characteristic plants of these fens are grass-of-parnassus (*Parnassia glauca*), yellow sedge (*Carex flava*), shrubby cinquefoil (*Potentilla fruticosa*), and spikerush (*Eleocharis rostellata*). The fens occur in narrow bands around the ponds, and require waters of high mineral concentrations and high pH values, generally from 6.0 to 7.8. Fens were historically uncommon due to these limiting physical requirements. They have also been vulnerable to agricultural and residential development, which is why the marl fen has been listed by the New York Natural Heritage Program as critically imperiled (S1), and the rich graminoid and rich shrub fens as imperiled to critically imperiled (S1S2). On Junius Ponds Unique Area, these communities are threatened by adjacent run-off, recreational overuse, invasive species, alteration of natural hydrology and nutrient loads, and habitat alteration in the adjacent landscape.

Ponded Waters

There are numerous unnamed vernal pools, small dugouts, water holes, and other small ponds located throughout the Unit. They provide valuable habitat for reptiles and amphibians, such as salamanders and frogs, but do not support fish. The volume and depth of water varies seasonally, with some drying up during the summer, and others holding water year round.

Larger named ponds that hold water year round exist on Junius Ponds UA and at the Avon Regional Office. All three provide valuable habitat for fish, aquatic birds, reptiles and amphibians. Newton Pond is on the north side of Junius Ponds and Lowery on the south, neither is open for fishing or other recreation and the fish have not been sampled in recent years.

The Avon Regional Office property contains an approximately 21 acre pond that provides recreational fishing opportunities to the public. The pond contains naturally reproducing populations of Black Crappie, Bluegills, Largemouth Bass, and Pumpkinseeds. Tiger Muskellunge have been stocked in past years to provide additional angling opportunities and also to thin out Bluegill and Pumpkinseed populations. Grass Carp have also been stocked in an attempt to manage the amount of rooted aquatic vegetation in the pond.

Lakes

Portions of the Unit border Canandaigua Lake, Honeoye Lake and Seneca Lake. Canandaigua Lake provides a significant fishery for black crappie, brown bullhead, brown trout, chain pickerel, lake trout, largemouth bass, rainbow trout, smallmouth bass, and yellow perch. Honeoye Lake provides a significant fishery for Black Crappie, Bluegills, Largemouth Bass, Pumpkinseeds, Walleye, and Yellow Perch. Seneca Lake provides a significant fishery for Atlantic Salmon, Brown Bullhead, Brown Trout, Lake Trout, Rainbow Trout, Smallmouth Bass, and Yellow Perch.

See also the inventory of streams and ponded waters in Appendix E: Water Resources (pg 201), and maps in Appendix N: Maps (pg 243).

Towers

This part of New York State has the potential for generating electricity with windmills or the construction of towers for radio, cell etc. transmission, in the area of the Northern Finger Lakes Unit. There are currently no windmills, or applications for windmills, for power generation on any of the parcels of the Unit. NYS DEC does not have the legal authority to lease State Forests, Unique Areas or Wildlife Management Areas for the construction of windmills, new power lines, or commercial towers. However, this plan does not cover any actions or construction on any adjacent privately owned lands.

Historic, Archaeological and Cultural Resources

The term cultural resource encompasses a number of categories of human created resources including structures, archaeological sites and related resources. NYS DEC 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 www.dec.ny.gov/lands/64567.html.

As a part of the SEQR review associated with the approval of this plan NYS DEC will 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. See

Appendix J: SEQR (pg 236). 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.

Archaeological sites are, simply put, any location where materials (artifacts, ecofacts) or modifications to the landscape reveal evidence of past human activity. This includes a wide range of resources ranging from precontact Native American camps and villages to Euroamerican homesteads, cemeteries and graves as well as mills and other industrial sites. Such sites can be entirely subsurface or can contain above ground remains such as foundation walls or earthwork features. The parcels of this Unit contain numerous cellar holes, barn foundations, stone lined water wells, steel well casings, fencing, railroad grades and other features related to historic occupation.

The quality of the site inventory information varies a great deal in all respects. Very little systematic archaeological survey has been undertaken in New York State, especially on public lands. Therefore all current inventories must be considered incomplete. Even fewer sites have been investigated to any degree that would permit their significance to be evaluated. Many reported site locations result from 19th century antiquarian information, artifact collector reports that have not been field verified. Often very little is known about the age, function or size of these sites. This means that reported site locations can be unreliable or be polygons that encompass a large area. Should systematic archaeological inventory be undertaken at some point in the future it is very likely that additional resources will be identified. (For more information on historic and cultural resources, see Chapter 3 of the Strategic Plan for State Forest Management, found online at www.dec.ny.gov/lands/64567.html.)

Historic and Archaeological Site Protection

The archaeological sites located within this land 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 and Section 233 of Education Law. No actions that would impact known resources are proposed in this Unit Management Plan. Should any actions be proposed which would impact these sites they will be reviewed in accordance with SHPA, and the Seneca Nation of Indians Tribal Historic Preservation Office will be consulted. 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).

See also Archaeological and Historic Resources Management on page 147 of the GOALS AND OBJECTIVES chapter.

Archaeological Research

Any known archaeological sites located on this unit as well as additional unrecorded sites that may exist on the property may be made available for appropriate research. Any future

archaeological research conducted on the property will require the appropriate permits. Research permits will be issued only after consultation with 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 different research questions.

NEEDS, ISSUES AND POLICY CONSTRAINTS

This plan strives to manage the diversity of the Northern Finger Lakes Unit's biological and social resources for multiple use to serve the needs of the people of New York State. In order to manage the Northern Finger Lakes Unit for multiple use, NYS DEC must manage the ecosystem in a holistic manner while reconciling the many and sometimes conflicting demands on the ecosystem. This must be done within the framework of Environmental Conservation Law (ECL), Rules and Regulations, the Strategic Plan for State forest Management, and NYS DEC policies and procedures. Within these constraints, a need exists for protection, goods, services, safe public water, and the perpetuation of open space.

Many issues, including public needs, form the basis for the objectives and management actions set forth in this plan. The NYS DEC recognizes that planning must be done today to ensure effective management in the future.

On the Northern Finger Lakes Unit, many different issues and needs form the basis for the objectives and management actions set forth in this plan. As the need for open space and outdoor recreation increased over the past years, so too have the facilities on state lands been modified and expanded to meet that demand. The DEC recognizes that the welfare of this area requires a "focus" towards the future. Planning must be done now to insure orderly and environmentally sound management in the future.

In summation, a complex combination of needs, issues and constraints on these demands together with the inventory of available resources will form the basis for the goals, objectives, and subsequent management actions which comprise this plan. For more information regarding statewide management of State Forests please refer to the Strategic Plan for State forest Management at www.dec.ny.gov/lands/64567.html.

Funding

Currently the NYS DEC's Bureau of State Land Management and Bureau of Wildlife have limited budget to manage all of NYS DEC lands.

Funding, when available, is primarily derived from:

- Capital construction account (State General Fund monies)
- Rehabilitation & improvement account (State General Fund monies)

Needs, Issues and Policy Constraints

- Stewardship - Special Revenue Other (SRO) account. State forests only. Note: The primary source of revenue for the SRO account is from commercial sales of forest products on State Forests.
- Environmental Protection Fund (EPF). This account is primarily funded from real estate transfer tax and other appropriations by the legislature. Appropriations from this fund may be used for a wide variety of projects including habitat enhancement for plants and animals, recreational facilities and forestry improvements such as pre-commercial thinning, artificial regeneration, and control of invasive species.
- New York Works. Fund to rebuild New York States aging infrastructure and help the economy.
- Conservation Fund. Wildlife Management Areas only. A state fund consisting primarily of income from the sale of sporting licenses, fines from penalties from fish and wildlife law violations, sale of products off lands administered by the Division of Fish and Wildlife, and Return a Gift to Wildlife donations. Revenues attributable to the sale of oil and gas leases from Wildlife Management Areas are deposited into the Conservation Fund.
- Wildlife Restoration Program Funds. These are federal funds commonly referred to as Pittman-Robertson Funds. This is a federal program established from money received from excise taxes on the sale of sporting guns and ammunition. Use of land purchased, or activities funded, are federally regulated to certain activities.
- Sportfish Restoration Program Funds. These are federal funds commonly referred to as Dingell-Johnson Funds (or Wallop-Breaux). This is a federal program established from money received from excise taxes on the sale of fishing equipment, and motorboat and small engine fuels. Use of land purchased, or activities funded, are federally regulated to certain activities.
- State Wildlife Grants. This program is a federal program that provides funds at the state level for the identification of species in greatest conservation need and provide for the protection and restoration of their populations and habitats

Regional allocations from these accounts must be shared by all NYS DEC lands within the region. There is no specific budget established to manage an individual site. Funding is distributed based on priorities for all areas within the region. Tasks listed in the work schedule in this plan are contingent upon available funding and commitments associated with higher priority projects within the region.

Cooperative partnerships using Volunteer Stewardship Agreements with private conservation organizations or other interested parties, or through Temporary Revocable Permits issued to municipal or county agencies can be used to complete projects on the Northern Finger Lakes Unit. These partnerships are a valuable supplemental source for providing needed services.

Projects may also be accomplished via services in lieu of payment during commercial sales of forest products. These services are limited to the specific location and certain activities where the sale occurs.

Summary of Identified Issues

As part of the unit management planning process, NYS DEC is committed to active citizen participation. To achieve that involvement, adjacent property owners, local government officials, media and others potentially interested in the management unit were identified and placed on a mailing list. While public comments are accepted at any time, the formal citizen participation process began in January 2015, when an introductory letter was sent to those identified on the Northern Finger Lakes Unit Management Plan mailing list. This letter briefly described the lands identified in the Unit Management Plan and potential topics to be covered by the plan. It also asked for verbal or written comments related to the Northern Finger Lakes Unit Management Plan. Public comments and staff-identified issues have been summarized below. See Appendix A: Public Comment (pg 150) for a complete list of public comments received as a result of the January 2015 scoping letter.

The summary below each category is a compendium of all public comments. Individual comments may have been combined. Others are delineated between each category.

Overall

The following is a summary of public comments received related to overall:

Hiking trails are low impact on the ecology of these lands; if promoted properly they can assist in tourism efforts; hiking trails can be enjoyed by local people as well as visitors; they should include adequate parking and signage. Enlist local people in developing trails for free labor and a sense of stewardship. ■ The Finger Lakes Land Trust supports the acquisition of land from willing sellers as additions to state lands where they secure environmentally significant habitat while expanding opportunities for outdoor education and recreation ■ Land has been unoccupied and money is tight. Consider a tax break.

Staff identified issues:

This is a wide-ranging collection of State lands, affected by many diverse interests and issues. As such, it is a challenge to write one management plan to cover the entire Unit. A common issue on most state land is illegal garbage dumping. Another common challenge is the management of public access facilities, especially trails and roads. On some of the parcels in this Unit, a very light level of public use can cause significant environmental or maintenance issues.

Avon Regional Office

The following is a summary of public comments received related to Avon Regional Office:

Improve habitat for monarchs. There is a ton of native milkweed on the dike, but it is an area that has to be free of woody plants due to the dam standards. Is there a compromise to allow herbaceous plants, including milkweed, to grow on the dike and be cut at certain

intervals based on monarch breeding season? Is it possible to plan a monarch garden and include native milkweed and other pollinator plants?

Staff identified issues:

Lots of heavy recreational use results in conflicts between the different user groups. Cyanobacteria in the pond is an occasional issue. The dam needs to be modified to meet dam safety requirements, in addition one of the outfalls from the dam is onto adjoining private land. Heavy use of trails, with little marking and consensus of location of trails results in many herd paths.

Bare Hill UA

The following is a summary of public comments received related to Bare Hill UA:

Good to have beat back the brush at Bare Hill. ■ Expand public ownership at Bare Hill to secure an environmentally sensitive and scenic area, while increasing the site's viability as habitat and expanding opportunities for hunting and hiking that are currently limited by the unit's relatively small size. The acquisition of a one or more parcels on Town Line Road should be pursued to provide access and parking for the state-owned Gathercole tract. ■ Work to maintain early successional habitat and scenic vistas while controlling non-native invasive vegetation at the summit of Bare Hill. This is already stated as a goal in the current Bare Hill UMP and it is more a question of implementation. ■ Create a "Shoreline to Summit" trail linking Land Trust owned land at Canandaigua Lake's eastern shore with the summit of Bare Hill. Given the steepness of this terrain, this would involve an "engineered" trail with multiple switchbacks and involve significant preparation of the grade. Formalize the network of trails on Bare Hill and interpret them to the public. As part of a regional trail development effort, create a trail to link Bare Hill to High Tor WMA and to the Village of Naples. A future addition to Bare Hill Unique Area could extend state ownership to North Vine Valley Road. ■ We feel that more attention should be paid to existing non-native, invasive species that colonize Bare Hill and would advocate their suppression or removal and re-planting with native species.

Staff identified issues:

A couple of neighbors have trespass issues. The brush and locust is encroaching on the grassland on the south parcel, making it less and less "bare". The north parcel has no parking, the only option currently is to park along the road edge. Both parcels could use the addition of recreational trails.

Honeoye Creek WMA

The following is a summary of public comments received related to Honeoye Creek WMA:

Honeoye Creek WMA could benefit from acquisitions that would consolidate state ownership. ■ The outlet quickly fills in with stone, debris and sediments from both the lake and from Mill Creek. The resultant flow restrictions cause flooding in many areas, especially along Honeoye's main street.

Staff identified issues:

There may be gas stored under one of the parcels without the benefit of a lease to authorize it. This WMA has several widely spaced parcels and two of them are very small in size which creates difficulties in management.

Honeoye Inlet WMA

The following is a summary of public comments received related to Honeoye Inlet WMA:

Lands connecting Honeoye Inlet Wildlife Management Area to the Land Trust's nearby Wesley Hill Nature Preserve would ensure habitat connectivity while significantly expanding opportunities for outdoor recreation. ■ The Honeoye Inlet used to be farmed land and the number of deer that wintered in the area was in the hundreds, now you would be hard pressed to find 20 deer wintering there. Leasing part of the land to a local farmer could generate revenue and food for wildlife at no cost. In the absence of a mast crop the Stid hill area is void of food for most wildlife during the stress of winter. ■ I remember when DEC made money selling firewood and at the same time creating a diverse habitat. ■ Honeoye Lake Inlet Wildlife Management Area has been identified as a major contributor of Honeoye Lake's external nutrient load. ■ In 2013 we partnered with The Nature Conservancy (TNC), Ontario County Soil and Water Conservation District (OCSWCD), Finger Lakes Community College, NYSDEC Region 8, and the five towns in the watershed to have Honeoye Lake's watershed professionally studied and modeled by Princeton Hydro. Princeton Hydro recommended implementing several BMPs in the Honeoye Lake Inlet WMA that could potentially reduce the total phosphorus from surface water flows entering Honeoye Lake by 25-37%. Princeton Hydro's final report was released in July 2014. ■ The Nature Conservancy included an article on this proposed project in their 2014 fall/winter newsletter ■ The Honeoye Lake Watershed Task Force (HLWTF) included an article on this proposed project in our 2014 Summer newsletter ■ We are working with the Nature Conservancy to secure funding for the survey, design, and permitting phase of this project. This is a very important potential project to improve the water quality of Honeoye Lake. We encourage you to include support for this project in your Honeoye Lake Unit Management Plan. ■ Please address the outlet issues for Honeoye Lake. The outlet quickly fills in with stone, debris and sediments from both the lake and from Mill Creek. The resultant flow restrictions cause flooding in many areas, especially along Honeoye's Main Street. The swamp area north of Main Street has constricted the original flow in the creek to Honeoye Falls. State, County and Town roads need appropriate

consideration. We have to wait for catastrophic events to get the flow going again. A poor process as was demonstrated again in 2014. ■ Bergen Swamp Preservation Society shares the northern Honeoye Creek wetland; we are developing a management plan for the Taylor Marsh (the official name of our wetland property.) ■ would love to see this area developed for hiking trails.

Staff identified issues:

In the past, the location and shape of Honeoye Inlet was altered by dredging. This disconnected the Inlet from its floodplain, and exacerbated the problems of sediments and nutrients reaching Honeoye Lake.

Junius Ponds UA

The following is a summary of public comments received related to Junius Ponds UA:

The Land Trust supports acquisition of a portion of the Girl Scout property at Junius Ponds and adjacent parcels that provide habitat and buffer to ensure the site's long term ecological viability. ■ Ensure that the populations of state-listed rarities are monitored on a periodic basis to detect changes attributable to improving habitat conditions, or changes that may reflect deteriorating conditions. Monitoring data will serve to inform management in an adaptive manner. Staff from the New York Natural Heritage Program might be enlisted to perform much of this monitoring work. ■ Ensure that water levels in the ponds never again reach the prolonged beaver-flooded levels that prevailed over a decade ago. Those ponds, and their surrounding fen vegetation, are practically unique in that the water level remains so constant. The special biota of the area developed in response to the near-constant water level, and the prolonged inundation of the fen vegetation proved harmful and opened the door to exotic phragmites invasion. ■ Control of phragmites should continue to be a very high management priority, since this invasive can obliterate the native fen vegetation. The other invasive that should be targeted for aggressive control is glossy buckthorn. ■ While I am sympathetic to the wishes of fishermen to have access to these ponds for fishing, I would fear that the fishermen might trample much of the sensitive shore-line fen vegetation. Consequently, my suggestion for this fragile and biologically significant site is that fishing and any other public access development be prohibited. ■ We would like to see the entire 300 plus acres that was the former Girl Scouts Bayberry Camp preserved, protected and managed in a way that benefits the environment, wildlife and the public's recreational enjoyment. ■ This is consistent with the Town's draft Comprehensive Plan, goal # 8, which states, 'Protect the Town's significant environmental resources (including unique plant and animal habitats, ground water quality, wetlands or surface water). ■ With regard to management of Junius Ponds Unique Area, I recommend that the management plan include:

Continued Unique Site status for the site; continued no public access for the portion of the site known as Lowery Pond; Continued acquisition of adjacent properties for site buffering and in order; to better protect the watershed. Limits or an end to sand mining in the adjacent Seneca Meadows. This should include efforts to identify hydrological damage to the Junius Ponds system and remedy it. Despite Seneca Meadows scientists assessment that

their activities have been benign on the hydrology of Junius Ponds, my professional assessment as one who has been continuously studying this site before and during the sand mine's coming into existence, there is no doubt in my mind but that local hydrology has been dramatically altered by this activity.

Staff identified issues:

By far the biggest issue is the safety and preservation of the threatened species that call this area home. Included in this is monitoring, through periodic surveys, rare plant and animal communities and taking protective actions as needed. And keeping human use to the very minimum. The high volume highway through the middle of it does not help. As a result of the above, special regulations to cover the Junius Ponds UA are a good idea. In addition, managing invasive species, discouraging beaver activities to stabilize water levels and increasing the size to help protect the watershed of the area.

Rush Oak Openings UA

The following is a summary of public comments received related to Rush Oak Openings UA:

Prohibit hunting in the Rush Oak Openings, and *clearly indicate by signage and firmly enforce*. Citizens who walk or hike Oak Openings will be reluctant to do so during those parts of the year when hunting is ongoing (a very large period of time when taken to include small game hunting, etc.), especially since there was a fatal hunting accident on this property last fall (9/2014), during small game season. ■ Please prohibit hunting in the Rush Oak Opening and in the entire Northern Finger Lakes. This unique area, which is almost the only instance of oak savannah in the Northeast, cannot be seen and enjoyed by people if they are afraid of being hurt by hunters. If hunting is permitted, there are several months when families cannot safely use this land. Not knowing whether hunters are using the area and whether those hunters are being careful means that the public cannot use the area during most of the year unafraid. Many are not sure when different hunting times are. ■ Hunting needs to be prohibited in the Rush Oak Openings and the hunting prohibition needs to be made clear by comprehensive signage. This land will only be safe to the public if hunting is strictly enforced. ■ The 1998 Unit Management Plan for the Rush Oak Openings is incorrect in concluding that hunting is a "compatible use" at the Rush Oak Openings. It is certainly not compatible with use of the area by non-hunters, who make up the majority of the population and who want to enjoy the area during all seasons of the year, including the autumn months, which are the most glorious months in upstate New York. ■ This land should be protected for the many people who go there to get the solitude of an ancient landscape, and for the preservation of a unique ecosystem - that many other states have been unwilling to protect in this way, so they no longer exist. ■ Please keep this land as public park land, for use by many for educational and recreational uses. ■ In the north east corner of the preserve is a pond which in the past had been a major breeding pond for the Jefferson complex salamander as well as Spotted and Wood Frogs. During the last major restoration of the area the limestone hill next to the pond was bulldozed and the area around the pond opened up. In the years after there were no salamanders so I am pretty sure the salamanders were living in the limestone hillside which was crushed by the bulldozers. Now finally some salamanders are beginning to return to the pond for breeding and the number of wood frogs has returned to previous numbers. I

respectfully request that this pond and the land around it be left alone if more clearing will be done. The Jefferson complex salamander was one of the creatures that was supposed to be protected when the DEC took over this land so I think it would be important to protect this pond. ■ Also please post signs regarding the no target shooting rule as we have had some very frightening experiences in the past. People with semi-automatic guns shoot there and the bullets fly across our property. One whizzed over my head a few years back and really scared me. Given the small size of the preserve, the large amount of exposed rock, and the closeness to homes and The Rotary Sunshine Camp, I see no reason why semi-automatic weapons should be allowed there for any reason. In fact after last year's hunting death which was probably caused by all the exposed rock, most of the neighbors and many of the hunters would love to see it bow hunting only. ■ Will you be doing a controlled burn at Rush Oak Openings in Rochester this spring, and if so, when it will it be? ■ The 2012 and 2013 burns covered the > entire site [of the study]. When we used random plot and transect locations, there did not appear to be any relationship with past fires. The 2014 burn also covered the entire site. We decided to position new transects to cover areas that had burn frequently and areas that burned infrequently for comparison. Again, nothing significant. Our interpretation: the burns are very effective at knocking down the invasives! We do find lots of dogwood, but it is usually new growth 1/2 meter tall near the edge community, which does contain plenty of dogwood, honeysuckle, and buckthorn.

Staff identified issues:

It is vital for the continuation of the native habitat to continued use of prescribed fire. Occasional conflicts with neighbors over smoke or the general public using the state land. It is a very small property not far from large metropolitan area, resulting in great potential for overuse. Another issue is unsafe target shooting, both on the property and the adjacent private lands. As a result of the above, special regulations to cover the Rush Oak Openings UA are a good idea.

Squaw Island UA

The following is a summary of public comments received related to Squaw Island UA:

The conditions are very unsanitary to say the least. In the past we would pull up and explore with the kids and from time to time bring a picnic lunch to enjoy but the island is covered from one end to the other with bird droppings and dead seagulls and any access is out of the question.

Staff identified issues:

This is a tiny property extremely close to a city, with the potential for overuse. Even though small, it is heavy use by wildlife, primarily birds for nesting and shelter. Without the artificial rip-rap and piling the island would have eroded away years ago due to the change in water flow patterns caused by the city pier and inlet channeling. The water level of the lake also impacts the island, but is not under the control of NYS DEC.

Stid Hill MUA

The following is a summary of public comments received related to Stid Hill MUA:

Stid Hill MUA could benefit from acquisitions that would consolidate state ownership. ■ It is important that better access and parking be provided on the northeast end of the parcels off the Dugway road. It is also important that deer hunting be encouraged by opening more access to some of the remote portions of the management area. Control of the deer population here is of major concern to us as well as the other small farmers in the area. ■ I find it interesting that Biological diversity is one of your goals. Among my group of hunting friends we have coined the term "sterile State Land" because of the lack of habitat management, ie: logging, firewood cuts, leasing to farmers to produce crops. All of which would increase the biological diversity in both Flora and Fauna. I don't think I need to outline the benefits of a selective timber harvest and or wildlife food plantings to both wildlife and health of the Forrest.(sic) I just ask that you do something besides mowing fields and removing any available cover wildlife may have had.

Staff identified issues:

See Appendix M: Known Encroachments and/or Trespass (pg 241) for explanation of some deed conflict issues. It was purchased as a Multiple Use Area, but has been managed by Bureau of wildlife, resulting in confusion over regulations. At one time the only access to the parcel was off of Dugway Rd, the now abandoned Stid Hill Rd. NYS DEC retained the rights to use it to access the property, however, it needs repair and improvement to Haul road standards to allow administrative vehicle access, but gated to restrict general public vehicle access.

Willard WMA

The following is a summary of public comments received related to Willard WMA:

None

Staff identified issues:

Stabilize or reduce the erosion of foot trail down to the lake. Maintain an productive cooperative farming agreement to benefit wildlife habitat and public access. Occasional extra heavy use by neighbor has the potential to cause harm. The barn and house still need to be removed, and at times unsafe target shooting occurs on the property.

Current Known Illegal Use

Regular patrols are made by law enforcement officials such as Forest Rangers, Environmental Conservation Officers and even local Sheriff Deputies of the Northern Finger Lakes Unit, and all other NYS DEC lands. But with the limited resources available it is difficult to stop all illegal activities such as:

- ATV and dirt bike use
- Off road driving
- Dumping / littering
- Vandalism
- Construction of permanent blinds and/or tree stands
- Harvest of ginseng and protected plants or animals
- Poaching
- Underage drinking
- Boundary line encroachments / trespass
- Non-permitted use of state land
- Target shooting
- Cultivation of marijuana/meth labs
- Meth labs

Whenever possible, fines or other punishments as the law allows are imposed. As money and other resources allow the damage is fixed, dumping is cleaned up and illegal plants are removed.

Policy Constraints

The laws, regulations, and policies listed below provide broad guidelines within which this plan is prepared. The Environmental Conservation Law of the State of New York is available to the public at local libraries, NYS DEC offices, from private vendors, and at www.dec.ny.gov/regulations/regulations.html on the internet.

Special Regulations

There are no special regulations placed on any of the lands in this unit as of the writing of this plan, however two new sets of special regulations are proposed. The actual adoption of these proposed regulations is a separate process from the UMP process, and will occur after this plan is finalized. The two special regulations proposals, one for Junius Ponds UA and the other for Rush Oak Openings UA are located in Appendix L: Proposed Special Regulations (pg 240). In both cases the regulations provide additional safeguards to protect the sensitive areas and the biological integrity and the local ecosystems.

See Appendix L: Proposed Special Regulations (Pg 240) for the proposed regulation change. Visit www.dec.ny.gov/regulations/regulations.html for the current existing regulations and for the final version of any special regulations covering parcels contained within the Northern Finger Lakes Unit.

State Laws

- Environmental Conservation Law
- State Finance Law
- State Historic Preservation Act (SHPA) - Article 14 PRHPL

Environmental Conservation Law (ECL)

- ECL Article 8 - Environmental Quality Review
- ECL Article 9 - Lands and Forests
- ECL Article 11 - Fish and Wildlife
- ECL Article 15 - Water Resources
- ECL Article 23 - Mineral Resources
- ECL Article 24 - Freshwater Wetlands
- ECL Article 33 - Pesticides
- ECL Article 51 - Implementation of Environmental Quality Bond Act of 1972
- ECL Article 71 - Enforcement

New York Code Rules and Regulations (6NYCRR)

- Title 6
 - Chapter I - Fish and Wildlife
 - Chapter II - Lands and Forests
 - Chapter III - Air Resources
 - Chapter IV - Quality Services
 - Chapter V - Resource Management Services
 - Chapter VI - State Environmental Quality Review
 - Chapter VII- Subchapter A
 - - Implementation of EQBA of 1972
 - Chapter X - Division of Water Resources

NYS DEC Policies and Guidelines

- Strategic Plan for State Forest Management
- Public Use
- Temporary Revocable Permits
- Motor Vehicle Use
- Timber Management
- Unit Management Planning
- Pesticides
- Prescribed Burns
- Inventory
- Acquisition
- Road Construction
- Motorized Access Permit for People with Disabilities Policy (MAPPWD) / Commissioners Policy #3 (CP-3)

Needs, Issues and Policy Constraints

- Best Management Practices (Water quality)
- General Freshwater Wetlands Permit for Wildlife Management Area Management Activities
- Bureau of Fisheries Fish Stocking Policies
- Archaeological Site Protection
- Archaeological Research
- Volunteer Stewardship Agreements
- Adopt a Natural Resource
- Memorandum of Understanding with BLM for FYO 2004/2005 (leasing of gas wells)
- Draft ATV Policy for Public ATV Access to Recreation Programs
- Special Management Zones
- Plantation Management on State Forests
- Rutting Guidelines
- Retention on State Forests
- Etc.

Federal Law

- Americans with Disabilities Act
- Federal Wetland Law 404 - Water quality
- Federal Land Policy and Management Act of 1976 (FLPMA)
- National Environmental Policy Act of 1969 (NEPA)
- General Stormwater SPDES Permit.
- Etc.

GOALS AND OBJECTIVES

Vision

The vision of this plan is to ensure the biological integrity, improvement and protection of the Northern Finger Lakes Unit. This shall be done within the multiple use concept of management, which strives to serve the needs of the people of New York State by providing a broad based, biologically diverse ecosystem. Management will be considered over a broad geographical area, not only to ensure the biological diversity and protection of the ecosystem, but also to optimize the many benefits to the public that these lands provide.

The Environmental Conservation Law holds the legal mandate enabling the Department of Environmental Conservation to manage the state forests, wildlife management area, unique areas, multiple use areas and other state lands under its management.

As stated earlier, it is the policy of NYS DEC to manage state lands to serve the needs of the people and environment of New York State. This management will be carried out not only to ensure the ecological enhancement and protection of the ecosystem, but also to optimize the many benefits to the public that wild land provides. Management will be directed toward those activities which will enhance the resources of the land. They will be carried out in a manner which reflects the land's capability for these uses and strives to optimize the benefits of state lands to the public.

NYS DEC lands within Northern Finger Lakes Unit are unique compared with most private properties in the surrounding landscape. Private landowners have differing management objectives and property size is often smaller. With some exceptions, state lands provide large expanses open to public recreation. State land management planning horizons extend over a very long time frame. This allows for a commitment to provide healthy and diverse ecosystems and to manage and enhance unique vegetative types.

To achieve the vision, this plan will provide specific management goals with measurable planning objectives. The objectives will be augmented and supported by a plan of action and a timetable. We have chosen, for planning purposes, to separate these into categories, while recognizing that they are interrelated.

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

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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.

Management Objectives and Actions

For easier reading, the remainder of the GOALS AND OBJECTIVES chapter has been divided into sections by topic, although admittedly many objectives and/or actions are interrelated and could be found under more than one section.

Each topic includes a Management Objectives and Actions table, in which each action has been given a priority code and an estimated cost for the 10 year plan period.

Factors such as budget and staff constraints, and other environmental health problems may necessitate deviations from the scheduled management activities.

Estimated 10 yr. Cost:

The figures for the 10-year costs are *estimates* for budgetary planning purposes. Actual costs are determined at the time the action takes place. As required by New York State Policy, lowest acceptable bid will be used for all state contracts. Budgeted amounts are not directly allocated to these individual action costs, and actual amount received is likely to be

much less than the total amounts indicated in the table. See the Funding section on page 75 for further discussion on budgeting for this and other State lands under NYS DEC management.

Priority codes:

- 1) C=Critical, Necessary to ensure public health and safety; To stabilize structures so as to not lose the money and time invested in them; Mandated by legislation.
- 2) H=High, Necessary for public use, and/or to improve habitat or other natural resources. Often this will be for new projects.
- 3) L=Low, Important for the enhancement of public use, habitats or other natural resources.

Access Management

Access is a basic necessity for both public use and land management. The management goal for access is to maintain an infrastructure system sufficient to manage the Unit's natural resources and provide for public use of the area.

For all facilities see Appendix N: Maps (starting page 243) for their location and names, and Appendix D: Facilities (page 188) for number and size.

Signs

This UMP includes five Unique Areas, three Wildlife Management Areas, one Multiple Use Area, and one Regional Office, this multitude of names, plus one more - State Forest, can result in confusion on the part of the general public. See Unique Areas and State Nature and Historic Preserve Trust on page 21 for additional information on the differences and similarities between these land types. These different parcel types are managed by two different Bureaus within NYS DEC; under the Division of Fish, Wildlife & Marine Resources - Bureau of Wildlife or, under the Division of Lands & Forests - Bureau of State Land Management, with assistance from a third - Division of Operations. In an attempt to reduce this confusion, it is proposed to call, and sign, them as: Bare Hill State Forest, Rush Oak Openings State Forest, Squaw Island Wildlife Management Area, and Stid Hill Wildlife Management Area. Because of the sensitive nature of the habitat at Junius Ponds it will continue to be called Junius Ponds Unique Area. Changing the labels on the signs and web pages will not change the underlying legislation authorizing acquisition or tax payment categories, but would provide for easier reference to the applicable rules and regulations for each area.

Most of the area signs are in good repair, however over time they fade or are damaged by vandalism and/or weather. At the time of writing of this plan the following signs have been identified as needing repair or replacement or where additional signage is needed:

- Bare Hill UA – northern tract
- Rush Oak Openings UA – both the Rte. 15 side and the 5 points parking lot
- Stid Hill MUA – Rte. 64 parking area

The sign at the end of the Canandaigua City pier identifies Squaw Island UA as a “Park”, this is incorrect as it is correctly called either a Wildlife Management Area or a Unique Area. It isn't a NYS DEC sign, but if possible it should be replaced with a corrected version.

Roads

The existing public road infrastructure provides adequate public access throughout most of the Unit. Some portions of the town roads are seasonal and are not maintained for winter travel. Other roads have been officially abandoned; others have not been maintained in years. Some have continued to have vehicle traffic, others have not. (When a road is officially abandoned it may revert to whoever owns the property it crosses, subject to any outstanding deed restrictions.)

Additional information can be found in the Roads (pg 30) section, and known encroachments and/or trespasses are listed in Appendix M: Known Encroachments and/or Trespass (pg 241).

Bare Hill UA has several old lanes that need some work done to stop further erosion from occurring. Two main access roads will continue to be maintained for administrative access, one along the ridge to the bonfire area, the other along the lower, western edge of the property.

Rush Oak Openings UA has one main haul road from one gate to the other, it is in good condition with the exception of a couple of sections that could use some additional gravel and a culvert to replace the ford.

Stid Hill MUA, at one time the only access to the north parcel was off of Dugway Rd, the now abandoned Stid Hill Rd. NYS DEC retained the rights to use it to access the property, however, it is in poor condition and needs repair and improvement to Haul road standards to allow administrative vehicle access, but gated to restrict general public vehicle access.

Parking

There are 20 parking areas on the Unit with a wide range of condition and size, those located at the Avon Regional Office are paved, and all others are gravel. Many of them could use a fresh layer of gravel or the boundaries defined in some fashion.

The northern parcel of Bare Hill UA has no parking lot, just what little room is located adjacent to the road. This is a safety problem. A small parking lot needs to be created to serve this area.

If additional property is added per the Land Acquisition Management section (pg 141) it will be evaluated for possible parking lot locations. Especially the 5 Points Parking Lot on Rush Oak Openings UA which is small and difficult to get into and out of, if a new one can be constructed the current one will be closed and converted back to vegetation.

Gates

Construction of gates restricting motor access to haul roads and access trails will continue. The costs to upgrade haul roads for public access are prohibitive. Access restrictions are needed to maintain the "backwoods character" of the land as well as protecting sensitive areas. NYS DEC reserves the right to limit access to state lands when public safety issues occur, or damage to the infrastructure or other resources is likely.

Staff have identified the need for additional gates and/or other barricades at the following locations:

- Bare Hill UA – northern tract
- Rush Oak Openings UA – 5 points Rd gate need to be replaced
- Stid Hill MUA – Abandoned Stid Hill Rd right-of-way

Boundary Line

There is approximately 58.9 miles of boundary line for this unit. In addition there is approximately 10.8 miles of road frontage on public roads. Road frontage on public roads is generally signed but not painted.

Current policy is to repaint the blazes and re-sign these boundaries every five to ten years to clearly delineate state lands. Road frontage should be posted as needed. Signs along the roads tend to disappear more quickly than boundary signs out of the public eye. Hence, the road frontage signs will probably need more frequent replacement.

Staff identified several known issues with boundary line encroachment or trespass. A re-survey of boundaries in question may be necessary in some of these cases, and will serve as first priority for the survey crew's time, in other locations a ruling from the judiciary will be required to solve deed issues. See Appendix M: Known Encroachments and/or Trespass (pg 241).

Table 12: Management Objectives and Actions for Access Management

Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
1	Identify need for additional access	1.0	Evaluate site(s)	As Needed	H	10 Work Days
		1.1	Receive public comments	On-Going	C	5 Work Days
		1.2	Solicit public comments	Every 10 yrs (as part of the UMP process)	C	5 Work Days
2	Maintain roads	2.0	Inspect culverts	Annually or after weather damage	L	40 Work Days
		2.1	Replace culverts on about a 25 year interval, or when failure occurs.	As needed.	C	\$4,000 per culvert
		2.2	Public Forest Access Roads - grade and maintain surface.	Minimum of every 2 years, or after weather damage.	H	\$2,000 per mile

Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
		2.3	Haul Roads - grade and maintain surface.	Minimum of every 5 yrs, or after weather damage.	H	\$2,000 per mile
		2.4	Mow road right of way	At least annually.	H	80 Work Days
3	Construct roads	3.0	None proposed	Not in this plan period	L	n/a
4	Construct additional parking	4.0	Evaluate and redesign parking lots per above.	One per year	L	\$7-10,000 per lot
		4.1	Construct new lot on north Bare Hill UA parcel.	By year 5	C	\$5-7,000
5	Maintain parking areas	5.0	Litter removal	At least annually.	C	50 Work Days
		5.1	Maintain all parking areas	Every 5 yrs	C	\$10,000
		5.3	Maintain informational signs	Annually	C	\$1,000
		5.4	Mow all parking areas	Annually	H	100 Work Days
6	Control access	6.0	Locate and construct gates per above.	Year 1 and 2	C	5 Work Days and \$6,000 per gate
		6.1	Maintain gates and signs	Annually	H	100 Work Days
		6.2	Enforce NYS DEC policies	On-Going	C	Unable to predict costs.
7	Identify state property boundary lines.	7.0	Paint and post boundaries	Annually	H	80 Work days and \$10,000
		7.1	Identify and resolve boundary encroachment issues.	ASAP	C	Unable to predict costs.

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Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
		7.2	Survey and blaze boundaries.	When encroachment issues are discovered, or line evidence disappears.	C	Contracted out - \$4,500 to \$5,500 per mile. NYS DEC surveyors – 12 to 15 work days per mile
8	Maintain signs	8.0	Repair and replace area signs as they are vandalized or fade.	On-Going	L	\$500 per sign
		8.1	Change signs per above.	Once	L	See 8.0
		8.2	Request changes to the sign on the end of the City of Canandaigua Pier.	Once	L	Unknown
		8.3	Repair, replace and post other signs as needed.	On-going	L	50 Work Days

*Factors such as budget and staff constraints, and other environmental health problems may necessitate deviations from the scheduled management activities.

There may be additional unforeseen work in this category. Development of new or additional facilities will only be under taken after due consideration in the Unit Management Planning process.

Timber and Vegetation Management

Plant communities are, by nature, dynamic and ever-changing. Young stands get older and species composition changes with time. Management of vegetation can accelerate or slow down these inevitable changes in vegetative types and stages. The Northern Finger Lakes Unit Management Plan strives to maintain a balance of vegetative types and vegetative stages, the purpose of which is to enhance species diversity and abundance.

Honeoye Creek WMA, Honeoye Inlet WMA, Bare Hill UA and Willard WMA are all located on/near their respective Finger Lakes which are a direct source of public drinking water for the adjacent communities. A healthy, diverse forest will provide long-term protection for the water supply, and resist disturbances that could impact water quality.

Staff has identified management objectives which strive to maintain a balance of vegetative types and stages which are different and unique to each area. Vegetation management objectives are dictated by the areas land designation. For example, Wildlife Management Areas base these decisions primarily on benefits to wildlife; Unique Area: protecting the cultural resources which make the area unique, and Multiple Use Areas on a combination of timber management, wildlife and recreation. The proposed timber and vegetative management is intended to enhance biodiversity, produce healthy and sustainable forest resources and enhance wildlife habitat diversity.

A decline in young stands has been observed throughout the northeast due to the control of natural disturbances such as wildfire, the decline in even-aged timber management on private lands, and the decrease of agricultural abandonment and succession. Young forests are temporary and typically follow a disturbance. With less disturbances, they quickly age into pole and saw timber stands and disappear from the landscape. Although management for a diversity of vegetative types and stages has occurred on many state properties, statewide there is need for a higher percentage in a young stage. To address this issue, and the associated decline in young forest associated wildlife species, NYS DEC developed the Young Forest Initiative (YFI) in 2015. The YFI is within the DFW and aims to restore young forest habitat on most Wildlife Management Areas across the state. The objective of the initiative is to create and maintain at least 10% of each WMA's forested area as young forest in perpetuity. This program is one of the primary considerations dictating timber and vegetation management decisions on properties administered by the Bureau of Wildlife within this plan.

The properties within this Unit are characterized by a variety of vegetative types. Northern hardwood forests predominate on the north facing slopes and oak-hickory forests generally occupy the south facing slopes. Past man-made disturbances have created even more diversity. Many of the formerly agricultural fields for example have reverted back to "pioneer" forest types comprised of aspen, red maple and white pine.

The identification of large, unfragmented forested areas, also called matrix forest blocks, is an important component of biodiversity conservation and forest ecosystem protection. Honeoye Inlet is located within the Bristol Hills Tier 1 block. See Appendix N: Maps (pg 243) and Chapters 2 and 6 of the [Strategic Plan for State Forest Management](http://www.dec.ny.gov/lands/64567.html) at www.dec.ny.gov/lands/64567.html.

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The identification of large, unfragmented grassland areas, also called Grassland Focus Areas, is an important component of biodiversity conservation and grassland ecosystem protection. Rush Oak Openings UA, Avon Regional Office and Honeoye Creek WMA are all located within the Western New York Focus Area while Junius Ponds UA and Willard WMA are located within the Finger Lakes Region Focus Area.

The identification of wetlands is also an important component of biodiversity conservation and wetland ecosystem protection. The only properties with no identified New York State regulated wetlands are Willard WMA, Bare Hill UA and Squaw Island UA. The remainder of the areas in this UMP contain NYS regulated wetlands within their respective boundaries. See the Watershed and Wetlands Protection Management (pg 117) section for additional information.

Inventory

Division of Lands and Forests policy requires that a forest inventory be conducted every 10 years and whenever forest stands are changed by any silviculture operation or by the forces of nature. Forest inventory is the critical task in the vegetation management planning process, as it forms the basis for all science based vegetative management decisions in this plan. While not policy, the Bureau of Wildlife intends to follow the same inventory schedule on the properties they manage.

A stand is group of plants with similar characteristics that are analyzed and treated as a single unit. Each property is divided into one or more compartments, and each compartment divided into stands. Compartments are given a letter designation, and stands a number. This letter-number combination is used for tracking, mapping and planning the actions and activities that happen in and on NYS DEC owned land.

Forest inventory is accomplished by a statistical analysis of stands. Samples are taken from random locations (called plots) within each stand. Information collected during a forest inventory includes, among other items, tree and shrub species and size, forest type, tree density, forest health issues, topography, drainage, previous management, and site limiting factors. The required number of plots for each stand is dependent on the variability of the stand. As variability decreases so will the number of inventory plots per stand; subject to a minimum number.

The parcels within this Unit have been inventoried within the past 10 years. The data gathered was used to create Table 7: Vegetative Types and Stages for Honeoye Creek, Honeoye Inlet, Stid Hill** and Willard WMAs portion of the Unit (pg 53) and Table 8: Vegetative Types and Stages for the Avon Regional Office, Bare Hill, Junius Ponds, Rush Oak Openings UAs portion of the Unit (pg 54), as well as several maps located in Appendix N: Maps (pg 243), and the Appendix F: Vegetation Management (pg 206) for this Unit Management Plan.

During the inventory process notes are made and GPS data taken on areas that fall into Special Management Zones, protection forest, historic sites, waterfalls and other interesting natural features.

Current and Future Vegetation Types and Stages

As noted above, the management objective is to strive to maintain a balance of vegetative types and stages for each property, with the ideal balance being different for each area.

Timber size class are broken down into three different classifications: seedling/sapling is up to 5 inches in diameter, pole timber is 6 to 11 inches and sawtimber is 12 inches and up. Based on the latest inventory data, the following is an overview of the current vegetation types and stages for each area. See Vegetative Types and Stages tables starting on page 53, and Appendix N: Maps (pg 243).

Honeoye Inlet WMA is made up of 3 major vegetative types: natural hardwood forest (37%), forested wetland (34%) and open/brushy field (23%). This distribution can be explained by looking at the location of the property which includes the land south of Honeoye Lake and the adjacent eastern hill side. The forested acres are in the pole to sawtimber size class with practically none in the seedling/sapling size class. As part of the Young Forest Initiative, establishing about 146 acres of young forest on this property will be one of the primary objectives within the time frame of this UMP. Maintaining the current grassy/brushy field openings will also be a top priority.

Honeoye Creek WMA, located north of Honeoye Lake, currently consists of 68% grassy/brushy fields. Maintaining these openings through annual mowing and agricultural leases will be the main priority. Natural hardwood forests makes up approximately 25% of the property. Approximately 14 acres of young forests is desired for this property and will be created where possible.

Stid Hill MUA is predominantly natural hardwood forests (77%) located on the hillside/hilltop across the valley from Bristol Mountain. Oaks (including red, white, chestnut, black and scarlet) are the major tree species as they can adapt well to the steep, well drained soils. Overall, the topography on the hillside is too steep for commercial logging and the timber is low quality due to poor site conditions. There are some stands on top of the hill that could benefit from forest management; however, this will be dependent on adequate access. To reach, 10% young forest, approximately 185 acres will need to be converted to seedling/sapling.

Willard WMA is a small property located on the eastern shores of Seneca Lake. Natural hardwood forest in the sawtimber size class - 33% and grassy/brush fields - 58% make up a majority of the vegetative types found on the property. Creating approximately 5 acres of young forests would satisfy the 10% young forest goal for the property. There is an old fruit orchard that could benefit from a release of interfering vegetation. This action would benefit wildlife and help treat undesirable regeneration. Maintaining the current open areas with regular mowing and agriculture is also a main priority on this property.

Given the size of Squaw Island UA, no formal forest inventory has been completed, nor does it make sense. The island is approximately a quarter acre in size and supports a couple dozen trees and shrubs including cottonwood and willow. No vegetative management is proposed for the island, only to maintain the current conditions. Squaw Island UA is not included in the YFI.

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Junius Ponds UA is composed of ponds (34%), wetlands (37%), and natural hardwood forests (29%). Maintaining this composition of vegetative types is the main goal for this particular property. There are no planned commercial timber harvests proposed for Junius Ponds. Currently, we do manage the interfering vegetation around the ponds at various intervals. This will continue as staffing and budget allow. Junius Ponds UA is not included in the YFI.

The composition of vegetative types at the Avon Regional Office are 33% natural hardwood forest (note: there are areas of planted conifers, but they are small and sporadic across the landscape), 8% open wetland (cattail), 30% ponded water, 10% grassy/brushy field, and 19% other (road, parking area, building). There are no planned timber harvest proposed for this property. The Division of Operations will maintain the trails, as needed, as this area get a lot of recreational traffic from NYS DEC staff and the general public.

Bare Hill UA has three major vegetation types: 62% natural hardwood forest, 7% plantation and 30% grassy/brushy field. Maintaining the open areas is one of the main priorities. Also, the harvest of black locust plantations have been identified as a possible management action. This would include actions to favor more desirable regeneration as black locust is now listed as a prohibited and regulated invasive species in New York State.

Rush Oak Openings UA has the unique nature and global rarity of Oak Opening communities, and is the driving force behind the primary goals and objectives for the management of the area. Rush Oak Opening UA has three major ecological communities, Oak Openings (a.k.a. Oak savannahs) G2S1, Limestone woodland G3G4 S2S3, and Vernal Pool G4 S3S4. Seven threatened or endangered plants have been found there, and one that was historically present, but hasn't been observed in the area in about a century.

Over the last 15 years, restoration efforts have transformed the property to reflect the appearance of pre-European settlement conditions. Going forward, the goal will be to maintain this community. Prescribed fire can be a useful tool to promote and invigorate the growth of warm season grasses such as switchgrass, big bluestem and deertongue. There are no identified timber harvests proposed for the property. The site quality is poor and conditions are too rocky for timber production. Therefore most of the forested stands have a low annual growth rate.

Overall, for a better distribution of stages, seedling/sapling acres should be created, primarily out of the stands currently of sawtimber size.

Stand composition and vegetative type are influenced by many things. For these areas, the most important factors would be:

- 1) Site capability
- 2) Seed source
- 3) Past management
- 4) Deer density

Please note that it is impossible to predict exactly what our percentages of the various types and stages will be at the end of this plan period. This is due to two factors:

- 1) The significant role played by natural forces in the type and stage exhibited by any stand.
- 2) The fact that most tree species do not lend themselves to management over a 10 year period. In some cases it may require 40 - 50 years before the results of any given management action can be adequately assessed.

Success in this objective will be measured simply by an increase in seedling/sapling acres.

Most of the properties have a significant component of grassy/brushy openings. These areas are important to wildlife and vegetation diversity and will be maintained as such. Most of the existing fields should not be allowed to convert to seedling/sapling, which means they will need to be mowed, brush hogged or burned on a regular basis.

Old Growth Forest

The NYS DEC Bureau of State Land Management has adopted the following definition for Old Growth forests.

Old-Growth Forest - 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.

NYS DEC staff have not found any sections of the Unit that meet the above criteria. It does have stands of big trees, stands with old trees, and stands with big, old trees. Much of the area within the Unit was previously used for farming and cottages, and ample evidence of this still exists in the form of old stone walls, foundations and wire fence along old hedge rows.

NYS DEC is not implying that only Old Growth Forests are worthy of inclusion in State Forest Protection Areas, instead, the intent is to establish a consistent, science based approach to identify and classify old growth stands. NYS DEC staff will continue to protect areas other than old growth including sites where there are rare or endangered species, unique natural communities or areas where long term protection can promote greater biodiversity in the landscape.

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As time passes, and with no further human disturbance of the stand of trees, it is possible to gradually revert to a state similar to old-growth. This is a century's long process; however there are areas of this Unit that this may eventually happen to.

Commercial Timber Sales

The primary method used to influence the timber and vegetation on State Land is the commercial sale of timber. However, there are no timber harvests planned for Avon Regional Office, Rush Oak Openings, Junius Ponds or Squaw Island during the term of this UMP. See the current timber and other vegetation in Table 7: Vegetative Types and Stages for Honeoye Creek, Honeoye Inlet, Stid Hill** and Willard WMAs portion of the Unit (pg 53) and Table 8: Vegetative Types and Stages for the Avon Regional Office, Bare Hill, Junius Ponds, Rush Oak Openings UAs portion of the Unit (pg 54), as well as several maps located in Appendix N: Maps (pg 243), the Timber and Vegetation (pg 51) and the Appendix F: Vegetation Management (pg 206).

Timber resources include hardwood and softwood sawtimber, pulpwood, and firewood. Some of the factors affecting timber demand on the Unit include timber value, distance to markets, timber species and quality, the availability or scarcity of similar timber in the area, international trade policies and market demand.

The demand for timber on the Unit is part of the larger regional timber market which is part of the global market for wood products. For example - hardwood trees grown and cut on the Unit are often purchased by local loggers or sawmills, sawn into lumber at a mill within the region, and may eventually end up in a consumer product sold in Europe, Asia, or South America. The United States is a large part of the global market and has the highest per capita wood consumption of any nation on the planet. Wood products have been essential to the development of our country and continue to be an essential need of our society. As worldwide population continues to increase and the economies of other countries develop, there will be a continued long term increase in the global timber demand.

At the local scale, there is a somewhat different demand for wood products. While many local loggers supply larger mills with hardwood logs, lesser valued products such as hemlock or larch logs and firewood can be profitably cut and sold to local markets. Hemlock and larch are often sawn by small local band mills for use in barn construction. Firewood is cut by individuals for their own use or for resale to home owners.

The authority to sell forest products from NYS 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.

The program on State Forests is governed in part by a Timber Management Handbook which includes both policies and guidelines to insure that management is carried out in a deliberate and professional manner. The Timber Management Handbook directs and regulates the practice of timber management on NYS DEC lands administered by the Division of Lands and Forests (Bare Hill UA and Rush Oak Openings UA). This handbook contains technical references, as well as direction on regulation, allowable cutting,

silvicultural systems and procedures. For further discussion of Commercial Timber Sales, see Chapters 2, 3 and 6 in the Strategic Plan for State Forest Management (2011).

Other sources of direction for NYS DEC timber and vegetation management activities includes the Strategic Plan for State Forest Management, Commissioner's policies, Division directives and the guidance and thresholds established in the State Forest Commercial Sales Program Environmental Impact Statement (EIS). All timber management activities that may be carried out by this UMP will comply with the applicable guidelines and directives, as authorized under the Environmental Conservation Law. Direction is also given in the NYS DEC publication Best Management Practices for Water Quality, and the Management Rules for Special Management Zones, Plantation Management on State Forests, Rutting Guidelines, and Retention on State Forests.

The Division of Fish and Wildlife (DFW) have conducted timber harvests on their lands for many decades. The program on Bureau of Wildlife managed lands is governed in part by the Programmatic Environmental Impact Statement on Habitat Management Activities of the DEC Division of Fish and Wildlife (1979). This document provides current types of upland habitat management permitted on DFW owned lands, including timber harvests.

Traditionally, timber sales on WMAs have followed many of the same guidelines and policies created and used by Lands and Forests, as described above. Under the YFI, the Bureau of Wildlife will likely adopt many of those same policies or create similar policies and guidelines for harvests conducted on their lands. However, the YFI is still in the early stages of development and the program is likely to change as new policies and guidelines are adopted.

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);
- 4) Current distribution of vegetative stages within the unit management plan area and surrounding landscape, including the ecoregion habitat gaps as per the Strategic Plan for State Forest Management and the desired 10% young forest on WMAs 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 NYS 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 for treatment based on the criteria outlined above, and the desired future conditions identified by this Unit Management Plan. Prioritization is done by NYS DEC forestry staff, with input by wildlife staff.

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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. The New York State Comptroller must approve revenue sale contracts. 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 publically advertised and competitively bid. Law requires that forest product sales can only be awarded to the highest responsible bidder. The Regional sub-office in Bath maintains a mailing list of prospective bidders for forest product sales. Those interested in receiving bid information should contact the Bath office or visit www.dec.ny.gov/lands/69749.html for a list of currently advertised and recently closed bids.

There may be an opportunity to use up to 50% of the appraised timber sale value for in kind service work. This work must be necessary to access the sale and/or achieve management objectives. Examples of such work include but are not limited to: control of interfering/undesirable vegetation, establishing desirable regeneration and road construction and improvement. An assessment of the potential for this type of work will be done with each sale.

See Appendix F: Vegetation Management (pg 206) for additional information regarding scheduled timber harvests in the Unit.

Special Management Zones, Retention on State Forests, and Rutting Guidelines for Bare Hill UA and Rush Oak Openings UA

All silvicultural actions taken on Division of Lands and Forest properties, including Bare Hill UA and Rush Oak Openings UA are constrained by the Strategic Plan for State Forest Management, and policies for Special Management Zones, Forest Retention Guidelines, and Rutting Guidelines. Visit the web at: www.dec.ny.gov/lands/64567.html for additional information. For properties managed by the Division of Fish and Wildlife a similar set of guidance documents have been created specific to forest management on Wildlife Management Areas.

The Special Management Zones establish zones around specific features (intermittent streams, vernal pools, wetlands, etc.) where management must be modified as compared to what is permissible in the general forest zone. The actual configuration of the zones can only be done during sale layout, following field reconnaissance, which is beyond the scope of this plan. See also the Fish and Wildlife Habitat Management (pg 120) and the Watershed and Wetlands Protection Management (pg 117) sections for further details. In 2006 a new forest inventory system was implemented, which allows identification of areas receiving special management considerations.

The Retention on State Forests is a strategy for conserving biodiversity in stands managed for timber production. Retention and recruitment of snags, cavity trees, coarse woody debris (CWD), fine woody material (FWM) and other features will advance the

structural and compositional complexity necessary for conserving biodiversity and maintaining long term ecosystem productivity.

The Rutting Guidelines for Timber Harvests and TRPs provide a tool to assist NYS DEC staff when conducting a timber harvest or Temporary Revocable Permit (TRP) on State Forests. A well planned and laid out access system, utilizing appropriate best management practices (BMPs), concentrates site disturbance, soil compaction, and rutting to these limited corridors while protecting water quality and overall site productivity of the general harvest area.

Green Certification



The mark of
responsible forestry
FSC® C002027



SUSTAINABLE
FORESTRY
INITIATIVE
SFI-00102

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). Both Bare Hill UA and Rush Oak Openings UA are included in the green certification program. The green certification program does not include those lands managed by NYS DEC Division of Fish and Wildlife i.e., Stid Hill MU, Honeoye Inlet WMA, Honeoye Creek WMA, Willard WMA, Squaw Island UA, Junius Ponds UA, nor the Avon Office. To become certified, NYS DEC 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 was 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, NYS DEC 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.

NYS DEC 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

Goals and Objectives

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.

Current and Future Management

Due to the current vegetative types, stages, and species assemblages presented by these forests, we expect that the even - age system will continue to be the primary silvicultural system applied to the properties of this unit during this planning period. Note that this is only for this planning period, and may change as vegetative types and stages change.

Silvicultural techniques used to manage the forests within this unit will include:

- converting even-age stands to all-aged stands (where site and species assemblages are favorable)
- thinning and regenerating, even-aged stands
- establishing protection areas to maintain and enhance diversity
- Protecting ecologically sensitive areas such as stream banks, wetlands, and steep slopes from intensive management.

The objective is to maintain and enhance well-adapted, native species in the Unit by using the most current silvicultural knowledge.

In some areas, difficulties with regenerating oak, conifer and other shade-intolerant and mid - tolerant species, have led to shade tolerant species such as Sugar and Red Maple becoming well-established. The presence of shade tolerant species will challenge the land managers' abilities to meet the overall vegetative goals of balancing forest types and stages.

When the time comes to regenerate these oak stands it may be necessary to use techniques (such as prescribed fire, scarification, pesticide, etc.) which are not well known in this area. Outreach to user groups and the general public will be critical in explaining the science behind these techniques, why they are required, and why it is critical to reproduce the existing oak stands. In some cases additional forms, plans, and/or SEQR may be required.

See Appendix F: Vegetation Management (pg 206) for a stand by stand listing of commercial timber sales planned for the 10 years of this Northern Finger Lakes Unit Management Plan. Appendix N: Maps (pg 243) includes maps of the planned commercial treatments. Across the region, it is important to note the acres of inadequate access, intensive recreational use, limited staff resources, steep hillsides, and/or wetland terrain of the properties in the Unit do not lend itself well to timber harvesting on all of the land area. Some of the timber management shortfalls will be made up on other state and private lands on a state wide basis, but not all. For many years now, the timber in New York State has been growing faster than it is being cut down and utilized.

See Appendix F: Vegetation Management (pg 206) does not include any non-commercial treatments for any stands. Non-commercial meaning the trees are too small to sell for profit; thereby, paying for the work to be done. In addition, properly trained staff and volunteers can

also do the work. When people and/or money to contract the work becomes available, stands will be evaluated, starting with the ones in the seedling-sapling and pole timber sizes.

Protection Forest for Bare Hill UA and Rush Oak Openings

Per the Timber Management Handbook protection areas receive special consideration whenever management activities, of any kind, are planned which may impact these areas. Examples include:

- 1) seasonal harvest limitations,
- 2) restrictions of type and/or size of harvesting equipment,
- 3) special considerations for access.

Some protection areas are managed specifically to restrict or prohibit management activities. These practices may also be employed on other areas not designated as protection forest whenever site or vegetation protection is needed. Examples include: poorly drained soils, slopes over 15%, presence of historical or archeological features, recreational use, wildlife considerations, and preparation for forest regeneration. As might be expected from the landscape position, wetlands are a large proportion of this forest. Wetlands do represent unique habitat types, and require special management zones.

As part of the inventory process, Bare Hill and Rush Oak Openings have 81 acres designated as protection forest. This includes stands that are forested, forested wetland and wetland. See Appendix N: Maps (pg 243).

Plantation Management

The only areas with planted conifers are the Avon Regional Office and Bare Hill UA.

The area of planted softwood at the Avon Regional Office is small (approximately 1 acre) and composed of mostly Norway spruce. While no forest management is planned for the Avon Regional Office within the time period of this UMP, these trees are in fairly good health and provide diversity to the property.

Portions of Bare Hill UA have red pine and Scotch pine plantations. These stand are in the process of reverting to natural hardwoods. Any management of the plantation at Bare Hill UA will need to comply with the forest retention standards.

Natural succession within aging plantations is likely to follow one of two very different pathways. The first would be characterized by slow decline of the existing softwood overstory and a gradual release of the current crop of young seedling/sapling hardwoods in the understory.

The second would be characterized by the existing softwood overstory being removed by a single catastrophic event (i.e. ice storm, heavy late season snow, unusual wind event, aggressive insect attack, etc.). This pathway would result in a much more rapid release of species in the understory.

Goals and Objectives

The composition of the understory is the key in both cases. Note that, particularly in the case of the second scenario, if the understory is dominated by shrub species, a forested stand may not be the result. Rather a shrub savannah may result which might (depending on site factors) slowly succeed to a young hardwood stand.

In both scenarios there is also the possibility that, if site factors are favorable, some of the softwood species from the original plantation may participate in the new stand. Anecdotal evidence suggests that we should expect this, at least through the seedling - sapling stage. Long term persistence of these species on these sites may be somewhat less likely. Data regarding this type of situation has not been gathered long enough to have much information on the likely outcome. See also the discussion relating to desired conifer component for this management unit.

The objective for managing plantations should be to try to mimic the first scenario. The stand is thinned to a density which will allow the establishment of desirable tree species in the understory of the stand. This treatment is later followed by the removal of the rest of the softwood overstory, once the number of new, young, trees in the understory is sufficient to assure a new stand.

While this is the primary objective, it is recognize that, in spite of these efforts, there will be those situations where nature will take its course and the second scenario will be played out. Once the catastrophic event occurs, the decision on salvaging the remaining woody material on the site will need to be made. This will be done on a case by case basis, depending on site and regeneration factors. It is impossible for us to estimate, at this time, the acreage which could be involved in salvage operations.

Most of the plantations within the Unit do not occur on soil types which are conducive to success by plantation conifer species. Therefore, this plan does not propose to replant any plantations. The better course is to allow these areas to succeed (either through management intervention or by natural forces) to native, natural, vegetation. This may, or may not, include a significant conifer component.

Conifer Component

Forest ecologists have identified conifers as an important component of the ecosystem. Whether planted or natural, they bring diversity and serve as a habitat niche for native wildlife species. About 0.6% of the Unit is in conifer plantations, and about 1% of the unit is in natural conifer stands.

For the purposes of this plan a natural conifer stand is any stand where conifer species compose more than 33% of the stand, and it was of natural origins, not planted. Care must be taken to assure continuation and successful regeneration of these stands; this is especially important in drainage areas where Eastern Hemlock is the dominate tree species. Rarely would conversion of natural conifer stands to hardwood stands occur as a result of management actions. In many cases, particularly in regards to stands dominated by Eastern Hemlock, this will amount to a modified all – aged treatment. Stand regeneration efforts in these cases may stretch over a number of years.

Grass and Brush Management

Grasslands are one of the most important parts of biodiversity, and these dynamic habitats are home to a significant community of bird species, including the threatened Henslow's sparrow and northern harrier hawks. Due to changing land-use patterns, natural vegetative succession, and development, grasslands are fragmenting and disappearing. The Grassland Focus Areas (see Appendix N: Maps (pg 243)) were determined by analyzing the 2nd New York State Breeding Bird Atlas data for grassland birds for the entire state. To further refine the focus areas, NYS DEC conducted point counts during the spring and summer of 2005.

There is a fair amount of grassy/brushy openings on this Unit, about 31% of the land area. Over the 10 years of this plan that amount should remain constant, or increase by no more than 15 acres (0.3% of the land area). A grassy opening should be 4 acres or more in size. The timing on clearing to create these openings will depend on funding, because of this, an exact year of action has not been picked.

Grassland consists of more than just grass species of plant, but also includes native companion forb species such as milkweed, butterfly weed and brown-eyed Susan. Some of these respond well to fire, others respond well to less frequent mowing, but all will eventually lose to brush without some intervention. Almost none will survive in a mowed lawn setting. The frequency and timing of mowing or burning will influence what species return the following year, and which will not.

Existing, and future, grassy and brushy opening will need to be maintained, or they will revert to forest. Grass needs to be mowed at least every 3 years, and brush hydro-axed about every 5 years. If it isn't mowed or burned the grassland converts to brush and then the brush grows into trees. The clock can be set back even more by converting brush to grass, which if the funding becomes available, may be done.

Applying lime and/or fertilizer can enhance the health of grasses over invasive plants such as spotted or brown knapweed, pale swallow-wort, burdock or goldenrod. A more expensive option for fields that have little or no grasses left growing is to use standard agricultural practices to return it to grassland. This includes mowing, plowing, tilling, and herbicide application and seeding. Additional paperwork, such as an herbicide application plan and SEQR are required prior to applying herbicide.

Fire can also be used to maintain an area in grasses. Most warm-season type grasses grow the best following a fire. The soil heats up earlier in the spring with the black ash left after a burn, and the ash also provides a source of readily available nutrients for the growing grasses. Additional paperwork, such as a burn plan and SEQR are required prior to doing a controlled burn.

Typically, grassland acres are created out of timber acres by removing the woody plants, including stumps and roots, and planting grass seed. If created, the soil pH will be tested, and lime may be applied prior to seeding if funding allows. Best Management Practices would be used to control erosion.

Prescribed Fire

Currently, Rush Oak Openings UA is the only property in this unit that has utilized prescribed fire as a management tool. This helps to maintain the Oak-Savannah ecosystem currently established by regenerating the warm season grasses and killing interfering shrub and herbaceous vegetation.

Prescribed fire is a great management tool but requires lots of time and resources. Where and when funding allows, prescribed fire may be considered at the following properties: Bare Hill UA, Stid Hill MUA, Honeoye Inlet WMA and Honeoye Creek WMA.

If prescribed fire is going to be used as part of the UMP, a prescribed fire plan must first be drafted and approved. The plan must state objectives that assist in managing the plant community and achieve the UMP goals.

Issues that should be considered in preparing a prescribed fire plan are:

- Protecting **adjoining** landowners properties
- Public perception on “controlled burns” escaping prescription
- Smoke management
- Publicity from prescribed fire operations
- Visibility of the fire from surrounding towns and major highways and potential for 911 phone calls during burns
- Public forum/meetings to provide an opportunity to voice concerns and provide a setting for input and education about prescribed fire

In addition to a prescribed fire plan, fire control lines are used to control the spread of both wildfire and prescribed fire, must be constructed. Rush Oak Openings UA currently has about four miles of permanent line. Maintenance of these fire control lines consists of annual mowing, leaf removal, occasional brushing back or dozer work to control erosion issues.

Wetland and Ponds

There is a very large acreage of wetland on this Unit, about 16% is forested wetland and about 3% is emergent/open/shrub wetland. There is a smaller acreage of small pond habitats, about 2%. See the Fish and Wildlife Habitat Management (pg 120) and the Watershed and Wetlands Protection Management (pg 117) sections for further details.

These areas are ecologically important for a number of reasons. They provide habitat for various mammals, vertebrates and invertebrates throughout the year; they are used by various waterfowl during the migratory seasons; they provide sport and recreational opportunity to the public.

Management activities to maintain and enhance these areas are a priority and will occur as funding allows.

Agricultural Cooperative Agreements

Honeoye Creek WMA and Willard WMA currently have agricultural cooperative agreements. If the current agreements expire without renewal, the fields will be returned to grassland and managed per the Grass and Brush Management (pg 107) section.

Forest Health Threats

DON'T MOVE FIREWOOD! New York State regulations prohibit firewood from being brought into New York unless it has been heat treated to kill pests. The regulation also limits the transportation of untreated firewood to less than 50 miles from its origin. Many other states have similar restrictions on firewood transportation across state boundaries. The reason for this is other than their own feet and wings, the primary way exotic invasive pests spread is by hitching a ride on un-treated firewood or shipping containers.

Some level of insect, disease and natural disaster are recognized as being a beneficial factor in shaping our vegetation. Various endemic and epidemic occurrences of insect, diseases, fires and storms periodically impact the vegetative communities of New York State, including properties within this UMP. The NYS DEC staff will continue to observe the effects of these factors which influence the vegetation on the unit. Native insect species such as Fall Cankerworms are cyclic in population and may be expected to impact vegetation at some time in the future as they have in the past. By closely monitoring these outbreaks management actions may be able to lesson undesirable impacts.

However, invasive exotic insects, fungi, animals, or plants can cause big problems. Some exotics, such as chestnut blight, and beech bark disease, invaded years ago, and have all but exterminated the chestnut and beech tree. The hope is to avoid this again, by closely monitoring for new arrivals, and if possible eliminating them from North America before they can spread. At the time of this writing, infestation of introduced insects invaders posing threats to New York's forests include: Emerald Ash Borer, Sirex Wood Wasp, Hemlock Woolly Adelgid, and the Asian Longhorned Beetle.

Insects, fungus, wind, ice or snow storms can all cause unexpected but devastating damage to stands of trees. In the event of such widespread damage occurring, a salvage cut may be the best action. A salvage cut removes the dead and/or dying trees, and functions as a regeneration cut on an even aged management that Mother Nature initiated. This cannot be scheduled at this time, but has the potential to completely re-arrange the cutting schedule in Appendix F: Vegetation Management (pg 206) If this happens, there is the potential to be a lot more acres regenerated.

Invasive plants are also crowding out native species. Current exotic invaders include Purple Loosestrife, Buckthorn, Honeysuckle, Garlic Mustard, Giant Hogweed, Multiflora Rose, and Japanese Knotweed. Unfortunately, there are many more that are not listed here. As money and time allow, they will be monitored, and when found, management actions taken. Depending on the species and location, actions could include prescribed burns, pesticides, or mechanical removal.

Integrated Pest Management

The application of control methods will be determined using Integrated Pest Management (IPM). IPM is a science-based decision-making process that guides land managers when investigating a pest situation. The IPM approach determines the most appropriate and cost effective management solution for the specific pest situation. IPM includes identification of the pest, understanding the use and significance of a site or the importance of protecting unique resources, and education of the people involved. IPM also establishes pest tolerance levels and monitoring protocols. Then, with the help of technical experts and on a case-by-case basis, NYS DEC foresters develop an effective, site specific and low risk strategy to manage the pest. This includes altering conditions which attracted pests to the site in the first place. IPM often involves changing human behavior as well.

The following priorities will guide the application of control methods with varying degrees of environmental impacts. The most impactful methods hold the lowest priority and will not be applied unless all higher priority methods are not effective. Low priority methods will be applied in concert with higher priority methods in order to increase effectiveness. As new technologies are developed, they will be incorporated into management actions following appropriate review and assessment.

- 1) Silvicultural Remedies - Changes in forest composition and structure may create conditions that are less favorable to some invasive species.
- 2) Hunting - With the exception of Eurasian Boar (pg 123) many invasive and nuisance species can be kept in balance within the ecosystem by applying hunting as addressed within the Deer Management section of the Strategic Plan for State Forest Management.
- 3) Mechanical Control - Digging, pulling or cutting may be effective in altering site conditions to control invasives and directly controlling some plant species.
- 4) Grazing - Although many invasive plants may be resistant to applied scientific grazing, this method may be appropriate for some species. Grazing on DEC administered lands would require the availability of an agricultural partner along with staff and funding resources.
- 5) Biological Control - Biological control is the science of reconnecting invasive plants with the specialized natural enemies that often limit their density in their native ranges. The U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) is responsible for controlling introductions of species brought into the United States for biological control of plants, in accordance with the requirements of several plant quarantine laws, the National Environmental Policy Act, and the Endangered Species Act. Petitions for release of plant biological control agents are judged by a Technical Advisory Committee, which represents the interests of a diverse set of federal and other agencies. (Van Driesche, et al. 2002)
- 6) Herbicide Treatment - All pesticide/herbicide use will conform to guidelines identified in the Active Forest Management section of the "Strategic Plan for State Forest Management".

Emerald Ash Borer

Exotic invasive species from other continents can cause serious forest health threats. One such threat currently causing concern is the Emerald Ash Borer (EAB) (*Agrilus planipennis*). A native of Asia, it was first detected as a well-established infestation in Michigan, USA and Ontario, Canada in 2002. In 2009 it was detected in New York, and in 2010 found in northern Livingston County and central Steuben County. Every year since more EAB infestations have been found, and unfortunately additional ones are expected in the future.

EAB infests all species of ash (*Fraxinus* spp.), and has devastated millions of ash trees in North America. Adult beetles leave distinctive D-shaped exit holes in the outer bark of the branches and the trunk. Adults are roughly 3/8 to 5/8 inch long with metallic green wing covers and a coppery red or purple abdomen. They may be present from late May through early September but are most common in June and July. Signs of infection include tree canopy dieback, woodpecker damage, yellowing, and browning of leaves.

Current efforts are pointed toward delineating the infestation area and slowing the insect's spread to other parts of the state. NYS DEC current planning is contained in a document called the Emerald Ash Borer Management Response Plan a.k.a. The SLAM Document (SLOW Ash Mortality), the goal of which is to keep as many ash trees alive as long as possible, in as much of New York State as possible, for as long as possible. Additional information can be found at: www.dec.ny.gov/animals/7253.html including a PDF of the SLAM Document.

It is only a matter of time before EAB spreads across the entire state and forever changes New York forests. The most significant impact will be seen in wetland areas where ash is the dominant species. Many of the hillside stands have a much smaller percentage of ash, but very few have no ash trees at all. Some of the lowland areas have so very few other tree species that the primary tall vegetation left will be brush and standing dead ash snags.

Currently, the Avon Regional Office and Rush Oak Openings UA are the only areas within this UMP that have known EAB infestation within 5 miles.

Giant Hogweed and Japanese Knotweed

Giant Hogweed is an invasive exotic plant that can cause severe skin and eye irritation, painful blistering, permanent scarring and blindness. It can grow up to 14+ feet tall and has huge leaves and large showy clusters of white flowers. It is a native of the Caucasus Mountain region between the Black and Caspian Seas. It was introduced to Europe and the United Kingdom in the late nineteenth century and to the United States in the early twentieth century as an ornamental garden plant, and is now in the wild in Western and Central New York.

State wide this plant is being tracked and eliminated where possible. If you see this plant, *don't touch it!* Additional information is available on www.dec.ny.gov/animals/39809.html. It has infested the NFLUMP Unit, at various locations. As of the writing of this plan, the primary control method has been herbicide spraying. In the future physical removal may be attempted.

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Japanese Knotweed was originally imported as a garden plant in the 1880s, for its green foliage and August-blooming flowers. Instead, it spreads like crazy, growing quickly along forest edges, stream banks and disturbed areas. Growing to 10 feet tall, it spreads over large areas with dense growth and crowds out native plants. Once mostly found on the valley floor it is increasingly found on the hill tops. It is resistant to many herbicides, and easily re-sprouts from roots or stems when cut or mowed. Nevertheless, NYS DEC staff is attempting to minimize its impact with herbicide treatments. Honeoye Inlet is the only property in this unit with known locations of Japanese Knotweed.

White-tail deer

White-tail deer are a native species that generally exist now at higher population levels than were found historically. Deer love to eat young tree seedlings, and by doing so, play a major role in the success or failure of establishing young forests, particularly those comprised of shade-intolerant species such as oak or cherry.

In three out of four of the Wildlife Management Units (WMUs) of the unit (8H, 8N, 8J) deer populations are currently much higher than desired, and have been so for over a decade. DEC uses Deer Management Permits (DMPs) as our primary means of deer population control, as they allow for the taking of antlerless deer only, the only way to manage a deer herd. Unfortunately, in the above units, supply of DMPs has far exceeded demand, and so management has not been as effective there as needed. NYS DEC is currently exploring additional ways of taking more antlerless deer in these and other over-populated units in the near future. In the meantime, NYS DEC encourages hunters in the above units to harvest as many antlerless deer as is legally possible.

On Rush Oak Openings UA a Deer Exclosure was constructed in 2007, in an effort to encourage the growth of forbs such as wood lily. The tall fence around an area prevents the deer from getting in and protects the plants within from being eaten. Results have not been as positive as hoped, but it will continue to be maintained.

For further information on nuisance wildlife see Fish and Wildlife Habitat Management (pg 120) section.

Sirex Wood Wasp and Hemlock Woolly Adelgid

Often, stands that are stressed by overcrowding become susceptible to forest health threats. One forest health threat in that category is the Sirex wood wasp (*Sirex Noctilio*). The Sirex wood wasp is a devastating pest of pine plantations. It is native to Europe and Asia and has destroyed millions of pines in Australia, South America and South Africa. In September of 2004, a Sirex wood wasp was discovered in a research trap in Fulton, New York. An expanded trapping effort in 2006 confirmed the presence of Sirex in most counties in western New York.

Utilizing literature from around the world, NYS DEC has developed management direction in regard to dealing with the Sirex wood wasp. The literature suggests that dominant trees with a good crown ratio in managed/thinned stands experienced very little to no damage from Sirex. Unhealthy, suppressed and over-crowded trees in unmanaged stands, on the other hand, experienced mortality rates of up to 65% over a three year period in one study. As the

infestation in New York is still young, we do not yet know what the impacts will be. Therefore, silvicultural management options are not limited to liquidation cuts or work to convert stands to a non-pine species composition, unless this is a management objective for other valid silvicultural reasons. Periodic, judicious application of thinning operations to maintain stand densities at levels recommended in applicable stocking guides for optimum growth is currently NYS DEC's approach to silviculture in consideration of the potential threat of Sirex.

One aggressive insect pest which preys on the Eastern Hemlock tree is the Hemlock Woolly Adelgids (HWA). The HWA (*Adelges tsugae*) is native to parts of Asia and was first discovered in New York in 1985. It is in the family Adelgidae, which is related to aphids. The adelgid uses long mouthparts to extract sap and nutrients from hemlock needles, this prevents free growth, causing needles to discolor from deep green to grayish green, and to drop early. The loss of new shoots and needles seriously impairs tree health, resulting in death of the hemlock after several years.

To battle the hemlock-killing insects, a team of entomologists from Cornell University, U.S. Forest Service (USFS) and University of Massachusetts-Amherst are releasing *Laricobius nigrinus* beetles into a stand of HWA infested hemlocks. *L. nigrinus* beetles are native to the Pacific Northwest, where the black, 3-millimeter-long beetle keeps HWA in check by preying on them. No predators to the HWA live in the northeast United States, as a result the HWA spread unchecked, killing many hemlocks. HWA avoids predators by growing in the winter, but *L. nigrinus* beetles also feed and grow during winter. The beetle has been studied for a long time, and it only feeds on adelgids, and will only successfully reproduce on a diet of HWA.

It is unclear what will take the hemlocks place on the landscape but a deciduous tree will subject the soil and water to more sun then typical before HWA.

Table 13: Management Objectives and Actions for Vegetation

See page 206 - Appendix F: Vegetation Management for a schedule of stands and management actions, and on page 243 - Appendix N: Maps and Table 7: Vegetative Types and Stages for Honeoye Creek, Honeoye Inlet, Stid Hill** and Willard WMAs portion of the Unit and Table 8: Vegetative Types and Stages for the Avon Regional Office, Bare Hill, Junius Ponds, Rush Oak Openings UAs portion of the Unitis located on page 53.

Management Objectives	Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
1 Maintain knowledge of forest stands.	1.0	Perform forest stand inventories.	Every 10 years	C	70 Work Day's

Goals and Objectives

Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
2	Maintain healthy vegetation and rare community types.	2.0	Practice Integrated Pest Management, including early detection and monitoring for new invasives.	On-Going	C	Unable to predict future pest problems. A new invasion could greatly increase the cost.
		2.1	Manage deer population to reduce damage to the low growing vegetation (understory).	Annually	H	Accomplished by hunting license sales, producing brochures, etc.
		2.2	If widespread damage occurs, evaluate the damaged stands for salvage cut, or other management action.	After damage occurs.	C	Unable to predict costs.
		2.3	Deal with invasive exotic organisms. Specific actions will be based on species and location, but include prescribed burn, biological control, pesticide and mechanical removal.	After invasive is found.	H	Unable to predict costs.
		2.4	Mechanical or herbicide removal of Giant Hogweed.	Annually	L	15+ Work Days and \$5,000
		2.5	Herbicide removal of Japanese knotweed and phragmites.	Annually	L	60+ Work Days and \$5,000
		2.6	Biological control of hemlock woolly adelgid and purple-loosestrife.	On-Going	L	60+ Work Days and \$5,000
		2.7	Protect and encourage the rare community types found on Junius Ponds UA, Rush Oak Openings UA and elsewhere.	On-Going	C	Unable to predict costs.

Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
3	Protect water and soil quality	3.0	During Timber and Vegetation Management, follow Best Management Practices (BMP's) for water quality per NYS DEC's "Timber Management Handbook"	On-Going	C	See 5.0, 6.0 and 6.1
		3.1	Designate stands, or portions of stands, into the protection or Special Management Zones category that have factors that require special considerations.	On-Going	C	See 1.0
		3.2	See also Watershed and Wetlands Protection Management pg 117 and/or Fish and Wildlife Habitat Management pg 120.	On-Going	C	--
Strive to maintain a healthy balance of vegetative types and stages:						
4	Grassy / Brushy Openings (1,410 current acres, plus 15 additional acres)	4.0	Create about 15 acres. (increase of 0.3% of land area)	By year 10	L	\$2,000 per acre
		4.1	Maintain current 1,099 acres of grassland or brushland. By mowing or burning on a minimum of a 3 year rotation or a 5yr rotation of hydro-axing. (24.1% of land area)	Mow grassy openings prior to April 15, or after July 15. Any burns will take place March-May when favorable conditions are present.	H	\$200 per acre to mow. \$100 per acre to burn. \$300 per acre to hydro-axe.
		4.2	Maintain current 244 acres of agricultural agreements. (5.4% of land area)	On-going	L	10 to 20 Work Days
		4.3	Reclamation of grassy openings using standard agricultural practices, including mowing, plowing, tilling, herbicide application and seeding.	When grassland habitat converts to undesirable vegetation.	L	\$500 per acre

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Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
		4.4	No action on 120 acres of brushland, allow to revert to forest. (2.6% of land area)	n/a	L	No cost.
5	All Age silviculture – about a 20 yr cutting rotation	5.0	Stand entry on 0 acres located on 0 stands (None for this plan period)	See schedule, Appendix F: Vegetation Management (pg 206)	L	--
6	Even Age silviculture, Natural hardwood at about a 100 yr rotation Plantation softwood at about a 75 yr rotation	6.0	Regenerate 359 acres located on 12 stands over 10 years (7.9% of land area)	See schedule, Appendix F: Vegetation Management (pg 206)	H	40 to 60 Work Days
		6.1	Thin/intermediate cut 87 acres located on 5 stands over 10 years (1.9% of land area)	See schedule, Appendix F: Vegetation Management (pg 206)	H	20 to 30 Work Days
		6.2	Implement the Young Forest Initiative (YFI) on WMA's by converting approximately 10% of the forested acres on WMAs back to young forests.	See schedule, Appendix F: Vegetation Management (pg 206)	H	See 6.0
7	Pre-commercial work	7.0	If funding or staffing becomes available, the seedling/sapling and smaller pole size stands will be evaluated for pre-commercial thinning.	When funding and/or staffing are available.	L	1 Work Day per 100 acres evaluated
8	Roads, ponds, wetlands etc.	8.0	Maintain per "Maintenance and Facilities Management" and/or Fish and Wildlife Habitat Management and/or "Public Recreation and Use Management"	On-Going	H	--

*Factors such as budget and staff constraints, and other environmental health problems may necessitate deviations from the scheduled management activities.

Watershed and Wetlands Protection Management

NYS DEC's responsibility for administration and enforcement of the Environmental Conservation Law includes many provisions for protecting watershed and wetlands resources. The New York State Freshwater Wetlands Act (ECL Article 24) and the Water Resources Law (ECL Article 15, Title 5) are the best examples. Compliance with these regulations is required by NYS DEC when conducting management activities or construction projects that involve protected wetlands, water bodies, or streams. In addition, New York State Forestry Best Management Practices for Water Quality will be followed for all silvicultural practices on state lands. These guidelines require specific conservation practices which protect soils and water quality. Management objectives follow these regulations and best management practices and are clearly consistent with sound conservation practices and public desires.

Well-managed water resources have multiple benefits, including quality fish and wildlife habitats, aesthetically pleasing sites, groundwater protection, floodwater retention, and support for various recreational activities. Regulated activities within protected wetlands, streams and water bodies include such things as clear-cutting vegetation and construction of ponds or road crossings. Normal maintenance and repair of existing structures is generally exempt from permit requirements.

Nutrient loading, mostly from non-point sources, is a threat to the Finger Lakes located within the Unit, as well as elsewhere. Honeoye Lake, among the smallest and shallowest of the Finger Lakes, is listed on the NYSDEC Priority Waterbody List as "impaired" due to water supply concerns related to nutrients. Over the past decade, the Honeoye Lake Watershed Task Force (HLWTF), together with various State, County and local stakeholders, have sought to better manage nutrient (phosphorus and nitrogen) as well as sediment loading to Honeoye Lake as part of an effort to control the rate of the Lake's eutrophication.

Most algae are harmless and are an important part of the food web. Algae are naturally present in slow moving streams, lakes, marine waters and ponds in low numbers. Certain types can become abundant and form blooms under the right conditions. Some algae can produce toxins that can be harmful to people and animals. These are collectively called harmful algal blooms (HABs) Blue-green algae, technically known as cyanobacteria, are naturally present in lakes and streams in low numbers. Blue-green algae can form HABs that discolor the water or produce floating rafts or scums on the surface of the water. These can cause health risks to people and animals when they are exposed to them. The Avon Pond has had Blue-Green Algae blooms in the past, and will likely have them in the future. The pond has no swimming area, or other high-intensity recreational use area that would need closed when this happens, however it is advisable to be observant when in the outdoors and avoid contact with any blue-green algae rafts or scrums and in that way avoid any harmful health effects.

See also Fish and Wildlife Habitat Management (pg 120), Public Recreation and Use Management (pg 128) and Timber and Vegetation Management (pg 95).

Honeoye Inlet Habitat Restoration Project

As of May 2016, plans are underway to improve wildlife habitat on the southern, valley floor portion of the Honeoye Inlet Wildlife Management Area. The Inlet, in the fields south of the large silver maple-ash swamp, was channelized into a straight alignment by a previous landowner in the 1960s for agricultural production. This configuration presents relatively little in the way of wildlife habitat, and the Inlet's high unbroken banks here preclude the flat adjacent valley floor from becoming inundated during high flows, thereby offering no shallow water habitat for waterfowl, shore birds, herps, and invertebrates.

A habitat restoration plan has been developed in conjunction with the US Fish & Wildlife Service (USFWS) that will seek to correct this prior disturbance. The project will have two main component areas that will involve a combination of floodplain and stream habitat restoration. Techniques used will include stream restoration through channel realignment and bank stabilization, establishment of a riparian buffer zone to help shade and further stabilize the channel, and wetland floodplain wildlife habitat creation.

Approximately 2,700 linear feet of the existing Honeoye Inlet will be realigned within its floodway using proven principles of natural channel design. The Inlet will be diverted from the existing straight agricultural ditch and a more natural meandering stream course will be created just to the west that will be more conducive to wildlife use and natural hydrologic functioning and will provide approximately twice the edge effect of the previous alignment. A backwater wetland will also be created that will provide additional wildlife habitat for waterfowl, shore birds, reptiles and amphibians. Finally, ditches that run perpendicular to the Inlet's stream channel will be strategically plugged, creating vernal pool habitat on the valley's gentle upper slopes.

The results will be evaluated, and if necessary additional actions taken to continue the restoration of the Inlet and adjacent wetland and flood plain habitats.

Table 14: Management Objectives and Actions for Watershed and Wetlands

Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
1	Protect water and wetland resources	1.0	Utilize Best Management Practices (BMP's) for water quality on timber sales, recreation facilities, and any other construction.	On-Going	C	Part of the planning and construction process.

Management Objectives	Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
	1.1	Control erosion through proper road and trail maintenance.	See Access Management and Maintenance and Facilities Management	C	--
	1.2	Comply with the Protection of Waters and Freshwater Wetlands Acts	On-Going	C	Part of other actions
	1.3	Identify areas with potential and need for additional water resources	On-Going	L	Part of other actions
	1.4	Construct new water features in upland areas	See Fish and Wildlife Habitat Management	L	Up to \$10,000 per each.
	1.6	Follow Objective 3 in Timber and Vegetation Management	On-Going	C	Part of other actions
2 Enhance and restore wetland habitat.	2.0	Complete the Honeoye Inlet habitat restoration project.	Once	H	
	2.1	Evaluate results of the Honeoye Inlet habitat restoration project.	On-Going	L	20 Work Days
	2.2	Identify areas with potential and need for additional or improved wetland resources.	On-Going	L	Part of other actions
	2.3	Construct new wetland/flood plain improvement features.	As needed	L	Up to \$100,000 per each

*Factors such as budget and staff constraints, and other environmental health problems may necessitate deviations from the scheduled management activities.

Fish and Wildlife Habitat Management

The general fish and wildlife habitat goals for the lands of the unit are to maintain and enhance habitat for fish and wildlife species and to provide public access for activities including hunting, fishing, trapping, hiking, bird watching and other compatible outdoor recreational pursuits.

Management for forest-dwelling birds and mammals will largely be driven by the age of the specific forest stand, its physical structure and its species composition. In addition, birds and mammals favoring grassland, shrub, or wetland habitats will benefit from the existence of these habitat types whenever and wherever possible. The fish and wildlife habitats of the NFL Unit are highly diverse, and range from lowland swamps and marshes to steep wooded hillsides and ravines. Efforts toward achieving a balance of diverse habitat types should be an overarching goal of management, so that wildlife species diversity and abundance are maintained.

Wildlife species favoring grassland or young forest habitat will benefit from careful management to create and maintain these habitat types. Though all habitat types slowly change over time through the process of succession, nowhere is this more evident than with grasslands and young forests. Without a conscious effort to keep these habitats in their respective successional stages through active management, they will quickly transition to older structural and vegetative states; a major reason why these habitats are relatively scarce.

Many species of wildlife, from turkeys to salamanders, require sufficient water resources. Although there are significant expanses of wetlands on the unit, a large percentage of the forested habitats lack water and wetland environments. Inventory of existing sources will help identify areas with the greatest need. Dug-outs and vernal pools should be created as opportunity arises, particularly in association with timber sales.

One parcel of the Northern Finger Lakes Unit on which intense, active management to maintain grassland habitat is ongoing is Rush Oak Openings Unique Area. The Oak-Savannah habitat type, a rare mixture of prairie grassland and oak species, was historically maintained by periodic natural fires. Nowadays, man-induced prescribed burns are carefully done to maintain this habitat type.

As far as wildlife that utilize the Oak-Savannah community, one Ohio study found that this ecosystem supported that state's largest assemblage of imperiled moths and butterflies. Prairie-savannah fires can benefit herptiles by creating a heterogeneous habitat for thermal regulation, and by increasing the quantity and diversity of food. In one mid-western state, 84 species of breeding birds were found in prairie-woodland transition habitat, ten of which were listed as threatened or endangered there. Many mammals that were once part of the oak ecosystem are still doing well at Rush Oak Openings UA including cottontail rabbit, woodchuck, and white-tailed deer. Deer are doing so well in fact, that they are causing damage to plant species which are important parts of the community.

There is a robust diversity of amphibian and reptile species on lands of the Unit. Management efforts should include creation of dugouts for breeding and activity centers as

well as protection of sensitive shallow pools in swamp and bog sites. Protection of all wetland environs should enhance these species as well as others. In particular, a significant portion of the Honeoye Inlet WMA contains one of the largest silver maple-ash swamps in western New York, and an outstanding example of this habitat type. Its location between forested habitats to the east and west make this an important area for seasonal migrations of breeding woodland salamanders. Unfortunately, because roads exist between swamp and forest, there is a relatively high degree of salamander mortality in this location during specific weather conditions in the spring. The area could benefit from strategies to reduce this source of mortality. Species diversity is also benefited by protection and management of rare habitats on Junius Ponds Unique Area.

Wild ring-necked pheasant populations have been declining since the 1970's and pheasants currently exist in very low densities in Western NY, including the Northern Finger Lakes Unit. In order to maintain the rich tradition and recreational value of pheasant hunting, statewide NYS DEC raises and releases approximately 30,000 adult pheasants annually, mostly on State-owned lands, but also on some private lands that allow public access for pheasant hunting. Pheasants are released each fall in suitable hunting habitat on the Honeoye Creek WMA, and releases on Honeoye Inlet are currently under consideration.

In general, a diverse assemblage of wildlife species comes from a diverse habitat. Important are a diversity of structure, shape, age, vegetation, food, water, and shelter. The beauty of creating good wildlife habitat is that it need not be a one-time endeavor. Improvements can occur gradually as resources and strategies come to light. To maximize opportunity and efficiency, many habitat improvements on the lands of the Northern Finger Lakes Unit can and will occur in conjunction with other work being done on the areas. Timber and fuel wood sales, agricultural contracts, and Adopt-a-Natural-Resource agreements all can be a source of manpower to accomplish habitat projects.

Threatened and Endangered Species

Threatened and endangered species exist on portions of the Northern Finger Lakes Unit (see Threatened, Endangered or Special Concern Species on page 65). Efforts to identify, improve and/or create critical habitats need to continue.

Native Grassland Birds

Grasslands are an important and yet increasingly rare habitat across New York State. These dynamic habitats are home to many types of birds and other wildlife, including the endangered short-eared owl, threatened Henslow's sparrow and upland sandpiper. Due to changing land-use patterns, natural vegetative succession and development, grasslands are fragmenting and disappearing.

Habitat loss and degradation have resulted in sharp declines in grassland bird populations in New York since 1966, according to Breeding Bird Survey (BBS) data. See Appendix B: Animals of the Northern Finger Lakes Unit Management Plan Area (pg 167) for a list of birds from the 2000-2005 NYS Breeding Bird Atlas blocks that overlap the Northern Finger Lakes Unit. They include: grasshopper Sparrow (-9.0% annual change), vesper Sparrow (-8.5%), horned Lark (-5.1%), eastern meadowlark (- 5.0%), savannah sparrow (-2.4%), northern

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harrier (-2.5%), and bobolink (-0.3%). The net result has been an astounding 80-99% decline in abundance of each species in just four decades. These species, especially grasshopper sparrow, eastern meadowlark and northern harrier are area-dependent species, meaning that they need large unbroken expanses of grasslands to thrive and reproduce.

The New York State Grassland Focus Areas are parts of New York State that are of special importance to grassland birds, and these focus areas were determined by analyzing the data from the 2000-2005 Breeding Bird Atlas (BBA) blocks for grassland birds across the entire state. To further refine the focus areas, NYS DEC conducted point counts during the spring and summer of 2005. In this way important geographical areas for rare grassland birds have been identified. Two Grassland Focus Areas overlap with the Northern Finger Lakes Unit: Focus Area 1 encompasses Rush Oak Openings UA, the Avon Regional Office and Honeoye Creek WMA, and Focus Area 3 encompasses Junius Ponds UA and Willard WMA. See Appendix N: Maps (pg 243).

Providing the correct mix of grass height, plant species, and thatch depth is a bit of a balancing act. Whereas upland sandpipers require very short grasses, Henslow's sparrows require taller vegetation with a mix of forbs. Bobolinks and savannah sparrows, two fairly common grassland birds, have less stringent habitat requirements. For this reason, a best management practice for grasslands management is to have a three-year mowing rotation which provides a variety of grass heights and composition.

On the Northern Finger Lakes Unit the abundance of grassland and open areas varies by property. Patches of grassland habitat can be found and will be maintained at Rush Oak Openings and Bare Hill UAs, Stid Hill MUA, Honeoye Creek, Honeoye Inlet and Willard WMAs. Additional establishment of such habitat could occur when opportunities arise through timber management or other permitted activities. Minimal grassland habitat exists at the Avon Regional Office, Junius Ponds and Squaw Island UAs, however due to space limitations and conflicting habitat objectives, establishment of grasslands is not desired at these locations. See Grassland Focus Areas, and the Grass and Brush Management section of Timber and Vegetation Management for further details.

To learn more about protecting grassland birds on private lands visit <http://www.dec.ny.gov/pubs/32891.html> and for information on the Landowner Incentive Program Habitat Protection Project. For further discussion of Fish and Wildlife issues, see Chapters 2 and 3 of the Strategic Plan for State Forest Management.

Fish

Canandaigua and Seneca Lakes contain shallow near shore waters as well as deeper off shore waters. Both lakes become thermally stratified during the summer and early fall, leading to a wide variety of water temperatures. Shallow waters will warm up while deeper waters will remain cold throughout the summer. The variety of water temperatures and depths in these lakes support cold and warm water fish species. Management of cold water species such as Lake Trout, Rainbow Trout, Landlocked Atlantic Salmon, and Brown Trout involve stocking, fishing regulations, and habitat improvement. Warm water species such as Largemouth Bass, Smallmouth Bass, Black Crappie, Chain Pickerel, Yellow Perch, Bluegills, and Pumpkinseeds are self-sustaining and are managed primarily through fishing regulations.

The fisheries of both these lakes depend on forage species which should also be monitored regularly.

Honeoye Lake is a shallow, highly vegetated lake with warmer water temperatures. This type of habitat supports the self-sustaining populations of the warm water species listed above as well as stocked walleye. Honeoye Lake also contains a wide variety of minnow and darter species.

The Avon Office pond is shallow and highly vegetated and warm water temperatures are common. This type of habitat supports self-sustaining populations of Black Crappie, Bluegills, Pumpkinseeds and Largemouth Bass. Tiger Muskellunge (Northern Pike/Muskellunge hybrid) have been stocked occasionally to provide an additional fishing opportunity and to help reduce overabundant Bluegill and Pumpkinseed populations. Triploid (sterile) Grass Carp have also been stocked in the past in an attempt to manage an overabundance of aquatic vegetation. Low dissolved oxygen levels during summer months limits the types of fish that can survive in the pond.

The ponds located at Junius Ponds UA are well vegetated and most of the shorelines are undisturbed. One of the ponds is meromictic, meaning that water never mixes completely, leading to low dissolved oxygen in the deepest portions. Fish are confined primarily to the shallow near shore area. The habitat in these ponds support Largemouth Bass, Bluegills, Pumpkinseeds, White Crappie, and a variety of minnows and darters. The Iowa Darter is a relatively rare fish species found in Junius Ponds and is classified as a Species of Greatest Conservation Need in New York.

Most of the streams in this unit are low gradient streams with a mix of silt, mud, cobble, and boulder substrate. These streams tend to have warm water temperatures and support a variety of minnows, suckers, and darters. The one exception is the Honeoye Inlet. Portions of the Honeoye Inlet are high gradient and have relatively cold water temperatures with gravel and cobble substrate. This type of habitat supports self-sustaining populations of brook, brown, and rainbow trout.

For further discussion of Fish and Wildlife issues as they apply to Bare Hill UA and Rush Oak Openings UA, see Chapters 2 and 3 of the Strategic Plan for State Forest Management.

Nuisance wildlife

Special attention to deer management is warranted given the ability of high white tail deer populations to negatively impact vegetative species diversity, as well as the major role they play in the success or failure of establishing young forests, particularly those comprised of shade-intolerant species such as oak or cherry. In accordance with established procedures used by NYS DEC to determine deer management decisions, a reduction in the number of deer on the landscape by liberal harvest via hunting is encouraged (see the White-tailed deer section on page 112 for a more detailed discussion of deer management on land in and surrounding the Unit).

Western NY has a growing population of resident Canada geese, and the lands of the Unit that have goose habitat do as well. Canada geese are a valuable natural resource that provides recreation and enjoyment to many. However, resident Canada geese can cause

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problems including public health concerns for drinking water supplies, overgrazing grass areas, accumulations of dropping and feathers on lawn areas used by people, nutrient loading to water bodies, aggressive behavior by nesting and brood-rearing birds, and safety hazards near roads. Geese may also cause problems for nearby landowners when birds move off state land and onto other properties.

To minimize the potential impact of geese on state and nearby private lands, efforts should be made to stabilize or reduce the resident goose population as necessary on the unit. To accomplish this, a multi-faceted approach will be necessary, including such measures as the posting of “No Feeding Waterfowl” signs near problem areas, the promotion of goose hunting (where legal) on the area, and reproductive inhibition via the treatment of nests to prevent hatching.

Eurasian boars (aka feral swine) are a growing concern on New York’s landscape. They can have tremendous negative impacts on native plants, native wildlife, livestock, agriculture, and humans including:

- Eating hard mast (acorns and other nuts) and directly competing with deer, bear, turkey, squirrel and waterfowl for food.
- Consuming the nests and eggs of ground nesting birds and reptiles.
- Killing and eating fawns and young domestic livestock.
- Eating almost any agricultural crop as well as tree seeds and seedlings.
- Destroying crops and native vegetation by rooting and wallowing, causing erosion, and negatively affecting water quality.
- Aggression toward humans and their pets (Eurasian boars can have razor-sharp tusks).
- The possibility of serious disease transmission to livestock and/or humans, including swine brucellosis, *E. coli*, trichinosis, and pseudorabies. Some of these diseases, if introduced to domestic swine, can decimate the pork industry.

A few feral swine have been reported in the general geographic area covered by this Unit, but there are no reports from lands of the Unit as of the writing of this plan.

NYS DEC is working with the United States Dept. of Agriculture (USDA) to eradicate these animals from the state’s landscape. To ensure maximum effectiveness of Eurasian boar eradication efforts, adoption of the Eurasian Boar Law and Regulation has resulted in the following changes in New York:

- It is illegal to hunt, trap or take free-ranging Eurasian boars.
- It is illegal to import, breed or release Eurasian boars.
- It is illegal to disturb, destroy, open, obstruct or interfere with any DEC/USDA Eurasian boar trap.
- It is illegal to release or remove any Eurasian boar caught in a DEC/USDA trap.
- It is illegal to possess, sell, distribute, trade or transport Eurasian boars.

Certain furbearers, most notably beaver and muskrat, can cause serious damage to agriculture, private property, and water control structures. Trapping is encouraged on lands of the Unit, both as a recreational activity, and as a means to control damage. On two parcels of

the Unit, Junius Ponds, and Avon, trapping is occasionally allowed for purposes of nuisance control, by special permit only.

Squaw Island UA is heavily used by gulls as a nesting area. Gulls, including ring-billed, herring, and great black-backed gull, are a valuable natural resource native to New York State that provide important recreation and enjoyment to bird watchers and the general public. All gull species, including ring-billed, herring and great black-backed gull, are protected by Federal and State laws and regulations. In New York State, management responsibility for gulls is shared by the U.S. Fish and Wildlife Service (USFWS), U.S. Department of Agriculture (USDA), and the New York State Department of Environmental Conservation (DEC). Under the Migratory Bird Treaty Act it is illegal to kill, sell, purchase, or possess migratory birds or their parts (feathers, nests, eggs, etc.) except as permitted by regulations adopted by USFWS and NYS DEC. Concentrations of gulls in more urban areas, such as the City of Canandaigua, can cause damage to structures and health problems, encouraging the use of Squaw Island UA instead of city roofs will reduce this issue.

Table 15: Management Objectives and Actions for Fish and Wildlife Habitat

Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
1	Manage habitats for endemic wildlife species	1.0	Conduct all forms of woody vegetation management to achieve balanced forest structure.	On-Going	H	See Timber and Vegetation Management
		1.1	Implement the Young Forest Initiative (YFI) on WMA's by converting approximately 10% of the forested acres on WMAs back to young forests.	On-Going	H	See Timber and Vegetation Management
		1.2	Develop and maintain small ponds and dugouts to act as amphibian activity centers.	On-Going	L	Up to \$10,000 per each.
		1.3	Manage conifers in natural forests	On-Going	L	See Timber and Vegetation Management

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Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
		1.4	Maintain and enhance grassland habitats by mowing and/or burning	At least every three years.	H	See Timber and Vegetation Management
		1.5	Protect and enhance rare plant and animal communities	Annually	C	50 to 100 Work Days
		1.6	Convert plantations to natural communities	On-Going	H	See Timber and Vegetation Management
		1.7	Identify, protect, and improve habitat for threatened/ endangered species.	On-Going	C	Unable to predict costs.
		1.8	Survey for, identify, protect, and improve habitat for (SGCN)	On-Going, or as funding is available	L	Unable to predict costs.
		1.9	Monitor invasive exotic plants or animals. Specific actions will be based on species and location, but include prescribed burn, pesticide and mechanical removal.	After invasive is found. (See Timber and Vegetation Management)	L	Unable to predict costs.
2	Encourage public use to enjoy wildlife resources	2.0	Assist local groups in utilizing and protecting wildlife resources	Annually	L	Unable to predict costs.
		2.1	Work with local and governmental groups to enjoy wildlife habitat under the Volunteer Stewardship Agreements or Adopt-a-Natural-Resource Program	See Public Recreation and Use Management	H	Unable to predict costs.
		2.2	Stock pheasants for public hunting in suitable field habitat. (Depending on State Game Farm production schedules and bird availability.)	Annually	L	10 Work Days and \$30,000

Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
3	Manage fish populations to provide public use through angling.	3.0	Sample Avon Office pond to evaluate current fishing opportunities.	At least once every 10 years	L	5 Work Days
		3.1	Stock Avon Pond with triploid grass carp when submerged aquatic vegetation becomes over-abundant	As Needed	H	2 Work Days and \$5,000
		3.2	Stock Avon Pond with tiger musky to provide additional angling and improve balance of panfish populations	Annually, as needed	L	10 Work Days and \$1,000
		3.3	Explore opportunities to increase habitat diversity in the Avon Pond with various habitat improvement structures such as tree stumps, boulders, etc.	On-Going	L	5 Work Days and up \$1,000
4	Manage and reduce nuisance wildlife populations.	4.0	Monitor for and deal with nuisance wildlife. Specific actions will be based on species and location.	On-Going	L	Unable to predict costs.

*Factors such as budget and staff constraints, and other environmental health problems may necessitate deviations from the scheduled management activities.

Public Recreation and Use Management

One goal of the NYS DEC is to “Connect New Yorkers to Nature” by providing suitable opportunities for the public enjoyment of compatible recreational pursuits in a natural setting. Recreational use, especially fishing and hunting, is a dominant and important use of most of the state land comprising the Northern Finger Lakes Unit. Dispersed recreation will continue to be encouraged over almost all of the Unit. See also Recreation page 35.

On Squaw Island UA and Rush Oak Openings UA recreation is a secondary benefit to the primary goal of protecting the biological integrity and improvement of the local ecosystem. Low impact recreation is allowed as long as the significant plant and animal communities are not damaged.

Public access is restricted on Junius Ponds UA to protect the rare and vulnerable plant and animal communities. The only permitted public access is allowed through a temporary revocable permit process (TRP).

Activities in Northern Finger Lakes Unit are subject to DEC's Rules and Regulations for the Use of State Lands, 6 NYCRR Part 190, and part 51, as well as any other applicable state statutes, rules and regulations. See Appendix L: Proposed Special Regulations (pg 240) for proposed special regulations on Rush Oak Opening UA and Junius Ponds UA.

Public use is variable by season and location, but can be characterized as heavy at the Avon Regional Office, and light on the others. Wildlife-related recreation, including wildlife viewing, hunting, fishing and trapping, is a dominant and important use of the Unit. Users are encouraged to adhere to ethical standards and with consideration for other recreationalists.

Development of new or additional facilities will only be undertaken after due consideration through the unit management planning process. Other than facilities specified in this Unit Management Plan, stewardship activities will be limited to maintenance and rehabilitation of existing facilities.

One goal is to provide suitable opportunities for public enjoyment of compatible recreational pursuits in a natural setting. Under Environmental Conservation Law, NYS DEC is charged with managing for a wide range of beneficial uses that can be attained without excessive environmental degradation or undesirable consequences. The public has a role in identifying both beneficial uses and undesirable consequences. Recreational opportunities will be planned from a perspective of possibilities available throughout Region 8. For a list of facilities available on the Northern Finger Lakes Unit see Appendix D: Facilities (pg 188) and Appendix N: Maps (pg 243).

DON'T MOVE FIREWOOD! New York State regulations prohibit firewood from being brought into New York unless it has been heat treated to kill pests. The regulation also limits the transportation of untreated firewood to less than 50 miles from its origin. Many other states have similar restrictions on firewood transportation across state boundaries. The reason for this is other than their own feet and wings, the primary way exotic invasive pests spread is by hitching a ride on un-treated firewood or shipping containers.

No trash facilities are provided, please don't litter – if you carry it in, carry it out. Leave the State Land as you would like to find it.

Many of the recreation facilities on this, and other state lands, started out as farm lanes, logging skid road, railroads, town roads, log landings, etc. After they were no longer used for the original purpose many were converted to recreational use. Occasionally, forest product sales may affect recreational facilities. Depending upon the sale, there may be an opportunity to enhance the recreational facility. Potential enhancements include: relocation of a trail, conversion of a skid trail to a recreational trail, creation of parking areas, installation of vehicle control barriers and other structures. An assessment of impacts and possible enhancements will be done with each and every sale. As part of the active timber management, sections of multiple use trail, roads, parking lots, etc. may need to be temporarily closed to public use.

On Bare Hill UA the annual ritual of lighting the “Ring of Fire” is expected to continue to be organized by the Middlesex Historical Society, under Temporary Revocable Permit (TRP) from NYS DEC.

On Stid Hill MUA a paraglide launch site is used and maintained under a TRP from NYS DEC.

Most streams are small and do not provide much of a fishing resource, but a few streams provide very significant fisheries. See Fishing section on page 38 for additional information.

To help stop invasive species from contaminating New York's lakes and rivers please do not launch boats within five days of boating on other waters, wash down your boats after removing them from other water, check your trailer and propellers, and do not “bring” any water from other lakes or streams.

In an effort to combat the introduction and spread of invasive aquatic species - Invasive Species Disposal Stations have been installed at many DEC boat launches and fishing access sites. Eventually disposal stations will be provided at all DEC boat launches on waters containing invasive species. The goal of these stations is to provide a dedicated location for anglers and boaters to dispose of invasive species clinging to their fishing and boating equipment. The stations also serve as a billboard encouraging users to carefully inspect their equipment and remove and properly dispose by hand of any invasives found. These simple actions are the most effective way to combat the spread of invasives from water to water.

Hunting and Trapping

With the exception of Junius Ponds UA and the Avon Regional Office, hunting and trapping are allowed during open seasons, with the correct license(s) and tag(s); consult the NYS DEC Hunting and Trapping Guides for state wide regulations, seasons, hours, and bag limits. Available game varies depending on the habitat available; see the Timber and Vegetation Management (pg 95) and Fish and Wildlife Habitat Management (pg 120) sections for information on plans for maintaining and modifying the currently available habitats.

Goals and Objectives

Wild ring-necked pheasant populations have been declining since the 1970's and currently exist in very low densities in Western NY. In order to maintain the rich tradition and recreational value of pheasant hunting, NYSDEC raises and releases state wide approximately 30,000 adult pheasants annually, mostly on State-owned lands, but also on some private lands that allow public access for pheasant hunting. Currently the grassland habitat on Honeoye Creek WMA are stocked with adult pheasants just prior to and during the fall hunting season. As of the writing of this plan, Honeoye Inlet WMA is being evaluated as a possible release location.

Permanent tree stands are prohibited. However, on State Forests a temporary tree stand or blind is allowed, provided that it does not injure any trees, is properly marked or tagged with the owner's name and address or valid hunting or fishing license number, and is placed and used during big game season, migratory game bird season, or turkey season, but no more than thirty days in one location per calendar year, per 6 NYCRR §190.8. On Wildlife Management Areas no leaving of personal property is allowed.

Trails

Public Forest Access Roads, Haul Roads and Recreational Trails combined with existing logging skid roads and utility lines form a network to access recreational opportunities. Parking areas, informational signs and maps help identify and promote public enjoyment and compatible uses. See also Access Management (pg 90), Appendix D: Facilities (pg 188) and Appendix N: Maps (pg 243).

Most of the trails on the Northern Finger Lakes Unit can be used for hiking, biking, snowshoeing, and skiing. As a multiple use trail, different users must follow some basic trail etiquette rules in order to minimize conflicts. Basic trail etiquette includes: respect other trail users, pass on the right, bikers yield to hikers, and stay on marked trail (please do not cause damage by heedlessly trampling trailside vegetation).

Snowmobile trails in New York State open after big game season ends in each zone, as long as the ground is snow covered. Snowmobiles are also allowed to cross the Unit on town roads that the town has opened to use by snowmobiles. Please contact the individual towns to find out which roads are open to snowmobiles.

Avon Regional Office has many herd paths and remnants of marked trails, interwoven among the trees and invasive honeysuckle bushes, mostly located on the east side of the property. The regular trampling of vegetation is not ideal, but unlikely to stop with such a large number of visitors. An attempt to mark a defined trail system will be made, and to discourage the creation and use of the other herd paths, but time will tell how successful this will be. Ideal would be a loop trail around the big pond, with two or three spur trails to the water's edge, and another loop trail up the hill along the eastern boundary.

Bare Hill UA currently has no developed recreational trail on the south parcel, just two haul roads, but if an organized group wishes to volunteer to develop additional trails they need to apply to the Bath DEC office to do so. Possibilities include a connector trail or two between the two haul roads, or a loop off of one or more of them. Exact location must be pre-

approved by NYS DEC prior to construction starting. The old farm lane on the northern tract is slowly being improved to recreation trail standards, but more work is needed.

Honeoye Creek WMA has several routes open under the Motorized Access Program for People with Disabilities (MAPPWD route) (see Access for Persons with Disabilities on page 41 and Trails for People with Disabilities on pg 132), which are also haul roads used for administrative access. The north parcel has a loop of 2.1 miles total which starts at the eastern gate on County Road 15, goes up to the northern boundary of the parcel, travels west along the boundary, and then works its way south down the hill, ending up at the western gate on County Road 15, near Honeoye Inlet. The east and west sides of this horseshoe-shaped loop are connected by a straight section of trail, in the northern portion of the loop. A nice view to south of the Honeoye Valley can be seen from the upper portions of the trail. The main parking lot on County Road 15 lies between the east and west ends of the trail. There are no other recreation trails on Honeoye Creek WMA.

The middle parcel of the Honeoye Creek WMA, which can be accessed by the parking lot on County Road 37, contains a MAPPWD trail of approximately 0.6 miles in length. This is an out and back trail, situated generally west to east, from the parking lot to an approximately 3-acre field with intermittent brushy patches at the end. Lay of the land is gently sloping down from west to east, towards the large wetland north of Honeoye village.

For several years, DEC has given permission to the Hill and Valley Riders Snowmobile Club to place and maintain two sections of snowmobile trail on the Honeoye Creek WMA, one on the north parcel, and one on the south. The sections are part of a large system of trails the club maintains from the Town of Richmond south to Wayland. For several years, the permission took the form of an annual Temporary Revocable Permit (TRP), but more recently, it has been shifted to a five-year Voluntary Stewardship Agreement. Approximately 0.1 mile is located on the southern parcel, and about 2.5 miles on the northern parcel. An effort was made to keep the trail along roads and property lines as much as possible to prevent unnecessary disturbance to the area.

Honeoye Inlet has no existing MAPPWD trails, but the addition of one 2.4 mile long one is proposed. After this Unit Management Plan is finalized it will start at the northernmost parking lot on County Road 36, wind its way gently downhill in an easterly direction to where it intersects the main trail along the west side of the dug channel. This main section of the trail extends from the southern edge of the large forested wetland northward along the channel for about two miles, to the point where the channel exits state land and enters lands of the Mueller Field Station, owned by Finger Lakes Community College in Canandaigua. The remainder of the administrative access roads on the area are not designated as recreation trails, but serve double duty as access for public use (see Appendix N: Maps (pg 243)).

Rush Oak Openings UA has a haul road and fire control lines but no designated recreational trails. They are open for use by the public, but not marked or maintained for recreational use as the primary function.

Junius Ponds UA and Squaw Island UA do not, and will not, have any recreation trails developed on them. Junius Ponds UA is not open for public use, and Squaw Island UA is way too small.

Goals and Objectives

Stid Hill MUA has trail regularly used by bicyclists and hikers. As of the writing of this plan the maintenance of these trails are not under a Volunteer Stewardship Agreement with the local bike group. Large portions of this trail are steep and challenging to ride.

On Willard WMA the section of trail between the parking lot and almost to the water's edge is in ok shape, however down to the shoreline is washing and needs some work.

In all cases, any volunteers doing trail construction and maintenance would need to be done under a Volunteer Stewardship Agreements (VSA) and/or Temporary Revocable Permit (TRP). Any trail would need to follow trail Best Management Practices to control erosion, with the exact location approved by the Regional Forester, Regional Biologist, or his designee. NYS DEC does not have the authority to authorize trail construction across private land; the organization planning the trail is responsible for acquiring permission prior to constructing to the boundary line.

Occasional comments requested horse trails, or opening existing trails to horse use have been received. In addition the relatively small size of the parcels, steep hillsides, wetlands, poor soils, and environmental sensitivity leave little room to fit in a horse trail system. Horseback riding is available on the Six Nations Trail System, located on Sugar Hill and Goundry Hill State Forests in Schuyler County. This will continue to be NYS DEC's primary horse trail system for Region 8, and horse trails will not be added to the Northern Finger Lakes Unit.

ATV/ORV Trails

Off-Road Vehicle (ORV) or All-Terrain Vehicle (ATV) trails will not be developed on this Unit. A number of factors have contributed to this decision. As stated in NYS DEC's Strategic Plan for State Forest Management, ATV riding is not a program offered on State Lands. The development of ATV access can be considered under this policy if it is necessary to provide access to programs and activities on the Unit. The large amount of current recreational use of many sections of the Northern Finger Lakes Unit would result in conflict with ATV use. In addition, environmental sensitivity, soil conditions, small parcel size, wetlands, and steep slopes on this Unit are unsuitable for ATV use. Current illegal ATV activity has occasionally created management and maintenance challenges.

Trail Access for People with Disabilities

Wheelchairs are allowed anywhere pedestrians are allowed on state lands. The Federal/ADA definition of a wheelchair is:

Wheelchair - A manually-operated or power-driven device designed primarily for use by an individual with a mobility disability for the main purpose of indoor, or of both indoor and outdoor locomotion. This definition does not apply to Federal wilderness areas; wheelchairs in such areas are defined in section 508(c)(2) of the ADA, 42 U.S.C. 12207 (c)(2).

Currently there are no routes or roads that meet universal access requirements on the Northern Finger Lakes Unit. In many cases the ground is not firm and stable enough, and/or the slope is too steep, and/or the path is too narrow. Too steep a slope can be difficult to

change, but firm and stable conditions can be created in some locations. Any construction of new trails will include an accessibility assessment, and as money becomes available for upgrading, the existing trails and roads will be evaluated for improving universal accessibility.

While no general ATV routes currently exist on the Northern Finger Lakes Unit, on a statewide basis specific routes have been designated as part of the Motorized Access Program for People with Disabilities(MAPPWD), pursuant to NYS DEC Commissioners Policy #3 (CP-3). Prior to use, individuals with qualifying disabilities must apply and receive a permit to operate an ATV, or other vehicle, on trails designated by the NYS DEC. Not all routes are open to all types of vehicle, and some are open only seasonally for MAPPWD use. For further information, visit www.dec.ny.gov/outdoor/2574.html or contact the NYS DEC at 7291 Coon Road, Bath, NY 14810. (See Appendix D: Facilities (pg 188) and Appendix N: Maps (pg 243))

Currently the only routes on the Northern Finger Lakes Unit that are open by permit are located on Honeoye Creek WMA. Following the final approval of this UMP the two haul roads on Bare Hill UA and on Honeoye Inlet WMA along the inlet and connection to Rte. 64 parking lot #3 will all be designated as MAPPWD routes and opened for use by persons with a permit. See Appendix N: Maps (pg 243). They will remain gated, but those with a current permit will be able to obtain a key.

Table 16: Table Management Objectives and Actions for Public Recreation and Use

Management Objectives	Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
1 Identify additional recreation needs.	1.0	Receive public input.	On-Going	C	100 Work Days
	1.1	Monitor use patterns	On-Going	L	50 Work Days
	1.2	Solicit public input.	Every 10 years	C	10 Work Days
	1.3	Evaluate user satisfaction from comments received.	On-Going	H	10 Work Days
2 Coordinate with volunteer	2.0	Identify resources and/or volunteer groups to form additional partnerships.	On-Going	L	10 Work Days

Goals and Objectives

Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
	groups, and other agencies/ municipalities through the use of Cooperative Agreements, Volunteer Stewardship Agreements, or Adopt-a-Natural-Resource Agreements, to construct and/or maintain existing and/or future recreational facilities	2.1	Assist the various VSA or AANR adopting organizations and individuals in maintenance and enhancement of the trails and other recreation facilities.	On-Going	H	10-100 DEC Work Days
		2.2	Work with VSA sponsors' to locate and construct trails on Bare Hill UA.	As sponsors get organized	H	5-50 DEC Work Days
		2.3	Encourage rehabilitation of trail sections that are unsuitable for existing use.	On-Going	H	5 Work Days
		2.4	Provide resources or utilize opportunities as needed to maintain and enhance existing trail(s)	On-Going	C	10 Work Days
		2.5	Minimize conflicts between user groups	On-Going	H	30 Work Days
		2.6	Discourage illegal use of motorized vehicles.	On-Going	H	30 Work Days
		2.7	Continue to work with volunteers on maintenance of the paraglide site on Stid Hill MUA.	On-Going	L	20 Work Days
		2.8	On Bare Hill UA the annual ritual of lighting the "Ring of Fire" is expected to continue to be organized by the Middlesex Historical Society, under TRP.	Annually	L	1 Work Day
3	Determine feasibility and/or compatibility of proposed additional recreational	3.0	In house review of proposed projects	As Needed	L	40 Work Days
		3.1	Add proposed projects to the Northern Finger Lakes UMP by amendment. (This includes a 30 day public comment period.)	As Needed	L	30-300 Work Days

Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
	opportunities	3.2	Negotiate and enter into VSA agreements with sponsoring volunteer groups.	As Needed	H	5 Work Days per VSA agreement
4	Provide additional recreational opportunities . Including maintaining and improving access for persons with disabilities.	4.0	Construct and maintain new facilities as supported by the UMP.	By year 10	H	See specific action.
		4.1	Provide technical support for volunteer groups.	As Needed	L	Unable to predict costs.
		4.2	Construct barriers to discourage unauthorized motorized use of skid trails and abandoned roads after logging operations.	If damage is anticipated or observed on the skid trail or road.	C	\$1- 4,000 per location.
		4.3	Bare Hill UA Haul Roads and Honeoye Inlet WMA trails added to MAPPWD list.	Year 1	H	2 Work Day
		4.4	Continue to improve recreational trail on northern Bare Hill UA parcel.	On-Going	L	30 Work Days
		4.5	Evaluate and improve some trails/roads to greater universal accessibility	On-Going	C	Highly variable
5	Advocate wildlife-based recreation	5.0	Encourage bird watching, hunting, fishing, trapping etc. according to New York State regulations.	On-Going	L	Unable to predict costs.
		5.1	Stock pheasants for public hunting in suitable field habitats. (Depending on State Game Farm production schedules and bird availability.)	Annually	L	10 Work Days and \$30,000
		5.2	See also Fish and Wildlife Habitat Management	On-Going	H	--

Goals and Objectives

Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
6	Maintain existing and future recreational facilities.	6.0	See also Maintenance and Facilities Management, and Access Management	On-Going	H	--
		6.1	Avon Regional Office recreational trails need marked and unmarked trails allowed to revert back to native vegetation.	On-Going	L	\$1,000 and 4 Work Days
		6.2	Mow and/or trim brush back on trails.	At least annually.	H	250 Work Days
		6.3	Remove blow-down from trails	As needed	H	Part of 6.2
		6.4	Stabilize or repair recreational trail issues such as mud or erosion using Best Management Practices.	After issues are discovered and when funds or volunteers are available	H	\$0-\$100,000 Cost will vary depending on issue.
7	Increase awareness of public recreation opportunities	7.0	Provide brochures and maps for users at kiosks, NYS DEC offices, and NYS DEC web page.	Check at least monthly	H	25 Work Days
		7.1	Place and maintain kiosks or signs at high use parking areas.	By year 10	H	\$5,000 and 15 Work Days per each
		7.2	Update maps and brochures to reflect new facilities / trails / land acquisitions.	As Needed (At least every 5 yrs.)	H	10 Work Days
		7.3	Update kiosks	Annually or as needed	H	10 Work Days
8	Enhance visual appeal	8.0	Establish a litter-free environment by promoting carry in/carry out policy.	On-Going	H	Unable to predict costs.

Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
		8.1	Remove litter from state land.	At least Annually	H	See Access Management
9	Restrict public use in environmentally sensitive areas.	9.0	Identify environmentally sensitive areas	On-Going	C	Unable to predict costs
		9.1	Enact changes to regulations per Appendix L: Proposed Special Regulations	ASAP	C	Unable to predict costs
		9.2	Post restricted areas	On-Going	C	3 Work Days
		9.3	Patrol and otherwise enforce restricted use of areas.	On-Going	C	Unable to predict costs

*Factors such as budget and staff constraints, and other environmental health problems may necessitate deviations from the scheduled management activities.

Maintenance and Facilities Management

The goal is to maintain the facilities on the unit to ensure its integrity, character, and safety. This must be done with the limited money and staff resources that are available. It is the policy of the NYS DEC to use staff and money resources in the most efficient and effective way possible, and to encourage the use of volunteers to maintain facilities when possible. See also the Access Management (pg 90) and Public Recreation and Use Management (pg 128) sections for additional facilities information.

This part of New York State has the potential for generating electricity with windmills or the construction of towers for radio, cell etc. transmission, in the area of the Northern Finger Lakes Unit. There are currently no windmills, or applications for windmills, for power generation on the Unit. NYS DEC does not have the legal authority to authorize the construction of windmills, or commercial towers, on the lands covered by this Unit Management Plan. Therefore, legislation would need to be passed authorizing such use before any tower construction could take place. This plan does not cover any actions, or construction, on any adjacent privately owned lands.

All trees eventually fall down, those located in the forest rarely harm any humans or human property, however trees located at areas of higher concentrated recreational use should be evaluated for the level of risk, and those with an Imminent or Probable risk level removed or trimmed. It is not possible to have trees with no risk of falling, however the odds of injury or death can be reduced by removing the trees with the highest level of risk to users. Trees in areas of higher use will be evaluated a minimum of every five years, more frequently when possible. Initial evaluation will be a Level 1: Limited Visual Assessment, with a Level 2: Basic Assessment done on those that do not pass the Level 1. All risk trees will be dealt with as needed after discovery by inspection, public notification or other method.

Located on Avon Regional Office parcel is the Main office and maintenance center for Region 8 of NYS DEC. This plan does not cover activities taking place within the grounds of the shop or main office, located west of the road.

The A-Frame at the Avon Regional Office has been periodically used as an interpretive center and office space. Given current deficiencies; presence of asbestos, lack of accessible bathrooms, poor HVAC system, but also a need for meeting space and interpretation the building should be demolished and replaced. A facility with accessible restrooms, small kitchen facility, adequate water supply, sustainable components (PV cells, etc.) and AV system could be built, provided there is sufficient fiscal resources available. A reasonable amount of use as a meeting facility and/or interpretive center must be expected.

The Avon Pond, located on the Avon Regional Office has a draft Dam Inspection and Maintenance Plan, see Appendix D: Facilities (pg 188), the current version of this document is kept on file in the Avon Regional Office. Among other things, this document includes the frequency of inspections and maintenance such as mowing.

Willard WMA has two hazardous buildings, both of which have asbestos and need to be removed from the site.

Table 17: Management Objectives and Actions for Maintenance and Facilities Management

Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
1	Maintain constructed ponds / potholes (In consultation with the Division of Water, Dam Safety Unit)	1.0	Inspect for problems.	Annually	C	80 Work Days
		1.1	Repair dikes, control boxes, etc. (See also 1.2)	As Needed	C	Highly variable \$1,000 to \$20,000 per each
		1.2	Avon Pond dam/dike will be kept mowed to the extent required to meet dam safety regulations. (see Avon Pond/Marsh Dam Inspection and Maintenance Plan – Draft 2012 in Appendix D: Facilities)	As needed	C	130 to 140 Work Days and \$1,000
2	Solicit volunteer groups to help maintain facilities (see also Public Recreation and Use Management)	2.0	Promote Volunteer Stewardship Agreements (VSA)	On-Going	L	See Public Recreation and Use Management
		2.1	Enter into agreements with volunteer groups.	On-Going	L	See Public Recreation and Use Management
3	Maintain existing and future facilities. (see also Public Recreation and Use Management)	3.0	Identify needed maintenance	On-Going	C	10 Work Days
		3.1	Do the needed maintenance, as money allows.	On-Going	C	See Public Recreation and Use Management
		3.2	Enhance law enforcement efforts.	On-Going	C	Unable to predict costs.
4	Maintain existing and	4.0	Identify needed maintenance	On-Going	C	20 Work Days

Goals and Objectives

Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
	future roads. (see also Access Management)	4.1	Do the needed maintenance, as money allows.	On-Going	C	See Access Management
		4.2	Enhance law enforcement efforts.	On-Going	C	Unable to predict costs.
5	Removal of Facilities	5.0	Demolition and removal of house and barn at Willard WMA	By yr 10	H	Unable to predict costs.
		5.1	A-Frame interpretive center – demolish current building and replace.	Once	L	Unable to predict costs.

*Factors such as budget and staff constraints, and other environmental health problems may necessitate deviations from the scheduled management activities.

Land Acquisition Management

New York State has been a leader in recognizing the value of open, undeveloped land. The areas in this Unit provide protection for rare, threatened, and endangered plant and animal species and further the Department's goal of providing and managing high quality fish and wildlife habitat.

The acquisition of land by NYS DEC in New York State is guided by the New York State Open Space Conservation Plan. The Open Space Conservation Plan serves as a blueprint that identifies the priority projects, policies and programs that will enhance land acquisition from willing sellers for the future. The plan, issued jointly by NYS DEC and the Office of Parks, Recreation and Historic Preservation, relies on the input of Regional Advisory Committees, local governments and the public.

The Open Space Conservation Plan is updated every three years, as required by law. In 2009 NYS DEC and the NYS Office of Parks Recreation and Historical Preservation issued a plan, entitled, "New York State Open Space Conservation Plan". (www.dec.ny.gov/lands/317.html). There is, currently (June of 2015), a 2014 update to this plan available in draft form (see link).

These plans bring together: 1) an objective analysis of the State's resources; 2) the knowledge and insight of professionals inside state agencies; and most importantly, 3) the informed and valuable ideas of the public, local government and the private sector.

New York State may acquire land by donation; fee title purchase; easement, purchase of some of the rights such as development and recreation; or land swap by action of the New York State Legislature.

NYS DEC will consider parcels if they; improve public access; consolidate public ownership by eliminating in holdings; enhance recreational opportunity; protect significant ecological areas; are scenically important; contain threatened or endangered species; are of exceptional historical or cultural importance; improve watershed protection; or resolve other issues.

There are several problems (split mineral estate, title questions, etc.) within this Unit which will require either real property acquisition or other legal action to resolve.

The management objectives in the following table are not listed in priority order; i.e. management objective 1 is not more important than management objective 9.

Table 18: Management Objectives and Actions for Land Acquisition

Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
1	Provide improved access to the Unit.	1.0	Identify land acquisition needs that improve access to state lands.	On-Going	L	Unable to predict costs.
		1.1	Acquire desired properties from willing sellers as funding permits.	On-Going	L	Unable to predict costs.
2	Consolidate public ownership by eliminating in holdings	2.0	Identify land acquisition needs, which simplify the NYS DEC's boundaries.	On-Going	L	Unable to predict costs.
		2.1	Acquire desired properties from willing sellers as funding permits.	On-Going	L	Unable to predict costs.
3	Enhance recreational opportunity.	3.0	Identify land acquisition needs that improve recreational opportunities.	On-Going	L	Unable to predict costs.
		3.1	Acquire desired properties from willing sellers as funding permits.	On-Going	L	Unable to predict costs.
4	Protect significant ecological areas	4.0	Identify land acquisition with potential to protect areas with significant ecological value.	On-Going	C	Unable to predict costs.
		4.1	Acquire by fee simple or easements on desired properties from willing sellers as funding permits.	On-Going	C	Unable to predict costs.
5	Protect scenically important land;	5.0	Identify land acquisitions that are scenically important.	On-Going	L	Unable to predict costs.
		5.1	Acquire desired properties from willing sellers as funding permits.	On-Going	L	Unable to predict costs.
6	Contain threatened or	6.0	Identify land acquisition with threatened or endangered species.	On-Going	C	Unable to predict costs.

Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
	endangered species;	6.1	Acquire by fee simple or easement desired properties from willing sellers as funding permits.	On-Going	C	Unable to predict costs.
7	Are of exceptional historical or cultural importance	7.0	Identify land acquisition with exceptional historical or cultural importance.	On-Going	L	Unable to predict costs.
		7.1	Acquire desired properties from willing sellers as funding permits.	On-Going	L	Unable to predict costs.
8	Improve watershed protection	8.0	Identify land acquisition which improves watershed protection.	On-Going	L	Unable to predict costs.
		8.1	Acquire by fee simple or easement desired properties from willing sellers as funding permits.	On-Going	L	Unable to predict costs.
9	Resolve other issues (split mineral estate, title problems, etc.).	9.0	Identify issues (See Appendix M: Known Encroachments and/or Trespass for partial list)	On-Going	C	Unable to predict costs.
		9.1	Attempt to resolve such issues	On-Going	C	Unable to predict costs.

*Factors such as budget and staff constraints, and other environmental health problems may necessitate deviations from the scheduled management activities.

Mineral Resource Management

On all NYS DEC State Lands, gas well drilling, pipelines, and related road development must be in compliance with Tract Assessments, the Strategic Plan for State Forest Management (2011), the Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program (1992), and the Supplemental Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program (SGEIS), and the applicable Unit Management Plan. No exploration or extraction of the Marcellus Shale using high volume hydraulic fracturing will be considered for permitting on state lands per the December 2014 SGEIS on the Oil, Gas and Solution Mining Regulatory Program that recommended that high-volume hydraulic fracturing should not move forward in New York State. At the time of publication of this Plan, the final version of the SGEIS has not yet been finalized.

See Appendix K: Procedures for Oil & Gas Procurement (pg 238) for a description of the process to lease oil and/or gas rights from NYS DEC lands. For history and information on oil, gas and mining in the area, see the Mineral Resources (pg 47) and Appendix N: Maps (pg 243) for maps of the mineral resource development on the adjacent landscape.

Management of Mineral Resources

Any activity involving the procurement of oil and gas resources and/or storage of gas and liquids in the subsurface on state lands is administered by the NYS DEC Division of Mineral Resources. The procurement of minerals and rocks (inorganic substances), including the solution mining of minerals (such as salt) on these same state lands are administered by the Office of General Services. All activity associated with mining minerals and rocks, solution mining of minerals and oil & gas drilling, including production, are regulated by the NYS DEC Division of Mineral Resources, including the issuance of mining permits and drilling permits.

The surface estate of these state lands is managed through the NYS DEC Division of Lands and Forests or Division of Fish, Wildlife and Marine. In the event the surface estate is to be used in the evaluation and/or extraction of mineral resources from state lands, a Temporary Revocable Permit (TRP) must be obtained prior to conducting any operations. It should be noted that if the mineral estate is under a lease agreement, only the lessee, or entities authorized by the Lessee, will be issued a TRP for these purposes.

Pipeline Development

The Department, pursuant to ECL § 9-0507, may lease State lands for the construction and placement of oil and gas pipelines only if a portion of the mineral resources to be transported was extracted from State lands. Pipeline and road development must be in compliance with Tract Assessments, the Strategic Plan for State Forest Management, and the Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program and Supplemental Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program.

Pipelines on the Northern Finger Lakes Unit will be located immediately adjacent to Public Forest Access Roads and/or existing utility corridors. The location of the roads and pipelines will be in compliance with tract assessments.

Pipelines may be located in stands managed for closed canopy conditions only along pre-existing roads that intersect such area. Additional surface disturbance associated with such construction will be considered only in areas other than stands which are managed for relatively unbroken canopy conditions. Areas managed for unbroken canopy conditions may be referred to using various terms such as “uneven-aged,” “uneven-aged variable retention,” “all aged,” “high canopy,” “closed canopy” or others.

Pipeline development on State land will not be permitted if NYS DEC determines that it creates a significant long-term conflict with any management activities or public use of the State Land, or with other management objectives in this plan. All pipelines will be gated to restrict motorized access, and if necessary hardened crossings or bridges will be installed, to allow heavy equipment access across pipelines. These requirements will be satisfied by the Lessee.

Exceptions to the above guidance must be approved by the Division of Lands and Forests or Division of Fish, Wildlife and Marine, in consultation with the Division of Mineral Resources. It should be noted that any pipelines greater than 1,000 feet in length and/or containing pressures greater than 125 pounds per square inch are regulated by the New York State Public Service Commission.

Procedures for Mineral and Rock Procurement

Under Article 7 of the New York Consolidated Laws / Public Lands, if a party wishes to explore and/or procure minerals and/or rock (including salt) from state lands they must be issued a permit, consent, or lease from the General Services Office. Prior to operations, a Mining Permit or Drilling Permit in the case of solution mining, must be obtained from the Division of Mineral Resources and a Temporary Revocable Permit (for access and use of land) must be obtained from the Division of Lands and Forests or the Division of Fish, Wildlife and Marine. Mining operations are regulated by the Division of Mineral Resources.

There are no mining contracts, permits, or operations on any areas in this unit management plan. Under Article 7 of the New York State Consolidated Laws, 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) pertaining to any lands covered by this unit management plan.

Surface Use for Evaluation of Mineral Resources

In the event a party desires to use the surface estate to conduct geophysical (such as a seismic survey), geochemical and/or surface sampling procedures on NYS DEC lands after leasing they must first obtain a Temporary Revocable Permit (TRP) for the access and use of state lands. Only the lessee, or parties authorized by the lessee, can be issued a TRP for these purposes. A TRP can be applied for through the NYS DEC Division of Lands and Forests or Division of Fish, Wildlife and Marine.

Goals and Objectives

For further information contact the NYS DEC Mineral Resource staff, Region 8, 6274 East Avon-Lima Road, Avon, New York 14414-9591. Additional contacts include; New York State Department of Environmental Conservation-Division of Mineral Resources- Bureau of Oil and Gas Regulation, 3rd Floor, 625 Broadway, Albany, New York 12233.

For further discussion of Mineral Resources, see Chapter 5 of the Strategic Plan for State Forest Management.

Table 19: Management Objectives and Actions for Mineral Resources

Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
1	Decide to approve or not approve extraction of mineral resources.	1.0	Per Appendix K: Procedures for Oil & Gas Procurement, pg 238.	When Nominations are received	C	Unable to predict costs, which will vary greatly
2	Administer mineral estate	2.0	DMN monitors lease, production and royalty payments for oil and gas. OGS does same for surface minerals.	Every Time	C	Unable to predict costs.
3	Pipeline access and construction	3.0	Granted and directed by terms of lease agreement administered by DMN.	Every Time	C	Unable to predict costs.
		3.1	L&F and/or Wildlife reviews proposed operations and if approved, issues a Temporary Revocable Permit (TRP)	Every Time	C	Unable to predict costs.
		3.2	L&F and/or Wildlife enforce TRP provisions.	Every Time	C	Unable to predict costs.

*Factors such as budget and staff constraints, and other environmental health problems may necessitate deviations from the scheduled management activities.

Archaeological and Historic Resources Management

The archaeological sites located within this land 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 and Section 233 of Education Law. Should any actions that would impact these resources be proposed they will be reviewed in accordance with 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 the Education Law.

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. All 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 the New York State Museum and the Office of Parks, Recreation and Historic Preservation, and the Seneca Nation of Indians Tribal Historic Preservation Office at 716-945-9427.

Table 20: Management Objectives and Actions for Archaeological and Historic Resources

Management Objectives		Mgt. Act. No.	Management Actions	Frequency of Action*	Priority Code (Pg. 89)	Estimated 10 yr Cost (Pg. 88)
1	Preservation of historical and archaeological resources	1.0	Avoid any activity which may disturb any historical and/or archaeological resources.	On-Going	C	Unable to predict costs.
		1.1	Comply with state historic preservation act.	On-Going	C	Unable to predict costs.
		1.2	Consultation with the Seneca Nation of Indians Historical Preservation Office.	On-Going	C	Unable to predict costs.

*Factors such as budget and staff constraints, and other environmental health problems may necessitate deviations from the scheduled management activities.

PUBLIC INVOLVEMENT

Initial Mailing

Northern Finger Lakes Unit Management Plan's citizen participation activities commenced with an initial mailing in **January 2015**, outlining management plan objectives.

The initial mailing's targeted audience consisted of previously identified:

- adjacent property owners;
- local town & county officials;
- local media;
- recreational groups;
- interested industry groups;
- first nations;
- wildlife groups, and;
- other general environmental groups;

Based on those returned and other public comments received, the mailing list was amended to add other interested parties and/or correct outdated names and addresses.

Public comments received from the initial mailing and meeting are listed in Appendix A: Public Comment, with a summary in the Summary of Identified Issues section starting on page 77.

Second Mailing

Upon completion of the draft Northern Finger Lakes Unit Management Plan, a second mailing will be sent to those on the updated mailing list, including the media, summarizing objectives of the draft plan, listing local document repositories and announcing a public meeting. Repositories will include local libraries, the Bath and Avon NYS DEC offices, and NYS DEC's web page. A notice will also be posted in the Environmental Notices Bulletin (ENB) two weeks prior to the meeting.

Public Meeting

One public meeting will be held near the Northern Finger Lakes Unit Management Plan area to present the draft plan and receive comments on it. Following the end of a 30-day public comment period, any modifications based on public comment will be made and a responsiveness summary will be Appendix A: Public Comment of the final plan.

Final Notice

Commentators and those on the updated mailing list will receive a notice of availability of the final plan. Document repositories will again be identified and any significant modifications based on public comment will be noted.

APPENDICES

Appendix A: Public Comment

Initial Mailing Responses

The steps of the public participation portion of this Unit Management Plan are located in the PUBLIC INVOLVEMENT chapter.

For the Northern Finger Lakes Unit Management Plan public comments were received as a result of a scoping letter mailed January 2015. A letter asking for comments was mailed to a previously identified audience including adjacent property owners, local government officials, recreational groups, forest industry groups, wildlife groups and other general environmental groups and the local media. A total 25 written comments were received.

A Summary of Identified Issues from all of the comments received from the scoping mailing is located on page 77 of this Unit Management Plan.

Comments Received on the scoping mailing:

Both the Junius Town Board and Planning Board are generally supportive of the NFL UMP as it pertains to the Junius Ponds Unique Area. Additionally, we would like to see the entire 300 plus acres that was the former Girl Scouts Bayberry Camp preserved, protected and managed in a way that benefits the environment, wildlife and the public's recreational enjoyment.

This is consistent with the Town's draft Comprehensive Plan, goal # 8, which states, 'Protect the Town's significant environmental resources (including unique plant and animal habitats, ground water quality, wetlands or surface water).

We understand this may be beyond the scope of the UMP, but are hopeful that DEC would be open and supportive of any potentially interested partners, e.g. NYS Parks, Seneca County, etc.

~ Tom Hicks, Chairman, Town of Junius Planning Board

Attached is a letter of support from NYSDEC Region 8 for a NYSGIGP Grant proposal we submitted in June 2014 for this project. We were notified last December that we were not awarded this grant funding because our grant proposal was for design work only and didn't include funding for implementation.

Currently, we are working with the Nature Conservancy to try and secure alternate funding for the survey, design, and permitting phase of this project.

This is a very important potential project improve the water quality of Honeoye Lake. All of the key stakeholders are very supportive.

We strongly encourage you to include support for this project in your Honeoye Lake Unit Management Plan.

Please contact me if you have any questions.

Thanks again!

~ Terry R. Gronwall, Chairman, Honeoye Lake Watershed Task Force

Attached letter:

June 11, 2014
Patrick Emerick
William Hershey
Ontario County Soil & Water Conservation District
480 North Main Street
Canandaigua, NY 14424

Dear Messrs. Emerick and Hershey:

It is my pleasure to write this letter in support of the proposed Honeoye Inlet Restoration Project, which should help reduce the significant pollutant and nutrient loading that historically has entered Honeoye Lake via its inlet and the inlet's sub-watershed.

As the owner and land manager of the Honeoye Inlet Wildlife Management Area (WMA) where the project is proposed, New York State Department of Environmental Conservation, Bureau of Wildlife, is interested in being a part of the solution to the long-standing problem of pollutant loading and storm water attenuation in the watershed. Additionally, as wildlife managers, we are excited with the approach that is being taken in accomplishing the above objectives—an approach that is innovative, low-impact to the land, low on maintenance, and will increase wildlife habitat and species diversity.

The project will also provide some much-needed emergent wetland habitat in the Honeoye Valley (the closest similar habitat is almost three miles to the north). It will be rewarding to be part of a project that blends hydraulic objectives with the ecological, as historically the two have not always been complementary.

We (DEC) are willing to be the entity overseeing future maintenance needed with the created infrastructure.

This is the most practical and logical approach, as we are the land owners/managers, and the site is located in fairly close proximity to our Operations shops in Naples and Avon. In conclusion, the Department fully supports the efforts of the Ontario County Soil & Water Conservation District as you seek external funding for the design and permitting aspects of the Honeoye Inlet Project. The proposed project should be beneficial to all entities: the local communities of Richmond and Canadice, the ecology and quality of Honeoye Lake's waters, the habitat and wildlife diversity of Honeoye Inlet WMA, and the public in general who appreciate and use these two wonderful resources.

Sincerely,

Appendices

Michael R. Wasilco

Regional Wildlife Manager

Per your request for input on the proposed plan, please include the following concerns. Our farm, vineyards, and property are adjacent to the Stid Hill area. As a farmer and landowner, it is important to us that better access and parking be provided on the northeast end of the parcels off the Dugway road. It is also important that deer hunting be encouraged by opening more access to some of the remote portions of the management area. Control of the deer population here is of major concern to us as well as the other small farmers in the area.

~ Glen Shaw, Canandaigua NY

Some thoughts I have upon future management of DEC Rush Oak Openings (Rush).

Top Priority

Acquire Nature Conservancy (NC) Rush Oak Openings preserve. It is an open secret that since Bill Patterson left the area the NC has failed woefully to maintain their site at Rush. As their principal contractor who mows the site to control ligneous plants, I likely know the preserve as intimately as anyone else. Since Patterson's departure there has been no burning on the site and my mowing has been almost eliminated (2 occasions in a decade). I do not believe required followup studies of vegetation have been preformed (sic) after the last burns. The only thing I have seen the NC do in recent years is put up a trail marker-advertisement for Wegman's Markets on site promoting the use of non-existent trails.

I suggest after the State obtains the NC site the west side of the field should be burned on a regular basis. The east end simply is not inclined to hot season grasses due to soil type. It should be husbanded to oak-hickory woodlot or goldenrod meadow. The tree-line along the road frontage should also be maintained; with the periodical removal of invasive woody species.

West of the NC property is a private field with hot season grasses which the DEC should either purchase from the present owner or enter into a management easement with. This site has excellent potential as oak-savanna habitat. Removal of the hedgerow that is developing between this private field and the NC field should be executed to further reunite the site. The acquisition or management easement should be acted upon posthaste. One never knows when such a private holding might abruptly change hands.

Management Thoughts of Present DEC Rush Oak Opening

I have been involved with helping maintain the DEC site in Rush for decades, primarily mowing fire breaks and access ways related to controlled burns – this without pay or public recognition. The expenses have been painful at times – especially for equipment repairs. That said – I love the place and know it well. The positive changes over a score of years of

active fire management contrast with the corrosion of the adjacent NC site due to the latter's "demolition by neglect" governance. A fair number of local naturalists whinge (sic) about the DEC's fire management – I have countered that Rush is likely the best managed preserve in Monroe County. I would be remiss not to mention other people are positively impressed with the DEC's Rush preserve.

Personally I don't hunt; that said I'm all for killin' Bambi as there's too many deer in this state. There is however a serious issue with gun nuts plinking with fire arms at Rush – plinking isn't hunting.

Speaking from personal experience at Rush, there's nothing like hearing a shotgun fired a score of yards away and having leaves fall off an interceding walnut onto one's head. More than once I've heard firing and found I was down range from jerks shooting DEC signs off trees with assault rifles and hand guns. In the past 20 years has anyone been ticketed at Rush for firearms violations? Consider this related point – as people with guns love to shoot signs; shouldn't the DEC post signs on low value trees like cottonwood rather than species like red and black oak? Trash is a problem at Rush partly due to littering associated with plinking – they drag all manner of crap out to the preserve shoot at and leave the mess. Dumping at both parking-lots is an ongoing nuisance. I strongly believe its important to keep tires and such picked up or it invites more of the same. Has the DEC ever approached the Monroe County Sheriff's mounted patrol about helping covering Rush? Nothing like law enforcement from horseback.

I myself collect wild mushrooms both for study and to eat and have been doing so since a small boy. I am very concerned with some persons in the area collecting native wild plants including mushrooms for commercial purposes from public lands. This may prove to be an issue at Rush in the future.

The split rail fence at the Five-points parking-lot is in a derelict state and should either be removed or replaced. Litter at both Rush parking-lots needs to be picked up on a regular basis.

There is a small field east of the DEC parking-lot on Five Points Rd. As this is lower, moister ground I doubt it would support hot season grasses, but is likely to host other interesting forbes. It is presently growing up into brush and trees and would be easy to cleanup with a chainsaw and loader; pushing cut brush into snarls that will promote hedgerow formation.

The emerald ash borer will shortly remove the red ash (*Fraxinus pennsylvanica*) from its prominence at Rush. I expect the result will be comparable to shaking the hell out of a beer bottle and removing the cap – with invasive species like *Phragmites australis*, honeysuckles (*Lonicera* spp.), oriental bittersweet (*Celastrus orbiculatus*), and buckthorn (*Rhamnus cathartica*) frothing over the preserve. I find the later(sic) especially worrisome. As this shrub forms dense cohorts that shade out grasses, the controlled burns carry poorly through dense stands. Either burning the base of the plant with a propane torch or painting the cut stem with herbicide should be tried. *Phragmites* has gained purchase at Rush and clearly is unimpeded by fire if allowed to get to size. Herbicide control should be tried and very soon – studies be damned.

Appendices

Lastly, collection of ash seed from the site for the Federal seed bank program should be done this year. Perhaps another generation may make use of it if a viable predator for the borer is introduced.

~ Sincerely; Richard J Cook, d.b.a. RJ Cook Landscaping, Rochester, NY

Linda - I'm glad they've not closed the response period on this - you wanted me to sent this in email form (the address I'd gotten from the Sierra Club's newsletter was incorrect).

I am glad the DEC is updating this plan, and would like to respond to the Rush Oak Openings segment. We live within five minutes of this area and love to hike or simply go for a walk there. It is lovely, unspoiled land, being part of a globally rare plant community (an oak savannah) which is the only known intact oak opening remaining in New York State (the easternmost remaining oak opening remaining in the US). We have helped a local conservation group clear (pulling by hand) unwanted species of plants that were invading the area, to help preserve it.

Two things about the way your current management plan works alarm me:

1. The first is the hunting that is allowed - we can not go to that area during hunting season - we fear for our safety. There have been enough hunting accidents in our areas that this is a very valid concern.

A reminder of your current policy: The 1998 Unit Management Plan for the Rush Oak Openings says that hunting is a "compatible use" (see p. 12 in the PDF, link given below) so this is the status quo I would like have to see changed. I don't believe hunting should be allowed here.

2. This land should be protected for the many people who go there to get the solitude of an ancient landscape, and for the preservation of a unique ecosystem - that many other states have been unwilling to protect in this way, so they no longer exist.

Please keep this land as public park land, for use by many for educational and recreational uses.

~ Carolee S. Powers

Dear DEC representatives,

I am a resident of Rush, NY.

I am writing to ask that you please prohibit hunting at Oak Openings in our Town. This land is beautiful and is unique to our town. We would like to come to the land during many different times of the year.

We do not need a hunting accident to know that it is unsafe for an average person to be in the woods during the different permitted hunting seasons. If hunting is permitted, there are several months when families cannot safely use this land. This unique property should be open to hikers and walkers at all times of the year. This land parcel is enjoyed by many of us.

Since the September hunting accident we are no longer free to use this land. Many of us are not even sure when different hunting times are. Can you please tell me when are hunters allowed to use the land? Many people still do not know there was a fatal hunting accident on this site. This could happen again. Please, let's prevent this.

Please keep people and our dogs safe and do not allow hunting on this land. If you have any questions, do not hesitate to call me at (585) 226-3512.

Thank you.

~ Sincerely, Marianne Rizzo, Rush, NY

This letter is in response to the request for public input regarding the Northern Finger Lakes Unit Management Plan. My comments focus exclusively on Rush Oak Openings, which is part of the plan. Thank you for the opportunity to contribute these comments for your review and consideration.

I am a resident of Rush and aware of the ecological value and inherent beauty of the Rush Oak Openings. I would request that the new management plan return to a no-hunting provision throughout the Rush Oak Openings, and that this prohibition be firmly enforced.

Rush Oak Openings consists of two tracts totaling 228 acres. Hunting in this area has meant a significant negative impact on this highly sensitive environmental area, as well as on the quality of life of the neighbors who border the land. The impact of hunting over the past few years has been devastating to the long history of enjoyment and benefit of this treasured parkland. Hunting and target shooting has been extremely dangerous for both visitors and residents who live in the area. Hunting results in many residents to stay away from the area. Bullets and target shooting boards have caused damage to the sensitive land and the trees on the parcel. Even with increased enforcement for legal hunting, this would still not be an area that can tolerate hunting safely; or where hunting and hikers could be present on the property together. The parcel is narrow, and hikers and hunters are often close enough to be in full view of property owners from their backyards.

There is a growing appreciation by New Yorkers of the value of being outdoors, hiking, and family adventures in New York's parks and recreation areas. Oak Openings is one of these remarkable areas that is a great day destination for our region. Citizens who hike in the Oak Openings should not face the high risk for a hunting accident if they walk through the property in the fall, one of our most beautiful seasons of the year. Last fall, there was a fatal hunting accident in the area, raising the awareness of the dangers and risks to neighbors and visitors.

From our DEC website, "Rush Oak Openings contains a globally rare plant community commonly referred to as an "oak opening" or "oak savannah." This site is the only known intact oak opening remaining in New York State. Oak openings were very common in the Midwest (where the prairie met eastern forests) prior to European settlement. Rush Oak Openings is the easternmost remaining oak opening." This unique area should be enjoyed by all New Yorkers now and in years to come; allowing hunting jeopardizes the integrity and stability of this priceless environmental treasure.

Appendices

In the DEC's 1998 Unit Management Plan, staff believed that hunting was a "compatible use". A review of the facts and history of the area demonstrate clearly that hunting does not belong in the plan. Please prohibit hunting on this property. Thank you for your consideration of my comments in developing the new plan. If you have any questions or require clarification, please contact me.

~ Respectfully submitted, Kathryn-Cappella Hankins

Dear DEC representatives,

I am a resident of Rush, NY. I am writing to ask that you prohibit hunting at Oak Openings in our Town. This land is beautiful and is unique to our town and region. We like to hike on the land during many different times of the year.

We do not need a hunting accident to know that it is unsafe for an average person to be in the woods during the different permitted hunting seasons. If hunting is permitted, there are several months when families cannot safely use this land. This unique property should be open to hikers and walkers at all times of the year. There are many other areas in our town and area where hunters can hunt. This land parcel is enjoyed by many of us.

Since the September 2014 hunting accident we no longer feel safe to use this land. Many of us are not even sure when different hunting times are. Many people still do not know there was a fatal hunting accident on this site. This could happen again. Please, let's prevent this.

Please keep people and our dogs safe and do not allow hunting on this land. Thank you.

~ Sincerely, Jim Chaize Rush, NY

I am writing in response to the DEC request for public input regarding the Northern Finger Lakes, including the Rush Oak Openings, to be used in drawing up a Unit Management Plan for this region.

I am writing to ask that hunting be prohibited in the Rush Oak Openings. I am a resident of Rush and I am aware of the ecological value and inherent beauty of the Rush Oak Openings.

I am aware of at least one recent death at this site as a result of a hunting accident. As you can imagine, that knowledge makes me reluctant to enjoy the Rush Oak Openings during the many times during the year when hunting is ongoing. Not knowing whether hunters are using the area and whether those hunters are being careful means that the public cannot use the area during most of the year unafraid. This unique area, which is almost the only instance of oak savannah in the Northeast, cannot be seen and enjoyed by people if they are afraid of being hurt by Hunters.

Hunting needs to be prohibited in the Rush Oak Openings and the hunting prohibition needs to be made clear by comprehensive signage. This land will only be safe to the public if hunting is strictly enforced.

The 1998 Unit Management Plan for the Rush Oak Openings is incorrect in concluding that hunting is a "compatible use" at the Rush Oak Openings. It is certainly not compatible

with use of the area by non-hunters, who make up the majority of the population and who want to enjoy the area during all seasons of the year, including the autumn months, which are the most glorious months in upstate New York.

~ Very truly yours, Harold Carter, Honeoye Falls, NY

This co-correspondence is in regards to the Northern Finger Lakes Unit Management Plan. My comments refer to Stid Hill and Honeoye Inlet. I find it interesting that Biological diversity is one of your goals. Among my group of hunting friends we have coined the term "sterile State Land" because of the lack of habitat management, ie: logging, firewood cuts, leasing to farmers to produce crops. All of which would increase the biological diversity in both Flora and Fauna. I don't think I need to outline the benefits of a selective timber harvest and or wildlife food plantings to both wildlife and health of the Forest. I just ask that you do something besides mowing fields and removing any available cover wildlife may have had. The Honeoye inlet used to be farmed land and the deer that wintered in the area was in the hundreds, now you would be hard pressed to find 20 deer wintering there. Leasing part of the land to a local farmer could not only generate revenue but also food for wildlife at no cost to DEC and the Public. In the absence of a mast crop the Stid hill area is void of food for most wildlife during the stress of winter.

Please excuse me if I may seem a little surly in my response but I remember when DEC made money selling firewood and at the same time creating a diverse habitat. I know DEC is full of many fine employees with the appropriate degrees to address habitat improvement, I just hope this does not become another political correctness exercise.

~ Roger Smith (not a logger or farmer, just a sportsman)

Good afternoon,

Thank you for letting us know about your plans to develop the Northern Finger Lakes Unit Management Plan. Are you planning any meetings with key partners? Sandie Doran, of this office, is the Lake Plains/Prairie Peninsula Bog Turtle Subunit Lead and it seems appropriate to involve the subunit team members in discussions about Junius Ponds. Sandie is copied on this email so that you have her contact information.

~ Thank you, Robyn A. Niver, Endangered Species Biologist, USFWS, Cortland, NY

To Whom It May Concern:

I am glad the DEC is updating this plan, and would like to respond to the Rush Oak Openings segment. We live within five minutes of this area and love to hike or simply go for a walk there. It is lovely, unspoiled land, being part of a globally rare plant community (an oak savannah) which is the only known intact oak opening remaining in New York State (the easternmost remaining oak opening remaining in the US). We have helped a local conservation group clear (pulling by hand) unwanted species of plants that were invading the area, to help preserve it.

Two things about the way your current management plan works alarm me:

Appendices

1. The first is the hunting that is allowed - we can not go to that area during hunting season - we fear for our safety. There have been enough hunting accidents in our areas that this is a very valid concern.

A reminder of your current policy: The 1998 Unit Management Plan for the Rush Oak Openings says that hunting is a "compatible use" in this area. This is the status quo I would like have to see changed. I don't believe hunting should be allowed here.

2. This land should be protected for the many people who go there to get the solitude of an ancient landscape, and for the preservation of a unique ecosystem - that many other states have been unwilling to protect in this way, so they no longer exist.

Please keep this land as public park land, for use by many for educational and recreational uses.

~ Carolee S. Powers, Honeoye Falls, NY

To the NYS DEC,

I am writing in response to the January 2015 communication from the DEC requesting public input on the management of the Northern Finger Lakes, which includes the Rush Oak Openings.

I am a lifelong NYS resident and an almost- 30 year resident of Rush. I love to walk and hike and I care about the preservation of habitat and species.

Please prohibit hunting in the Rush Oak Opening and in the entire Northern Finger Lakes. A fatal hunting accident occurred in the Rush Oak Openings just last fall. If people are afraid of being harmed by hunters they will not be able to enter and enjoy this unique wilderness area.

If by some chance the DEC thinks that hunting is necessary to the preservation of the unique habitat, I feel quite sure that this is not the case. You may feel free to contact me for information on non-lethal (and non-threatening to humans) wildlife management.

~ Carol, Ted Barnett Rush, NY

Please At Bergen Swamp Preservation Society (BSPS) as an interested party to you development of a management plan

We share the northern Honeoye Creek wetland and are developing our management plan for the Taylor Marsh the official name of our wetland property

~ Lee Drake

To whom it may concern:

I am pleased to provide the attached comments related to the future management of the Junius Ponds Unique Area.

Sincerely, Thomas J. Rawinski, Botanist, SDA Forest Service, Durham, NH

Junius Ponds Unique Area:

Management Comments Provided by Thomas J. Rawinski

My familiarity with the biota and ecology of Junius Ponds dates back to 1979 when, as a grad student living in the area, I made the first of many visits to the site. In the 1980s, while working for The Nature Conservancy, I also visited Junius, and documented many of its rare species. At present, I am a botanist with the U.S. Forest Service. I visited Junius a few years ago with DEC's Jim Eckler, and we discussed management concerns.

My suggestions/comments for management at Junius will be brief and to the point:

- 1) Ensure that the populations of state-listed rarities are monitored on a periodic basis to detect changes attributable to improving habitat conditions, or changes that may reflect deteriorating conditions. Thus, the monitoring data will serve to inform management in an adaptive manner. Staff from the New York Natural Heritage Program might be enlisted to perform much of this monitoring work.
- 2) Ensure that water levels in the ponds never again reach the prolonged beaver-flooded levels that prevailed over a decade ago. Those ponds, and their surrounding fen vegetation, are practically unique in that the water level remains so constant. The special biota of the area developed in response to the near-constant water level, and the prolonged inundation of the fen vegetation proved harmful and opened the door to exotic phragmites invasion.
- 3) Control of phragmites should continue to be a very high management priority, since this invasive can obliterate the native fen vegetation. The other invasive that should be targeted for aggressive control is glossy buckthorn.
- 4) While I am sympathetic to the wishes of fishermen to have access to these ponds for fishing, I would fear that the fishermen might trample much of the sensitive shore-line fen vegetation. Consequently, my suggestion for this fragile and biologically significant site is that fishing and any other public access development be prohibited.

Please be sure to adequately address the outlet issues for Honeoye Lake.

The outlet quickly fills in with stone, debris and sediments from both the lake and from Mill Creek. The resultant flow restrictions cause flooding in many areas, especially along Honeoye's main street. The swamp area north of Main Street has constricted the original flow in the creek to Honeoye Falls. While I can appreciate the 'forever wild' attitude of the DEC at this time, the impact to residents, State, County and Town roads also need appropriate consideration. For some reason we have to wait for catastrophic events to get the flow going again. A poor process in my opinion, as was demonstrated again in 2014.

~ Thank you, Bill Woods, Honeoye

to all,

I read the article in Fridays Daily Messenger paper and have the following comments:

Appendices

1. There were a few mentions of hiking trails on various lands. I believe this is the single most important thing that can be done to these properties.

- * Hiking trails are low impact on the ecology of these lands
- * Hiking trails, if promoted properly can assist in tourism efforts
- * Hiking trails can be enjoyed by local people as well as visitors
- * Hiking trails should also include adequate parking and signage

Thank you,

Ps. Enlist local people in developing trails for free labor and a sense of stewardship.

~ Peter R. Badger, West Empire Associates, Inc.

Greetings. My thoughts are about "beating back the brush," the evidence of which I have observed at Bare Hill and Italy Hill State Forest. Good to have that done, and the people I bird with (primarily Bare Hill) and hunt with (IHSF) join with me in enthusiastically applauding the efforts. Stopping the successional progression in various places, and thereby having more diverse habitats, makes our outdoor experiences more enjoyable.

I wonder if there is some way to make IHSF a bit more accessible, by improving the old roadways, or by making new trails? That is something I would be very interested in seeing done.

I am a member of the Eaton Birding Society (Geneva), and I thank you for your interest.

~ Lynn Donaldson, Keuka Park, NY

Greetings,

What is the time frame for this process? When was this posted, and when is the deadline for receiving comments?

~ Thanks so much, Clara Mulligan

Dear Commissioner Martens:

The DEC has requested public input regarding the Northern Finger Lakes, including the Rush Oak Openings, to be used in drawing up a Unit Management Plan for this region. We are writing to ask that hunting be prohibited in the Rush Oak Openings. We are residents of Rush and are aware of the ecological value and inherent beauty of the Rush Oak Openings.

The Rush Oak Openings are a unique ecosystem known as oak savannah, one of the very few instances to be found in the Northeast region. People are encouraged to visit the Oak Openings to view and study this rare habitat. However, there was a death at this site as a result of a hunting accident in fall of 2014. How, we ask, are people to visit the Oak Openings during the 6 months of the year when hunting is allowed (September through

February)? The fatal accident which occurred last year took place during squirrel hunting, which runs from September 1 through February 28. How can we possibly feel safe walking through these woods and grasslands during hunting season if hunting is allowed? To allow hunting effectively limits us, and most cautious people from walking in the Oak Openings for 6 months of the year, including the autumn, the most beautiful time of year in our woods and grasslands. Why exclude the more than 90% of the population who do not hunt, and who will decline to go to the Oak Openings during the months when they are afraid of being hurt by hunters?

We have a friend who wrote the local DEC division, also to oppose hunting on this property. She received a response from Associate Forester Joel Fiske, who said that the fatal accident in 2014 was “disturbing” but that “Generally hunting season is very safe, with no fatalities and no untoward incidents.” This is a ridiculous assertion. No one that we know will walk in woods or wilderness areas during hunting season. It is almost impossible to say how many people would like to visit the property but stay away for this reason. Is it really okay with the DEC to make the Oak Openings off limits for almost everyone for half of the year?

The letter from Fiske refers to a need for hunting to prevent damage to the “assemblage of grasses.” Surely intelligent caretakers can figure out a way to manage the property without hunters. We’re not sure hunting will work to keep out wildlife anyway. The Oak Openings is a relatively small (~225 acres) and narrow piece of land, almost a linear trail, with long borders on residential areas. We doubt that hunting can keep the deer out, but we think it does an excellent job keeping out walkers, hikers, bird watchers and students of botany. Is that what you want?

~ Respectfully submitted, Carol and Ted Barnett, Rush NY

Thank you for the opportunity to comment on issues to be included in the draft unit management plan.

The Canandaigua Lake Watershed Association is a 1000-member, non-profit organization dedicated to the protection of Canandaigua Lake through scientific research, public policy education, and watershed management.

A predecessor of the Watershed Association donated a parcel of land atop Bare Hill to initiate creation of the Bare Hill Unique Area in the 1980s, and we remain very interested in its management. Bare Hill Unique Area is entirely in the Canandaigua Lake watershed.

In recent years, the Watershed Association has promoted better management and regulation of steep slopes in the watershed as a means of protecting water quality. The Bare Hill Unique Area has some steep slopes which require special care and protection.

Previous plans for the Bare Hill Unique Area included proposals for logging certain areas of the hill. We remain very concerned that the disturbance, roads and heavy equipment associated with logging could have severe impacts on water quality. We are certainly in favor of practices that will promote good forest health and diversity, especially those that do not require roads and mechanical disturbances.

Appendices

Bare Hill is an important landscape feature of the area. It is the northern-most hill associated with the Alleghenies. Bare Hill has symbolic value to local Native American nations. The hill attracts many visitors and presents a striking aspect when viewed from the west side of the lake.

The Canandaigua Lake Watershed Association supports additions to the Bare Hill Unique Area and has made major contributions to the Finger Lakes Land Trust that has carried out preliminary work leading to additions. We would also support activities such as trails development, on land or water, which allow greater recreational use of the Unique Area.

It is important, however, given the cultural significance of the hill to the Onondawaga (Seneca), that any expanded uses be properly planned and sensitive. We support the mowing regime that keeps portions of Bare Hill bare.

We feel that more attention should be paid to existing non-native, invasive species that colonize Bare Hill and would advocate their suppression or removal and re-planting with native species. New York State's grasslands are disappearing into old fields and young forest. We encourage continued mowing of the Bare Hill Unique Area to maintain its grasslands and grassland species.

Due to the growth of plantations of non-native species such as spruce and invasive species, such as Black locust, important views from Bare Hill have been lost over the years. We ask that consideration be given to selective cutting to re-open and maintain views from Bare Hill.

~ Sincerely, Thomas Zimmerman, President, Canandaigua Lake Watershed Association

Hi, I see you are looking for input on this area, I live on County Road 36 and would love to see this area developed for hiking trails, I have hiked here some but it is quite muddy at times and easy to stray onto private property without knowing.

If there needs to be volunteers involved to build a trail I would be willing to help out if needed.

~ Bob Stark, Honeoye NY

This is to speak to the Northern Finger Lakes Unit Management Plan with regard to the Unique Area of Junius Ponds.

Firstly, let me express my pleasure at the NYS DEC purchasing much of the Junius Ponds network AND for having the knowledge and courage to designate it a Unique Area. It took foresight, courage and dedication to designate this site as Unique and also to recognize that parts of this site could not withstand trampling and designated the pond known as Lowery Pond as a no---public access area. This may seem selfish since I have had the good fortune to spend many extraordinary days at this site since 1986, when I have my first field notes from this site. I have spent the better part of my professional career endeavoring to get site protection for the Central NYS sites that have extant NYS Endangered and Federally Threatened species. Junius Ponds is one of literally a handful of sites in Western and Central NYS. This alone might make Junius Ponds unique, but what I try to convey to the world as an educator and as a scientist

and that it is never about species; it is about the habitat in which they reside. Two other CNY sites are among the less than handful of sites known for the NYS Endangered Bog Buckmoth (*Hemiluca maia*), another habitat specialist.

I have been actively studying Junius Ponds since 1986 in collaboration with the NYS Department of Environmental Conservation (NYSDEC)—both Regionally and in Albany (with the now extinct Endangered Species Unit—Alvin R. Breisch & others), with the US Fish and Wildlife Service, The Nature Conservancy, Rosamond Gifford (Burnet Park) Zoo and others. Cornell University, SUNY—ESF and researchers from institutions within and outside of NYS have been studying this place for over 100 years. I have a copy of a Master's Thesis done in the 1960's on the hydrology and limnology (the biology of fresh water systems) from American University in Washington DC. Some of the earliest botanical records of various rare plants in Western and Central NYS come from Junius Ponds. In more instances than not, they are still found, although some species have “winked” out in my short tenure at Lowery Pond. Botany I will leave to my colleague, Dr. Andrew Nelson. My eyes focus on the reptiles and amphibians. So I have noted that the soon to be listed ribbon snake (*Thamnophis sauritus*) and the spotted turtle (*Clemmys gutatta*) (a NYS Species of Special Concern) were once common at Lowery Pond. That said, it has been over 15 years since I recorded seeing a ribbon snake and over a two decades since I have any record for spotted turtles at this site. The common northern watersnake (*Nerodia sipedon*) has likewise been declining dramatically as has many species of frogs and the American toad (*Anaxyrus americanus*). While my systematic studies have focused on other reptiles, the amount and diversity of other creatures is part of what I see and record. Why have both habitat specialist and common species declined or disappeared from Lowery Pond in the past 30 years? Hard to say. My professional suspicion is that some, like the water snake, do thrive on the ponds further removed from the NYS Thruway in particular. I once found the same old snapping turtle on both sides of the Thruway and unfortunately, it had suffered from a severe car encounter while getting from one side to the other. Amazingly, it survived for at least two full season, but you know, it is damn hard to kill a snapper. Trust me on that.

Ribbon snakes are also habitat specialists. Less so for spotted turtles, but whether it was illegal collection or habitat degradation or changes in hydrology (perhaps due to the permitted sand mining in the adjacent land parcel) or the neighboring RV park with its visitors wanting to take home a live souvenir, or the run-off of salt and petroleum products from the NYS Thruway. Junius is fortunate to have what it has, given the many threats to its existence. These rare habitats support or supported a unique assemblage of organisms—plants, animals, fungi, microbes of various origins including both members of the ancient Archaea group—the extremophile bacteria—which live in very salty (like Lowery Pond), very hot, very acidic environments. In that way, Junius Ponds always appeared to me to be a desert—with such harsh environmental conditions, that only the most extraordinary creature lived there.

Junius Ponds is ecologically unique set of interconnected (??) ponds that extends from north of the NYS Thruway across NYS Route 318 and southward as a series of To my knowledge Junius Ponds is the only site in NYS that has the follow NYS Natural Heritage (Edinger et al, 2013) “elements” in all one location. Rich graminoid fen (G3S2S1), rich sloping fen (G3S2S1) and marl fen (G2G3S1). There are also several rare plants and animals at this site, which are well known to scientists for nearly a century and a half.

Appendices

Personally, I have conducted field studies of the rare reptiles since 1986. Numerous reports and assessments have been generated by my studies. I am current working on a conservation management plan for the rare reptiles in what is known as the Prairie Peninsula Lake Plains Recovery Unit (PPLPRU) . This is a US Fish and Wildlife Service funded project with an anticipated completion date of early December of 2015.

Part of my conservation plan for Junius Ponds, as part of the larger PPLPRU, will have its own conservation management plan as well as a connection to the larger PPLPRU.

With regard to management of Junius Ponds Unique Area, I recommend that the management plan include:

1. Continued Unique Site status for the site.
2. Continued no public access for the portion of the site known as Lowery Pond.
3. Continued acquisition of adjacent properties for site buffering and in order

to better protect the watershed. This is especially true for the Girl Scout Properties and the Philips Pond (south of NY Route 318).

4. Limits or an end to sand mining in the adjacent Seneca Meadows. This should include efforts to identify hydrological damage to the Junius Ponds system and remedy it. Despite Seneca Meadows scientists assessment that their activities have been benign on the hydrology of Junius Ponds, my professional assessment as one who has been continuously studying this site before and during the sand mine's coming into existence, there is no doubt in my mind but that local hydrology has been dramatically altered by this activity. As I do not want to take away from any credibility I might have, I will not dwell on this topic. I realize that the business of the NYSDEC Permits office is to permit business interests to thrive. And in poor rural counties with little other revenue, municipalities must let folks work in their midst who might not be the best ecological neighbor. This is a sobering reality of our human---centric (homocentric) existence.

5. Zoning regulations sought to plan for development within the content of preserving the features and unique elements at Junius Ponds.

Thank you for your thoughtful consideration of my input.

~ Yours truly, Peter A. Rosenbaum, Ph.D. Professor SUNY-Oswego, Department of Biological Sciences Oswego, NY

Edinger, G.J., D.J. Evans, S. Gebauer, T.G. Howard, D.M. Hunt, and A.M. Olivero (editors). 2014. *Ecological Communities of New York State*. Second Edition. A revised and expanded edition of Carol Reschke's *Ecological Communities of New York State*. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY

I am writing to show how disappointing Squaw Island in the north end of Canandaigua Lake has been in the last few years. The conditions are very unsanitary to say the least. In the past we would pull up and explore with the kids and from time to time bring a picnic lunch to enjoy but the island is covered from one end to the other with bird droppings and dead

seagulls and any access is out of the question. It is so bad that on hot days the smell is sometimes overpowering . We have tried to anchor near by as the water is shallow but the seagulls are very noisy and they pester any one who comes near by swooping the boats and swimmers and we just leave. The locals have been calling it the Seagull grave yard or s*** Island .

Please feel free to contact me if you would like any further contact have any questions.

~ Lyle Boni

Greetings! My colleague and I plan to bring students to Rush again this fall. Our VSA was for five years, so I think all that you need from me is a Limited Use Volunteer Application with all of the student names, correct? Also, I wanted to check in to see if there was a burn this year? If so, is there a perimeter shapefile available?

I am attaching a PowerPoint for your review. It focuses on the teaching/learning merits of the project, and I presented it at a fall 2013 conference. I had hoped to be able to get you some conclusive data, but there have been a few challenges. First, our sampling protocol was designed to test for relationships between invasives and time since the last fire and fire frequency (number of fires). It is clear that the most significant factor is whether or not there was a burn in the last year or two. The 2012 and 2013 burns covered the > entire site [of the study]. When we used random plot and transect locations, there did not appear to be any relationship with past fires. The 2014 burn also covered the entire site. We decided to position new transects to cover areas that had burn frequently and areas that burned infrequently for comparison. Again, nothing significant. Our interpretation: the burns are very effective at knocking down the invasives! We do find lots of dogwood, but it is usually new growth 1/2 meter tall near the edge community, which does contain plenty of dogwood, honeysuckle, and buckthorn. I really wish that I began this project years ago. When I first visited the site in 2005, it had dense shrub growth everywhere.

When I returned in 2012, it was much clearer, and by last year, most of the openings are nearly free of brush. Anecdotally, it appears that the management regime has been a success, and will continue to be as long as the burning continues. We are going to try to make some adjustments this year to try and find quantifiable results.

~ James Kernan, Ph.D. Assistant Professor, Department of Geography, SUNY Geneseo

Draft Public Meeting Responses

Written and verbal comments on the draft plan were received during the _____ public meeting held at the _____, NY. Electronic written comments were included until a timestamp of midnight _____, or with a US Post Office date stamp of _____, or earlier.

Comments Received on the Draft Northern Finger Lakes Unit Management Plan:

Written and verbal comments on the draft plan were received during the _____ public meeting held at the _____. Written comments were accepted until _____. A summary of the comments follows:

(Blank spaces will be filled in after the meeting.)

Appendix B: Animals of the Northern Finger Lakes Unit Management Plan Area

These are not intended to be all-inclusive lists, some animals will be missed, and some may no longer be found on these areas.

Species of Greatest Conservation Need (SGCN)

The State Wildlife Grants program is a federal program that provides funds at the state level for conservation efforts aimed at preventing fish and wildlife populations from declining, reducing the potential for these species to be listed as endangered. In order to access these grant funds, New York State was required to develop a State Wildlife Action Plan (SWAP) that focuses on the “species of greatest conservation need.” This includes those species that are deemed rare, imperiled and those for which status has not been established. NYS DEC staff produced a list of 366 Species of Greatest Conservation Need (SGCN), of which 167 are High Priority SGCN. The list of species is certainly not exhaustive, but includes those species for which systematic assessments had been made by staff of the NYS DEC Division of Fish and Wildlife and the New York Natural Heritage Program. For further information on how the list was compiled, visit the web site www.dec.ny.gov/animals/7179.html which also has the entire list of species.

Birds

Based on information included in the 2000-2005 NYS Breeding Bird Atlas, 16 atlas blocks overlap with Northern Finger Lakes Unit (2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2972A, 2973B, 2973C, 2973D, 3073A, 3073B, 3073D, 3074B, 3375B and 3472C). Within these blocks a total of 1194 birds species were tallied, after removing duplicates 134 different species were observed within the blocks. Of the observed birds, there was a confirmed breeding populations of 567, probable breeding populations of 351, and 276 possible breeding populations. Of these, 103 are Protected, two are NYS Threatened, 11 species are NYS Special Concern species, 15 are Game Species and three are unprotected. (See Table 1B: Birds, page 168) In addition, 23 of these species are also listed as NYS Species of Greatest Conservation Need (SGCN) (see Table 2B: Bird Species of Greatest Conservation Need (SGCN), page 177).

It should be noted that because the Atlas blocks do not follow exactly the outline of the parcels that make up the Northern Finger Lakes Unit, some of the birds identified during this effort would have been found adjacent to, but not within, the state land.

The Squaw Island Unique Area is listed by Audubon (2005) as part of an Important Bird Area (IBA) of New York.

Map of Breeding Bird Atlas Blocks

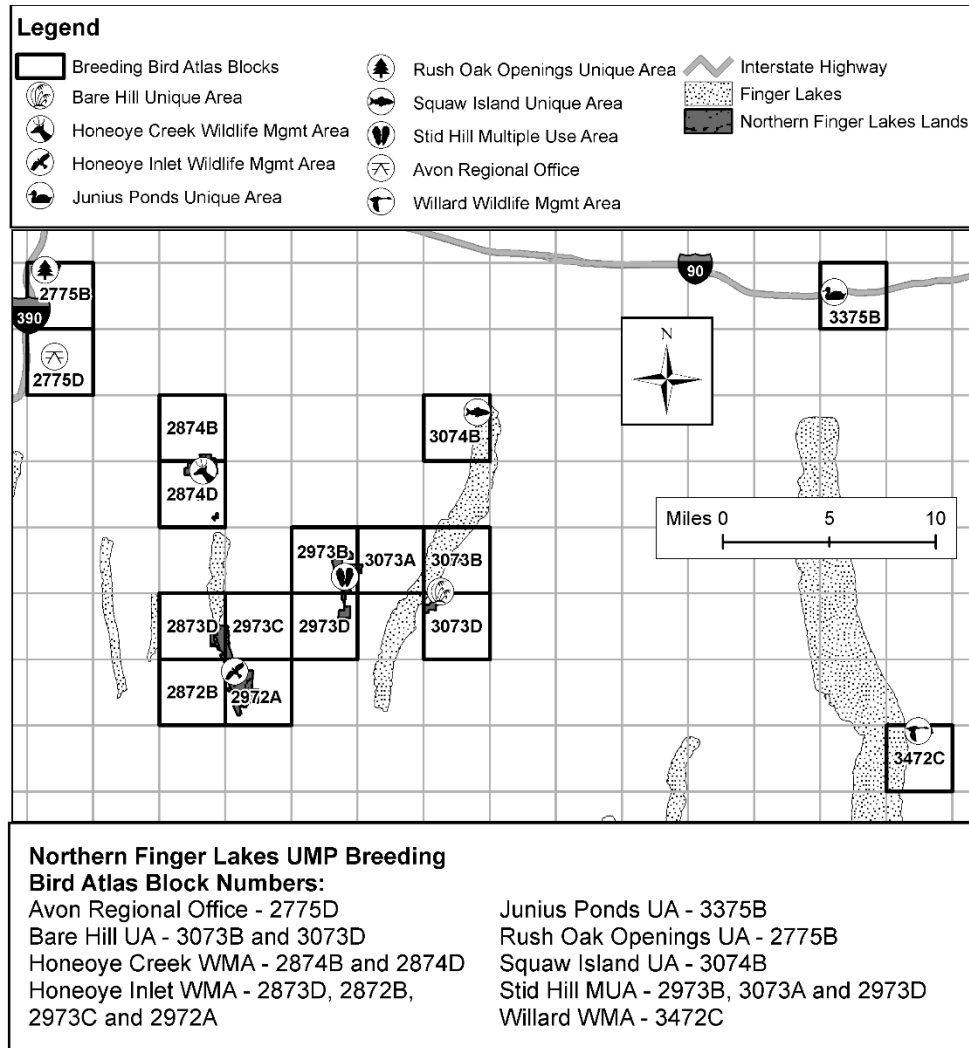


Table 1B: Birds

This is from the 2000-2005 NYS Breeding Bird Atlas blocks that overlap the parcels that make up the Northern Finger Lakes Unit.

Common Name	Scientific Name	NY Legal Status	Block Numbers
Alder Flycatcher	<i>Empidonax alnorum</i>	Protected	2775D, 2872B, 2972A, 2973B 2973D
American Bittern	<i>Botaurus lentiginosus</i>	Protected-Special Concern	2874D
American Crow	<i>Corvus brachyrhynchos</i>	Game Species	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3472C

Common Name	Scientific Name	NY Legal Status	Block Numbers
American Goldfinch	<i>Spinus tristis</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3375B, 3472C
American Kestrel	<i>Falco sparverius</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973D, 3073A, 3074B, 3073B, 3375B, 3472C
American Redstart	<i>Setophaga ruticilla</i>	Protected	2775B, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073D, 3375B
American Robin	<i>Turdus migratorius</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3375B, 3472C
American Woodcock	<i>Scolopax minor</i>	Game Species	2775B, 2775D, 2874B, 2874D, 2872B, 2973C, 3073A
Baltimore Oriole	<i>Icterus galbula</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973D, 3073A, 3074B, 3073B, 3375B, 3472C
Bank Swallow	<i>Riparia</i>	Protected	2775D, 2874B, 3375B, 2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3375B, 3472C
Barred Owl	<i>Strix varia</i>	Protected	2872B, 2973C
Belted Kingfisher	<i>Megasceryle alcyon</i>	Protected	2775B, 2775D, 2874B, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3074B, 3073B
Black-and-white Warbler	<i>Mniotilta varia</i>	Protected	2874D, 2872B, 2973C, 2972A, 2973B, 3073A
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	Protected	2775B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 3073A, 3375B
Blackburnian Warbler	<i>Dendroica fusca</i>	Protected	2872B, 2973C, 2972A, 2973D
Black-capped Chickadee	<i>Poecile atricapillus</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3375B, 3472C
Black-throated Green Warbler	<i>Dendroica virens</i>	Protected	2872B, 2775B, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A
Blue Jay	<i>Cyanocitta cristata</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3375B, 3472C

Appendices

Common Name	Scientific Name	NY Legal Status	Block Numbers
Blue-gray Gnatcatcher	<i>Polioptila caerulea</i>	Protected	2775B, 2874B, 2873D, 2973C, 2973B, 3073A, 3375B
Blue-headed Vireo	<i>Vireo solitarius</i>	Protected	2775B, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A
Blue-winged Warbler	<i>Vermivora pinus</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3073B, 3073D, 3375B
Bobolink	<i>Dolichonyx oryzivorus</i>	Protected	2775B, 2775D, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3073B
Broad-winged Hawk	<i>Buteo platypterus</i>	Protected	2775B, 2874B, 2874D, 2872B, 2972A, 2973B
Brown Creeper	<i>Certhia americana</i>	Protected	2873D, 2872B, 2973C, 2972A, 2775B, 2873D, 2973C, 2973B, 3073A, 3472C
Brown-headed Cowbird	<i>Molothrus ater</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3375B, 3472C
Canada Goose	<i>Branta canadensis</i>	Game Species	2775B, 2775D, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3375B
Canada Warbler	<i>Wilsonia canadensis</i>	Protected	2872B, 2973C
Carolina Wren	<i>Thryothorus ludovicianus</i>	Protected	2775B, 2973C, 2972A, 3074B
Cedar Waxwing	<i>Bombycilla cedrorum</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3375B, 3472C
Cerulean Warbler	<i>Dendroica cerulea</i>	Protected-Special Concern	2775B, 2872B, 2973C, 2972A, 2973D
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>	Protected	2775B, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3073B, 3375B
Chimney Swift	<i>Chaetura pelagica</i>	Protected	2775B, 2775D, 2874D, 2873D, 2973B, 2973D, 3073A, 3074B, 3073B, 3472C
Chipping Sparrow	<i>Spizella passerina</i>	Protected	2775B, 2775D, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3375B, 3472C
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	Protected	2874B
Common Grackle	<i>Quiscalus quiscula</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3472C

Common Name	Scientific Name	NY Legal Status	Block Numbers
Common Moorhen	<i>Gallinula chloropus</i>	Game Species	2775B
Common Raven	<i>Corvus corax</i>	Protected	2872B, 2973C, 2972A, 2973B, 3073A
Common Yellowthroat	<i>Geothlypis trichas</i>	Protected	2775B, 2775D, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3375B, 3472C
Cooper's Hawk	<i>Accipiter cooperii</i>	Protected-Special Concern	2775D, 2872B, 2973C, 2972A, 2973B, 2973D, 3074B, 3375B
Dark-eyed Junco	<i>Junco hyemalis</i>	Protected	2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3073B, 3472C
Downy Woodpecker	<i>Picoides pubescens</i>	Protected	2775B, 2775D, 2874B, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3375B
Eastern Bluebird	<i>Sialia sialis</i>	Protected	2775B, 2775D, 2874D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3375B, 3472C
Eastern Kingbird	<i>Tyrannus</i>	Protected	2775B, 2775D, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3375B, 3472C
Eastern Meadowlark	<i>Sturnella magna</i>	Protected	2775B, 2775D, 2874D, 2873D, 2972A, 3073A, 3073B, 3375B
Eastern Phoebe	<i>Sayornis phoebe</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3375B
Eastern Screech-Owl	<i>Megascops asio</i>	Protected	2775B, 2775D, 2872B, 2972A, 2973B, 3073A, 3073B, 3375B
Eastern Towhee	<i>Pipilo erythrophthalmus</i>	Protected	2775B, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3073B, 3073D, 3375B
Eastern Wood-Pewee	<i>Contopus virens</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3375B
European Starling	<i>Sturnus vulgaris</i>	Unprotected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3375B, 3472C
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	Protected	2874B
Field Sparrow	<i>Spizella pusilla</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3375B, 3472C

Appendices

Common Name	Scientific Name	NY Legal Status	Block Numbers
Golden-crowned Kinglet	<i>Regulus satrapa</i>	Protected	2873D, 2872B, 2972A, 2973D
Golden-winged Warbler	<i>Vermivora chrysoptera</i>	Protected-Special Concern	2873D
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	Protected-Special Concern	2775B, 2874D, 2873D, 3073B
Gray Catbird	<i>Dumetella carolinensis</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073D, 3375B, 3472C
Great Blue Heron	<i>Ardea herodias</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2972A, 2973D, 3073A, 3074B, 3073B, 3375B, 3472C
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3375B
Great Horned Owl	<i>Bubo virginianus</i>	Protected	2775B, 2775D, 2872B, 2973B, 3073A, 3073B, 3375B
Green Heron	<i>Butorides virescens</i>	Protected	2775B, 2775D, 2874D, 2873D, 2872B, 2973C, 2972A, 3073A, 3074B
Hairy Woodpecker	<i>Picoides villosus</i>	Protected	2775B, 2775D, 2874B, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3375B
Hermit Thrush	<i>Catharus guttatus</i>	Protected	2775B, 2874B, 2873D, 2872B, 2973C, 2972A, 2973B, 3073B
Herring Gull	<i>Larus argentatus</i>	Protected	3074B
Hooded Merganser	<i>Lophodytes cucullatus</i>	Game Species	3375B
Hooded Warbler	<i>Wilsonia citrina</i>	Protected	2775B, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3073B
Horned Lark	<i>Eremophila alpestris</i>	Protected-Special Concern	2775B, 2775D
House Finch	<i>Carpodacus mexicanus</i>	Protected	2775B, 2775D, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B
House Sparrow	<i>Passer domesticus</i>	Unprotected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3375B, 3472C
House Wren	<i>Troglodytes aedon</i>	Protected	2775B, 2775D, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3375B, 3472C

Common Name	Scientific Name	NY Legal Status	Block Numbers
Indigo Bunting	<i>Passerina cyanea</i>	Protected	2775B, 2775D, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3073B, 3073D, 3375B
Killdeer	<i>Charadrius vociferus</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2972A, 2973B, 2973D, 3073A, 3074B, 3375B, 3472C
Least Flycatcher	<i>Empidonax minimus</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3472C
Louisiana Waterthrush	<i>Seiurus motacilla</i>	Protected	2973C
Magnolia Warbler	<i>Dendroica magnolia</i>	Protected	2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3074B
Mallard	<i>Anas platyrhynchos</i>	Game Species	2775B, 2775D, 2874D, 2873D, 2973C, 2973B, 2973D, 3073A, 3074B, 3073B
Marsh Wren	<i>Cistothorus palustris</i>	Protected	2775B, 2874D
Mourning Dove	<i>Zenaida macroura</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3375B, 3472C
Mourning Warbler	<i>Oporornis philadelphia</i>	Protected	2775B, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3375B
Nashville Warbler	<i>Vermivora ruficapilla</i>	Protected	2873D, 2973C, 2973B
Northern Bobwhite	<i>Colinus virginianus</i>	Game Species	3073A
Northern Cardinal	<i>Cardinalis</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3375B, 3472C
Northern Flicker	<i>Colaptes auratus</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3375B
Northern Goshawk	<i>Accipiter gentilis</i>	Protected-Special Concern	2872B, 2972A, 3073A
Northern Harrier	<i>Circus cyaneus</i>	Threatened	2775B, 2775D, 2874B, 2874D
Northern Mockingbird	<i>Mimus polyglottos</i>	Protected	2775B, 2775D, 2874B, 2973C, 3073A, 3073B, 3375B
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D

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Common Name	Scientific Name	NY Legal Status	Block Numbers
Northern Saw-whet Owl	<i>Aegolius acadicus</i>	Protected	2973C
Northern Waterthrush	<i>Seiurus noveboracensis</i>	Protected	2873D, 2972A, 3073A, 3074B
Ovenbird	<i>Seiurus aurocapilla</i>	Protected	2775B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3375B
Pied-billed Grebe	<i>Podilymbus podiceps</i>	Threatened	2775B, 2874D
Pileated Woodpecker	<i>Dryocopus pileatus</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3375B
Pine Warbler	<i>Dendroica pinus</i>	Protected	2873D, 2872B, 2973C, 2972A, 2973B, 2973D
Prairie Warbler	<i>Dendroica discolor</i>	Protected	3375B
Purple Finch	<i>Carpodacus purpureus</i>	Protected	2775B, 2874B, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3375B
Purple Martin	<i>Progne subis</i>	Protected	2775B, 2775D
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3375B
Red-breasted Nuthatch	<i>Sitta canadensis</i>	Protected	2775B, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3375B
Red-eyed Vireo	<i>Vireo olivaceus</i>	Protected	2775B, 2775D, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3375B, 3472C
Redhead	<i>Aythya americana</i>	Game Species	3074B
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	Protected-Special Concern	2973D
Red-shouldered Hawk	<i>Buteo lineatus</i>	Protected-Special Concern	2872B
Red-tailed Hawk	<i>Buteo jamaicensis</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 3073A, 3074B, 3073B, 3375B, 3472C
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3375B, 3472C

Common Name	Scientific Name	NY Legal Status	Block Numbers
Ring-necked Pheasant	<i>Phasianus colchicus</i>	Game Species	2775B, 2775D, 2874B, 2872B, 3073A, 3074B, 3472C
Rock Pigeon	<i>Columba livia</i>	Unprotected	2775D, 2874D, 2873D, 2972A, 2973B, 2973D, 3074B
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3375B
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	Protected	2775B, 2775D, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3073B, 3375B
Ruffed Grouse	<i>Bonasa umbellus</i>	Game Species	2775B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 3073A, 3375B
Sandhill Crane	<i>Grus canadensis</i>	Protected	2874D
Savannah Sparrow	<i>Passerculus sandwichensis</i>	Protected	2775B, 2775D, 2874D, 2873D, 2872B, 2972A, 3073A, 3375B
Scarlet Tanager	<i>Piranga olivacea</i>	Protected	2775B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3375B
Sharp-shinned Hawk	<i>Accipiter striatus</i>	Protected-Special Concern	2873D, 2872B, 2973C, 2973B, 3074B, 3375B
Song Sparrow	<i>Melospiza melodia</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3375B, 3472C
Sora	<i>Porzana carolina</i>	Game Species	2775B, 2874D
Spotted Sandpiper	<i>Actitis macularius</i>	Protected	2775B, 2775D
Swamp Sparrow	<i>Melospiza georgiana</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3074B, 3375B
Tree Swallow	<i>Tachycineta bicolor</i>	Protected	2775B, 2775D, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3375B, 3472C
Tufted Titmouse	<i>Baeolophus bicolor</i>	Protected	2775B, 2775D, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3375B, 3472C
Turkey Vulture	<i>Cathartes aura</i>	Protected	2775B, 2775D, 2874B, 2874D, 2973C, 2973B, 2973D, 3073A, 3073B, 3375B
Veery	<i>Catharus fuscescens</i>	Protected	2775B, 2874B, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3375B

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Common Name	Scientific Name	NY Legal Status	Block Numbers
Vesper Sparrow	<i>Poocetes gramineus</i>	Protected-Special Concern	2775D, 3073B
Virginia Rail	<i>Rallus limicola</i>	Game Species	2775B, 2874D
Warbling Vireo	<i>Vireo gilvus</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2972A, 2973B, 2973D, 3073A, 3074B, 3073D
White-breasted Nuthatch	<i>Sitta carolinensis</i>	Protected	2775B, 2775D, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3375B
Wild Turkey	<i>Meleagris gallopavo</i>	Game Species	2775B, 2775D, 2872B, 2973C, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3375B, 3472C
Willow Flycatcher	<i>Empidonax traillii</i>	Protected	2775B, 2775D, 2874D, 2873D, 2972A, 2973D
Wilson's Snipe	<i>Gallinago delicata</i>	Game Species	3073A
Winter Wren	<i>Troglodytes troglodytes</i>	Protected	2973C, 2973D
Wood Duck	<i>Aix sponsa</i>	Game Species	2775B, 2775D, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 3074B, 3375B
Wood Thrush	<i>Hylocichla mustelina</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3375B
Yellow Warbler	<i>Dendroica petechia</i>	Protected	2775B, 2775D, 2874B, 2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3074B, 3073B, 3073D, 3375B, 3472C
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	Protected	2775D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Protected	2775B, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A
Yellow-rumped Warbler	<i>Dendroica coronata</i>	Protected	2874D, 2873D, 2872B, 2973C, 2972A, 2973B, 2973D, 3073A, 3073B
Yellow-throated Vireo	<i>Vireo flavifrons</i>	Protected	2874B, 2874D, 2873D, 2972A, 2973D

Thanks to the New York State Breeding Bird Atlas for supplying Atlas data, and to the volunteer participants who gathered data for the project.

Table 2B: Bird Species of Greatest Conservation Need (SGCN)

Birds that were identified during the 2000-2005 Breeding Bird Atlas, on blocks that overlap with the parcels of the Northern Finger Lakes Unit.

Common Name	Scientific Name	SGCN Level
American Bittern	<i>Botaurus lentiginosus</i>	SGCN
American Kestrel	<i>Falco sparverius</i>	SGCN
American Woodcock	<i>Scolopax minor</i>	SGCN
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	SGCN
Blue-winged Warbler	<i>Vermivora pinus</i>	SGCN
Bobolink	<i>Dolichonyx oryzivorus</i>	High Priority SGCN
Canada Warbler	<i>Wilsonia canadensis</i>	High Priority SGCN
Cerulean Warbler	<i>Dendroica cerulea</i>	SGCN
Eastern Meadowlark	<i>Sturnella magna</i>	High Priority SGCN
Golden-winged Warbler	<i>Vermivora chrysoptera</i>	High Priority SGCN
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	High Priority SGCN
Horned Lark	<i>Eremophila alpestris</i>	High Priority SGCN
Northern Bobwhite	<i>Colinus virginianus</i>	High Priority SGCN
Northern Goshawk	<i>Accipiter gentilis</i>	SGCN
Northern Harrier	<i>Circus cyaneus</i>	SGCN
Pied-billed Grebe	<i>Podilymbus podiceps</i>	SGCN
Prairie Warbler	<i>Dendroica discolor</i>	SGCN
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	High Priority SGCN
Red-shouldered Hawk	<i>Buteo lineatus</i>	SGCN
Ruffed Grouse	<i>Bonasa umbellus</i>	SGCN
Scarlet Tanager	<i>Piranga olivacea</i>	SGCN
Vesper Sparrow	<i>Pooecetes gramineus</i>	High Priority SGCN
Wood Thrush	<i>Hylocichla mustelina</i>	SGCN

Reptiles and Amphibians

Based on information presented in the 1990-2007 NYS Amphibian and Reptile Atlas Project (Herp Atlas Project, www.dec.ny.gov/animals/7140.html), 43 different species were found in or near the Northern Finger Lakes Unit (Table 3B: Reptiles and Amphibians). Of these reptile and amphibian species, nine are Species of Greatest Conservation Need (Table 4B: Reptile and Amphibian Species of Greatest Conservation Need).

Appendices

It should be noted that because the Herp Atlas blocks do not follow the exact outline of the parcels in the Northern Finger Lakes Unit, some of the reptiles and amphibians identified during this effort will have been found adjacent to, but not within, the state land.

Map of Herp Atlas Project blocks

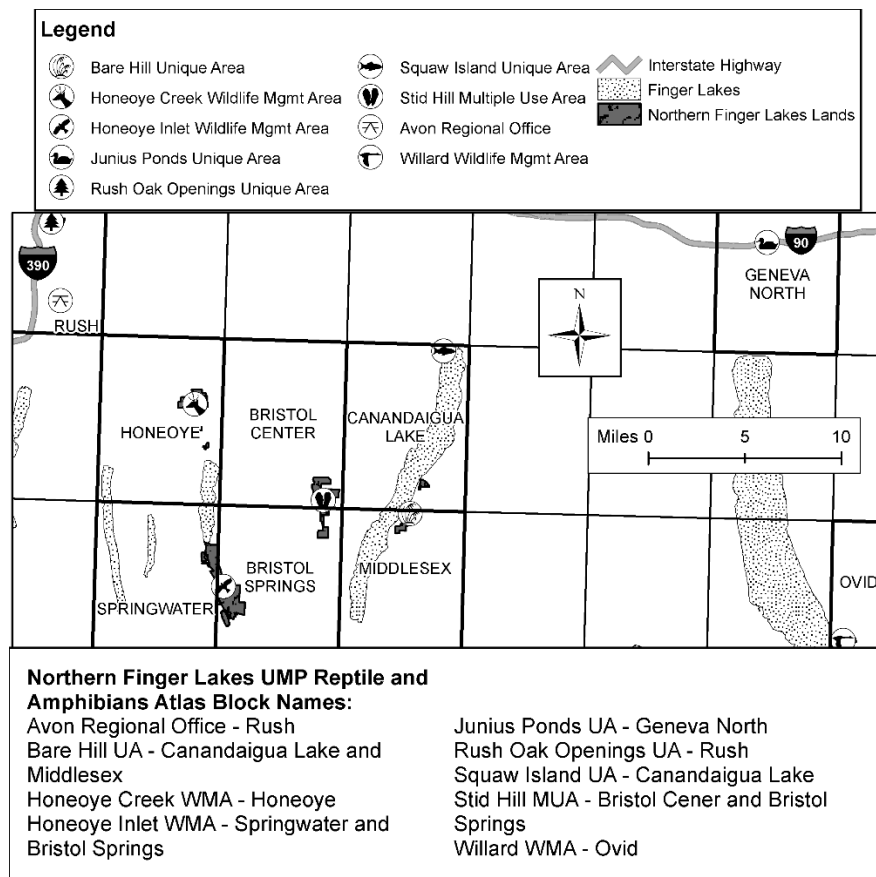


Table 3B: Reptiles and Amphibians

This list is summarized from the NYS Amphibian and Reptile Atlas, 1990-2007.

Common Name	Scientific Name	USGS Quad names
Allegheny Dusky Salamander	<i>Desmognathus ochrophaeus</i>	Bristol Springs, Bristol Center, Honeoye, Middlesex, Springwater
American Toad	<i>Bufo americanus</i>	Bristol Springs, Canandaigua Lake , Bristol Center, Geneva North, Honeoye, Ovid, Rush, Springwater
Black Racer	<i>Coluber constrictor</i>	Bristol Springs
Blue-spotted Salamander	<i>Ambystoma laterale</i>	Bristol Springs, Middlesex, Rush
Turtle	<i>Glyptemys muhlenbergii</i>	Geneva North

Common Name	Scientific Name	USGS Quad names
Brown Snake	<i>Storeria dekayi</i>	Bristol Springs, Bristol Center, Honeoye, Middlesex, Rush
Bullfrog	<i>Rana catesbeiana</i>	Bristol Springs, Geneva North, Middlesex
Common Garter Snake	<i>Thamnophis sirtalis</i>	Bristol Springs, Canandaigua Lake , Bristol Center, Geneva North, Honeoye, Ovid, Middlesex, Rush, Springwater
Common Mudpuppy	<i>Necturus maculosus</i>	Canandaigua Lake , Ovid
Common Snapping Turtle	<i>Chelydra serpentina</i>	Bristol Springs, Canandaigua Lake , Geneva North, Honeoye, Rush, Springwater
Dusky Salamander	<i>Desmognathus spp,</i>	Canandaigua Lake
Four-toed Salamander	<i>Hemidactylium scutatum</i>	Rush
Gray Treefrog	<i>Hyla versicolor</i>	Bristol Springs, Canandaigua Lake , Bristol Center, Geneva North, Honeoye, Ovid, Middlesex, Rush, Springwater
Green Frog	<i>Rana clamitans</i>	Bristol Springs, Canandaigua Lake , Bristol Center, Geneva North, Honeoye, Ovid, Middlesex, Rush, Springwater
Jefferson Salamander	<i>Ambystoma jeffersonianum</i>	Bristol Springs, Bristol Center, Springwater
Jefferson Salamander complex	<i>Ambystoma jeffersonianum x laterale</i>	Rush
Milk Snake	<i>Lampropeltis triangulum</i>	Bristol Springs, Canandaigua Lake , Bristol Center, Geneva North, Middlesex
Northern Coal Skink	<i>Eumeces anthracinus</i>	Bristol Springs, Bristol Center, Springwater
Northern Dusky Salamander	<i>Desmognathus fuscus</i>	Bristol Springs, Bristol Center, Middlesex, Rush, Springwater
Northern Leopard Frog	<i>Rana pipiens</i>	Bristol Springs, Bristol Center, Geneva North, Honeoye, Ovid, Middlesex, Rush, Springwater
Northern Redback Salamander	<i>Plethodon cinereus</i>	Bristol Springs, Bristol Center, Middlesex, Rush, Springwater
Northern Slimy Salamander	<i>Plethodon glutinosus</i>	Honeoye, Bristol Springs, Canandaigua Lake, Bristol Center, Middlesex, Springwater
Northern Two-lined Salamander	<i>Eurycea bislineata</i>	Bristol Springs, Canandaigua Lake , Bristol Center, Honeoye, Ovid, Middlesex, Springwater
Northern Water Snake	<i>Nerodia sipedon</i>	Geneva North, Middlesex, Rush, Springwater

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Common Name	Scientific Name	USGS Quad names
Painted Turtle	<i>Chrysemys picta</i>	Canandaigua Lake , Bristol Center, Geneva North, Honeoye, Ovid, Middlesex, Rush, Springwater
Pickerel Frog	<i>Rana palustris</i>	Bristol Springs, Canandaigua Lake , Honeoye, Springwater
Rat Snake	<i>Elaphe obsoleta</i>	Bristol Springs, Ovid
Redbelly Snake	<i>Storeria occipitomaculata</i>	Bristol Springs, Canandaigua Lake , Bristol Center, Honeoye, Middlesex, Rush, Springwater
Red-spotted Newt	<i>Notophthalmus viridescens</i>	Bristol Springs, Bristol Center, Honeoye, Ovid, Middlesex, Rush, Springwater
Ribbon Snake	<i>Thamnophis sauritus</i>	Bristol Springs, Geneva North, Honeoye, Rush, Springwater
Ringneck Snake	<i>Diadophis punctatus</i>	Bristol Springs, Bristol Center, Middlesex, Springwater
Slider Turtle	<i>Trachemys scripta</i>	Geneva North
Smooth Green snake	<i>Opheodrys vernalis</i>	Bristol Springs, Canandaigua Lake , Bristol Center, Middlesex, Rush, Springwater, Ovid
Southern Leopard Frog	<i>Rana sphenoccephala</i>	Ovid
Spiny Softshell	<i>Apalone spinifera</i>	Geneva North, Springwater
Spotted Salamander	<i>Ambystoma maculatum</i>	Bristol Springs, Canandaigua Lake , Bristol Center, Honeoye, Middlesex, Rush, Springwater
Spotted Turtle	<i>Clemmys guttata</i>	Geneva North, Rush
Spring Peeper	<i>Pseudacris crucifer</i>	Bristol Springs, Canandaigua Lake , Bristol Center, Geneva North, Honeoye, Ovid, Middlesex, Rush, Springwater
Spring Salamander	<i>Gyrinophilus porphyriticus</i>	Bristol Springs, Canandaigua Lake , Bristol Center, Honeoye, Middlesex, Springwater
Timber Rattlesnake	<i>Crotalus horridus</i>	Bristol Springs
Wehrle's Salamander	<i>Plethodon wehrlei</i>	Springwater
Western Chorus Frog	<i>Pseudacris triserita</i>	Canandaigua Lake , Honeoye, Ovid, Middlesex, Rush
Wood Frog	<i>Rana sylvatica</i>	Bristol Springs, Bristol Center, Geneva North, Honeoye, Ovid, Middlesex, Rush, Springwater

Table 4B: Reptile and Amphibian Species of Greatest Conservation Need

Reptiles and Amphibians identified within the 1990-2007 Herp Atlas on blocks that overlap with the Northern Finger Lakes Unit.

Common Name	Scientific Name	NYS Status
Blue-spotted Salamander	<i>Ambystoma laterale</i>	High Priority SGCN
Turtle	<i>Glyptemys muhlenbergii</i>	High Priority SGCN
Common Mudpuppy	<i>Necturus maculosus</i>	SGCN
Four-toed Salamander	<i>Hemidactylium scutatum</i>	High Priority SGCN
Northern Coal Skink	<i>Eumeces anthracinus</i>	SGCN
Smooth Green snake	<i>Opheodrys vernalis</i>	SGCN
Spotted Turtle	<i>Clemmys guttata</i>	High Priority SGCN
Timber Rattlesnake	<i>Crotalus horridus</i>	High Priority SGCN
Western Chorus Frog	<i>Pseudacris triserita</i>	SGCN

Fish Species

Recent surveys include electrofishing on many small streams within the unit and gill netting on Honeoye, Canandaigua, and Seneca Lakes. The following is a list of fish species within this unit management plan area. It should be noted that this list may exclude some species that are present and omit species that are rare.

Table 5B: Fish Species by common name and scientific name:

Common Name	Scientific Name
Alewife	<i>Alosa pseudoharengus</i>
Atlantic Salmon	<i>Salmo salar</i>
Banded Killifish	<i>Fundulus diaphanus</i>
Black Crappie	<i>Pomoxis nigromaculatus</i>
Bluegill	<i>Lepomis macrochirus</i>
Blackside Darter	<i>Percina maculata</i>
Bluntnose Minnow	<i>Pimephales notatus</i>
Brook Silverside	<i>Labidesthes sicculus</i>
Brook Trout	<i>Salvelinus fontinalis</i>
Brown Trout	<i>Salmo trutta</i>
Brown Bullhead	<i>Ameiurus nebulosus</i>
Central Stoneroller	<i>Campostoma anomalum</i>
Chain pickerel	<i>Esox niger</i>
Common Carp	<i>Cyprinus carpio</i>
Common Shiner	<i>Notropis cornutus</i>
Creek Chub	<i>Semotilus atromaculatus</i>
Cutlips Minnow	<i>Exoglossum maxillingua</i>
Eastern Blacknose Dace	<i>Rhinichthys atratulus</i>
Fallfish	<i>Semotilus corporalis</i>
Fantail Darter	<i>Etheostoma fabellare</i>

Common Name	Scientific Name
Greenside Darter	<i>Etheostoma blennioides</i>
Golden Shiner	<i>Notemigonus cyssoleucas</i>
Hornyhead Chub	<i>Nocomis biguttatus</i>
Iowa Darter	<i>Etheostoma exile</i>
Johnny Darter	<i>Etheostoma nigrum</i>
Lake Trout	<i>Salvelinus namaycush</i>
Largemouth Bass	<i>Micropterus salmoides</i>
Logperch	<i>Percina caprodes</i>
Longnose Dace	<i>Rhinichthys cataractae</i>
Mimic Shiner	<i>Notropis volucellus</i>
Mottled Sculpin	<i>Cottus bairdii</i>
Northern Hogsucker	<i>Hypentelium nigricans</i>
Northern Pike	<i>Esox lucius</i>
Pumpkinseed	<i>Lepomis gibbosus</i>
Rainbow Smelt	<i>Osmerus mordax</i>
Rainbow Trout	<i>Oncorhynchus mykiss</i>
Rock Bass	<i>Ambloplites rupestris</i>
Slimy Sculpin	<i>Cottus cognatus</i>
Smallmouth Bass	<i>Micropterus dolomieu</i>
Spotfin shiner	<i>Cyprinella spiloptera</i>
Spottail Shiner	<i>Notropis hudsonius</i>
Stonecat	<i>Noturus flavus</i>
Tessellated Darter	<i>Etheostoma olmstedii</i>
Walleye	<i>Sander vitreus</i>
White Crappie	<i>Pomoxis annularis</i>
White Sucker	<i>Catostomus commersoni</i>
Yellow Perch	<i>Perca flavescens</i>

Invertebrates

Based on information obtained from the New York State Dragonfly and Damselfly Survey (2005-2009), Avon Regional Office dragonfly and damselfly surveys, NYSDEC freshwater mussel surveys, and Rush Oak Openings UA butterfly surveys, 5 species of mussel, 24 dragonfly species, 13 damselfly species, and 19 species of butterfly were found in or near the Northern Finger Lakes Unit. Of these invertebrate species, two are Species of Greatest Conservation Need.

It should be noted that due to the vast diversity of invertebrate species and the difficulty in effective comprehensive survey, this list only depicts a small portion of the invertebrate community on the Unit.

Table 6B: Invertebrates

Common Name	Scientific Name	Type	Parcel
Baltimore	<i>Euphydryas phaeton</i>	Butterfly	Rush Oak Openings UA
Black Swallowtail	<i>Papilio polyxenes</i>	Butterfly	Rush Oak Openings UA
Broad-winged Skipper	<i>Poanes viator</i>	Butterfly	Rush Oak Openings UA
Cabbage White	<i>Pieris rapae</i>	Butterfly	Rush Oak Openings UA
Clouded Sulphur	<i>Colias philodice</i>	Butterfly	Rush Oak Openings UA
Common Wood Nymph	<i>Cercyonis pegala</i>	Butterfly	Rush Oak Openings UA
Delaware Skipper	<i>Anatrytone logan</i>	Butterfly	Rush Oak Openings UA
Dun Skipper	<i>Euphyes vestris</i>	Butterfly	Rush Oak Openings UA
Eastern Tailed Blue	<i>Everes comyntas</i>	Butterfly	Rush Oak Openings UA
Great Spangled Fritillary	<i>Speyeria cybele</i>	Butterfly	Rush Oak Openings UA
Hickory Hairstreak	<i>Satyrium caryaevorus</i>	Butterfly	Rush Oak Openings UA
Monarch	<i>Danaus plexippus</i>	Butterfly	Rush Oak Openings UA
Mourning Cloak	<i>Nymphalis antiopa</i>	Butterfly	Rush Oak Openings UA
Northern Broken Dash	<i>Wallengrenia egeremet</i>	Butterfly	Rush Oak Openings UA
Orange Sulphur	<i>Colias eurytheme</i>	Butterfly	Rush Oak Openings UA
Pearl Crescent	<i>Phyciodes tharos</i>	Butterfly	Rush Oak Openings UA
Silver-spotted Skipper	<i>Epargyreus clarus</i>	Butterfly	Rush Oak Openings UA
Spicebush Swallowtail	<i>Papilio toilus</i>	Butterfly	Rush Oak Openings UA
White Admiral	<i>Limenitis arthemis</i>	Butterfly	Rush Oak Openings UA
Double-striped Bluet	<i>Enallagma basidens</i>	Damselfly	Avon Regional Office
Eastern Forktail	<i>Ischnura verticalis</i>	Damselfly	Avon Regional Office, Honeoye Creek, Stid Hill
Ebony Jewelwing	<i>Calopteryx maculata</i>	Damselfly	Avon Regional Office, Honeoye Creek WMA, Stid Hill MUA
Familiar Bluet	<i>Enallagma civile</i>	Damselfly	Avon Regional Office
Fragile Forktail	<i>Ischnura posita</i>	Damselfly	Avon Regional Office, Junius Ponds UA, Stid Hill MUA
Hagen's Bluet	<i>Enallagma hageni</i>	Damselfly	Avon Regional Office
Marsh Bluet	<i>Enallagma ebrium</i>	Damselfly	Avon Regional Office
Orange Bluet	<i>Enallagma signatum</i>	Damselfly	Avon Regional Office
Skimming Bluet	<i>Enallagma geminatum</i>	Damselfly	Avon Regional Office
Slender Spreadwing	<i>Lestes rectangularis</i>	Damselfly	Avon Regional Office
Swamp Spreadwing	<i>Lestes vigilax</i>	Damselfly	Avon Regional Office
Sweetflag Spreadwing	<i>Lestes forcipatus</i>	Damselfly	Avon Regional Office

Appendices

Common Name	Scientific Name	Type	Parcel
Violet Dancer	<i>Argia fumipennis violacea</i>	Damselfly	Avon Regional Office, Honeoye Creek WMA, Junius Ponds UA
Arrowhead Spiketail	<i>Cordulegaster obliqua</i>	Dragonfly	Stid Hill MUA
Black Saddlebags	<i>Tramea lacerata</i>	Dragonfly	Avon Regional Office
Blue Dasher	<i>Pachydiplax longipennis</i>	Dragonfly	Junius Ponds UA, Avon Regional Office
Calico Pennant	<i>Celithemis elisa</i>	Dragonfly	Avon Regional Office
Cherry-faced Meadowhawk	<i>Sympetrum internum</i>	Dragonfly	Avon Regional Office
Common Baskettail	<i>Epithea cynosura</i>	Dragonfly	Avon Regional Office
Common Green Darner	<i>Anax junius</i>	Dragonfly	Avon Regional Office
Common Whitetail	<i>Plathemis lydia</i>	Dragonfly	Stid Hill MUA, Avon Regional Office
Dot-tailed Whiteface	<i>Leucorrhinia intacta</i>	Dragonfly	Avon Regional Office
Dusky Clubtail	<i>Gomphus spicatus</i>	Dragonfly	Avon Regional Office
Eastern Amberwing	<i>Perithemis tenera</i>	Dragonfly	Avon Regional Office
Eastern Pondhawk	<i>Erythemis simplicicollis</i>	Dragonfly	Avon Regional Office, Honeoye Creek WMA, Junius Ponds UA
Halloween Pennant	<i>Celithemis eponina</i>	Dragonfly	Avon Regional Office
Harlequin Darner	<i>Gomphaeschna furcillata</i>	Dragonfly	Avon Regional Office, Honeoye Creek WMA
Lilypad Clubtail	<i>Arigomphus furcifer</i>	Dragonfly	Avon Regional Office
Prince Baskettail	<i>Epicordulia princeps</i>	Dragonfly	Avon Regional Office
Ruby Meadowhawk	<i>Sympetrum rubicundulum</i>	Dragonfly	Junius Ponds UA
Slaty Skimmer	<i>Libellula incest</i>	Dragonfly	Junius Ponds UA
Springtime Darner	<i>Basiaeschna janata</i>	Dragonfly	Junius Ponds UA
Twelve-spotted Skimmer	<i>Libellula pulchella</i>	Dragonfly	Avon Regional Office, Stid Hill MUA
Unicorn Clubtail	<i>Arigomphus villosipes</i>	Dragonfly	Avon Regional Office
White-faced Meadowhawk	<i>Sympetrum obtrusum</i>	Dragonfly	Avon Regional Office, Junius Ponds UA
Widow Skimmer	<i>Libellula luctuosa</i>	Dragonfly	Avon Regional Office, Honeoye Creek WMA, Junius Ponds UA, Stid Hill MUA
Yellow-legged Meadowhawk	<i>Sympetrum vicinum</i>	Dragonfly	Avon Regional Office
Cylindrical Papershell	<i>Anodontonoid ferussacianus</i>	Mussel	Honeoye Creek WMA, Stid Hill UA
Eastern Elliptio	<i>Elliptio complanata</i>	Mussel	Honeoye Creek WMA
Eastern Pondmussel	<i>Ligumia nasuta</i>	Mussel	Honeoye Creek WMA

Common Name	Scientific Name	Type	Parcel
Fat Mucket	<i>Lampsilis siliquoidea</i>	Mussel	Honeoye Creek WMA
Giant Floater	<i>Pyganodon grandis</i>	Mussel	Honeoye Creek WMA

Table 7B: Invertebrate Species of Greatest Conservation Need

Common Name	Scientific Name	SGCN Level
Arrowhead Spiketail	<i>Cordulegaster obliqua</i>	SGCN
Eastern Pondmussel	<i>Ligumia nasuta</i>	SGCN

References:

Burger, M.F. and J.M. Liner. 2005. Important Bird Area of New York: Habitats Worth Protecting. 2nd Ed. Audubon New York, Albany, NY. 352 pp.

New York State Breeding Bird Atlas 2000 [Internet]. 2000 - 2005. Release 1.0. Albany (New York): New York State Department of Environmental Conservation. [updated 2007 Jun 11; cited 2015 Feb 17]. Available from: <http://www.dec.ny.gov/animals/7312.html>.

New York State Amphibian and Reptile Atlas Project Interim Report [Internal Data]. 1990 - 2007. Albany (New York): New York State Department of Environmental Conservation.

White, Erin L., Jeffrey D. Corser, and Matthew D. Schlesinger. 2010. The New York dragonfly and damselfly survey 2005-2009: Distribution and status of the odonates of New York. New York Natural Heritage Program, Albany, New York. 424 pp.

Appendix C: Taxes paid on NYS DEC Lands

Real Property Tax Law 532 establishes that certain State owned land categories pay all appropriate taxes assessed to those lands as if they were privately owned without improvements. For additional information refer to www.state.ny.us, click on 'state laws' in the bottom right corner of the webpage, scroll down and click on Real Property Tax and navigate to Article 5, Title 2 for more information on RPTL 532. See also Taxes section on page 28 for further information.

Table 1C: Tax information

Parcel	County	Town	Tax Map #	Taxes Paid?
Avon Regional Office	Livingston	Avon	36.00-1-56	
Bare Hill UA	Yates	Middlesex	11.02-1-2.00	No
			2.03-1-12.00	No
	Ontario	Gorham	154.00-3-41.111	No
Honeoye Creek WMA	Ontario	Richmond	121.00-1-5.111	No
			121.00-1-8.200	No
			135.00-2-1.200	No
			135.00-2-7.200	No
Honeoye Inlet WMA	See table 2C, below			Yes/No
Junius Ponds UA	Seneca	Junius	10-1-27	No
			13-1-4	No
			13-1-5	No
			13-1-6.2	No
Rush Oak Openings UA	Monroe	Rush	226.02-1-1.3	No
			226.02-1-2.0	No
Squaw Island UA	Ontario	Canandaigua	98.00-1-45.000	No
Stid Hill MUA	Ontario	Bristol	152.00-1-59.000	No
			152.00-1-60.000	No
			152.00-1-61.100	No
			152.00-1-37.000	No
		South Bristol	167.00-1-25-100	No
			167.00-1-24.000	No
			177.00-1-5.000	No
			177.00-1-22.000	No
Willard WMA	Seneca	Ovid	04-1-06	No

Table 2C: Honeoye Inlet WMA Taxes, 2015 Tentative Summary

*All tax rates are per \$1,000 of assessed value.

County	Town	Tax Map #	Tentative 2015 Assessed Value	School District	School Tax Rate*	Fire Dist. Tax Rate*	Town and County Tax Rate*	Total Tax Rate*	Projected Total Taxes 2015
Ontario	Canadice	182.00-1-2.110	\$229,200	Honeoye	15.69%	0.76%	9.05%	25.50%	\$5,845.42
		182.00-1-15.100	\$30,300						\$772.76
		182.00-1-12.000	\$3,900						\$99.46
		188.00-1-2.100	\$36,400						\$928.33
		188.00-1-6.210	\$314,900	Naples	15.92%			25.73%	\$8,102.65
	Richmond	175.00-1-13.111	\$46,300	Honeoye	15.69%	1.31%	8.03%	25.03%	\$1,158.90
		182.00-3-12.000	\$41,000	Naples	15.92%			25.26%	\$1,035.56
		188.00-3-5.121	\$191,200	Naples					\$4,829.24
		188.00-3-2.111	\$292,600	Naples					\$7,390.35
		Livingston	Springwater	141.-1-6.111					\$4,100
141.-1-6.114	\$8,200			Naples	\$277.35				
141.-1-6.13	\$120,600			Naples	\$4,079.04				
Ontario	South Bristol	188.00-5-8.100		Naples	tax exempt				\$0
	Naples	192.00-1-1.110		Naples	tax exempt				\$0
		192.00-1-40.100		Naples	tax exempt				\$0
Total:			\$1,318,700						\$34,657.73

Appendix D: Facilities

Table 1D: Facilities on Avon Regional Office, Bare Hill UA, Honeoye Creek WMA, Honeoye Inlet WMA, Junius Ponds UA

	Avon Regional Office	Bare Hill Unique Area	Honeoye Creek Wildlife Management Area	Honeoye Inlet Wildlife Management Area	Junius Ponds Unique Area
Public Forest Access Rd (Est. Miles)	0.3 miles	0	0	0	0
Haul Road (Est. Miles)	0	2.3 miles	2.9 miles	5.6 miles	0
Access Trails (Est. Miles)	0	0	0	5.6 miles	0.8 miles
Right-of-Way (Est. Miles)	0	0	0	0	0
Gates	1	1	2	5	1
Paved Parking lots	2	0	0	0	0
Unpaved Parking lots	0	1	3	6	0
Facility ID Signs	1	1	2	1	0
Kiosks	1	1	1	2	0
Hiking Trails (miles)	1.8	0	0	0	0
Multiple Use Trails (miles)	0	0	0	0	0

	Avon Regional Office	Bare Hill Unique Area	Honeoye Creek Wildlife Management Area	Honeoye Inlet Wildlife Management Area	Junius Ponds Unique Area
Designated Snowmobile Trail (miles)	0	0	2.6	0	0
MAPPWD Routes	0	0 – current 1.4 miles proposed	2.7 miles	0 – current 2.4 miles proposed	0
Boundary Line	2.4 miles	6.1 miles	10.6 miles	19.2 miles	2.8 miles
Water body, Fire Pond and/or Fishing Pond	2 ponds	2 un-named constructed ponds	0		Newton Pond Lowery Pond
Water Control Structure	3	0	0	0	1
Other	288 sq. ft. covered observation platform	Cemented in place bolder near “ring of fire” bonfire location	0	0	Water well
Bench	2	0	0	0	0
Bird Houses	25	0	35	0	0
Bridge	3	0			0

Table 2D: Facilities on Rush Oak Openings UA, Squaw Island UA, Stid Hill MUA, Willard WMA

	Rush Oak Openings Unique Area	Squaw Island Unique Area	Stid Hill Multiple Use Area	Willard Wildlife Management Area
Public Forest Access Rd (Est. Miles)	0.1 miles	0	0	1 mile
Haul Road (Est. Miles)	1.1 miles	0	0	0
Access Trails (Est. Miles)	0	0	0	0
Right-of-Way (Est. Miles)	0	0	0.6 miles	0
Gates	2	0	1	0
Paved Parking Lots	0	0	0	0
Unpaved Parking lots	2	0	2	2
Facility ID Signs	1	0	2-standard 1-in coop w/NWTF	1
Kiosks	0	0	1	1
Hiking Trails (miles)	0	0	1.6 miles	0.4 miles
Multiple Use Trails (miles)	0	0	6.4 miles	0
Designated Snowmobile Trail (miles)	0	0	0	0
MAPPWD Routes	0	0	0	0
Boundary Line	3.9 miles	325 feet	11.27 miles	2.9 miles
Water body, Fire Pond and/or Fishing Pond	0	0	0	4 ponds
Water Control Structure	0	0	0	0

	Rush Oak Openings Unique Area	Squaw Island Unique Area	Stid Hill Multiple Use Area	Willard Wildlife Management Area
Other	4 miles fire control line 1 fenced deer enclosure	1 rock with plaque 200 feet heavy stone rip-rap for shoreline protection 77 feet steel sheet piling with heavy stone toe protection for shoreline protection	2 artificial bear dens	0
Bench	0	0	0	0
Bird Houses	0	0	17	15
Bridge	0	0	2	

Table 3D: Summary of All Facilities on the Northern Finger Lakes Unit Management Plan Area

	Public Forest Access Rd	Haul Road	Access Trails	Right-of- Way	Gates	Paved Parking lots	Unpaved Parking lots
Total	1.4 miles	11.9 miles	6.4 miles	0.6 miles	13	3	16

	Facility ID Signs	Kiosks	Hiking Trails	Multiple Use Trails	Designated Snowmobile Trail	MAPPWD Routes	Boundary Line
Total	10	7	4.1 miles	6.4	2.6 miles	2.7 current 3.8 proposed	59.2 miles

	Water body, Fire Pond and/or Fishing Pond	Water Control Structure	Other	Bench	Bird Houses	Bridge
Total	10	4	See above	2	92	5

Table 4D: Public Fishing Rights Nearby to the Northern Finger Lakes Unit:

Name	Miles	Notes	Web Page
Naples Creek and tributaries	13.6 equivalent miles	5 parking lots 4 foot paths	www.dec.ny.gov/outdoor/44874.html
Sugar Creek	1.99 equivalent miles	maintain one FAS/boat launch on DOT ROW	www.dec.ny.gov/outdoor/44874.html

Table 5D: Fishing Access Sites Near the Northern Finger Lakes Unit:

Name	Facility	Water Body name	Web page
Severne Point	boat launch	Seneca Lake	www.dec.ny.gov/outdoor/9231.html
Canandaigua Outlet	shore fishing access and hand launch	Canandaigua Outlet	

Avon Pond/Marsh Dam Inspection and Maintenance Plan – Draft 2012

New York State Department of Environmental Conservation
Division of Water
Bureau of Flood Protection and Dam Safety, 4th Floor
625 Broadway, Albany, New York 12233-3504
Phone: (518) 402-8185 • FAX: (518) 402-9029
Website: www.dec.ny.gov



Part I Dam Inspection and Maintenance Plan

Pursuant to New York State Environmental Conservation Law Article 15-0507: Dam owners shall at all times operate and maintain the dam and all appurtenant works in a safe condition. This form is to aid in compliance with this requirement.

Prepared By: Name:

Title:

Company:

Date Last Revised:

Location of Dam Inspection and Maintenance Plan: Operations Division, Avon Region 8 HQ

Dam Owner(s) Name: NYSDEC

Dam Owner(s) Mailing Address: 6274 E Avon-Lima Road Avon, NY 14414

Dam Owner(s) Telephone Number:

Dam Owner(s) Facsimile Number:

Dam Owner(s) E-Mail:

Part II Description of Dam Components

Dam Name: Avon Marsh Dam

Dam State Identification Number: 041-4426

Federal Energy Regulatory Commission Identification Number, if applicable:

Dam Hazard Classification: Intermediate-B

(C-High Hazard, B-Intermediate Hazard, A-Low Hazard)

Date of last Hazard Class Verification: none

Appendices

Dam Location: County: Livingston Town/City/Village: Avon

Latitude: 42, 54, 07 Longitude: 77, 40, 05

Dam Type: Earth embankment (embankment, concrete, combination, other)

Year of original construction: 1980 Year of last construction activity: 1995

Name of last Engineer and Builder: NYSDEC Region 8

Dam Use(s): Recreation

(water supply, flood control, energy generation, recreation, irrigation, pollution control, other)

Reservoir and stream (inflow and outflow) name and class (and/or navigability?):

No named stream inflow; see hydrology report. Not navigable from inflow or outflow. Pond may have small motor-less watercraft.

Associated wetlands and other natural resources of special concern:

RH-7, size 62.8 acres

Dam height: 12.3' (N/S) and 13.7' (E/W) feet

(as measured from downstream toe at lowest point to top of dam)

Dam Crest length: 442' (Upper Pond); N/S 679'; E/W 489' feet

Dam Crest width: typically 20-25 feet

Maximum Impoundment Volume: per DSS database, 46 ac-ft or almost 15MG gallons

All Counties/Towns/Cities/Villages within downstream inundation zone:

(B and C Hazard Class dam owners should refer to their Emergency Action Plans)

Residential properties at intersection of Dutch Hollow and Rt 5/20; both north and south of Rt. 5/20 to west of DEC property

Normal Pool Elevation: approx. 831.8'; there are flashboards in both of the conc. service spillway structures, and staff can adjust height of water manually

(set by crest of service spillway)

Auxiliary/Emergency Spillway Elevation: 834.4'

Maximum Design Water Surface Elevation: 833.5'

(specify vertical datum used: local, barge canal, NGVD 29, NAVD 88, IGLD)

Upper Pond- The southernmost pond is fed by a small runoff area and several springs. A drainage structure (Figure 2, structure 4) discharges into the larger lower pond. The drainage structure (see Figure 2, structure 4) is a concrete drainage inlet with top of grate elev 838.15', flash boards for manual adjustment of water level, and an invert of 830.55'. The surface area of this water body is typically 3.3 acres. The dike that separates the two ponds is between 12 and 14-feet high from crest to toe (which toe extends into the lower pond water body.) If this dike were to fail, the upper pond would evacuate into the lower pond (see topography reference USGS survey and survey of dam (NYSDEC, dated Aug 26, 2010).

Lower Pond- The northern pond has a watershed delineation as shown on Figure A, The watershed totals 147 acres, or 0.44 sq miles. Two concrete drop inlet structures 1 and 2 on figure 2) allow discharge from the ponds continuously. Dikes create the dam on the southwestern and northern boundaries of this pond. These dikes are compacted earth. The surface area of this water body is typically 65.4 acres.

The southwestern dike is approx. 12.5 feet tall from crest to toe. It is approximately 346' in length. Materials used to create this embankment are speculated to consist of loamy native soils.

The western embankment is an earthen spillway is located at the northern end of the western (running N-S) embankment. This spillway is 65' wide and would discharge to the roadside ditch along Dutch Hollow Road as indicated on Figure 2.

The northern embankment is generally 13.7' tall from crest to toe. It is approximately 489' in length. Material used to create the embankment are speculated to consist of loamy soils. A second emergency spillway is located in the northeastern corner of the northern dike. (See Figure 2.) This area normally acts as an inflow to the pond in the springtime. See watershed hydrology diagram B. In the extreme storm event modeled from the large Class B dam ((40% PMF)) this area will also act as a spillway and discharges to Wetland RH-7 at the north toe of the north dike. This flow crosses under Rtes. 5& 20.

The two concrete drop inlets act as the dam spillways. Water is discharged through an 18" metal pipe under the southwestern dike, with a discharge invert of 823.9" (see Figure 2, structure 2). Water is discharged through an 18" plastic pipe under the north dike, with a discharge invert of 822.1' (see Figure 2, structure 1).

Flow out of the pond can be controlled by flashboards at various levels within the concrete structure. DEC Operations personnel/staff operate the flashboards in accordance with the guide in Part III.

Part III Dam Inspection and Operation

Primary person responsible for Dam Operations:

(Name, title, phone number)

Table 1

INSPECTION - This section indicates who, how frequent, and what is involved in a typical inspection.

INSPECTION TYPE	FREQUENCY	ITEMS TO INSPECT/MONITOR	PERSONNEL
Informal** (after or during storm events, snow melts)	As needed, after event	Spillway/Aux. Spillway/Seepage	Damtender
Informal**	Monthly, or as needed Weekly- Trash Rack Debris Bimonthly- Seepage; Cracks	Seepage/Wet Areas/ Toe Drain Flow/ Pool Level/ Trash Rack Debris/ Slides/Cracks/ Rodent Activity/ Vegetation/ Concrete Surfaces/ Vandalism/ Piezometers	Damtender
Maintenance**	Semi-Annually- April & September	In addition to above items: Slope Protection/Riprap Erosion/Conditions of Vegetative Cover	Damtender OR Engineer
Technical	Periodic* (also by DEC Dam Safety staff)	Safety Inspection (See Part 673.12)	Engineer
Technical	Periodic (After initial, every 10 years)	Engineering Assessment (See Part 673.13)	Engineer

* For Class B dams, typical Safety Inspection frequency should be every 4 years.

** For Informal or Maintenance inspections by owner, see Table 2 below.

Table 2

Maintenance and Inspection Plan			
Item	Actions	Frequency	Personnel
N-S dike upstream slope	Mow embankment and emergency spillway (see figure 3)	To maintain 12" height. Mowing to 4 inches 2-3 times per year.1	Operations

N-S dike downstream slope	Mow embankment and emergency spillway (see figure 3)	To maintain 12" height. Mowing to 4 inches 2-3 times per year.1	Operations
small pond E-W dike upstream slope	Mow embankment and emergency spillway (see figure 3)	To maintain 12" height. Mowing to 4 inches 2-3 times per year.1	Operations
small pond E-W dike downstream slope	Mow embankment and emergency spillway (see figure 3)	To maintain 12" height. Mowing to 4 inches 2-3 times per year.1	Operations
E-W dike, north end upstream slope	Mow embankment and emergency spillway (see figure 3)	To maintain 12" height. Mowing to 4 inches 2-3 times per year.1	Operations
E-W dike, north end downstream slope	Mow embankment and emergency spillway (see figure 3)	To maintain 12" height. Mowing to 4 inches 2-3 times per year.1	Operations
North structure (drainage structure 1 on figure 2)	Check boards and grate- 'actionable' and in good condition Grease as needed and repair, check concrete integrity	Annually	
	Remove trash and sediment & vegetation	Trash Monthly, Sediment & vegetation-semiannually	
South structure (drainage structure 4 on figure 2)	Check boards and grate- 'actionable' and in good condition Grease as needed and repair, check concrete integrity	Annually	
	Remove trash and sediment & vegetation	Trash Monthly, Sediment & vegetation-semiannually	
West structure (drainage structure 2 on figure 2)	Check boards and grate- 'actionable' and in good condition Grease as needed and repair, check concrete integrity	Annually	

Appendicies

	Remove trash and sediment & vegetation	Trash Monthly, Sediment & vegetation- semiannually	
All dikes	Re-establish proper vegetative cover, no woody vegetation- Upstream and Downstream slopes	As needed	
	To distance 15' of D/S toe and U/S edge of toe (see details Appendix__)	Monitor monthly	
All dikes	Address erosion- slumps, scarps or machine rutting	As needed	
	(see details Appendix__)	Monitor monthly	
All dikes	Address rodent damage	As needed	
	(see details Appendix__)	Monitor monthly	
All dikes	Address seepage. Document location, amount of flow	As needed	
	and note any evidence of soil movement	Monitor monthly	
	Monitor seepage- second person inspection (second pair of eyes to discern incremental changes)	Quarterly	
All dikes	Maintain other mechanical equipment	Annually	
North dike	Replace/ replenish riprap	As needed	
	(see details Appendix__)		
North Invert at outlet (from drainage structure 1)	Slope along pipeline	Quarterly	
	Seepage or bank erosion above pipeline	Quarterly	
West Invert at outlet (from drainage structure 2)	Slope along pipeline	Quarterly	
	Seepage or bank erosion above pipeline	Quarterly	
South Invert at outlet (from	Slope along pipeline	Quarterly	

drainage structure 4)			
	Seepage or bank erosion above pipeline	Quarterly	

Footnote 1: Mowing to cease by September 15th (or earlier) to allow vegetation to regrow to the 12 inches to maintain the bank stability. This is prevent, or at least minimize, nuisance Canada Geese use of the banks during the off season which results in elimination of vegetation and erosion of the banks.

OPERATION - Give a summary of all your operation procedures for the dam. Specific procedures for operation of mechanical equipment such as valves should be included here, or attached. Emergency operation should be covered in an Emergency Action Plan (EAP).

Some examples of items that would require operational/ procedural descriptions may include:

pool level drawdown for the winter season

exercise (specified frequency – i.e. 2x/year), lubrication of valves

record keeping (who is maintaining, location)

SAFE RATE DRAWDOWN PLAN - This section should include the method to be used for drawing the impoundment down under emergency and non-emergency conditions. This could include the maximum release rate which will not cause downstream flooding or rapid drawdown damage. Alternative ways to provide for drawdown if needed (i.e. portable pumps, temporary siphons) should also be included. (Hasty, unplanned action during emergency situations could increase the dam failure rate or actually cause failure)

Part IV Training

List of procedures and frequency for training personnel regarding this I&M Plan. Also note other training needs, such as confined space entry procedures per OSHA requirements.

Part V Contacts

List of Items Requiring Notification and Notification Procedures pursuant to ECL Part 673. This should consist of, at a minimum, the following:

Form	Submittal Date
Annual Certification	By January 31 of each year
Incident Report Form (EAP Activation, Flow in Erodible Spillway)	Within 5 days of incident
Notification of Property Transfer	Sale of property where dam is located

Appendices

Inspection Forms

Appendicies

Past Inspection Reports

Reduced Size As-Built Drawings

Spillway Rating Curve

Drain Rating Curve

Pictures

Available References

An Owners Guidance Manual for the Inspection and Maintenance of Dams in New York State, DEC June 1987.

http://www.dec.ny.gov/docs/water_pdf/damguideman.pdf

Guidelines for Design of Dams, DEC Revised January 1989.

http://www.dec.ny.gov/docs/water_pdf/damguideli.pdf

Appendix E: Water Resources

See also Wetlands and Water Resources page 69 and Watershed and Wetlands Protection Management page 117.

Table 1E: Streams

WIN - Watershed Index Number: Numbering system used by NYSDEC to identify individual streams/ponds/lakes. (PA- water flows to Pennsylvania, Ont – water flows to Lake Ontario)

Water Classifications:

- 1) Class AA- A source of water supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing
- 2) Class AA(T)-Same as Class AA plus it is designated as trout waters
- 3) Class C - Fishing and any other usages except for bathing or as a source of water supply for drinking, culinary, or food processing purposes.
- 4) Class C(T) - Same as Class C plus it is designated as trout waters
- 5) Class C(TS) - Same as Class C plus waters are suitable for trout spawning

Name	WIN	Perennial/ Intermittent	Class	Fisheries Resource
Unnamed	ONT-117-27-4	Seasonal	C	Suckers, Minnows
Unnamed	ONT-117-27-4-9	Seasonal	C	Suckers, Minnows
Unnamed	ONT-117-30	Perennial	C	Suckers, Minnows
Unnamed	ONT-117-30-3C	Perennial	C	Suckers, Minnows
Unnamed	ONT-117-27-4-3-1	Perennial	C	Suckers, Minnows
Honeoye Creek	ONT-117-27	Perennial	C	Bluegills, Pumpkinseeds, Largemouth Bass, Smallmouth Bass
Unnamed	ONT-117-27-39A	Perennial	C	Suckers, Minnows
Unnamed	ONT-117-27-37	Perennial	C	Suckers, Minnows
Unnamed	ONT-117-27-35	Perennial	C	Suckers, Minnows
Unnamed	ONT-117-27-36	Perennial	C	Suckers, Minnows
Unnamed	ONT-117-27-36-A	Perennial	C	Suckers, Minnows
Unnamed	ONT-117-27-44	Perennial	C	Suckers, Minnows
Unnamed	ONT-117-27-44-A-1	Perennial	C	Suckers, Minnows
Unnamed	ONT-117-27-45	Perennial	C	Suckers, Minnows

Name	WIN	Perennial/ Intermittent	Class	Fisheries Resource
Honeoye Inlet	ONT-117-27-P57-10	Perennial	C; C(T)	Brook Trout, Rainbow Trout, Brown Trout, Suckers, Minnows, Darters, Walleye
Unnamed	ONT-117-27-P57-10-1	Seasonal	C	Suckers, Minnows
Unnamed	ONT-117-27-P57-10-3	Seasonal	C	Suckers, Minnows
Unnamed	ONT-117-27-P57-10-6	Seasonal	C	Suckers, Minnows
Unnamed	ONT-117-27-P57-10-7	Seasonal	C	Suckers, Minnows
Unnamed	ONT-117-27-P57-10-10	Seasonal	C	Suckers, Minnows
Unnamed	ONT-117-27-P57-10-12	Seasonal	C	Suckers, Minnows
Unnamed	ONT-117-27-P57-10-14	Perennial	C	Suckers, Minnows
Unnamed	ONT-117-27-P57-10-14-1	Perennial	C	Suckers, Minnows
Ganargua Creek	ONT-66-12-52-23	Perennial	C	Brown Trout, Sucker, Minnows, Darters
Unnamed	ONT-66-12-52-23-77A	Seasonal	C	Minnows, Suckers
Unnamed	ONT-66-12-52-23-78	Perennial	C	Minnows, Suckers
Unnamed	ONT-66-12-52-P286-15	Seasonal	C	Minnows, Suckers
Unnamed	ONT-66-12-52-P286-15A	Seasonal	C	Minnows Suckers
Pond Brook	ONT-66-12-52-18	Perennial	C	Minnows, Suckers, Sculpins, Brook Sticklebacks, Banded Killifish, Darters, Sunfish
Unnamed	ONT-66-12-52-18-P237-2	Perennial	A	Minnows, Suckers, Sculpins, Brook Sticklebacks, Banded Killifish, Darters, Sunfish

Table 2E: Ponds

Name	WIN	Fisheries Resource
Unnamed	ONT-117-27-4-9-P5160	Bluegills, Pumpkinseeds, Black Crappie, Largemouth Bass, Minnows
Unnamed	ONT-66-12-52-18-P237	No Fishing
Unnamed	ONT-66-12-52-18-P237-1-P238	No Fishing
Unnamed	ONT-66-12-52-18-P237-2-P240	No Fishing
Unnamed	ONT-66-12-52-18-P241	No Fishing

Table 3E: National Wetlands Inventory by NYS DEC Parcel

Further information on the classification code for each wetland type can be found at <http://107.20.228.18/decoders/wetlands.aspx>.

Parcel	Wetland Type	Classification Code	Acres on property
Avon Regional Office	Palustrine, forested/shrub	PSS1Fh	1.92101
	Palustrine, emergent	PEM1Fh	4.00253
		PEM1Fh	0.9214
		PEM1Fh	1.01865
		PEM1E	2.19808
	Lacustrine, lake	L1UBHh	16.972
Bare Hill	Palustrine, freshwater pond	PUBHh	0.47886
		PUBHh	0.17754
		PUBFh	0.09828
		PUBHh	0.62197
Honeoye Creek	Palustrine, forested/shrub	PSS1E	1.12109
		PFO1C	37.1481
		PFO1C	37.9759
		PFO1A	4.94947
		PFO1E	6.31197
		PFO1C	0.28345
		PSS1E	0.28591
		PFO1E	6.25998
		PFO1/SS1E	3.00989
		PFO1C	17.4492
	Palustrine, emergent	PEM1E	3.875
		PEM1E	1.11911
		PEM1E	1.32221
		PEM1/FO1E	1.17256
		PEM1E	0.63896
		PEM1C	0.86772
	Palustrine, freshwater pond	PUBFh	0.5193
		PUBHh	0.17639
Honeoye Inlet	Palustrine, forested/shrub	PSS1F	4.27397
		PSS1F	6.53121
		PSS1F	4.89448
		PFO1A	5.67159
		PFO1E	573.556
		PFO1C	3.1159
		PFO1C	32.8384

Parcel	Wetland Type	Classification Code	Acres on property
		PFO1Eb	7.77123
		PFO1C	9.021
		PFO1A	5.95972
		PSS1E	0.72208
		PSS1Fh	0.30937
		PSS1E	2.10193
		PFO1A	5.69324
		PSS1E	0.76696
		PFO1A	8.53136
	Palustrine, emergent	PEM1F	8.92808
		PEM1E	0.83956
		PEM1E	11.2065
		PEM1A	3.99589
		PEM1E	0.69145
		PEM1E	1.35517
		PEM1E	1.4191
		PEM1E	0.93004
		PEM1E	0.13141
	Palustrine, freshwater pond	PUBHh	0.29108
		PUBHh	0.28963
		PUBHh	0.21802
		PUBHh	0.26105
		PUBHh	0.39495
		PUBHh	0.31326
		PUBHh	0.02582
		PUBHh	0.01175
	Lacustrine, lake	L1UBH	1.32821
		PUBHh	0.01175
Junius Ponds	Palustrine, forested/shrub	PSS1E	0.01271
		PFO1E	2.6776
		PFO1E	0.2599
		PFO1E	0.1947
		PFO1E	2.58724
		PSS1/EM1E	2.02586
		PFO1E	1.24127
		PSS1/EM1C	2.3971
	Palustrine, emergent	PEM1E	12.1946
		PEM1E	3.90071
		PEM1E	0.52503
		PEM1E	0.5973
		PEM1E	4.03772

Parcel	Wetland Type	Classification Code	Acres on property
	Palustrine, freshwater pond	PUBH	4.96009
		PUBH	4.85448
		PUBH	1.34895
		PUBHx	0.33215
	Lacustrine, lake	L1UBH	17.5179
Rush Oak Openings	Palustrine, forested/shrub	PFO1E	0.45813
		PFO1E	7.55906
		PFO1E	1.69177
		PFO1E	4.4172
		PSS1/FO1E	6.25661
		PSS1E	0.76113
		PSS1E	0.55412
		PFO5Fh	0.77893
	Palustrine, emergent	PEM1/SS1E	0.14525
		PEM1E	0.20566
		PEM1E	2.34891
		PEM1E	1.52171
		PEM1F	4.43559
	Palustrine, freshwater pond	PUBF	7.83984
Squaw Island	Lacustrine, lake	Canandaigua Lake	0.08092
Stid Hill	Palustrine, forested/shrub	PSS1A	5.39846
		PSS1/FO1E	14.2965
		PFO1E	3.697
		PSS1E	1.07637
		PSS1/FO1E	4.44501
		PFO1E	0.17807
	Palustrine, emergent	PEM1E	0.77963
		PEM1/SS1E	7.85853
		PEM1E	0.25139
		PEM1E	0.71847
Willard	Palustrine, freshwater pond	PUBHx	0.43385
		PUBHx	0.31252
		PUBHx	0.19311
		PUBHx	0.50092
	Lacustrine, lake	L1UBH	1.24726

Appendix F: Vegetation Management

See also maps on Appendix N: Maps, page 243 and Timber and Vegetation and Timber and Vegetation Management starting on pages 51 and 95.

A stand is group of plants with similar characteristics that are analyzed and treated as a single unit. Each parcel is divided into one or more compartments, and each compartment divided into stands. Compartments are given a letter designation, and stands a number. This letter-number combination is used for tracking, mapping and planning the actions and activities that happen in and on NYS DEC owned land.

The following table list the anticipated period of time for bidding out the start of the treatment of these stands. Many factors can influence the actual start date for these events, including, but not limited too; staff time and other resources, invasive bug or plant issues, weather, local/regional/worldwide markets, and deer or other animal populations. Most, but not all, of these will be sold in sales of more than one stand, and most will take more than one year to plan, sell, and cut.

These lists only include commercial sales of timber; they do not include any pre-commercial treatments for any stands. Pre-commercial is a stand treatment when the trees or stand is too small to sell for profit, requiring the payment of someone to do the work. In addition, properly trained volunteers, or prison work crews, can also do the work. When prison work crews are available, or money to contract for work is available, the stands not slated for commercial sales will be evaluated, starting with the ones in the seedling-sapling and pole timber sizes.

Key	
Abbreviation	Definition
SS	Seedling/sapling size - A stand with an average D.B.H. of 0 to 5 inches.
PT	Poletimber size - A stand with an average D.B.H. of 6 to 11 inches.
ST	Sawtimber size - A stand with an average D.B.H. of 12 inches or larger.
AA	All-aged cut - To continue, or encourage, a forest stand to contain trees of two or more age classes. Both regenerating and thinning at the same time.
Regen	Regeneration -To reestablish a forest stand with tree seedlings. Cut styles that do this include; clearcut or overstory removal cut (one cut removes all the overstory trees); or a Shelterwood or Seed tree Cut (one or more cuts to get sunlight on the ground before the final cut). This indicates the first entry; later cuts will be timed based on the growth response of the vegetation. Depending on type of cut and the size of the area treated additional SEQR may be required.
Thin	Thinning - An intermediate cut to encourage faster growth.
Protection	An area which requires special management considerations. (Special cutting regimen, no treatment, short rotation, or long rotation.) See Page 105.
No Access	Inadequate access to treat, if access improves treatment may (or may not) be scheduled.

Tables 1F: Avon Regional Office

Com-part-ment	Stand No.	Acres	Stand type	Stand Size	Management Action	
					Years 1-5	Years 6-10
A	1	18	Conifer Natural	PT		
A	2	10	Hardwood	PT		
A	711	2	road		Other (roads, etc.)	
A	760	13	Office complex		Other (roads, etc.)	
A	910	24	Pond		Wetland or Pond	
A	911	1	Pond		Wetland or Pond	
A	930	7	Wetland		Wetland or Pond	
A	940	5	Open/Brushy		Mow at least every 3 rd year.	
A	941	2	Open/Brushy		Mow or burn at least every 3 rd year.	
A	950	1	Open/Brushy		Portion not used for Access Rd, allowed to revert to forest.	

Avon Regional Office	Acres by Ave. Tree Diameter Size Class				Total (Acres)	% of Total
Vegetative Type	0-5 in	6-11 in	12+ in	Other		
Natural Forest Hardwood	0	10	0		10	12.0%
Natural Forest Conifer/Conifer Hardwood*	0	18	0		18	21.7%
Plantation	0	0	0		0	0.0%
Wetland (Forest)	0	0	0		0	0.0%
Wetland (Emergent and/or Shrub)				7	7	8.4%
Ponds				25	25	30.1%
Open/Brush				8	8	9.6%
Other (Road, ROW, Parking, etc.)				15	15	18.1%
Total (Acres)	0	28	0	55	83	
% of Total	0.0%	33.7%	0.0%	66.3%		

Tables 2F: Bare Hill Unique Area

Com-part-ment	Stand No.	Acres	Stand type	Stand Size	Management Action	
					Years 1-5	Years 6-10
A	1	6	Hardwood	PT		
A	3	3	Plantation	PT		
A	4	2	Hardwood	PT		
A	10	30	Hardwood	ST		

Appendices

Com-part-ment	Stand No.	Acres	Stand type	Stand Size	Management Action	
					Years 1-5	Years 6-10
A	23	3	Hardwood	ST		
A	24	9	Hardwood	PT		Thin
A	25.1	3	Hardwood	SS		
A	25.2	6	Hardwood	SS		
A	26	18	Hardwood	ST		
A	28	12	Hardwood	ST		
A	29	10	Hardwood	PT		
A	30	16	Hardwood	PT		Thin
A	31	28	Hardwood	PT		Thin
A	32	11	Hardwood	PT		Thin
A	33	4	Hardwood	PT		
A	34	10	Hardwood	PT		
A	35	11	Plantation	PT		
A	36	12	Plantation	PT		
A	37	5	Hardwood	PT		
A	38	6	Hardwood	PT		
A	39	31	Hardwood	PT		
A	40	16	Hardwood	PT		
A	41	14	Hardwood	PT	Protection	
A	42	5	Hardwood	PT		
A	711	1	Road		Other (roads, etc.)	
A	820	2	Quarries		Other (roads, etc.)	
A	910	1	Pond		Wetland or Pond	
A	911	1	Pond		Wetland or Pond	
A	912	1	Pond		Wetland or Pond	
A	950	91	Open/Brushy		Mow or burn at least every 3 rd year.	
A	951	29	Open/Brushy		No action, allow to revert to forest	

Bare Hill Unique Area	Acres by Ave. Tree Diameter Size Class				Total (Acres)	% of Total
Vegetative Type	0-5 in	6-11 in	12+ in	Other		
Natural Forest Hardwood	9	173	63		245	61.71%
Natural Forest Conifer/Conifer Hardwood*	0	0	0		0	0.00%
Plantation	0	26	0		26	6.55%
Wetland (Forest)	0	0	0		0	0.00%
Wetland (Emergent and/or Shrub)				0	0	0.00%
Ponds				3	3	0.76%
Open/Brush				120	120	30.23%

Other (Road, ROW, Parking, etc.)				3	3	0.76%
Total (Acres)	9	199	63	126	397	
% of Total	2.27%	50.13%	15.87%	31.74%		

Tables 3F: Honeoye Creek Wildlife Management Area

Com-part-ment	Stand No.	Acres	Stand type	Stand Size	Management Action	
					Years 1-5	Years 6-10
A	1	61	Forested Wetland	ST	Wetland or Pond	
A	2	39	Forested Wetland	ST	Wetland or Pond	
A	3	10	Hardwood	PT	Regen	
A	4	24	Hardwood	PT		
A	5	6	Hardwood	PT		
A	6	4	Forested Wetland	PT	Wetland or Pond	
A	7	14	Forested Wetland	ST	Wetland or Pond	
A	8	16	Hardwood	PT		
A	9	4	Hardwood	SS	Regen	
A	10	12	Hardwood	PT		
A	711	17	Road		Other (roads, etc.)	
A	712	1	Parking Lot		Other (roads, etc.)	
A	910	0.3	Pond			
A	911	0.7	Pond			
A	912	3	Pond			
A	913	1	Pond			
A	920	7	Wetland			
A	921	6	Wetland			
A	922	9	Wetland			
A	940	401	Open/Brushy		194 Acres in Ag Agreement, 199 acres mow at least every 3 rd year and 8 Acres mow or burn at least every 3 rd year.	
A	941	32	Open/Brushy		30 Acres in Ag Agreement, and mow remainder at least every 3 rd year.	
A	942	2	Open/Brushy		Mow at least every 3 rd year.	
A	950	13	Open/Brushy		Mow at least every 3 rd year.	
A	951	6	Open/Brushy		Mow at least every 3 rd year.	
A	952	14	Open/Brushy		Mow at least every 3 rd year.	
A	953	6	Open/Brushy		Mow at least every 3 rd year.	
A	954	22	Open/Brushy		Mow at least every 3 rd year.	
A	955	12	Open/Brushy		Mow at least every 3 rd year.	
A	956	2	Open/Brushy		Mow at least every 3 rd year.	

Honeoye Creek Wildlife Management Area	Acres by Ave. Tree Diameter Size Class				Total (Acres)	% of Total
Vegetative Type	0-5 in	6-11 in	12+ in	Other		
Natural Forest Hardwood	4	68			72	9.66%
Natural Forest Conifer/Conifer Hardwood*	0	0	0		0	0.00%
Plantation	0	0	0		0	0.00%
Wetland (Forest)	0	4	114		115	15.84%
Wetland (Emergent and/or Shrub)				22	22	2.95%
Ponds				5	5	0.67%
Open/Brush				510	510	68.46%
Other (Road, ROW, Parking, etc.)				18	18	2.42%
Total (Acres)	4	72	114	555	745	
% of Total	0.54%	9.66%	15.30%	74.50%		

Tables 4F: Honeoye Inlet Wildlife Management Area

Com-part-ment	Stand No.	Acres	Stand type	Stand Size	Management Action	
					Years 1-5	Years 6-10
B	1	51	Hardwood	ST		
B	2	7	Hardwood	PT		
B	3	13	Forested Wetland	PT	Wetland or Pond	
B	4	6	Hardwood	ST		
B	5	111	Hardwood	ST		
B	6	41	Hardwood	PT		
B	7	54	Hardwood	PT		
B	8	18	Hardwood	PT		
B	9	20	Hardwood	ST		Regen
B	10	94	Hardwood	ST		
B	11	98	Hardwood	PT		
B	12	51	Hardwood	ST		Regen
B	13	75	Hardwood	ST		Regen
B	14	33	Hardwood	PT		
B	15	30	Hardwood	PT		
B	16	9	Hardwood	PT		
B	17	20	Hardwood	PT		
B	18	17	Forested Wetland	PT	Wetland or Pond	
B	19	653	Forested Wetland	PT	Wetland or Pond	
B	20	26	Hardwood	ST		

Com-part-ment	Stand No.	Acres	Stand type	Stand Size	Management Action	
					Years 1-5	Years 6-10
B	711	56	Road		Other (roads, etc.)	
B	910	29	Open/Brushy		Mow at least every 3 rd year.	
B	912	2	Open/Brushy		Mow at least every 3 rd year.	
B	921	11	Wetland		Wetland or Pond	
B	940	333	Open/Brushy		Mow at least every 3 rd year.	
B	941	61	Open/Brushy		Mow at least every 3 rd year.	
B	942	14	Open/Brushy		Mow at least every 3 rd year.	
B	943	14	Open/Brushy		Mow at least every 3 rd year.	
B	951	21	Open/Brushy		Mow at least every 3 rd year.	
B	952	5	Open/Brushy		Mow at least every 3 rd year.	
B	953	4	Open/Brushy		No action, allow to revert to forest	
B	954	2	Open/Brushy		Mow at least every 3 rd year.	
B	955	2	Open/Brushy		Mow at least every 3 rd year.	

Honeoye Inlet Wildlife Management Area	Acres by Ave. Tree Diameter Size Class				Total (Acres)	% of Total
Vegetative Type	0-5 in	6-11 in	12+ in	Other		
Natural Forest Hardwood	0	310	434		744	37.56%
Natural Forest Conifer/Conifer Hardwood*	0	0	0		0	0.00%
Plantation	0	0	0		0	0.00%
Wetland (Forest)	0	683	0		683	34.48%
Wetland (Emergent and/or Shrub)				11	11	0.56%
Ponds				31	31	1.56%
Open/Brush				456	456	23.02%
Other (Road, ROW, Parking, etc.)				56	56	2.83%
Total (Acres)	0	993	434	554	1,981	
% of Total	0.00%	50.13%	21.91%	27.97%		

Tables 5F: Junius Ponds Unique Area

Com-part-ment	Stand No.	Acres	Stand type	Stand Size	Management Action	
					Years 1-5	Years 6-10
A	1	26	Hardwood	ST	Protection	
A	2	4	Hardwood	ST	Protection	
A	910	24	Pond		Wetland or Pond	
A	911	12	Pond		Wetland or Pond	

Com-part-ment	Stand No.	Acres	Stand type	Stand Size	Management Action	
					Years 1-5	Years 6-10
A	920	24	Wetland		Wetland or Pond	
A	921	12	Wetland		Wetland or Pond	
A	930	3	Wetland		Wetland or Pond	

Junius Ponds Unique Area	Acres by Ave. Tree Diameter Size Class				Total (Acres)	% of Total
Vegetative Type	0-5 in	6-11 in	12+ in	Other		
Natural Forest Hardwood	0	0	30		30	28.57%
Natural Forest Conifer/Conifer Hardwood*	0	0	0		0	0.00%
Plantation	0	0	0		0	0.00%
Wetland (Forest)	0	0	0		0	0.00%
Wetland(Emergent and/or Shrub)				39	39	37.14%
Ponds				36	36	34.29%
Open/Brush				0	0	0.00%
Other (Road, ROW, Parking, etc.)				0	0	0.00%
Total (Acres)	0	0	30	75	105	
% of Total	0.00%	0.00%	28.57%	71.43%		

Tables 6F: Rush Oak Openings Unique Area

Com-part-ment	Stand No.	Acres	Stand type	Stand Size	Management Action	
					Years 1-5	Years 6-10
A	1	20	Forest Wetland	ST	Wetland or Pond	
A	2	6	Hardwood	ST		
A	3	6	Hardwood	PT		
A	4	9	Hardwood	ST	Prescribed Fire –south of road.	
A	5	28	Hardwood	ST	Prescribed Fire	
A	6	19	Hardwood	PT	Prescribed Fire	
A	7	1	Hardwood	PT		
A	8	4	Forest Wetland	PT	Wetland or Pond	
A	9	7	Hardwood	PT		
A	711	2	Road		Other (roads, etc.)	
A	712	1	Parking lot		Other (roads, etc.)	
A	920	24	Wetland		Wetland or Pond	
A	921	8	Wetland		Wetland or Pond	
A	931	2	Wetland		Wetland or Pond	
A	932	9	Wetland		Wetland or Pond	

Com-part-ment	Stand No.	Acres	Stand type	Stand Size	Management Action	
					Years 1-5	Years 6-10
A	940	4	Grassland/Brushy		Prescribed Fire	
A	941	10	Grassland/Brushy		Prescribed Fire	
A	942	14	Grassland/Brushy		Prescribed Fire	
A	943	13	Grassland/Brushy		Prescribed Fire	
A	944	9	Grassland/Brushy		Prescribed Fire	
A	945	11	Grassland/Brushy		Mow or burn at least every 3 rd year.	
A	950	2	Grassland/Brushy		Prescribed Fire	
A	952	14	Grassland/Brushy		Prescribed Fire	
A	953	6	Grassland/Brushy		Prescribed Fire	
A	954	1	Grassland/Brushy		Prescribed Fire	

Rush Oak Openings Unique Area	Acres by Ave. Tree Diameter Size Class				Total (Acres)	% of Total
	0-5 in	6-11 in	12+ in	Other		
Natural Forest Hardwood	0	33	43		76	33.04%
Natural Forest Conifer/Conifer Hardwood*	0	0	0		0	0.00%
Plantation	0	0	0		0	0.00%
Wetland (Forest)	0	4	20		24	10.43%
Wetland (Emergent and/or Shrub)				43	43	18.70%
Ponds				0	0	0.00%
Open/Brush				84	84	36.52%
Other (Road, ROW, Parking, etc.)				3	3	1.30%
Total (Acres)	0	37	63	130	230	
% of Total	0.00%	16.09%	27.39%	56.52%		100%

Tables 7F: Stid Hill Multiple Use Area

Com-part-ment	Stand No.	Acres	Stand type	Stand Size	Management Action	
					Years 1-5	Years 6-10
A	1	7	Conifer Natural	ST		
A	2	42	Hardwood	ST		
A	3	11	Hardwood	PT		
A	4	6	Forested Wetland	PT	Wetland or Pond	
A	5	17	Hardwood	PT		
A	6	28	Hardwood	ST		
A	8	127	Hardwood	ST		

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Com-part-ment	Stand No.	Acres	Stand type	Stand Size	Management Action	
					Years 1-5	Years 6-10
A	9	12	Conifer Natural	ST		
A	10	12	Hardwood	PT		
A	11	26	Hardwood	PT		
A	13	18	Hardwood	ST	Regen	
A	14	101	Hardwood	ST	Regen	
A	15	37	Hardwood	PT	Regen	
A	16	6	Hardwood	PT		
A	710	1	Road		Other (roads, etc.)	
A	711	1	Road		Other (roads, etc.)	
A	712	1	Parking Lot		Other (roads, etc.)	
A	940	14	Open/Brushy		Mow at least every 3 rd year.	
A	941	4	Open/Brushy		Mow at least every 3 rd year.	
A	942	5	Open/Brushy		Mow at least every 3 rd year.	
A	943	3	Open/Brushy		Mow at least every 3 rd year.	
A	950	82	Open/Brushy		No action, allow to revert to forest	
B	1	124	Hardwood	ST		
B	2	17	Hardwood	PT		
B	3	6	Hardwood	SS		
B	4	15	Hardwood	PT		Regen
B	5	14	Hardwood	PT		Regen
B	6	13	Conifer Natural	ST		
B	7	11	Hardwood	ST		
B	8	8	Hardwood	SS		
B	11	33	Hardwood	PT		
B	711	1	Road		Other (roads, etc.)	
B	712	1	Parking Lot		Other (roads, etc.)	
B	940	14	Open/Brushy		Mow at least every 3 rd year.	
B	950	4	Open/Brushy		No action, allow to revert to forest	
B	951	10	Open/Brushy		Mow at least every 3 rd year.	
		12	Disputed Acres		Other	

Stid Hill Multiple Use Area	Acres by Ave. Tree Diameter Size Class				Total (Acres)	% of Total
	0-5 in	6-11 in	12+ in	Other		
Natural Forest Hardwood	14	188	451		653	77.37%
Natural Forest Conifer/Conifer Hardwood*	0	0	32		32	3.79%
Plantation	0	0	0		0	0.00%
Wetland (Forest)	0	6	0		6	0.71%
Wetland (Emergent and/or Shrub)				0	0	0.00%

Ponds				0	0	0.00%
Open/Brush				136	136	16.11%
Other (Road, ROW, Parking, etc.)				17	17	2.01%
Total (Acres)	14	194	483	153	844	
% of Total	1.66%	22.99%	57.23%	18.13%		

Tables 8F: Willard Wildlife Management Area

Com-part-ment	Stand No.	Acres	Stand type	Stand Size	Management Action	
					Years 1-5	Years 6-10
A	2	3	Hardwood	PT		
A	7	7	Hardwood	PT		Regen
A	11	44	Hardwood	ST		Regen/Thin
A	710	2	RR Bed		Other (roads, etc.)	
A	711	7	Road		Other (roads, etc.)	
A	760	3	Barn		Other (roads, etc.)	
A	910	2	Ponds		Wetland or Pond	
A	940	42	Open/Brushy		Mow at least every 3 rd year.	
A	941	6	Open/Brushy		Mow at least every 3 rd year.	
A	942	13	Open/Brushy		Mow at least every 3 rd year.	
A	943	30	Open/Brushy		20 Acres Ag Agreement, mow remainder at least every 3 rd year.	
A	944	5	Open/Brushy		Mow at least every 3 rd year.	

Willard Wildlife Management Area	Acres by Ave. Tree Diameter Size Class				Total (Acres)	% of Total
Vegetative Type	0-5 in	6-11 in	12+ in	Other		
Natural Forest Hardwood	0	10	44		54	32.9%
Natural Forest Conifer/Conifer Hardwood*	0	0	0		0	0.0%
Plantation	0	0	0		0	0.0%
Wetland (Forest)	0	0	0		0	0.0%
Wetland (Emergent and/or Shrub)				0	0	0.0%
Ponds				2	2	1.2%
Open/Brush				96	96	58.5%
Other (Road, ROW, Parking, etc.)				12	12	7.3%
Total (Acres)	0	10	44	110	164	
% of Total	0.0%	6.1%	26.8%	67.1%		

Table 9F: Summary of Timber and Vegetation Management for this Planning Period

See also maps on Appendix N: Maps, page 292 and Timber and Vegetation, and Timber and Vegetation Management, starting on pages 51 and 95.

Management Action		Total Number of Stands	Total Acres	Percent of Land Area
Even Aged Silviculture	Regenerate	12	359	7.9%
	Thin/Intermediate cut	5	94	2.1%
All Aged Silviculture	Stand Entry	0	0	0%
Hardwood	Burn	3	53	1.2%
Grassy/Brushy Openings	Mow	30	861	18.9%
	Burn	8	72	1.6%
	Mow or Burn	4	113	2.5%
	Ag Agreement	3	244	5.4%
	No Action	5	120	2.6%
	Create	?	15	0.3%
Total		28	1,666	36.6%

Appendix G: Glossary

Access Trails - May be permanent, unpaved and do not provide all-weather access within the Unit. These trails are originally designed for removal of forest products and may be used to meet other management objectives such as recreational trails. These trails are constructed according to Best Management Practices.

All-Aged - A forest containing trees of two or more age classes.

Allegheny Hardwoods - Composed of primarily of black cherry, white ash, and tulip poplar. May contain lesser amounts of sugar maple, beech, red maple, red oak and basswood.

Allowable cut - The amount of wood fiber that may be harvested annually or periodically for a specified area over a stated period in accordance with the objectives of management.

Alluvium - Clay, silt, sand, gravel or similar material deposited by running water.

Anticlinal - Rock layers that are folded so that the layers are inclined away from each other (like the legs of a capital A).

Basal Area - The cross sectional area of a tree at breast height, measured in square feet. (Forestry Handbook, 2nd Edition, 1984, p.287) For a stand: the total basal area per unit of area, usually expressed as square feet per acre. (Silvicultural Systems for the Major Forest Types of the United States®, USDA Ag. Hndbk. #445, 1973, p.103)

Bedrock - Hard lithified or consolidated rock units that underlie the unconsolidated or partially-consolidated surface (geology) sediments and soils deposited during recent sedimentation and glacial sedimentation.

Best Management Practices (BMP's) - Practices and techniques that control erosion of soil or other contaminants from the site.

Board Foot - A piece of lumber 1 inch thick, 12 inches wide and 1 foot long, or its equivalent.

Buffer Strips - A strip of vegetation used to protect sensitive areas from soil erosion and siltation.

Canadian Shield - the stable portion or nucleus of the North American continent, primarily igneous and metamorphic rocks, located primarily in northeastern Canada, Michigan, Wisconsin and Minnesota.

Clast - A fragment of rock

Classified Water Bodies - A system whereby water bodies are protected under Environmental Conservation Law.

Appendices

Clearcut - The removal of a forest overstory. This practice is done in preparation of the reestablishment of a new forest through regeneration. One form of even aged management.

Conifer - Needle bearing trees.

Conifer Stand - A forest stand containing 50% or more conifer species.

D.B.H. - (diameter at breast height) - The diameter of a tree at roughly breast height or 4.2 feet from the ground.

Defoliated - Complete, or almost complete removal of leaves from a living tree.

Dip - The angle that strata (rock layers) or planar features deviate from horizontal.

Dug-Out - A 500 square foot by 3 feet deep pot hole constructed of earth and containing water.

Early Successional Forest - Trees and brush that grow after disturbance such as plowing, fire or clearcut. Common species include grass, raspberries/black berries, white pine, aspen, red maple, black cherry, birch etc.

Early Successional Wildlife Species - Animal species which require early vegetative stages such as grass, brush, aspen.

Ecological Diversity - The number of species living in an ecosystem.

Ecological Subzone - A geographic area containing fauna and flora which are adapted to that particular area.

Ecoregion – (Ecological Region) - NYS DEC is using the The Nature Conservancy definition of an area of ecological homogeneity, which are defined by similarities in soil, physiography, climate, hydrology, geology and vegetation.

Ecosystem - A complex of living organisms and their environment.

Element Rank - Communities and rare species are the mapping units or "elements" of the Heritage inventory. Each community and species element is assigned an "element rank" consisting of a combined global and state rank. The global rank reflects the rarity of the element throughout the world and the state rank reflects the rarity within New York State (The Nature Conservancy 1982). Global ranks for communities are not currently standardized by The Nature Conservancy, so the ranks listed in the community descriptions are estimated global ranks. (Ecological Communities of New York State. Carol Reschke, 1990).

Emergent – a class of wetlands that are characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants. All water regimes are included except subtidal and irregularly exposed. These areas are often further described by subclasses, such as "persistent", "nonpersistent", etc

Endangered - Native plants (and animals) in danger of extinction throughout all or a significant portion of their ranges within the state and requiring remedial action to prevent such extinction (NYCRR Title 9 Part 193.3)

Erosion - To wear away by the action: water, wind, or ice.

Even Aged - A forest in which all of the trees are essentially the same age.

Faulting - a fracture or crack that has had movement parallel to the fracture's surface

Fluvial - pertaining to sediments deposited by stream or river actions

Fragipan - An impervious subsurface soil layer (sometimes known as “hardpan”) which restricts rooting and internal soil drainage.

Glacier / Glacial - a large mass of ice and snow that is moving on the land's surface

Hardwood Forest - A forest stand in which each of the two predominant species by percent is a hardwood.

Hardwoods – Broad leafed trees.

Haul roads - Are permanent, unpaved roads but are not designed for all-weather travel. They are constructed primarily for the removal of forest products and provide only limited access within the Unit. Public motor vehicle use is not allowed, but pedestrian travel is encouraged. All administrative roads are gated and warning signs are posted. The standards for these roads are those of Class C roads as provided for in the Forest Road Handbook.

Herbaceous Opening - A non-forest vegetative type consisting of grasses and forbs.

Homocline - geologic structure that is dipping or inclined in one direction and at the same angle of inclination

Intermediate cut – Thinning cut that extracts salable trees from an area and that are aimed primarily at controlling the growth of stands through adjustments in stand density.

Kame - a short ridge, hill, or mound of stratified glacial deposits

Lacustrine - sediments deposited in association with the processes within a lake

Lacustrine Wetland – (Federal wetland designation) includes wetlands and deepwater habitats with all of the following characteristics: (1) situated in a topographic depression or a dammed river channel; (2) lacking trees, shrubs, persistent emergents, emergent mosses or lichens with greater than 30% aerial coverage; and (3) total area exceeds 8 ha (20 acres). Similar wetland and deep-water habitats totaling less than 8 ha are also included in the Lacustrine System if an active wave-formed or bedrock shoreline feature makes up all or part of the boundary, or if the water depth in the deepest part of the basin exceeds 2 m (6.6 feet) at low water. Lacustrine waters may be tidal or nontidal, but ocean derived salinity is always less than 0.5 %.

Large Coarse Woody Debris - The accumulation of dead woody material, both standing and fallen, which occurs in a forest stand.

Lean-To - A small, open fronted, log shelter used for overnight camping.

Legacy Plantation - The CCC, and later work crews, established a legacy of sound stewardship on state forest land through the planting of millions of trees. Where possible, NYS DEC will designate some plantations to help carry on this legacy. Although no living creature lives forever, these plantations would be grown beyond economic maturity and maintained for as long as possible. Every effort will be made to not deliberately regenerate these stands, although thinning to improve the health of the trees will occasionally occur.

Linements - linear trends of weakness or fractures in the earth's crust

Log Landing - An area to which logs are skidded and then loaded for removal.

MCFGPD - thousand cubic feet of gas per day

Moraine - sediment that is accumulated due to the actions of a glacier

Multiple Use - A management philosophy by which many uses are derived for a specific land area.

Natural Regeneration - The regrowth of a forest stand by natural means.

Natural Forest - A forest established by natural regeneration.

Natural Forest Conifer/Conifer Hardwood Forest - A forest stand in which total percent of all conifer species is 33%, or more, of the total for the stand.

No Entry / No Surface Occupancy Lease - A lease to explore and develop underground mineral resources without any surface disturbance. Above ground facilities and equipment to remove mineral resources must be located off the subject property.

Northern Hardwoods - Largely composed of sugar maple, American beech, yellow birch, and hemlock. These species are generally long-lived and may adapt to all-aged management.

Oak Opening - a globally rare plant community, also known as an oak savannah. The community is composed of native prairie grasses and associated plants usually surrounded by oak/hickory forests. Oak Openings are maintained by periodic burning. Historically, fires were set by Native Americans or caused by lightning strikes. Oak Openings can be variable in size, from just an acre to several thousand acre complexes.

Off - Site - The species are growing (or at least have been planted) where these species would not ordinarily be found, due to unfavorable site conditions.

Old-Growth Forest - 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 - The upper portion of a community of plants, the canopy of the trees in a forest.

Palustrine Wetland – (Federal wetland designation) includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 %. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2 m at low water; and (4) salinity due to ocean-derived salts less than 0.5 %

Pioneer Hardwood - Early Successional trees that are hardwood, such as black cherry, white birch, red maple and aspen.

Plantation - A forest established by planting.

Pole Sized - A young tree with a D.B.H. of 6 to 11 inches.

Pre-Commercial - To do a stand treatment when the trees are too small to sell for profit, requiring the payment of someone to do the work.

Prescribed Fire - The intentional setting of forest or grass land on fire under carefully controlled conditions to achieve a vegetative or wildlife management goal adhering to a written and approved prescribed fire burn plan.

Protection Management/Forest - An area which requires special management considerations. (Special cutting regimen, short rotation, long rotation, or no treatment.)

Public Forest Access Roads - Are constructed and maintained to accommodate motor vehicle traffic, they are permanent, unpaved roads. They may be designed for all-weather use depending on their location and surfacing. These roads provide primary access within a Unit. The standards for these roads are those of the Class A and Class B access roads as provided for in the Forest Road Handbook.

Rare - Native plants that have from 20 to 35 extant sites or 3,000 to 5,000 individuals statewide. (NYCRR Title 9 Part 193.3)

Regeneration - To reestablish a forest stand with tree seedlings. The act of replacing old trees, either naturally or artificially. Also refers to the new growth that develops

Riverine Wetland – (Federal wetland designation) includes all wetlands and deep-water habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts in excess of 0.5 ‰. A channel is “an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water”.

Rotation - The length of time between the establishment and the harvest of a forest stand.

Salvage cut – The harvest of dead, dying, damaged or deteriorating trees primarily to put the wood to use before it becomes worthless.

Sawtimber Sized - A tree with a D.B.H. of 12 inches or greater.

Seedling/Sapling Sized - A young tree with a D.B.H. of less than 6 inches.

Selective Harvesting - Removal of the mature timber, usually the oldest or largest trees.

Shade Intolerant - Tree species that require full sunlight to survive past the seedling stage.

Shade Tolerant - Tree species that can survive in the shade cast by older trees.

Sidetrack Well - An inclined well that is drilled from a predetermined depth within an existing well

Site - A group of features (such as slope, aspect, soil type, etc.) which characterize a given area of land.

Silviculture - The establishment, development, care, and reproduction of forest stands.

Softwoods - Needle bearing trees, conifers

Species Diversity - The occurrence of a variety of plants and animals.

Stand - A group of plants with similar characteristics that are treated as a single unit in a management plan.

Stand Analysis - A systematic method of evaluating stands to determine the need for treatment.

Stand Treatment - Work done in a stand which is directed towards the management of the stand.

State Forest - Lands owned by the state of New York and administered by the Department of Environmental Conservation which are managed for the establishment and

maintenance of forests for watershed protection, the production of timber, and for recreation and kindred purposes.

Stratigraphic - The layering and sequence of mapable rock units.

Succession - The gradual supplanting of one community of plants and animals by another.

Surficial - Of, or relating to, the surface

Sustained Yield - The maintenance of a continuous flow of a particular product.

Synclinal - Rock layers that are folded so that the layers are inclined towards each other (like the letter V)

Thinning cut – Intermediate cut that extracts salable trees from an area and that are aimed primarily at controlling the growth of stands through adjustments in stand density.

Till - Unstratified glacial deposits consisting of clay, sand, gravel, and boulders

Temporary Revocable Permit (TRP) - Authority for the issuance of temporary use permits is provided by 3-0301 of the ECL. Permits may be granted for the temporary use of State Land by the public within stated guidelines and legal constraints so as to protect the State lands and their resources.

Top Lopping - The cutting of limbs from the tops of felled trees to reduce fire danger and improve visibility. On state forests top lopping of conifers is required by law.

Trail Head - The intersection of a trail with a trail head.

Understory - The layer of plants that grow in the shade of the forest.

Uneven Aged - A forest containing trees of two or more age classes.

Unique Area - A parcel of land owned by the state acquired due to its special natural beauty, wilderness character, geological, ecological or historical significance for the state nature and historic preserve, and may include lands within a forest preserve county outside the Adirondack and Catskill Parks.

Vegetative Stage - A description of a plant community based on the age of the component plants.

Vegetative Type - A description of a plant community based on species composition.

Vernal Pool - A small body of water that is present in the spring, but dries up by mid-summer.

Vertical Well - a well that is straight into the ground or is 90 degrees from horizontal.

Appendicies

Water Hole - A laid up stone cistern often built by C.C.C. volunteers and originally used for water for fire protection purposes.

Watershed - The land area from which a stream receives its water.

Wetland - Land or area saturated and sometimes partially or intermittently covered with water.

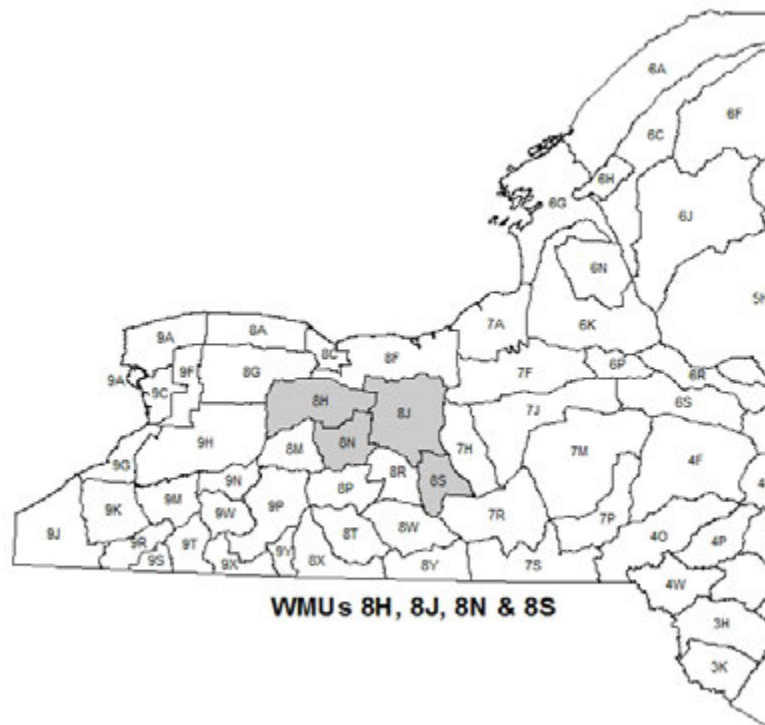
Class I, II, III or IV - The designation placed upon a mapped wetland by NYS DEC as required by 6NYCRR. The four classes rank wetlands according to their ability to perform wetland functions and provide wetland benefits. Class I is the most critical.

Wheelchair - means a manually-operated or power-driven device designed primarily for use by an individual with a mobility disability for the main purpose of indoor, or of both indoor and outdoor locomotion. This definition does not apply to Federal wilderness areas; wheelchairs in such areas are defined in section 508(c)(2) of the ADA, 42 U.S.C. 12207 (c)(2).

Yield - The production of a commodity such as; forest products, water, or wildlife.

Appendix H: Wildlife Harvests and Hunting Use

DEC collects harvest data for game animals at various scales. Deer, Black Bear, and Beaver harvest information is collected and reported at the Wildlife Management Unit (WMU) level. In the case of deer and bear, information is collected via hunter reports through the DEC Automated Licensing System (DECALS). Beaver harvest information, up until the 2009-10 season, was obtained via pelt sealing; a process whereby each individual pelt had a seal affixed by a Dept. representative, thus resulting in a full count of beaver harvested, not an estimate as with other species listed in this document. After the 2009-10 season, beaver harvest, like other furbearers and small game species, was obtained via mail survey of a random sample of hunters or trappers, which produces a statistically accurate estimate of animals harvested.



Deer, Black Bear and Beaver

Table 1H: Calculated Legal Deer Harvest

WMU	Year	2006	2007	2008	2009	2010	2011	2012	2013	2014
8H	Bucks	2,004	2,174	2,210	1,980	2,325	2,461	2,706	2,835	2,778
	Total Deer	5,609	5,168	6,111	6,337	7,189	7,446	7,770	8,104	8,087
8J	Bucks	1,640	1,745	1,524	1,660	1,909	2,114	2,273	2,355	2,059

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WMU	Year	2006	2007	2008	2009	2010	2011	2012	2013	2014
	Total Deer	4,434	4,336	3,727	4,463	5,136	5,630	6,010	6,186	5,352
8N	Bucks	1,586	1,597	1,594	1,415	1,561	1,845	1,848	1,893	1,862
	Total Deer	3,880	4,428	4,517	4,926	4,011	5,160	5,245	5,358	5,746
8S	Bucks	709	692	737	777	859	863	901	868	754
	Total Deer	1,511	1,188	1,120	1,527	1,775	1,813	1,811	1,957	1,951

Table 2H: Reported Black Bear Harvest

WMU / Year	2007	2008	2009	2010	2011	2012	2013	2014
8H	*	0	0	0	1	0	0	0
8J	*	0	1	0	0	1	1	0
8N	*	0	0	2	2	5	0	5
8S	*	0	0	0	0	1	1	0

*No season

Table 3H: Pelt-Sealed Beaver

WMU / Year	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10*
8H	18	29	25	64	19	37	31
8N	14	10	27	160	53	69	23
8J	41	53	90	166	97	94	53
8S	19	2	4	28	0	13	7

*Beaver pelt sealing discontinued after 2009-10 season

Wild Turkey

Wild turkey harvest estimates, for both spring and fall seasons, are compiled and reported at the county level, thus the information below is only presented for the counties of the Northern Finger lakes Unit; Monroe, Livingston, Ontario, Seneca, and Yates.

Table 4H: Spring Wild Turkey Harvest



For Monroe, Livingston, Ontario, Seneca and Yates Counties only.

County/Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Monroe	295	326	463	617	385	412	224	325	314	165
Livingston	270	344	520	506	567	288	289	296	275	252
Ontario	277	486	761	706	744	514	426	448	456	411
Seneca	221	350	398	405	265	242	199	178	169	125
Yates	284	379	533	494	536	442	398	343	408	324

Table 5H: Fall Wild Turkey Harvest

For Monroe, Livingston, Ontario, Seneca and Yates Counties only.

County/Year	2005	2006	2007	2008	2009	2010	2011	2012	2013
Monroe	90	119	105	38	54	44	51	51	8
Livingston	54	82	68	94	30	38	34	27	30
Ontario	74	94	93	160	59	75	58	61	74
Seneca	36	67	48	24	37	37	29	32	8
Yates	56	98	81	106	73	85	74	70	70

Furbearers and Small Game

All Small Game and Furbearer harvest data is now collected and compiled at the zone level. The lands of the Northern Finger Lakes Unit fall entirely within the Western Zone (see below).



Table 6H: Furbearer Harvests, Western Zone

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Mink	6,132	7,720	4,770	3,486	3,296	5,300	7,226	7,836	5,554
Muskrat	53,820	93,779	35,030	29,606	37,654	46,821	65,074	61,660	50,531
Raccoon	19,301	27,796	18,638	22,621	18,726	20,590	28,733	31,941	35,953
Skunk	2,180	2,998	2,535	2,493	2,199	1,970	3,123	3,146	2,549
Opossum	6,113	9,536	7,351	7,825	5,528	7,585	7,914	9,989	12,346
Weasel	221	271	392	243	269	265	344	480	245
Red Fox	8,996	12,408	11,953	9,051	7,958	10,696	13,872	16,778	14,604
Gray Fox	3,770	3,456	2,260	2,147	1,967	2,258	2,231	3,205	2,953
Coyote	3,545	3,362	4,098	3,540	2,972	3,261	4,136	5,148	5,607
Beaver*						9,547	13,124	11,532	11,181

*Beaver harvest data obtained via pelt sealing prior to 2010-11

Table 7H: Small Game Harvests, Western Zone

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2013-14
Grouse	21,907	30,065	20,908	28,487	18,460	15,207	16,028	9,926
Pheasant	14,899	22,895	22,439	21,365	22,242	17,916	23,470	11,264
Crow	42,633	60,457	53,763	79,264	58,254	46,397	39,335	24,090

Northern Finger Lakes Unit Management Plan

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2013-14
Rabbit	40,199	84,004	100,097	98,965	57,875	51,012	58,634	41,154
Squirrel	104,960	154,156	140,765	197,652	122,862	114,762	122,256	96,026
Raccoon	14,309	18,007	16,466	23,677	11,424	9,538	8,587	3,792
Red Fox	5,532	5,540	9,037	8,232	3,177	7,630	3,925	2,788
Gray Fox	3,319	1,304	2,068	2,220	2,421	2,277	572	1,338
Coyote	7,376	11,244	14,321	16,648	5,901	12,799	8,505	5,911

No Small Game harvest survey was conducted for the 2012-13 season

Appendix I: Historical Documents

Legend of Bare Hill

- Provided by Middlesex Heritage Group

Two very majestic hills along the east side of Canandaigua Lake, Bare Hill and Whaleback, hold a very prominent place in Seneca Indian tradition and the history of the Naples Valley.

Genundowa, or Bare Hill, is located 5 miles north of Woodville at the head of Canandaigua Lake. The summit of Bare Hill is 865 feet above the lake; it was the traditional site of the Seneca Indian council fires.

There have been many published accounts of the legend of Bare Hill. David Cusick, a native Seneca writer, published an early account of the legend in the mid-1800's. Mary Jamison's biography also presents a similar version.

Briefly, the tale goes this way: A young Seneca boy, while paddling his canoe through the Naples swamp at the head of Canandaigua Lake found a very pretty snake that he decided to take home to his wigwam.

The boy named the snake Osaista Wanna. He fed it insects, frogs and flies. The snake grew and grew until it was consuming squirrels, woodchucks, and raccoons. The snake continued to grow and clamored for more and larger game.

When local supplies of game and fish became unavailable, the Indian villagers decided to build a fort to protect themselves from the reptile. Their fort was built at the summit of Bare Hill. However, before it was completed and made totally safe, the monster serpent appeared. It used its vast body to coil around the entire fort, completely encircling the people. Many of the Indians nearly starved and, in seeking to escape in the dark, ran down the serpent's throat.

Two children in the Indian village, a young boy and his sister, did not try to escape; they relied upon the advice given to them by an Indian God in their dreams. The boy, in his dream, was told how to slay the monster by stringing his bow with his sister's hair. He was told to make one unerring shot into the third scale on the serpent's throat and all would be saved. The youth shot the dart, and it pierced the monster's heart.

The death of the serpent did not come easily. It writhed and twisted and turned for hours after it had been hit by the charmed arrow. The body, which weighed several tons, lashed at the hillside, knocking down trees, tumbling boulders. The job was so complete when the serpent finally died, that the entire hill was barren of trees and bushes. The Senecas named the site Bare Hill.

Also, as the serpent plunged into Canandaigua Lake near Vine Valley, it disgorged the heads of its Seneca Indian victims, most of which had turned to stone. Round stones found in

the vicinity of Bare Hill are now known to geologists as septaria; local residents, however, call them Indian heads.

Whaleback is a hill at the south end of Canandaigua Lake; it is also called South Hill and Sunnyside. This hill was especially revered by the Seneca Indians. There is a deep gorge on the east side of this hill that rises 1,100 feet above the valley floor. This gorge, called Clark's Gully today, once had an ancient cave which is said to be the birthplace of the Seneca Nation. The Senecas believe that the earth opened, and the first Senecas arrived in the world in this remote site, adjacent to West River, many, many years ago.

The Serpent at Bare Hill

-from Ancient History of the Six Nations by David Cusick

There was a woman and son who resided near the fort, which was situated near a note, which was Jenneatowaka, the original seat of the Te-hoo-neo-nyo-hent (Senecas) the boy one day, while amusing in the bush he caught a small serpent called Kaistowanea, with two heads, and brings it to his apartment; the serpent was first placed in a small warm box to keep tame, which was fed with birds, flesh, etc. After ten winters the serpent became considerable large and rested on the beams within the hut, and the warrior was obliged to hunt deers and bears to feed the monster; but after a while the serpent was able to maintain itself on various game; it left the hut and resided on top of a nole; the serpent frequently visited the lake, and after thirty years it was prodigious size, which in a short time inspired with an evil mind against the people, and in the night the warrior experienced the serpent was brooding some mischief, and was about to destroy the people of the fort; when the warrior was acquainted of the danger he was dismayed and soon moved to other fort; at daylight the serpent descended from the heights with the most tremendous noise of the trees, which were trampled down in such a force that the trees were uprooted, and the serpent immediately surrounded the gate; the people were taken improvidentially and brought to confusion; finding themselves circled by the monstrous serpent, some of them endeavored to pass out at the gate, and others attempted to climb over the serpent, but were unable; the people remained in this situation for several days, the warriors had made oppositions to dispel the monster, but were fruitless, and the people were distressed of their confinement, and found no other method than to rush out at the gate, but the people were devoured, except a young warrior and his sister, which detained, and were only left exposed to the monster, and were restrained without hope of getting released; at length the warrior received advice from a dream, and he adorned his arms with the hairs of his sister, which he succeeded by shooting at the heart, and the serpent was mortally wounded, which hastened to retire from the fort and retreated to the lake in order to gain relief, the serpent dashed on the face of the water furiously in the time of agony; at last it vomited the substance which it had eaten and then sunk to the deep and expired. The people of the fort did not receive any assistance from their neighboring forts as the serpent was too powerful to be resisted. After the fort was demolished the Council fire was removed to other fort called Than-gwe-took, which was situated west of now Geneva Lake.

Letter from Doris Goff Spink, Rush Oak Openings Unique Area

3 Clearview Drive
Phelps, NY 14532
March 10, 1997

Mark Kiester, Senior Forester
NYS Department of Environmental Conservation
6274 East Avon-Lima Road
Avon, NY 14414-9519

Dear Mark,

I have tried to put together a little history of the Goff property which was recently sold to the Nature Conservancy.

My father, Raymond Goff, was born (1895) in the house which still stands adjacent to the north side of the property and the family earned their living here on the 16 acre plot. In 1901 Ray, his parents (Albert and Annie), and his 3 sisters moved to the farm house on the south side of the property which originally consisted of about 200 acres. During his high school days he and his sister went by horse and buggy to attend school in Honeoye Falls. Ray married Martha David a Rush resident in 1922, thus the farm supported both my grandparents and my family until the death of my grandparents in the 1940's. My parents had 3 daughters, and as far back as I can recall my father did all the farm work with the help of a hired man, and some help from us women in the family.

After my father's death in 1963 my mother stayed at the homestead until she sold the house and barns plus about 8 acres in 1975. She rented out some of the farm land as we have continued to do since her death in 1982. (In 1991 our sister, Arlene, sold her share to June and me.)

As far as livestock goes my folks had about 25 dairy cows, about 175 sheep, horses, and chickens. Many different crops have been raised such as potatoes, cabbage, beans, corn, wheat, rye, soybeans, and oats.

My father's cousin told me recently my father owned the best team of horses around the time the West Henrietta Rd. was being built, and I've also been told my father had the first rubber tired tractor.

I do not recall any fires, but my grandmother wrote in her diary one day in Jan. 1933 that "Albert was burning grass down the road and in the lane." Another time in 1934 that they "burned weeds in lot". We had bee hives on the farm, and she writes in July 1933 that "Ray took off 150# honey this morn." She also tells of tapping the maple trees, and making maple syrup in the 1930's.

I think my father did some blasting to open up the creek bed to get better drainage on this property back in the fifties. I recall my father talking about the very long black snakes he saw then which must have been habiting there. Willow trees grew along the creek, and I believe there may be one or two still standing.

This is an article written in "The Road to Yesterday" by Jeanne Yawman c. 1993 p.243 which I thought you might be interested in reading:

One little known fact about Rush is the importance that the raising and shipping of willows had in the economy of the town. In many places, on the brooks north of the creek and on the creek itself, were patches of willows of a special variety. They were planted for a specific purpose, and some of the patches can still be seen today. Willows were cut in the late winter or early spring. The diameter of each willow was about the size of one's thumb. They were tied in bundles like cornstalks and loaded into box cars at the Rush Station. The willows were used for basket-making. Income from the willows was a welcome supplement to meager living.

My grandmother wrote in her 1899 Diary that "Albert cut willows, set out willows, trimmed willows or bound willows" on various days mostly in late winter.

Indians must have prevailed nearby as we have some flintstones my father found on the farm years ago.

Perhaps this will give you a little insight of how the property was utilized in years gone by.

I will be happy to answer any further questions you might have.

Sincerely,
Doris Goff Spink

P.S. Also sending article which appeared in the Times Union 1951.

Letter from James Quinn, Rush Oak Openings Unique Area

-Un-dated handwritten letter from about 1997, re-typed by Elaine Talbot in 2014.

To Mark Keister DEC

To help you with the Quinn Oak openings –

The Quinn family purchased this farm in Feb. 1886 from James & Edward Morrison who I think lived just east of the farm. Christopher Quinn purchased the farm, who was my Great Grandfather. His son John C. Quinn married Ellen Morrison and they had 4 children – Joseph L. – Chas. - Thomas F. - & Anna Irene.

My father was Thomas F. – They are all deceased today. None of them had children except my father. I have one brother Joseph who is still living and a deceased brother, Thomas Bernard.

My brothers & myself never lived at the farm. We lived in the Village of Rush. However we spent a lot of time there helping with cutting wood – fixing fences etc-.

We rented the house out to several tenants but never the land.

Appendicies

In the original Deed the 5 Pts corners were known as the (5 Corners) & 5 Pts road was known as the Chaffer-Balda Road. The Town built the road up in the front in the 40's or 50's – It didn't used to be like that.

There was a barn on the property in back of the house across from the well on the side of hill – also a smoke house between barn & house. The well is a spring and also a drilled well. Water was piped into house.

The apple orchard was just south of barn – good apples 20 & Northern Spies.

The ground is very stoney and is hard to cultivate. Due to the stoney nature of the ground many snakes found this their home. We once found a 5 ft 8 inch black snake skin in attic of house. Black snakes were common there and some could get quite aggressive.

My grandmother signed an oil gas & mineral lease on Sept 3 – 19?? for 5 years, but I don't think it was ever used. But there is gas there.

The Boy Scouts – Otitiana Council from Monroe County used the farm for their annual camp out in the 40's & 50's.

On April 23 – 1948 my father leased the farm to Francis Shannon from Henrietta for pasture for 1 year. They found it too hard to maintain fences.

The garden was just east of the house and was very productive.

In the woods there were many nut trees. – Hickory & butternut as well as many oaks.

On the very south end there was a 4 or 5 acre piece of muck. To my knowledge this was never worked but I could be wrong.

My brother Bernard and I used to cut wood to sell to help pay taxes. I don't know how any of this farm got into wetlands because it is very dry & hard ground.

The Rochester Brooks Gun Club tried to purchase farm about 20 years ago but couldn't afford it. We never advertised farm for sale. As I live 25 miles from farm it was hard to take care of things there.

The buffalo grass is right on road way to the woods. Past the poplars or birch.

Every one in Rush at one time or another hunted deer there. Also there are many squirrels. I was happy to see the state get this property and to keep it forever wild. Please don't let anyone commercialize (sic) it.

I am sending you a copy of original deed so you can tell who the neighbors were in 1886.

—

If you need any verification of these facts I have the record.

Sincerely
James W. Quinn
8460 Peachy Road
Bergen, NY 14416

Mark. My family used this farm for there own food There were many grass fires here but no major fires that I know of but I think there was one house fire there many years ago.

Memorandum of Understanding (MOU) for Stid Hill MUA

Agreement

Management of Stid Hill Multiple Use Area

Whereas Stid Hill Multiple Use Area situate in the County of Ontario, Towns of Bristol and South Bristol has been principally administered on behalf of the Department by the Division of Lands and Forests in Region 8, and;

Whereas, the Division of Fish and Wildlife has been increasingly involved in the administration and management of Stid Hill Multiple Use Area and desires to undertake the principal management responsibility within the Department;

Now, Therefore, it is agreed by and between the Divisions of Lands and Forests and Fish and Wildlife that:

1. The principal responsibility for the administration and management of Stid Hill Multiple Use Area is delegated to the Division of Fish and Wildlife.
2. The management and administration of Stid Hill Multiple Use Area shall be consistent with its designation and purposes of acquisition.

Date 7/2/84 Norman J VanValkenburgh

Director, Division of Lands and Forests

Date 7/3/84 Kenneth J. Wich

Director, Division of Fish and Wildlife

RECEIVED: July 19 - 20, 1984, re-typed by Elaine Talbot 2015

Appendix J: SEQRA

The State Environmental Quality Review Act (SEQR) requires the consideration of environmental factors early in the planning stages of any proposed actions that are undertaken, funded or approved by a local, regional or state agency. The properties of the Northern Finger Lakes Unit are managed by two different New York State Department Divisions, therefore separate environmental impact statements are used to ensure that management activities comply with the SEQR.

The management activities proposed in the Northern Finger Lakes Unit Management Plan comply with the Division of Lands and Forests Strategic Plan for State Forest Management (SPSFM) and the Division of Fish and Wildlife. Programmatic Environmental Impact Statements for wildlife and fisheries management activities.

Properties Managed by the Division of Lands and Forests (State Forests)

The Strategic Plan for State Forest Management (SPSFM) serves as the Generic Environmental Impact Statement (GEIS), for management activities 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.

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

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

- Forest management activities occurring on acreage occupied by protected species ranked S1, S2, G1, G2 or G3
- Pesticide applications adjacent to plants ranked S1, S2, G1, G2 or G3
- Aerial pesticide spraying by airplane or helicopter
- 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
- Well drilling plans
- 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
- 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 State Forest Strategic Plan/Generic Environmental Impact Statement, and do not require any separate site specific environmental review (see 6 NYCRR 617.10[d]).

The prescribed burn program for the Rush Oak Openings Unique Area has already been reviewed under SEQR and no further review is required for SEQR compliance. The review identified the potential environmental impacts and concluded that they would not be significant. Prescribed burn activities proposed in this UMP are consistent with the Rush Oak Openings Unique Area Prescribed Burn Plan and Negative Declaration. This Negative Declaration covers prescribed burn activities up to 125 acres which exceeds the 100 acre threshold established in the SPSFM.

Properties Managed by the Division of Fish and Wildlife (Wildlife Management Areas)

Management activities performed on Wildlife Management Areas were evaluated by a series of Programmatic Environmental Impact Statements (PEISs). These documents describe established and accepted activities for fish and game management, habitat management, and public use, and evaluate their potential beneficial and adverse impacts. These activities may have significant site specific impacts and criteria for site specific assessments were included in these PEISs.

The house and barn on the Willard Wildlife Management Area will be demolished and removed. The A-frame Interpretative Center at the Avon office will be demolished and replaced. There is a high likelihood that some or all of these buildings may contain asbestos. If this is the case, demolition and removal will comply with appropriate hazardous substance procedure. A separate site specific environmental review will be required for these management activities.

Actions Not Covered by the Strategic Plan/Generic Environmental Impact Statement

Any action taken by the Department on this unit that is not addressed in this UMP and is not addressed in the SPSFM or in the Division of Fish and Wildlife Programmatic Environmental Impact Statements, may need a separate site specific environmental review.

Appendix K: Procedures for Oil & Gas Procurement

Additional information can be found in the Mineral Resources (Pg 47) and Mineral Resource Management (Pg 144).

In the event a party has an interest in exploring and developing oil and gas reserves under lands administered by the NYS DEC, the NYS DEC Division of Mineral Resources will receive requests to nominate specific lands for leasing of the mineral rights. Prior to leasing lands where the mineral estate is owned by New York State a Tract Assessment is conducted in which a thorough review of the lands nominated for leasing is done to determine:

- Which areas will not, or cannot, be leased,
- Which areas can be leased with full rights granted (100% surface entry and no special conditions required)
- Which areas may require special environmental and safety conditions, and
- Which areas may be leased with no surface-disturbance/entry conditions (non-drilling clause)

This review is conducted by the area's land manager (Division of Lands and Forests or Division of Fish, Wildlife and Marine). A Tract Assessment identifies sensitive resources of the unit. These resources include certain management strategies, wetlands, lakes/ponds/streams and other riparian zones, steep slopes, recreational trails and other recreation areas, unique ecological communities, habitats of threatened, endangered or special concern species, High Conservation Value Forests, archeological and cultural sites and scenic vistas and view sheds.

A public meeting on the proposed gas lease will be held to provide information about natural gas development specific to the nominated land, and receive comments during a 30-day public comment period following the meeting. NYS DEC will consider all comments prior to making a decision on what areas, if any, will be leased.

If NYS DEC decides to pursue leasing, the site specific conditions for limiting impacts on natural resources will be drafted by the Division of Mineral Resources in coordination with the Division of Lands & Forests and/or Division of Fish, Wildlife and Marine(Wildlife) and incorporated into contract documents. These conditions will include but not be limited to criteria for site selection, mitigation of impacts and land reclamation upon completion of drilling. A number of factors are considered: riparian areas, steep slopes, significant recreation areas, presence of rare, threatened or endangered species or unique ecological communities, are all areas which may be excluded from surface disturbance. Certain land management strategies, such as reserves, where timber harvesting is precluded, which may be incompatible with oil and gas well development, may result in exclusion from surface disturbance. This determination is made as part of the tract assessment process on a case by case basis. Any parcel designated as a non-surface entry lease will no longer be subject to the process detailed above due to the prohibition of surface disturbance(s). Exceptions to

these tract assessments are possible if additional analysis, protective measures, new technology, or other issues warrant a change in the compatibility status of an area.

If it is determined that oil and gas exploration and development can proceed on these State minerals, a lease sale is conducted. The DEC Division of Mineral Resources is the oil and gas leasing agent for these state lands. Lease sales are then conducted through a competitive bid process administered by the Division of Mineral Resources and in accordance with Article 23, Title 11 of the Environmental Conservation Law and State Finance Law.

Revenues from State Reforestation Areas and Multiple Use Areas (State Forests) are deposited into the General Fund while revenues from Wildlife Management Areas are deposited into the Conservation Fund.

In the event leases are granted and the drilling of a well is desired by the lessee on the leased property, an Application for Permit to Drill, Deepen, Plug Back or Convert a Well Subject to the Oil, Gas and Solution Mining Law (form 85-12-5) must be submitted to the Division of Mineral Resources. Site-specific impacts will then be identified by NYS DEC staff during review process and inspection of the proposed well site. The Strategic Plan for State Forest Management, and the Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program and Supplemental Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program is used to guide NYS DEC in determining whether the proposal will have a significant impact on the environment. Conditions are then attached to the drilling permit as well as the Temporary Revocable Permit (TRP) which covers the mitigation and/or control of surface disturbances.

Once the proposal is approved, a drilling permit with site specific conditions is issued by the Division of Mineral Resources along with a Temporary Revocable Permit issued by either the Division of Lands and Forests or Fish, Wildlife and Marine. These permits are administered by their respective programs and are designed to prevent and/or mitigate environmental impacts. Site inspections are conducted by the Division of Mineral Resources to ensure compliance with Article 23 of the Environmental Conservation Law and 6NYCRR Part 550 - 559. The Division of Lands and Forests or Fish, Wildlife and Marine will also inspect the site to ensure compliance with the TRP.

Appendix L: Proposed Special Regulations

The following are proposed changes to the existing Title 6 Codes, Rules & Regulations. The process to actually change them is separate from the Unit Management Plan Process, and will be started after this Plan is finalized. The exact language may be changed during the regulatory process.

A list of current regulations may be found in the State Laws section (pg 85), or visit www.dec.ny.gov/regulations/regulations.html for the current existing regulations and for the final version of any special regulations covering parcels contained within this Unit.

NYS DEC reserves the right to propose additional changes to regulations if public use results in degradation of the environment, or for public safety, on any portion of the Northern Finger Lakes Unit during the life of this plan.

Proposed Changes for Rush Oak Opening UA

Chapter II - Lands and Forests

Rush Oak Openings. Those lands in the Town of Rush, Monroe County described and available in the central and region 8 offices of the department. Specific regulations for Rush Oak Openings are set forth in this subdivision and supersede the general regulations enumerated in sections 190.0-190.9 in the event of a conflict.

- 1) fires are prohibited at all times, except prescribed fires as directed by the department;
- 2) camping is prohibited;
- 3) the use of snowmobiles is prohibited;
- 4) the introduction, use or maintenance of any horses, work animals or other herbivore animals is prohibited;
- 5) parking of motor vehicles permitted in designated sites only;
- 6) discharging of a firearm is prohibited, except for legally taking game species;

Proposed Changes for Junius Ponds UA

Chapter I – Fish and Wildlife

Junius Ponds. Those lands in the Town of Junius, Seneca County described and available in the central and Region 8 offices of the Department. Specific regulations for Junius Ponds are set forth in this subdivision and supersede the general regulations enumerated in sections 1-189 in the event of a conflict.

- 1) The entire Junius Ponds is restricted and limited as to its uses by the provisions of this Part;
- 2) No persons, other than authorized personnel, shall enter upon any part of the area which is designated a “closed” or “Restricted - No Trespassing Area”, except under permit by the department;

Appendix M: Known Encroachments and/or Trespass

For information on known, legal, access to and across the parcels of the Unit see the Roads (pg 30), and Rights of Way, Concurrent Use & Occupancy, and Deeded Exceptions (pg 33) sections.

Avon Regional office

The outflow from the western dam is on adjoining private property, as of the writing of this plan efforts are underway to resolve this issue.

Bare Hill UA

During the land survey following the acquisition of the northern parcel, it was discovered that a good deal of the improvements associated with the Lippincott inholding were actually located on lands of the state. Some of these improvements (masonry barbeque pit, etc.) can be and have been removed. Other improvements (a portion of the septic system, etc.) pose more of a problem. The Bureau of Real Property continues to work with the property owner to resolve this problem.

There appears to be a title overlap between the southern portion of Bare Hill UA and the Reed property, adjacent on the west side of this unit. NYS DEC's survey and the survey of the Reed property appear to be at odds. This is not an issue which can be resolved by survey. It probably needs to be adjudicated, in some way.

Honeoye Creek WMA

The portion of Honeoye Creek WMA within the hamlet of Honeoye may be included in a natural gas storage field. As of the writing of this plan no records of any storage leases for this parcel have been found. Honeoye Storage Corp. is the owner of the field.

The portion of this property acquired from Emil Muller had the mineral rights reserved, subject to some restrictions on how they could be used. As of the writing of this plan no subsequent documentation which conveys these rights to NYS DEC has been found. They are probably still outstanding in the Muller estate.

Honeoye Inlet WMA

The legal status of the Blueberry Lane access road is, somewhat, in question. Several private owners are using this as their primary access. NYS DEC's boundary runs down the center of this road for some distance. The legal status of this portion of the area needs to be sorted out and documented.

Junius Ponds UA

As of the writing of this plan, no known encroachments and/or trespass exist.

Rush Oak Openings UA

As of the writing of this plan, no known encroachments and/or trespass exist.

Squaw Island UA

As of the writing of this plan, no known encroachments and/or trespass exist.

Stid Hill MUA

There appears to be a rather serious title overlap between the lands of NYS DEC and those of MacIntyre, MacIntyre, and Cone, along the west side of the southerly portion of this area. This is a long term problem, disclosed at the time of acquisition in the early 1970's. The area in question has had private residences and other structures erected on it. Here again, this is not a situation which can be resolved by survey. It will need to be adjudicated, in some manner.

NYS DEC appears to have acquired a right-of-way by prescription along the abandoned town road which accesses the northeast corner of the northerly portion of this property from Dugway Rd. It is currently posted as a Department trail. Other users in this area may have also acquired specific legal rights as a result of their continued use.

Willard WMA

As of the writing of this plan, no known encroachments and/or trespass.

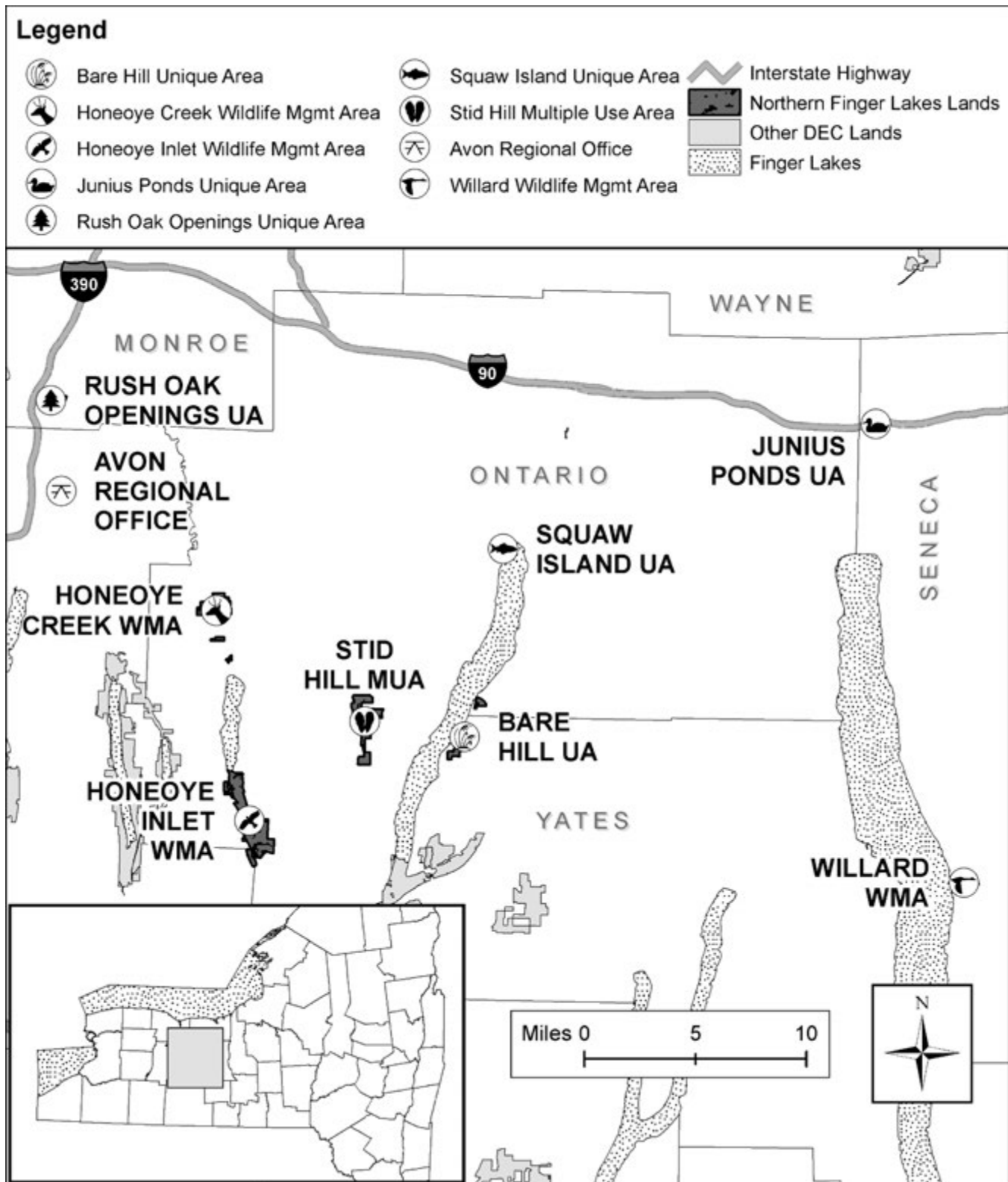
Appendix N: Maps

ALL of the following maps are made with the best available data, but are not intended to be survey quality. Additional information on the topics covered can be found in the rest of this Unit Management Plan.

Map topics include:

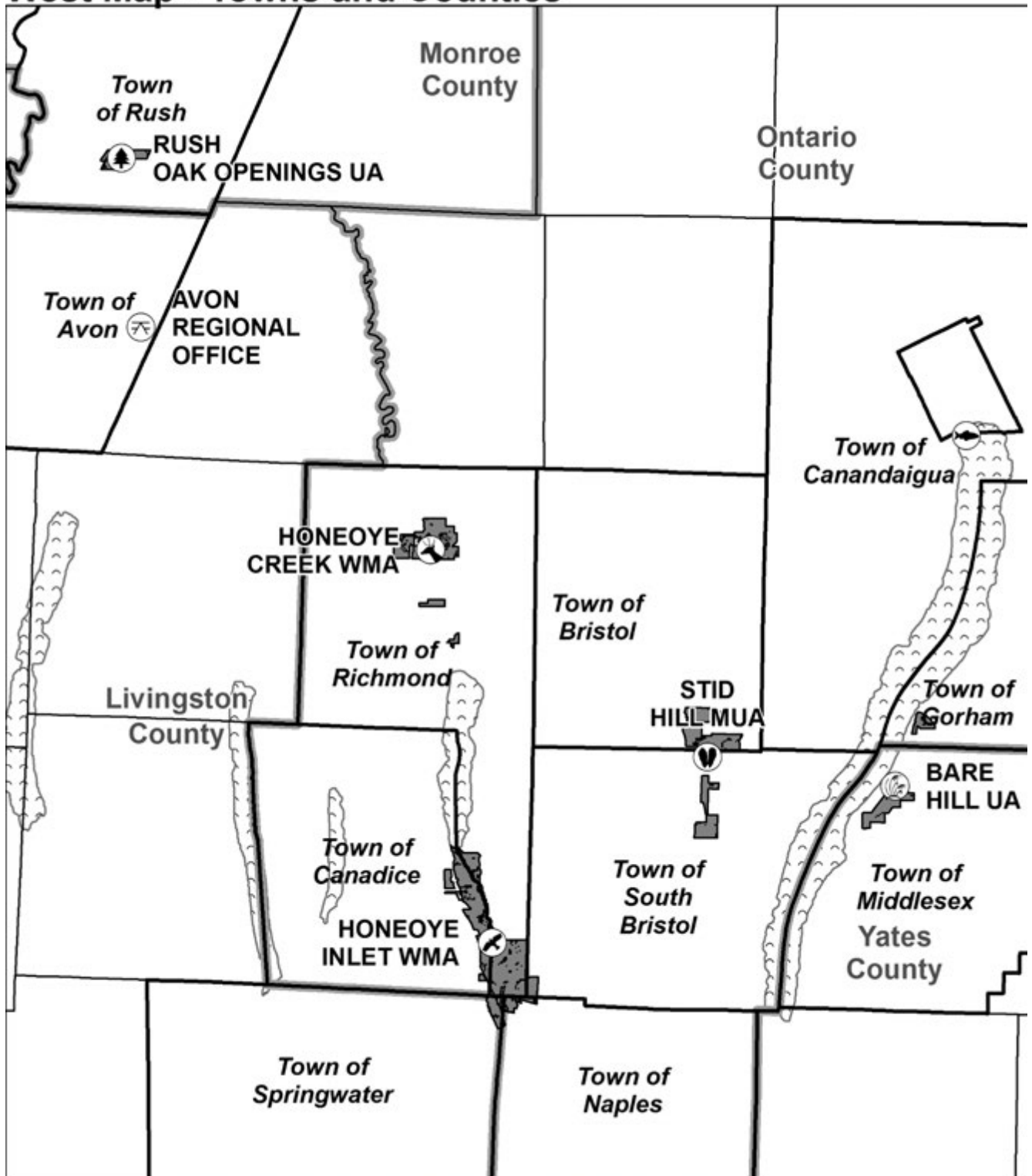
- Location Map (pg 244)
- Towns and Counties (pg 244)
- Roads and Parking Lots (pg 247)
- Recreation and Other Facilities (pg 260)
- Vegetative Types and Stages (pg 274)
- Ecoregions, Forest Matrix Block and Least Cost Path Corridors, Grassland Focus Areas (pg 286)
- High Conservation Value Forests (pg 288)
- Natural Heritage (pg 291)
- Vegetative Management (pg 292)
- Streams, Ponds and Wetlands (pg 305)
- Special Management Zones (pg 318)
- Contour Lines (pg 321)
- Geology – Oil, Gas, and Solution Mining Map (pg 334)
- Geology - Sand, Gravel and Other Mine Locations (pg 336)
- Soil Maps (pg 338)

Location Map

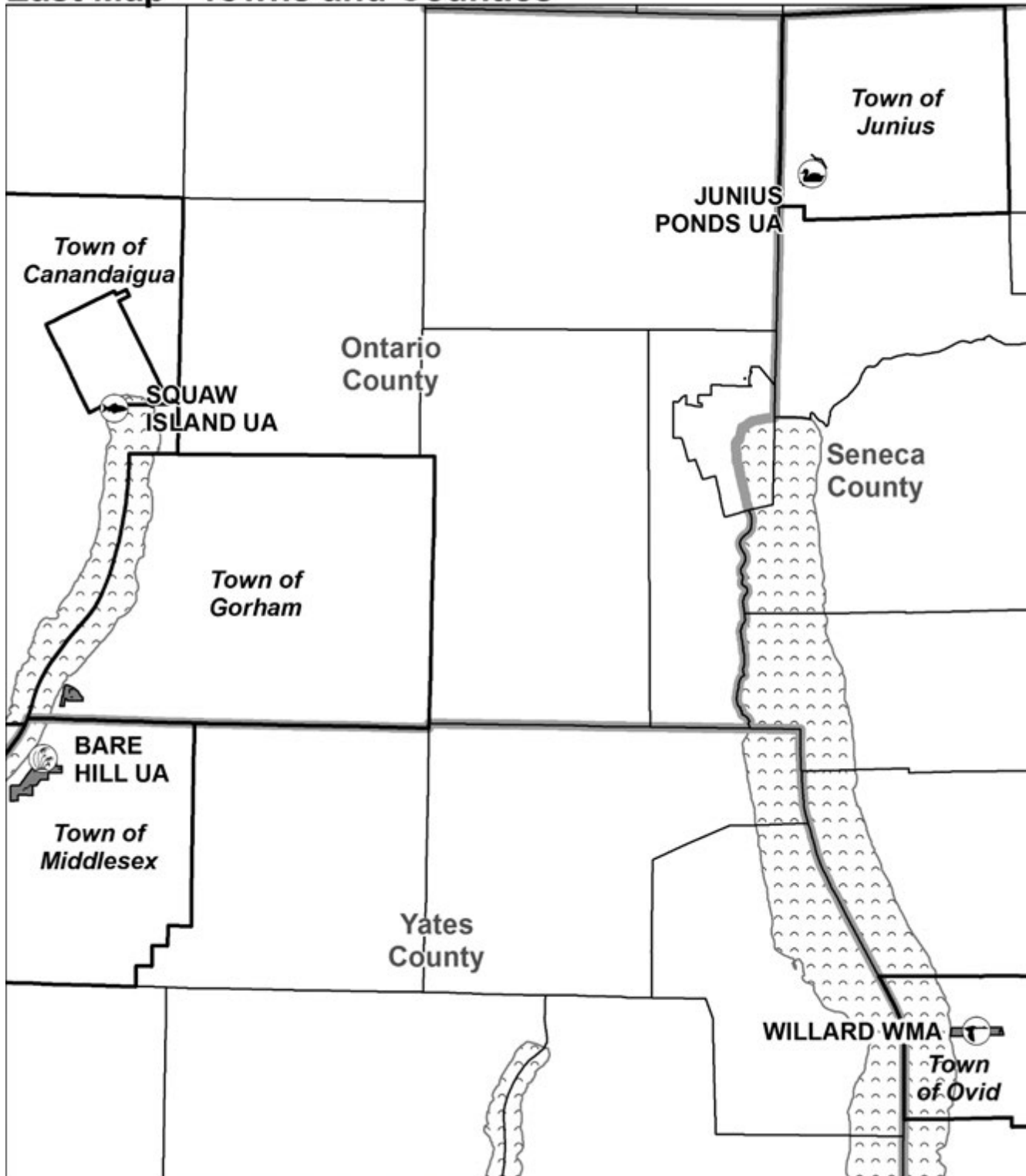


Towns and Counties

West Map - Towns and Counties

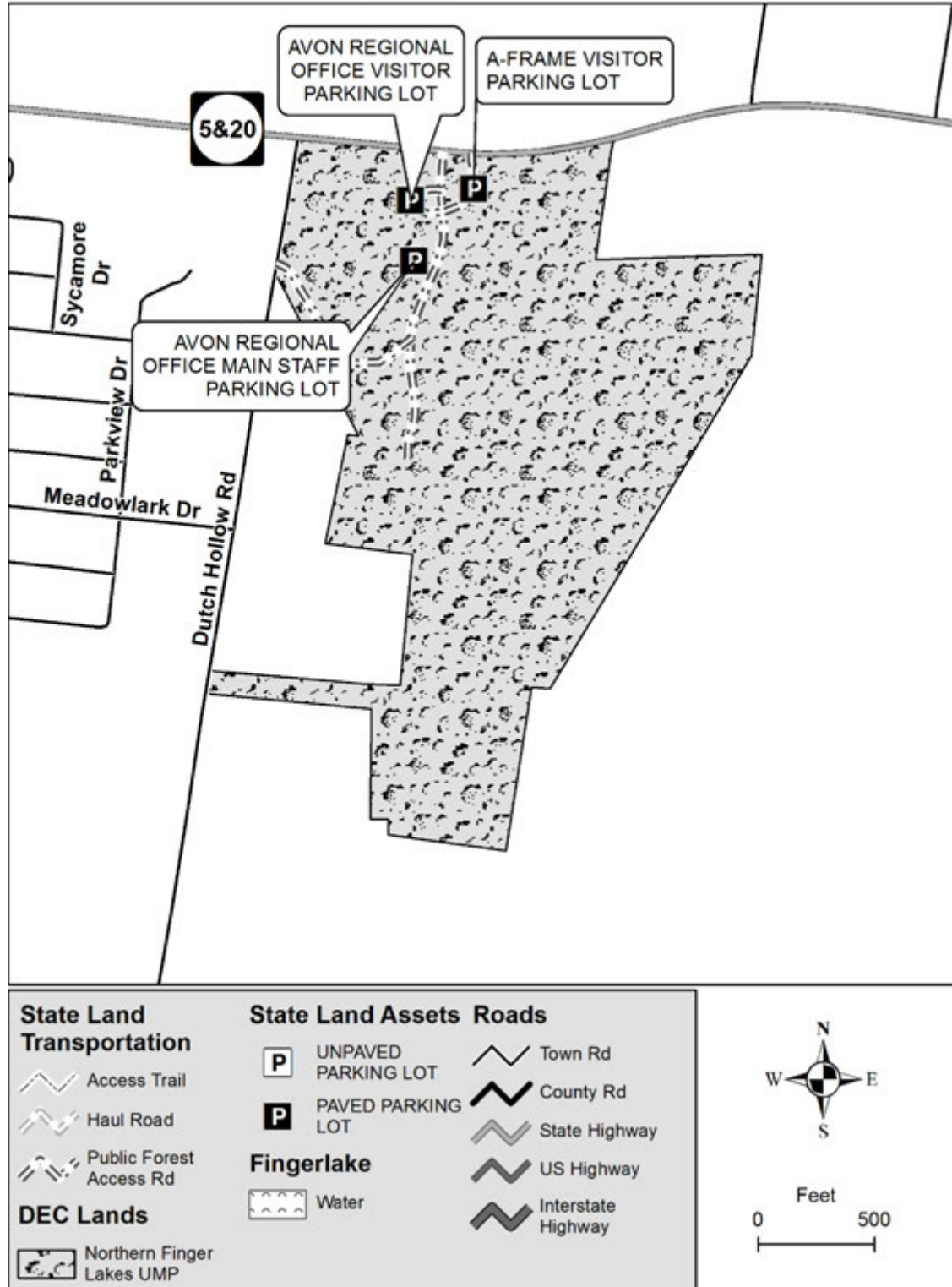


East Map - Towns and Counties

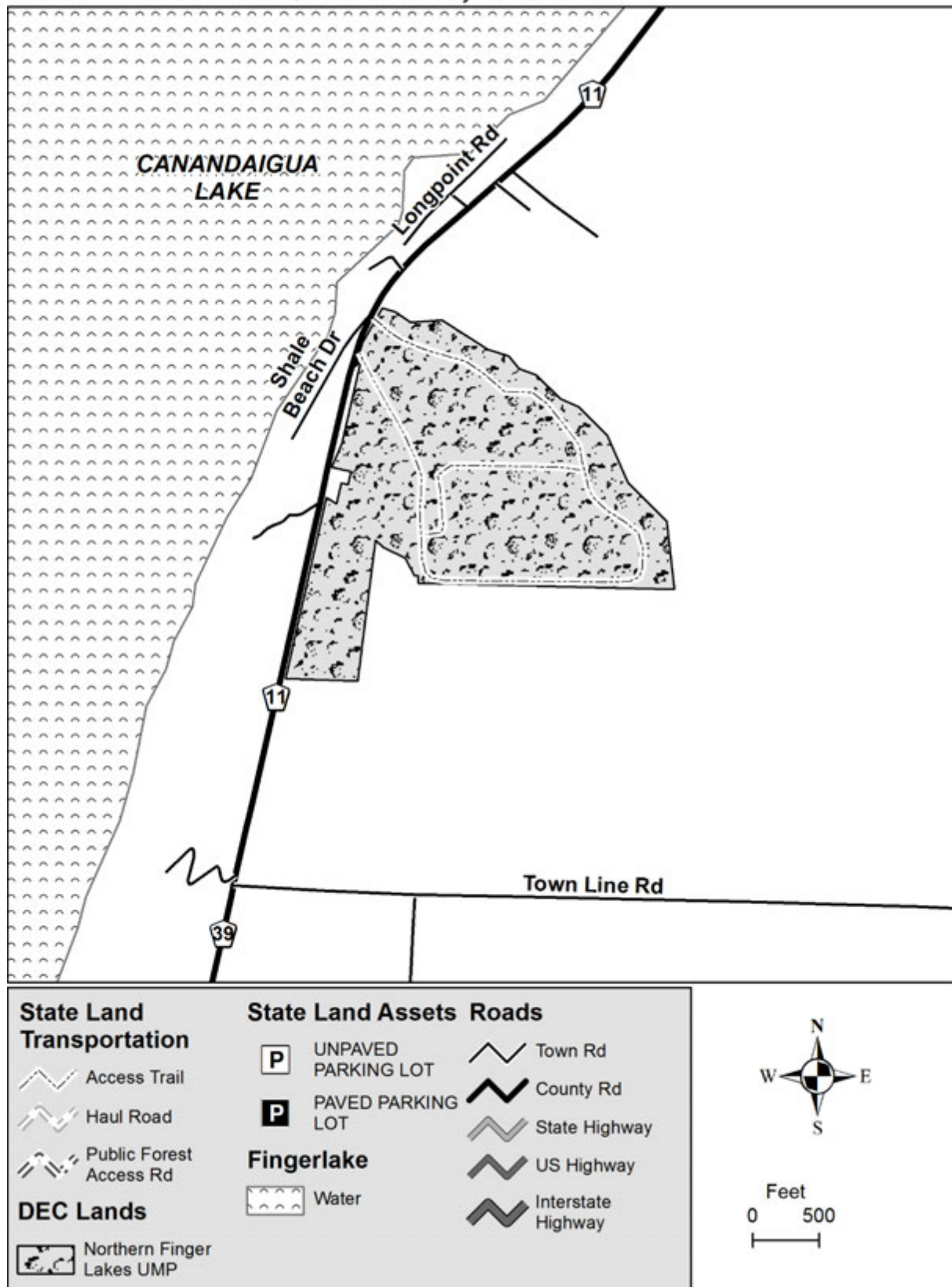


Roads and Parking Lots

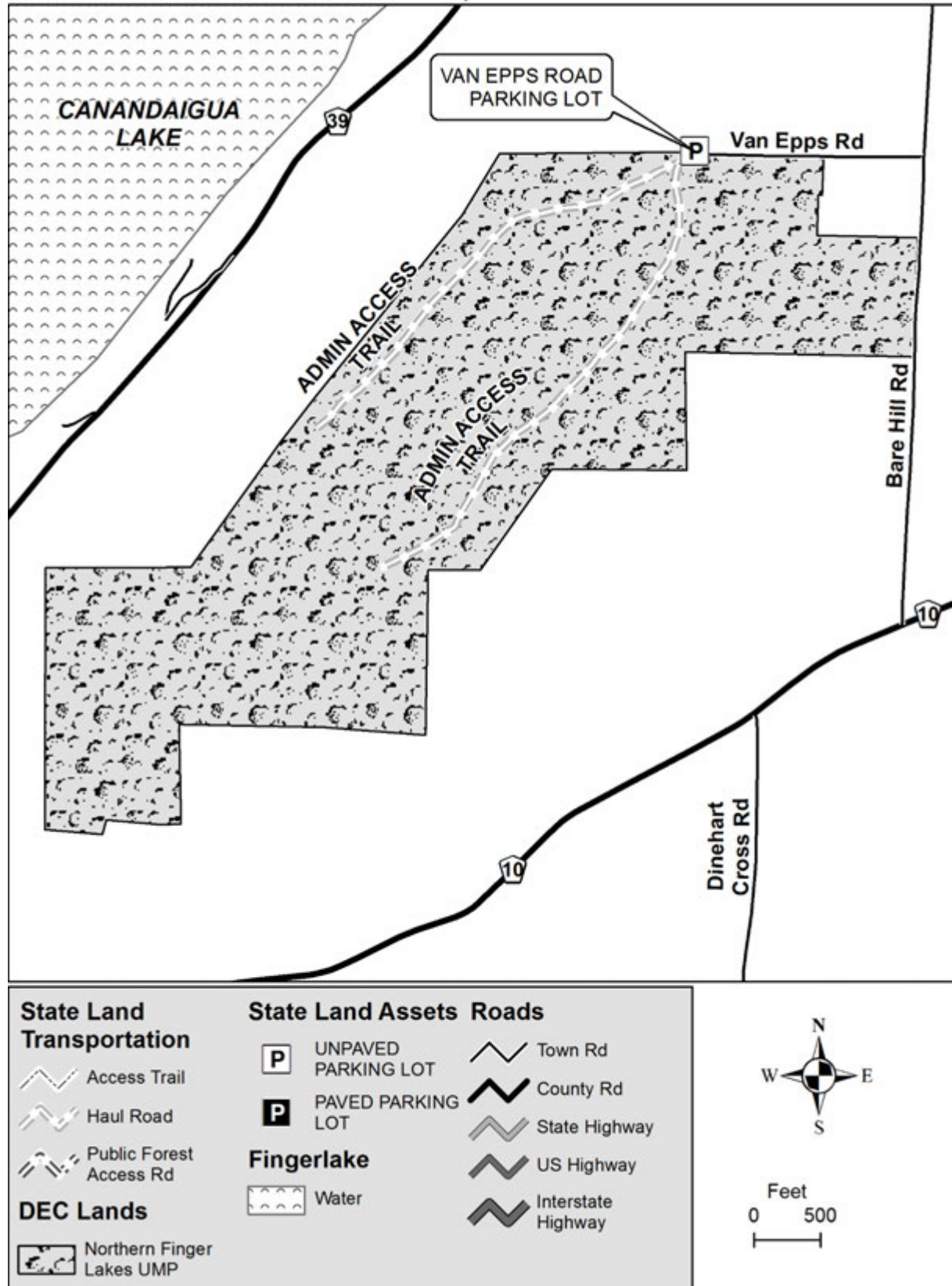
AVON REGIONAL OFFICE



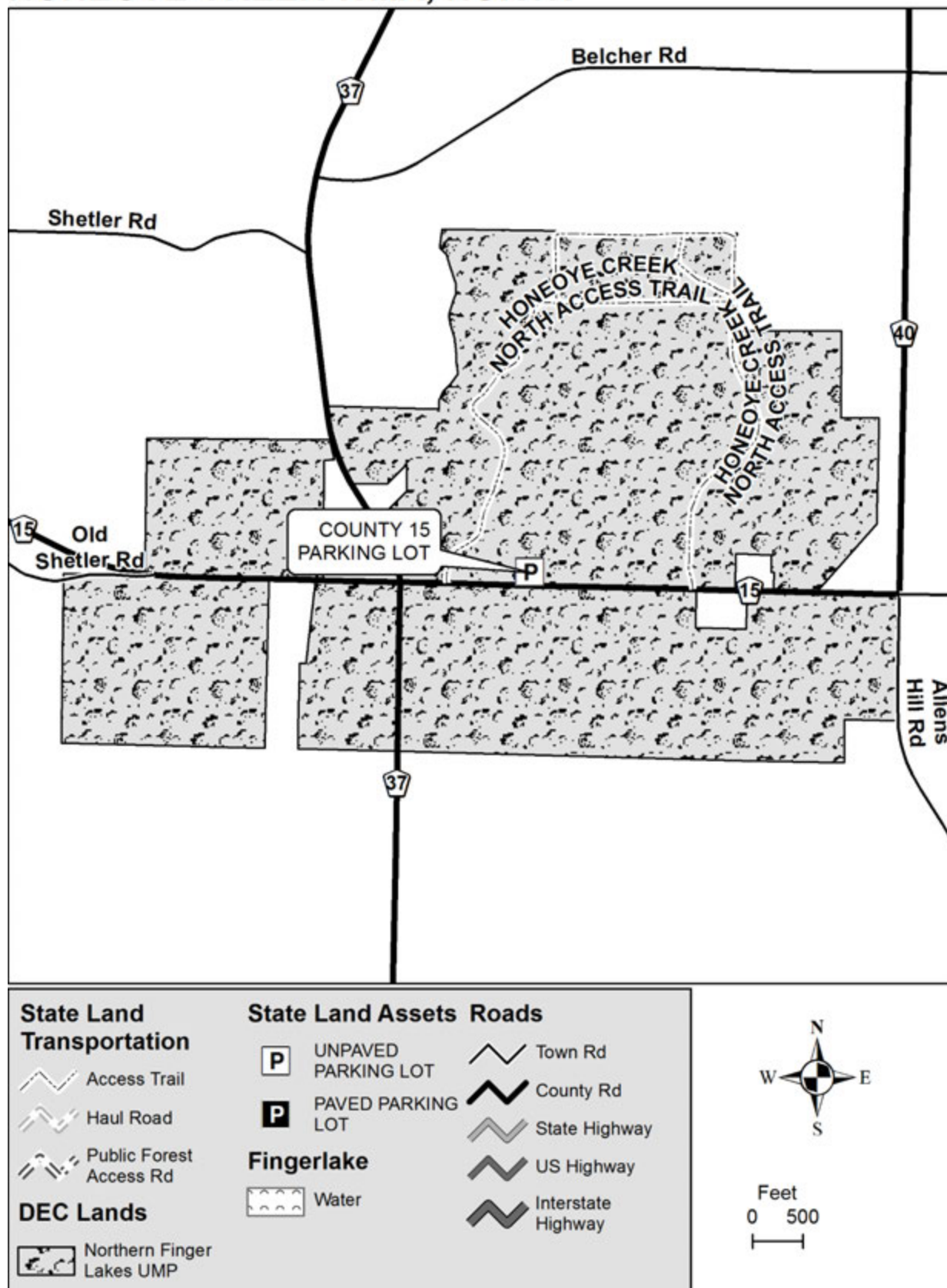
BARE HILL UNIQUE AREA, NORTH



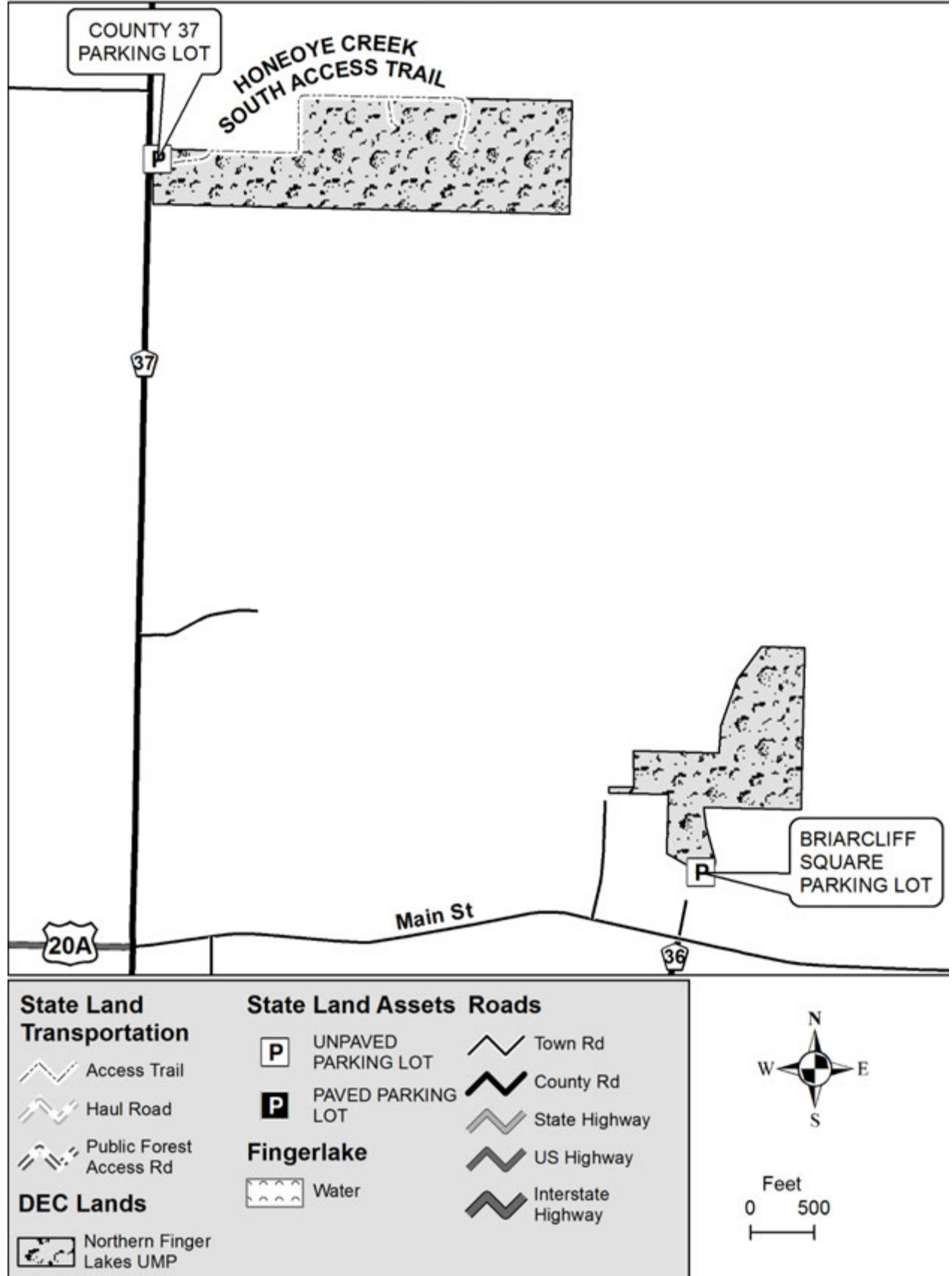
BARE HILL UNIQUE AREA, SOUTH



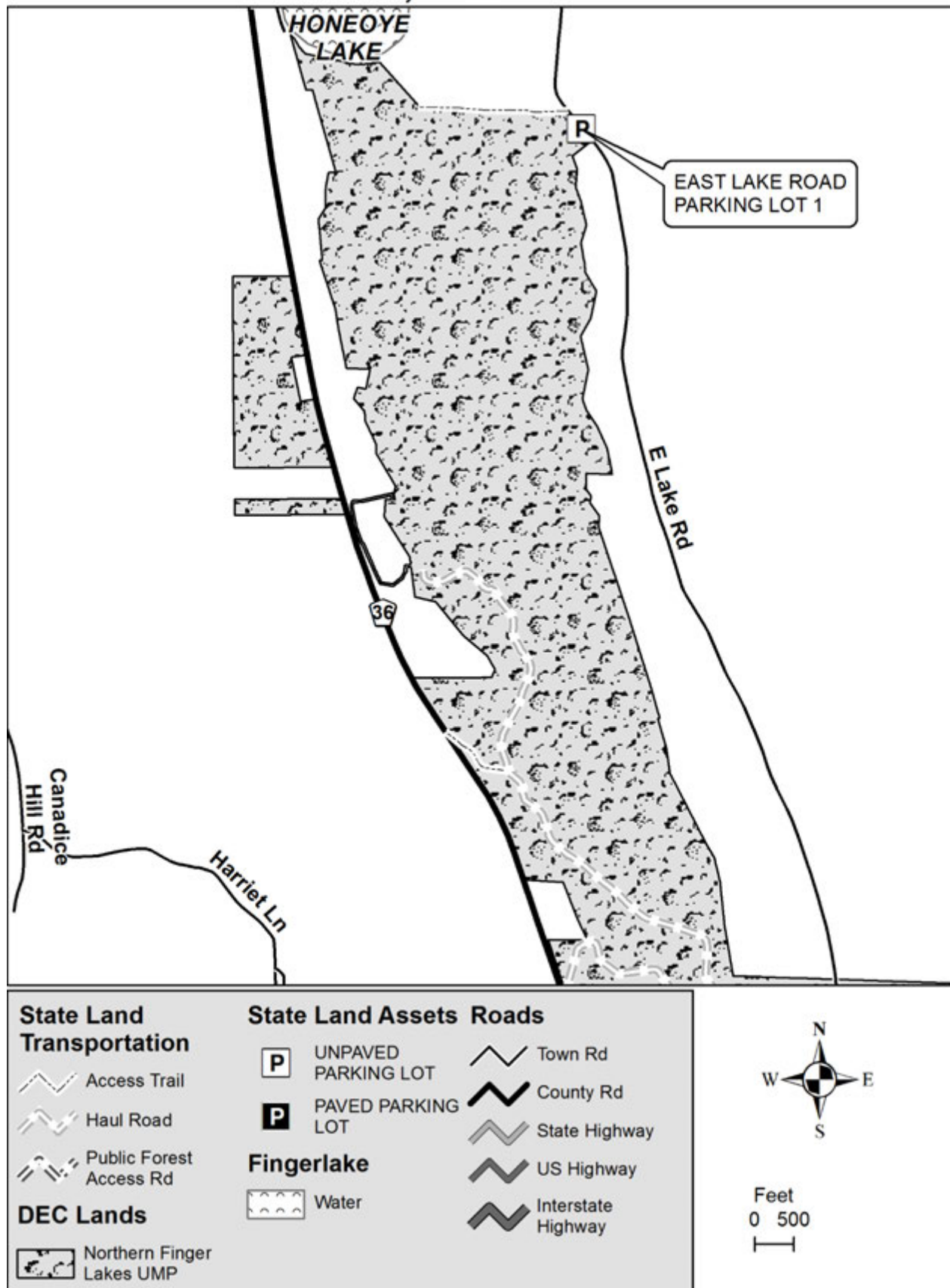
HONEOYE CREEK WMA, NORTH



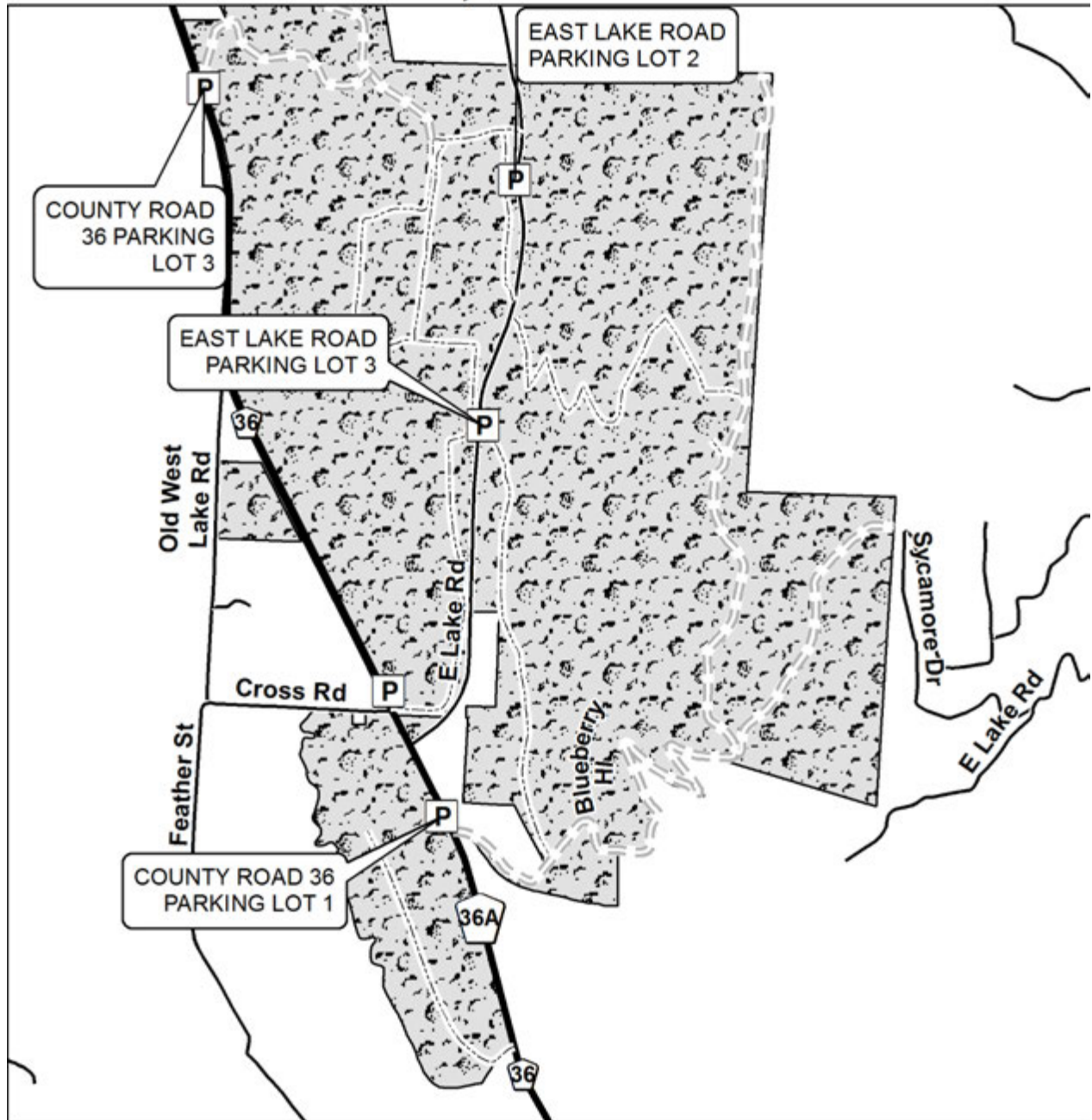
HONEOYE CREEK WMA, SOUTH



HONEOYE INLET WMA, NORTH



HONEOYE INLET WMA, SOUTH



State Land Transportation

- Access Trail
- Haul Road
- Public Forest Access Rd

DEC Lands

- Northern Finger Lakes UMP

State Land Assets Roads

- UNPAVED PARKING LOT
- PAVED PARKING LOT

Fingerlake

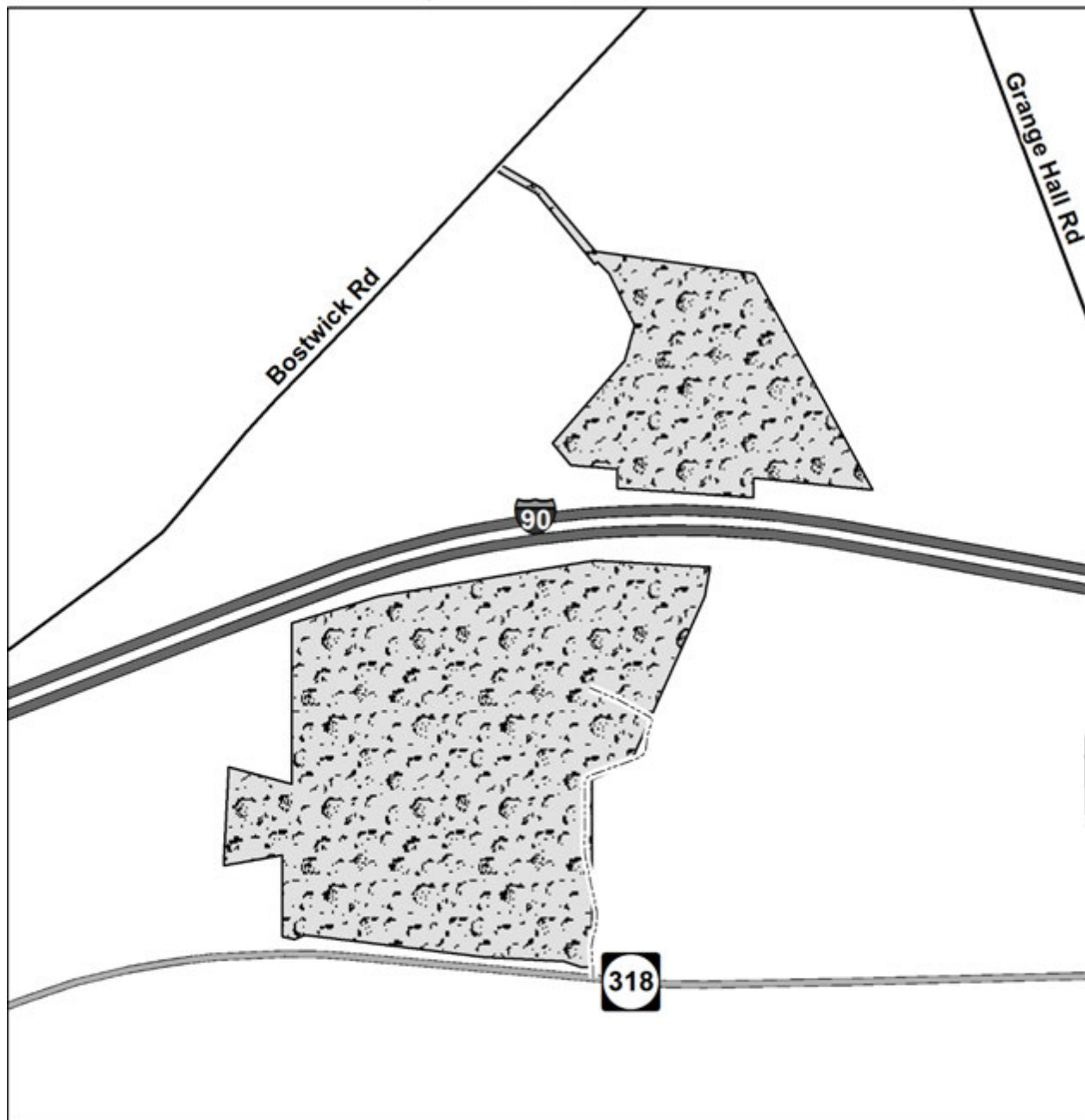
- Water

- Town Rd
- County Rd
- State Highway
- US Highway
- Interstate Highway



Feet
0 500
|

JUNIUS PONDS UNIQUE AREA



State Land Transportation

- Access Trail
- Haul Road
- Public Forest Access Rd

DEC Lands

- Northern Finger Lakes UMP

State Land Assets Roads

- UNPAVED PARKING LOT
- PAVED PARKING LOT

Fingerlake

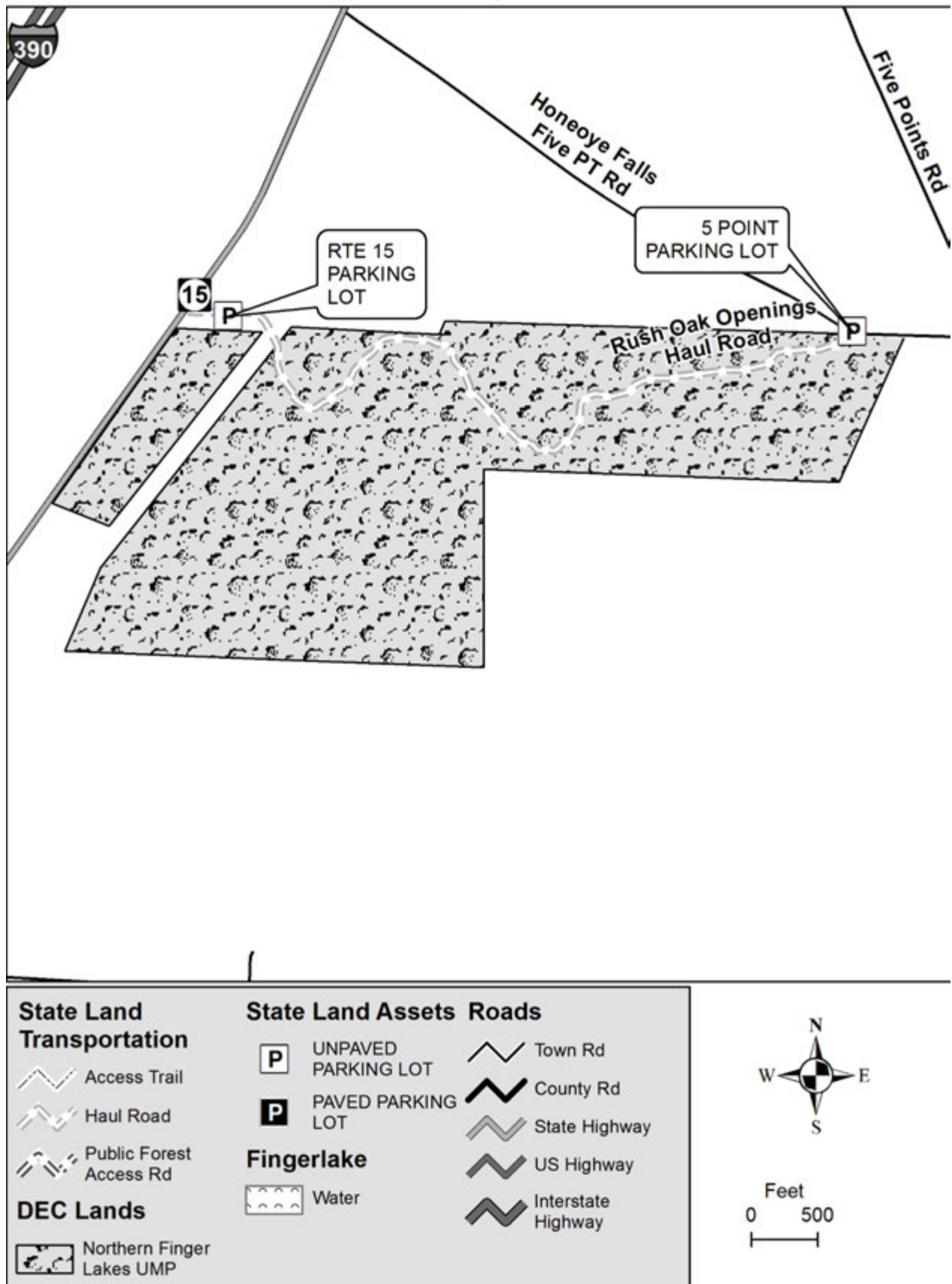
- Water

- Town Rd
- County Rd
- State Highway
- US Highway
- Interstate Highway

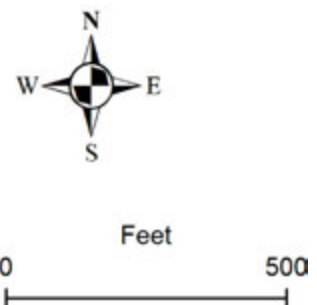
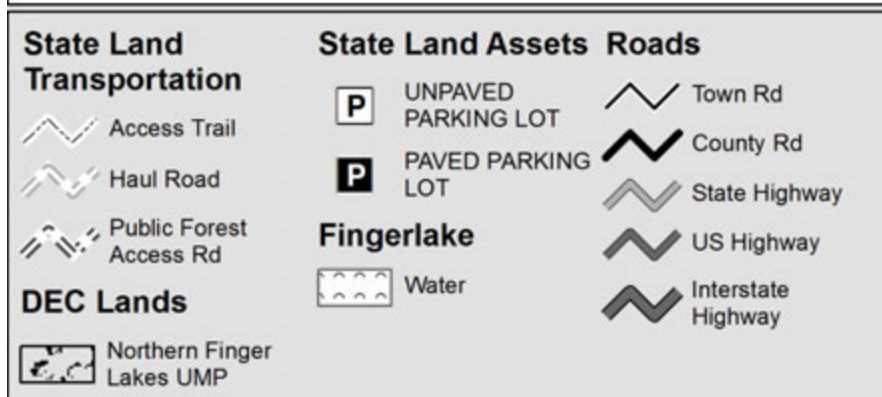
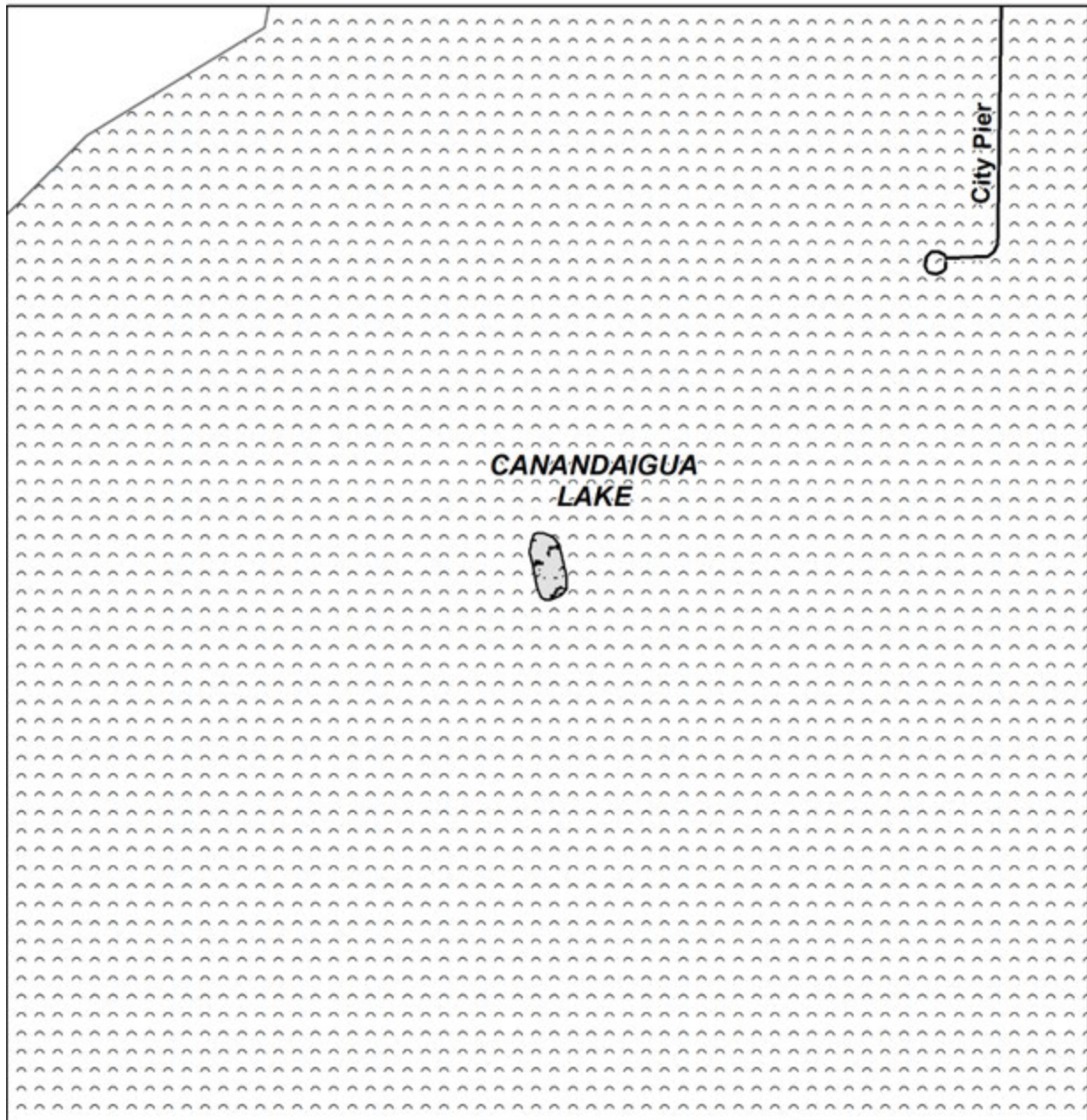


Feet
0 500

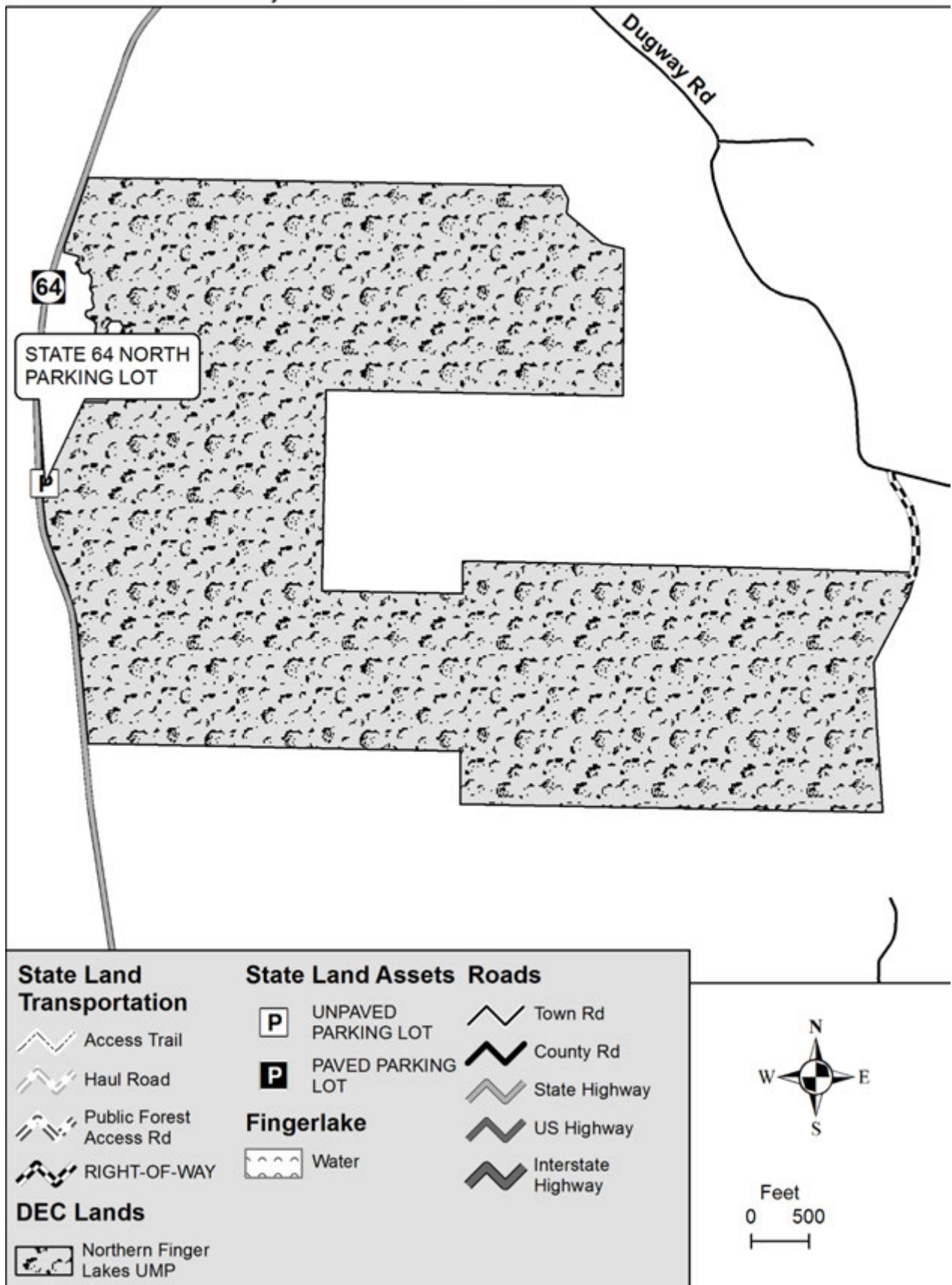
RUSH OAK OPENINGS UNIQUE AREA



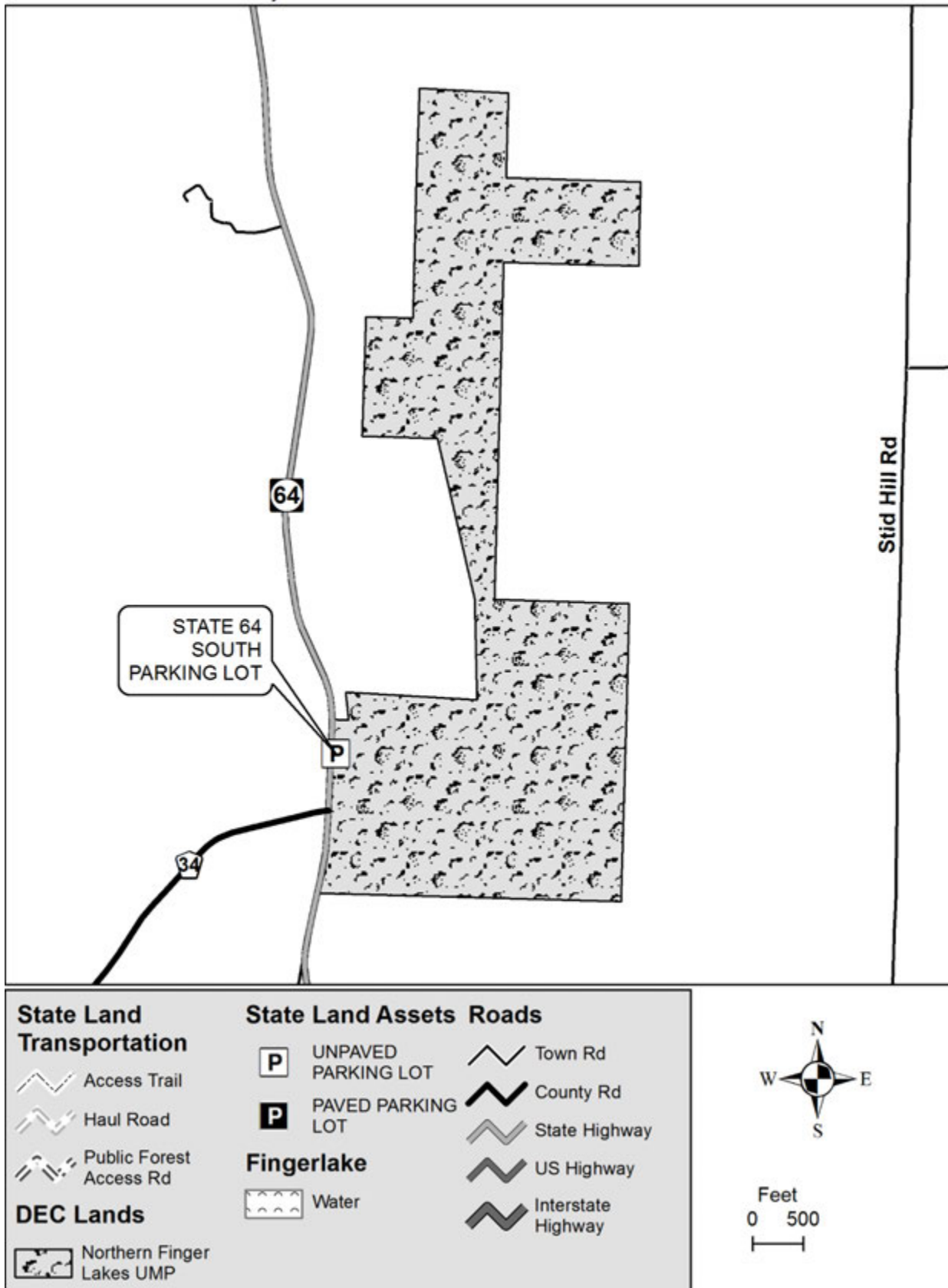
SQUAW ISLAND UNIQUE AREA



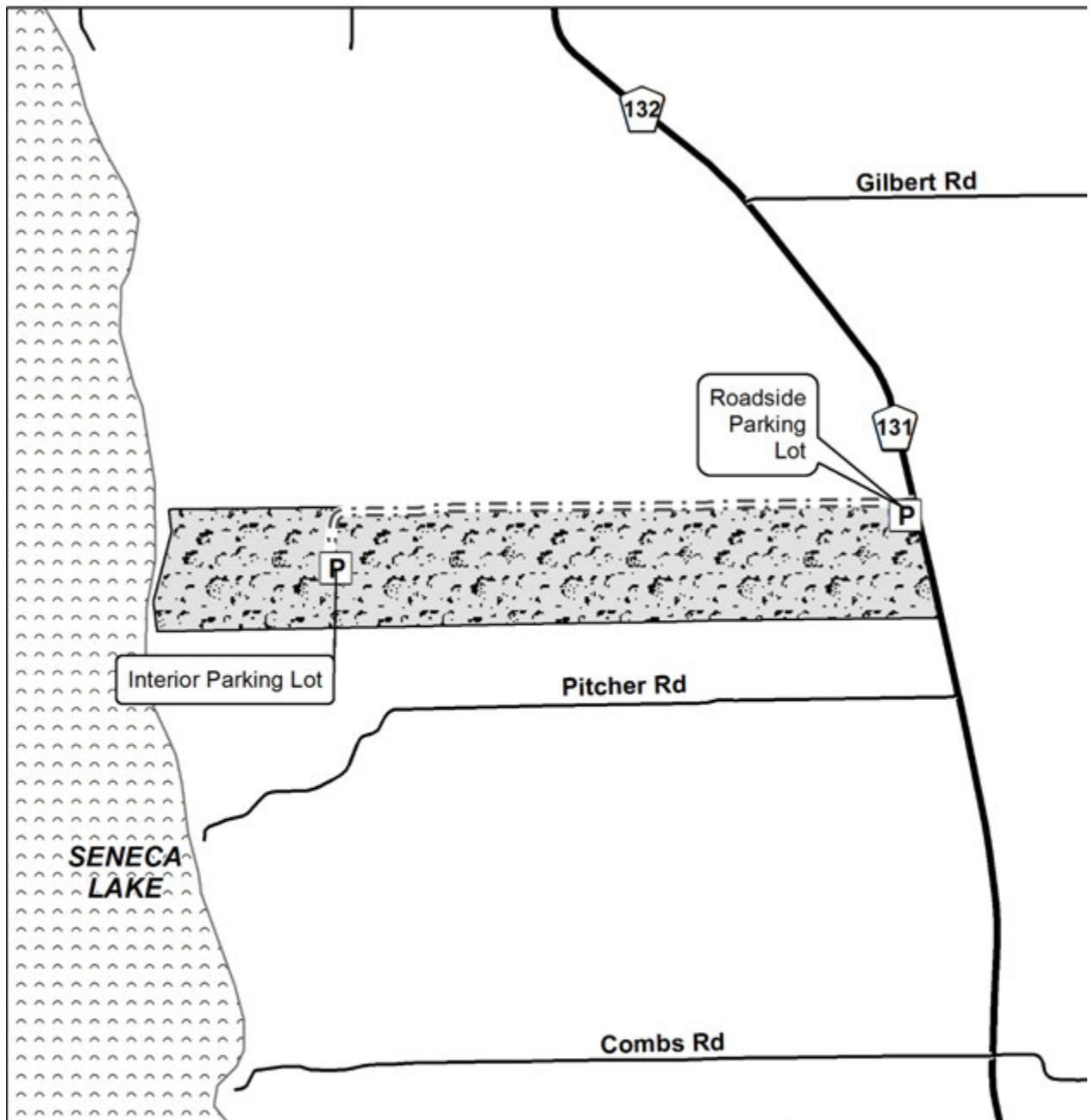
STID HILL MUA, NORTH



STID HILL MUA, SOUTH



WILLARD WMA



Feet
0 500
|-----|




























Recreation and Other Facilities

For Additional Information see:

Roads (pg 30), Access Management (pg 90), Recreation (pg 35) Public Recreation and Use Management (pg 128), Maintenance and Facilities Management (pg 138).

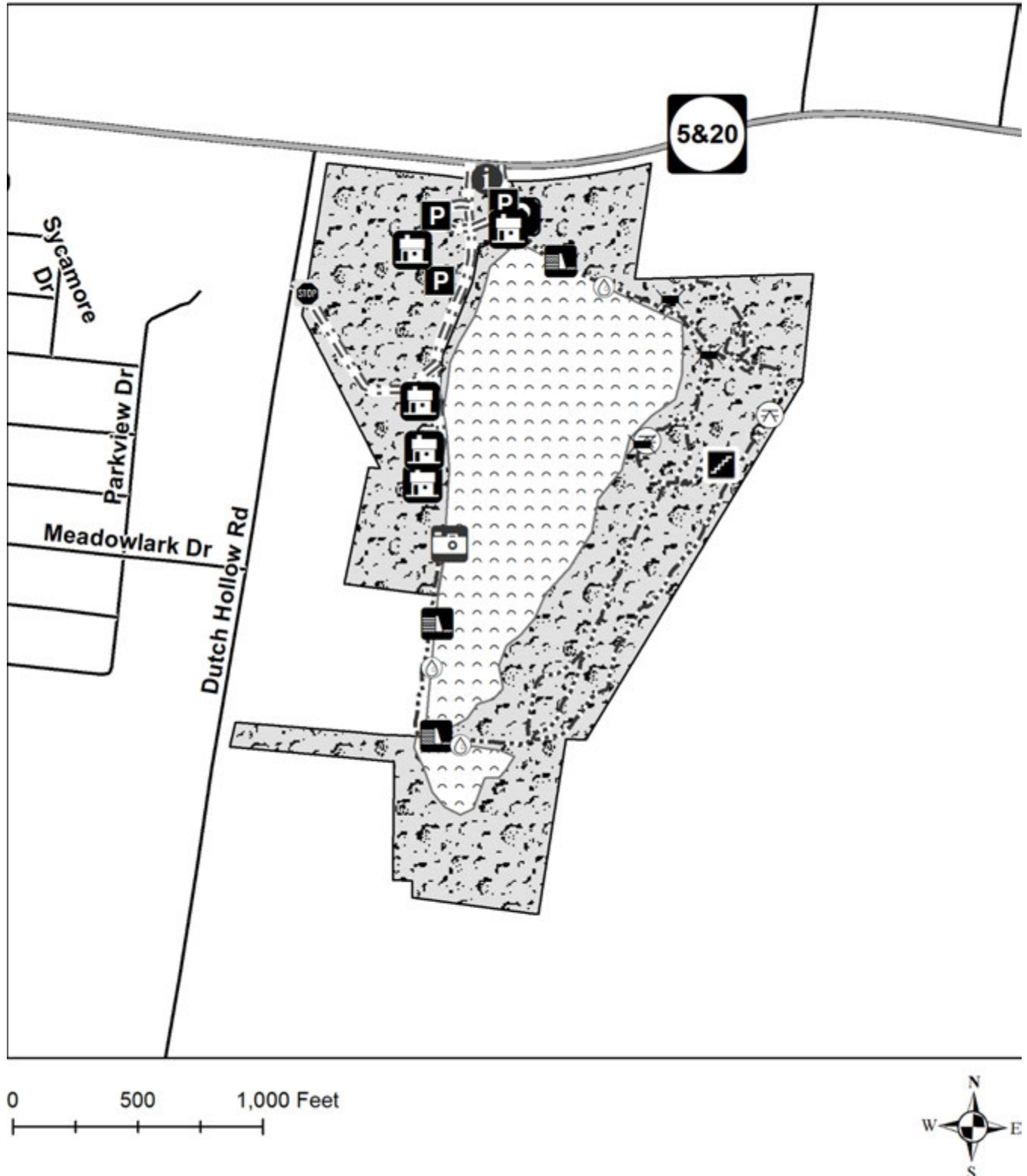
Some facilities will be missing from these maps. For example many culverts, bird/duck houses, historic sites and some log landings and access trails (old farm lanes) have not yet been GPSed.

Legend for the following 13 maps:

Legend for Recreation and Other Facilities	
State Land Facilities	State Land Transportation
 Bench	 Recreational Trail
 Bridge	 Access Trail
 Building	 Haul Road
 Culvert	 Public Forest Access Rd
 Dam	 Fire Control Line
 Deer Exclosure	MAPPWD
 Drilled Well	 Current MAPPWD Trail
 Earth Dam	 New MAPPWD Trail
 Facility ID Sign	Roads
 Gate	 Town Rd
 Cultural Feature	 County Rd
 Kiosk	 State Highway
 Paved Parking Lot	 US Highway
 Unpaved Parking Lot	 Interstate Highway
 Retaining Wall	DEC Lands
 Scenic Vista	 Northern Finger Lakes UMP
 Steps	 Water
 Viewing Platform	
 Water Control Structure	

For Additional Information see: Roads (pg 30), Access Management (pg 90), Recreation (pg 35), Public Recreation and Use Management (pg 128), Maintenance and Facilities Management (pg 138).

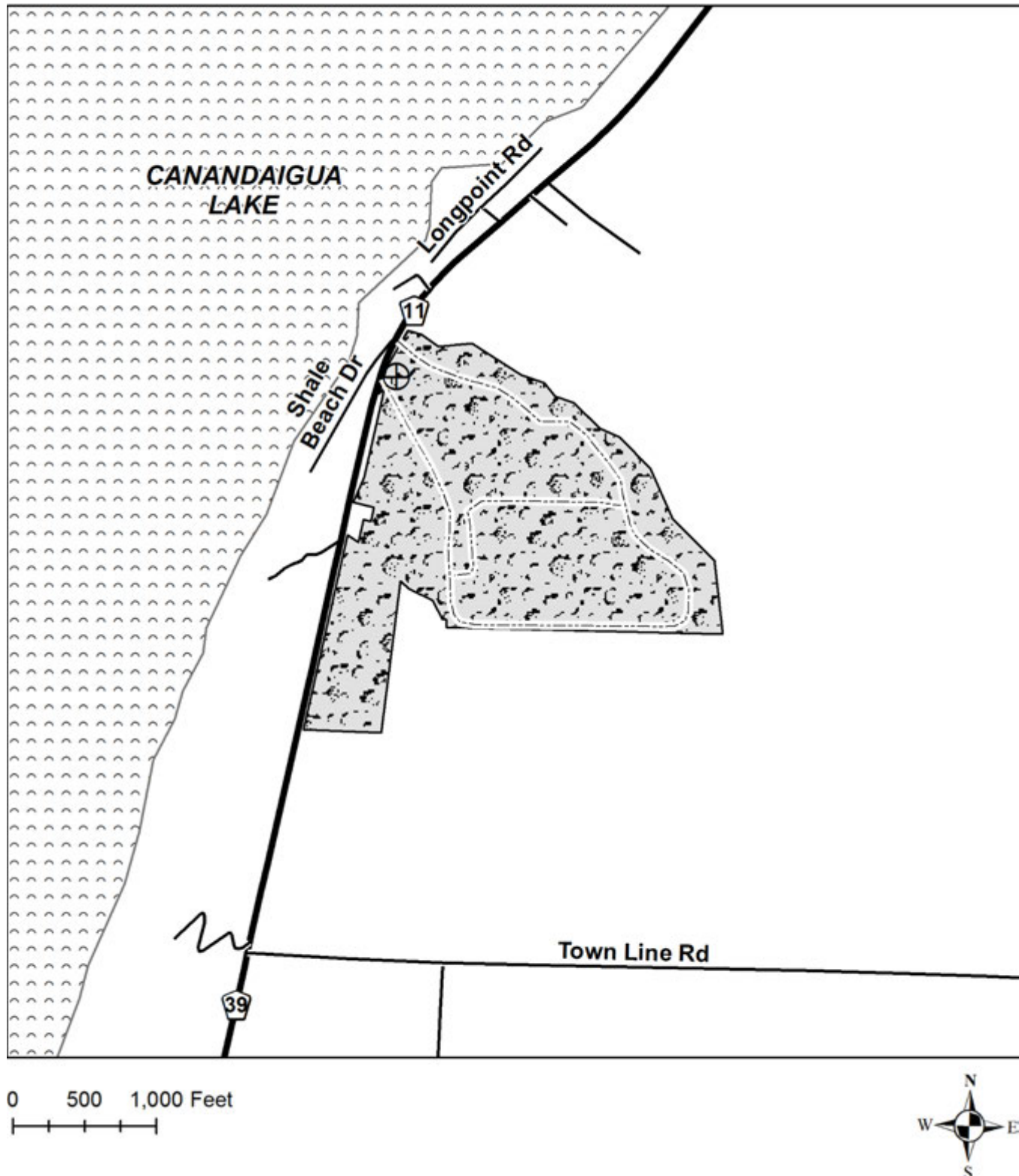
AVON REGIONAL OFFICE - Facilities



Appendices

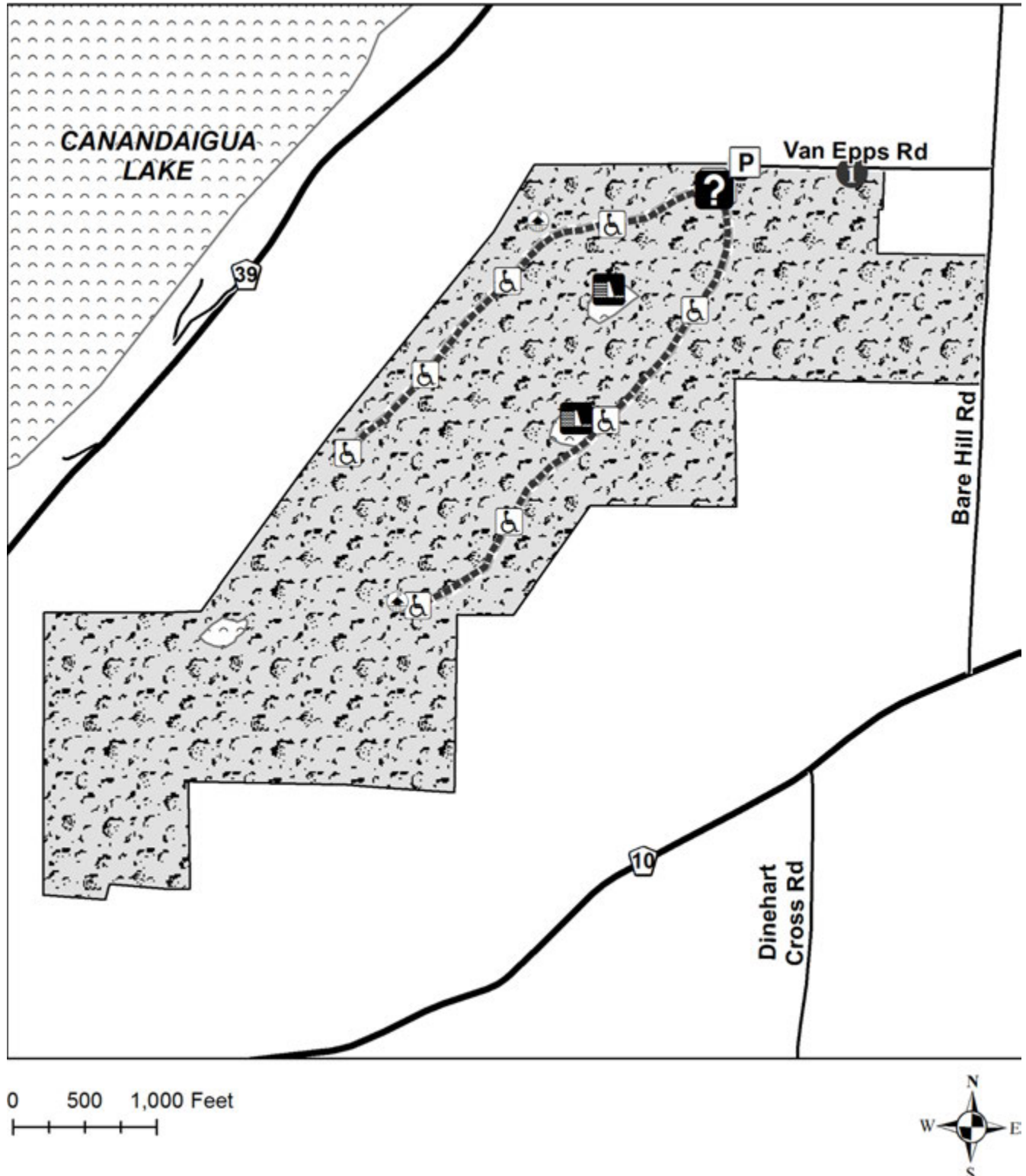
For Additional Information see: Roads (pg 30), Access Management (pg 90), Recreation (pg 35), Public Recreation and Use Management (pg 128), Maintenance and Facilities Management (pg 138).

BARE HILL UNIQUE AREA, NORTH - Facilities



For Additional Information see: Roads (pg 30), Access Management (pg 90), Recreation (pg 35), Public Recreation and Use Management (pg 128), Maintenance and Facilities Management (pg 138).

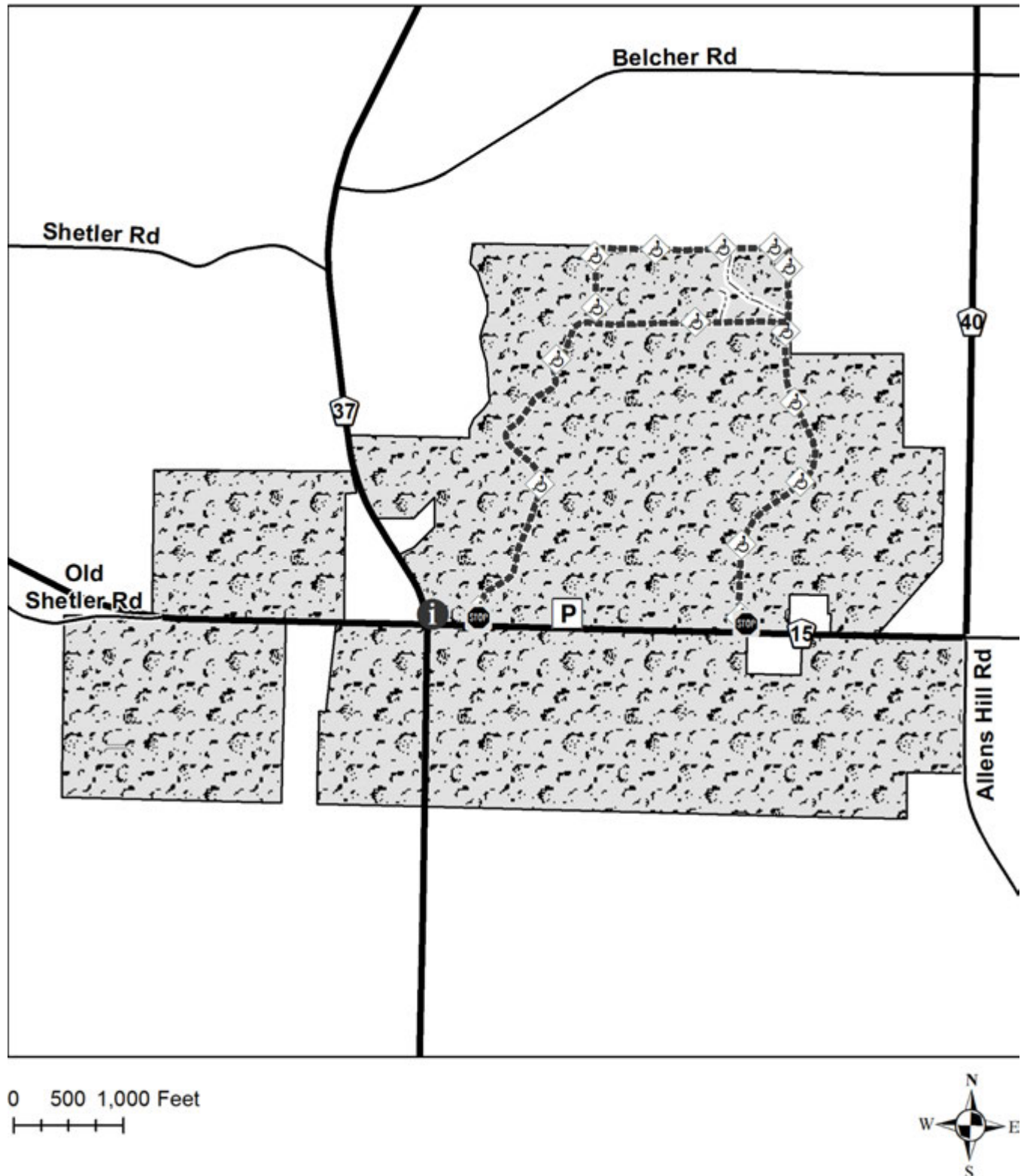
BARE HILL UNIQUE AREA, SOUTH - Facilities



Appendices

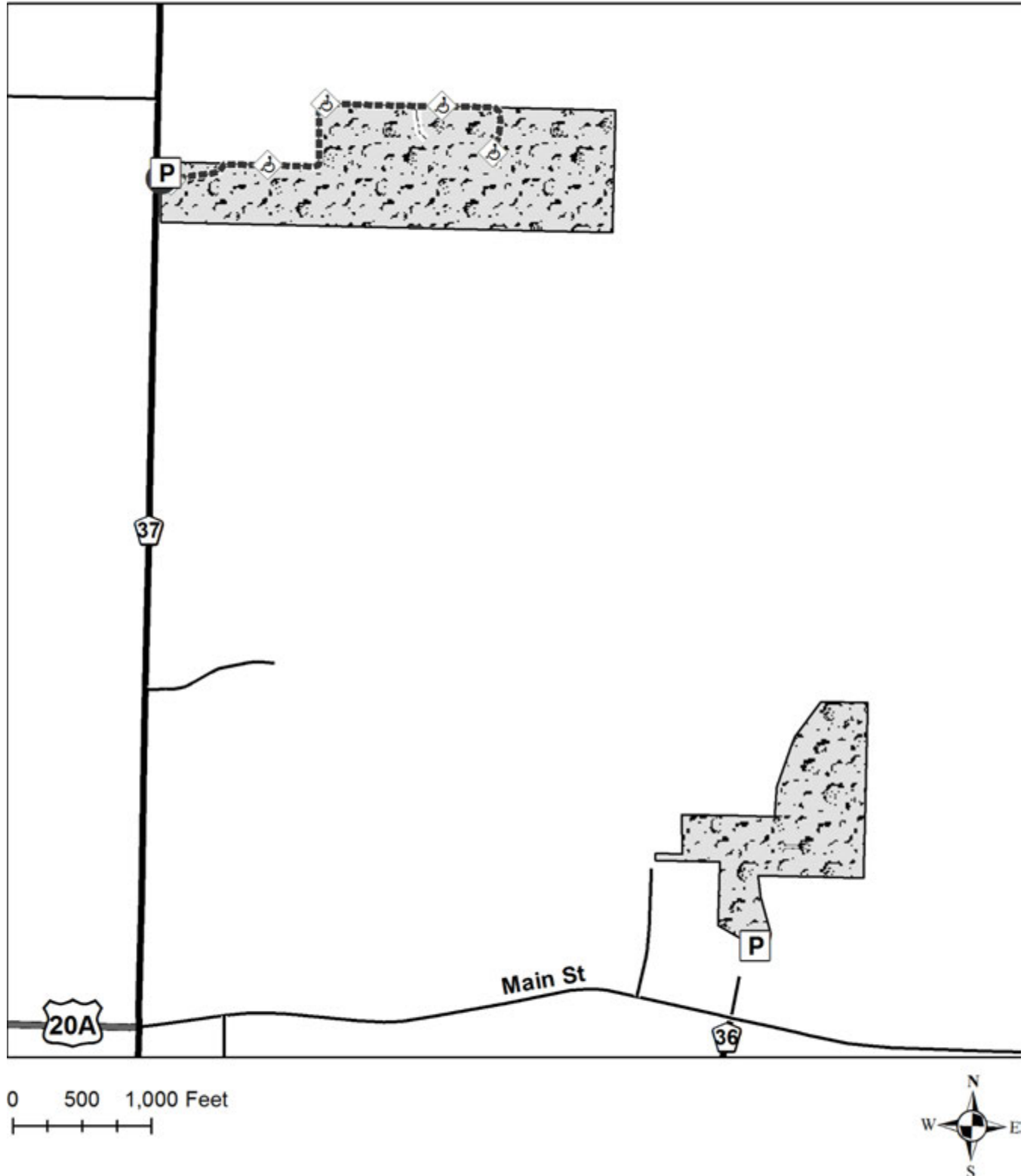
For Additional Information see: Roads (pg 30), Access Management (pg 90), Recreation (pg 35), Public Recreation and Use Management (pg 128), Maintenance and Facilities Management (pg 138).

HONEOYE CREEK WMA, NORTH - Facilities



For Additional Information see: Roads (pg 30), Access Management (pg 90), Recreation (pg 35), Public Recreation and Use Management (pg 128), Maintenance and Facilities Management (pg 138).

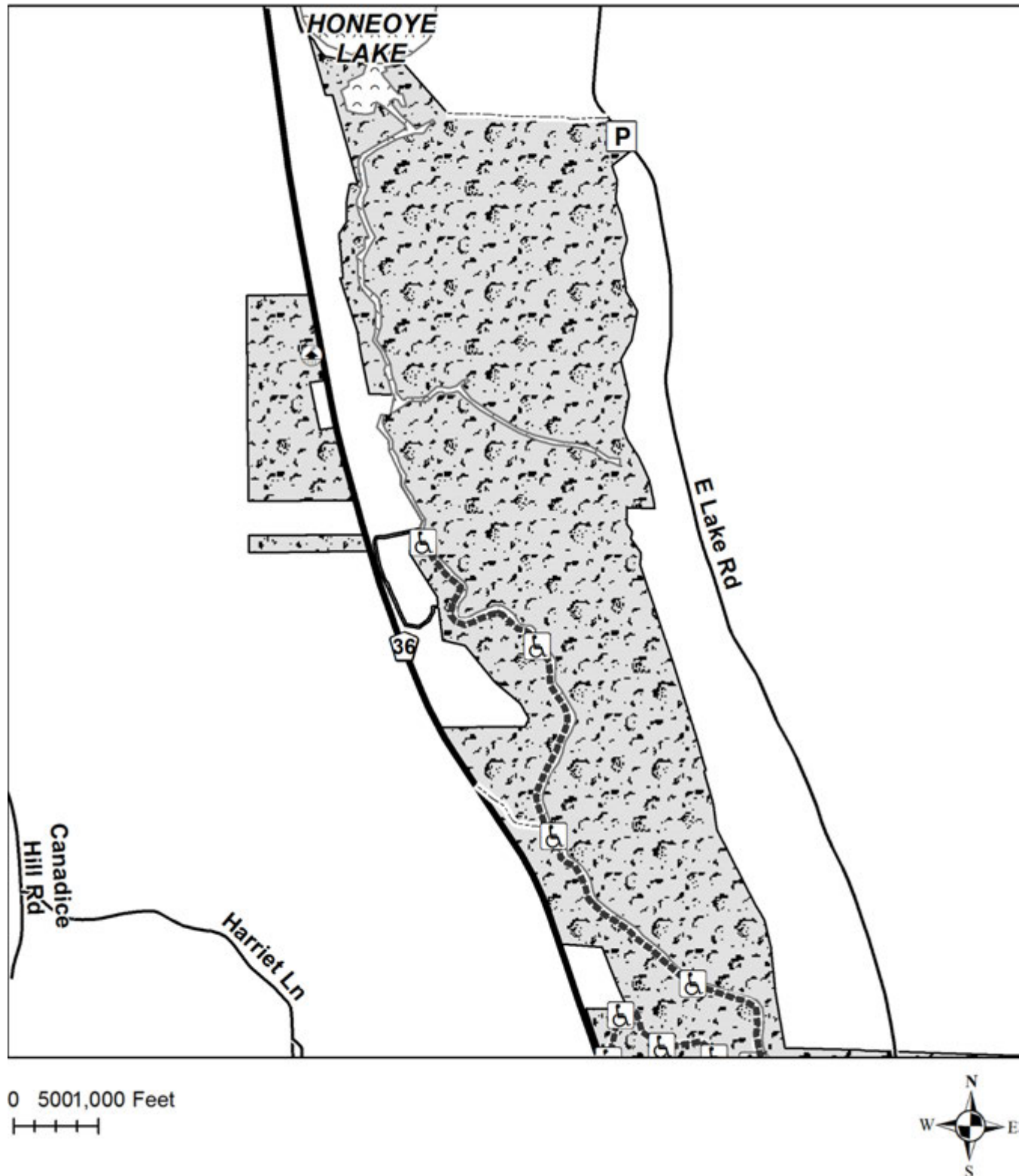
HONEOYE CREEK WMA, SOUTH - Facilities



Appendices

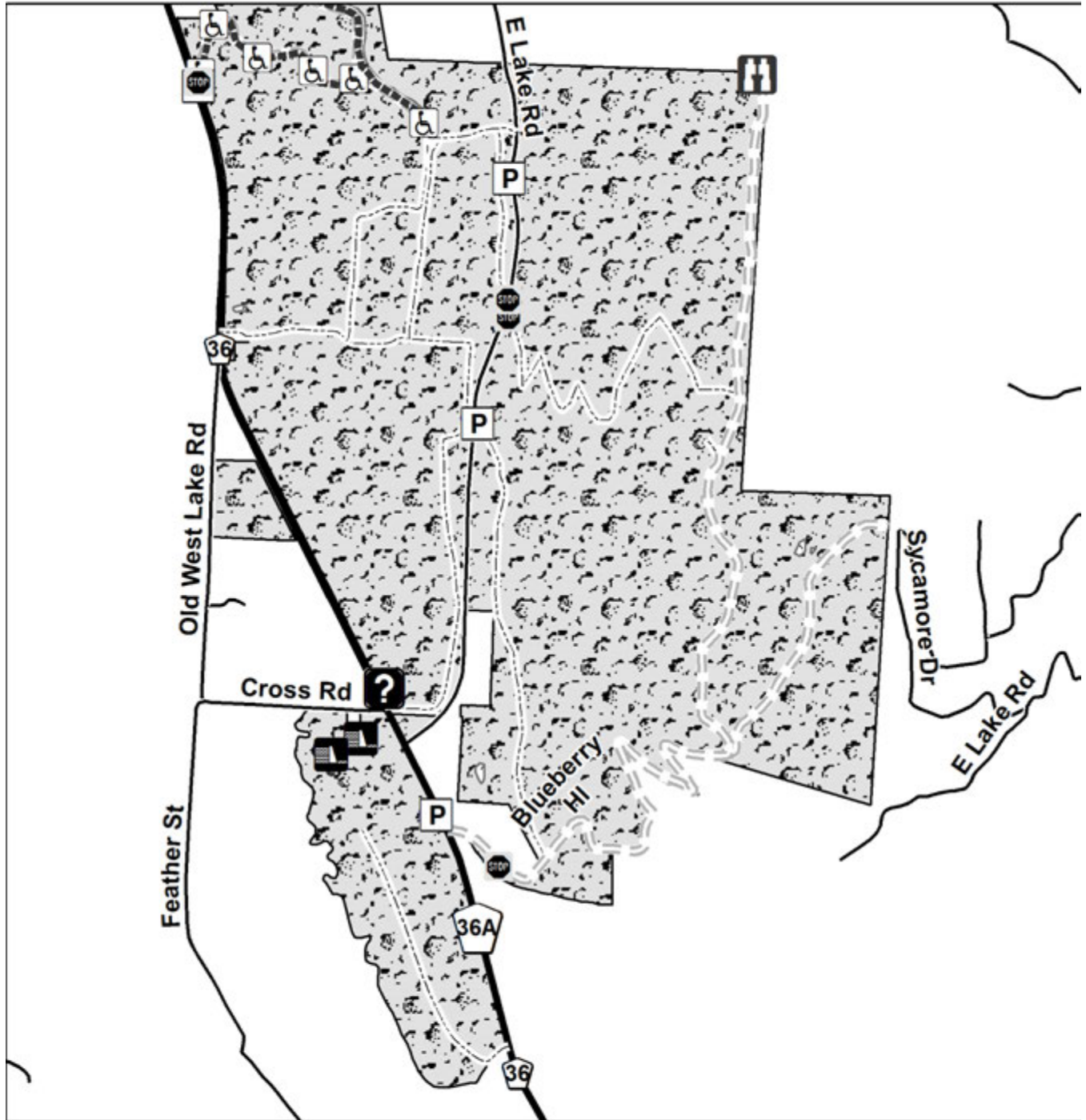
For Additional Information see: Roads (pg 30), Access Management (pg 90), Recreation (pg 35), Public Recreation and Use Management (pg 128), Maintenance and Facilities Management (pg 138).

HONEOYE INLET WMA, NORTH - Facilities



For Additional Information see: Roads (pg 30), Access Management (pg 90), Recreation (pg 35), Public Recreation and Use Management (pg 128), Maintenance and Facilities Management (pg 138).

HONEOYE INLET WMA, SOUTH - Facilities



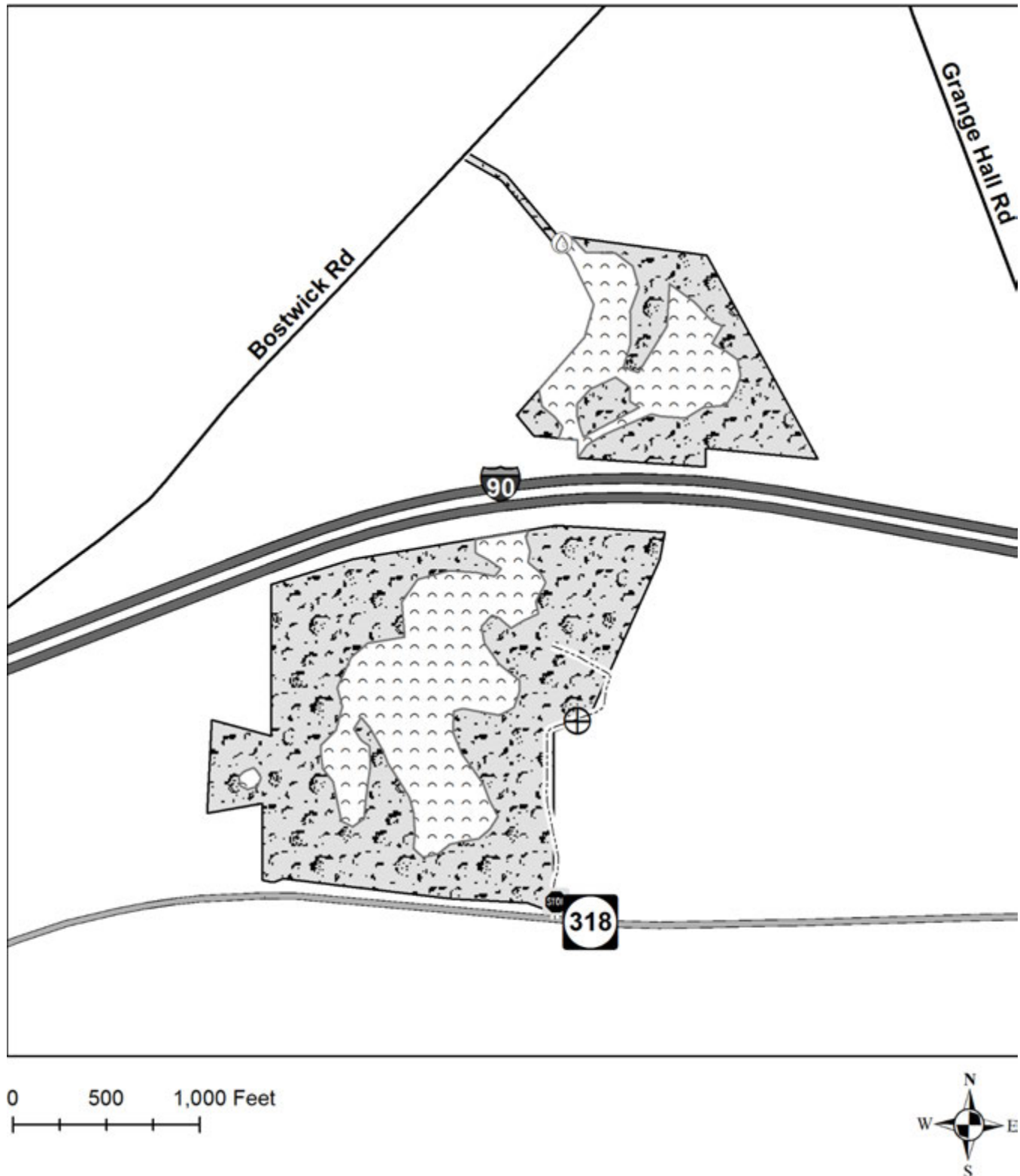
0 5001,000 Feet
| | | |



Appendices

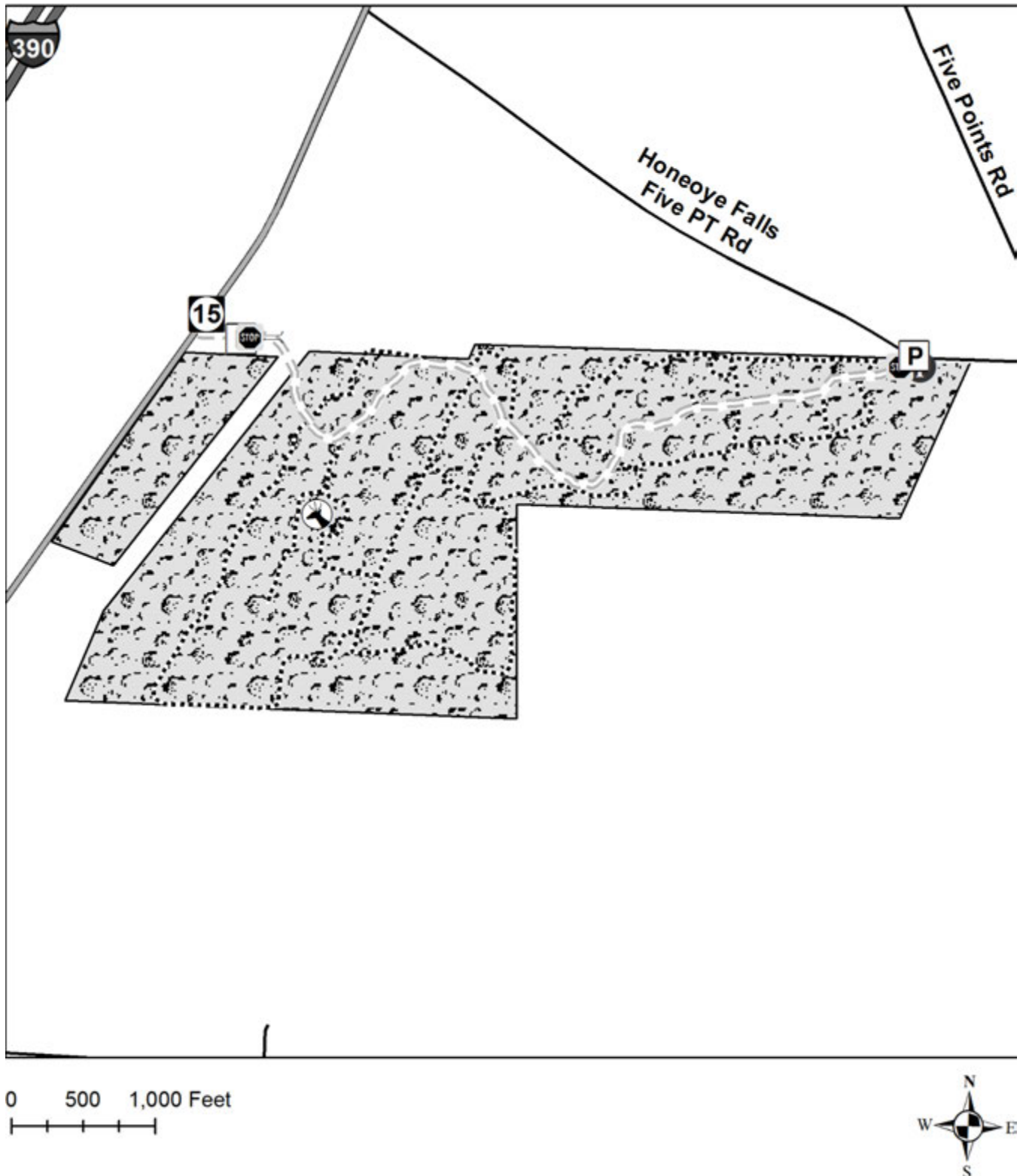
For Additional Information see: Roads (pg 30), Access Management (pg 90), Recreation (pg 35), Public Recreation and Use Management (pg 128), Maintenance and Facilities Management (pg 138).

JUNIUS PONDS UNIQUE AREA - Facilities



For Additional Information see: Roads (pg 30), Access Management (pg 90), Recreation (pg 35), Public Recreation and Use Management (pg 128), Maintenance and Facilities Management (pg 138).

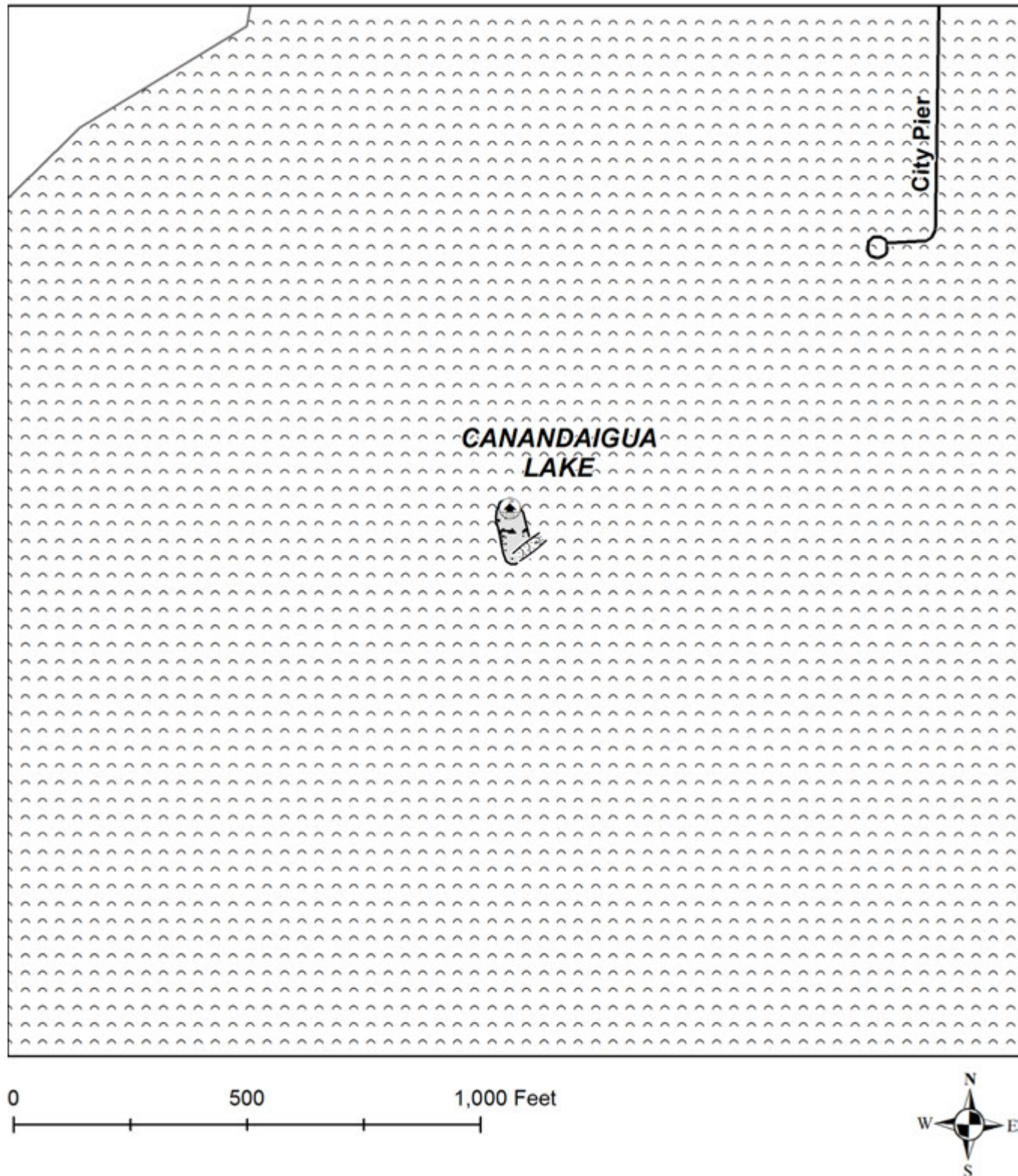
RUSH OAK OPENINGS UNIQUE AREA - Facilities



Appendices

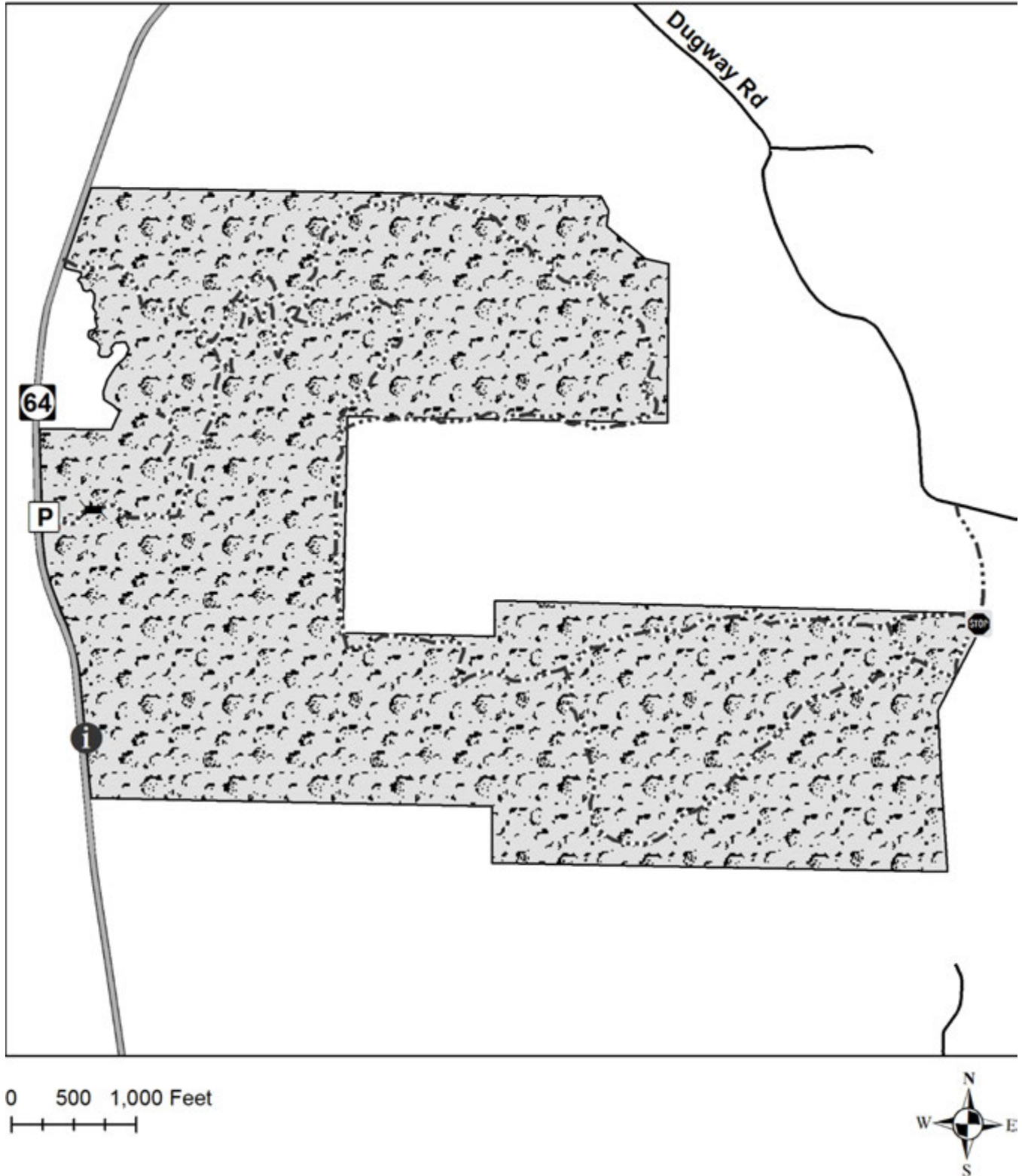
For Additional Information see: Roads (pg 30), Access Management (pg 90), Recreation (pg 35), Public Recreation and Use Management (pg 128), Maintenance and Facilities Management (pg 138).

SQUAW ISLAND UNIQUE AREA - Facilities



For Additional Information see: Roads (pg 30), Access Management (pg 90), Recreation (pg 35), Public Recreation and Use Management (pg 128), Maintenance and Facilities Management (pg 138).

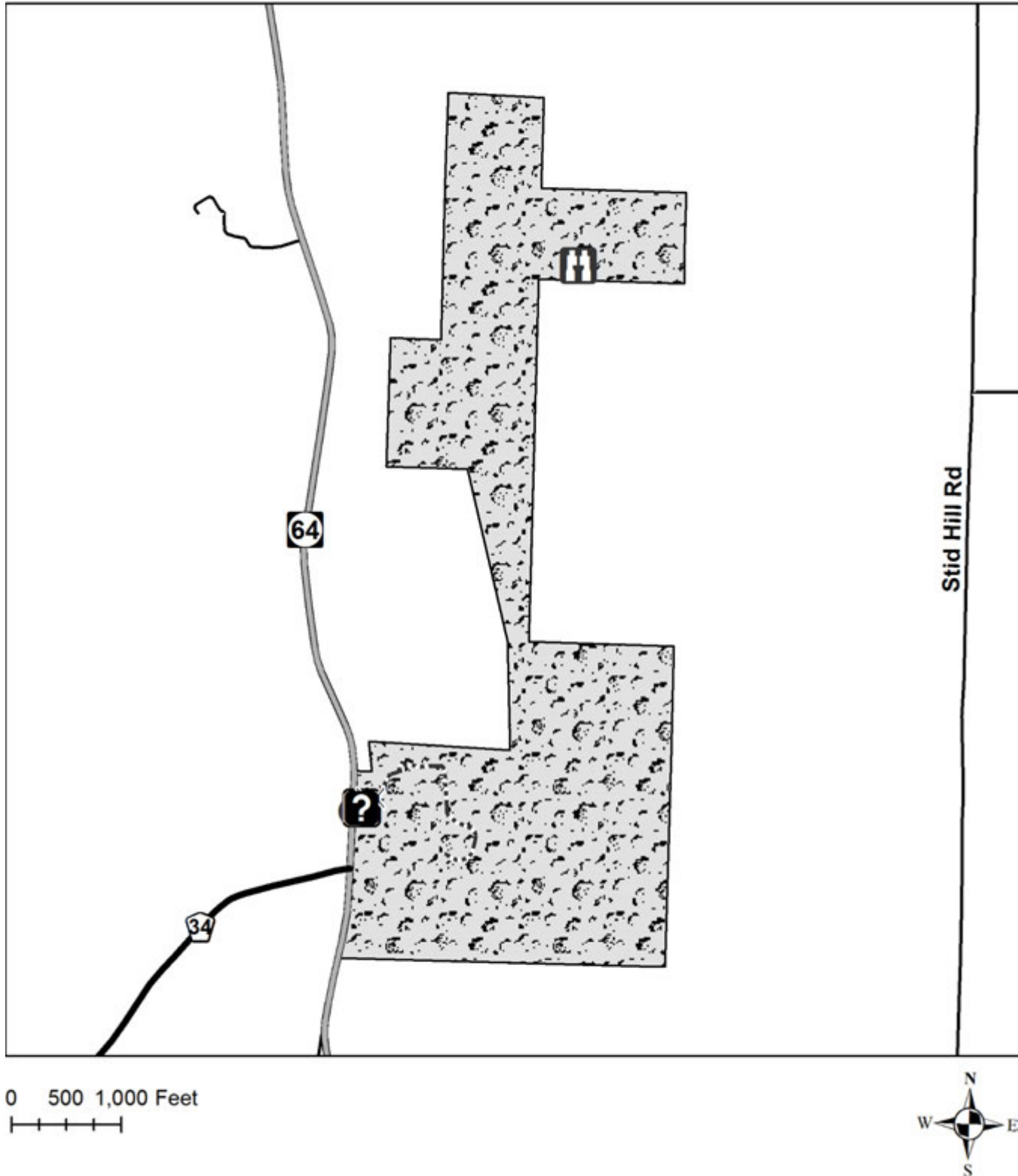
STID HILL MUA, NORTH - Facilities



Appendicies

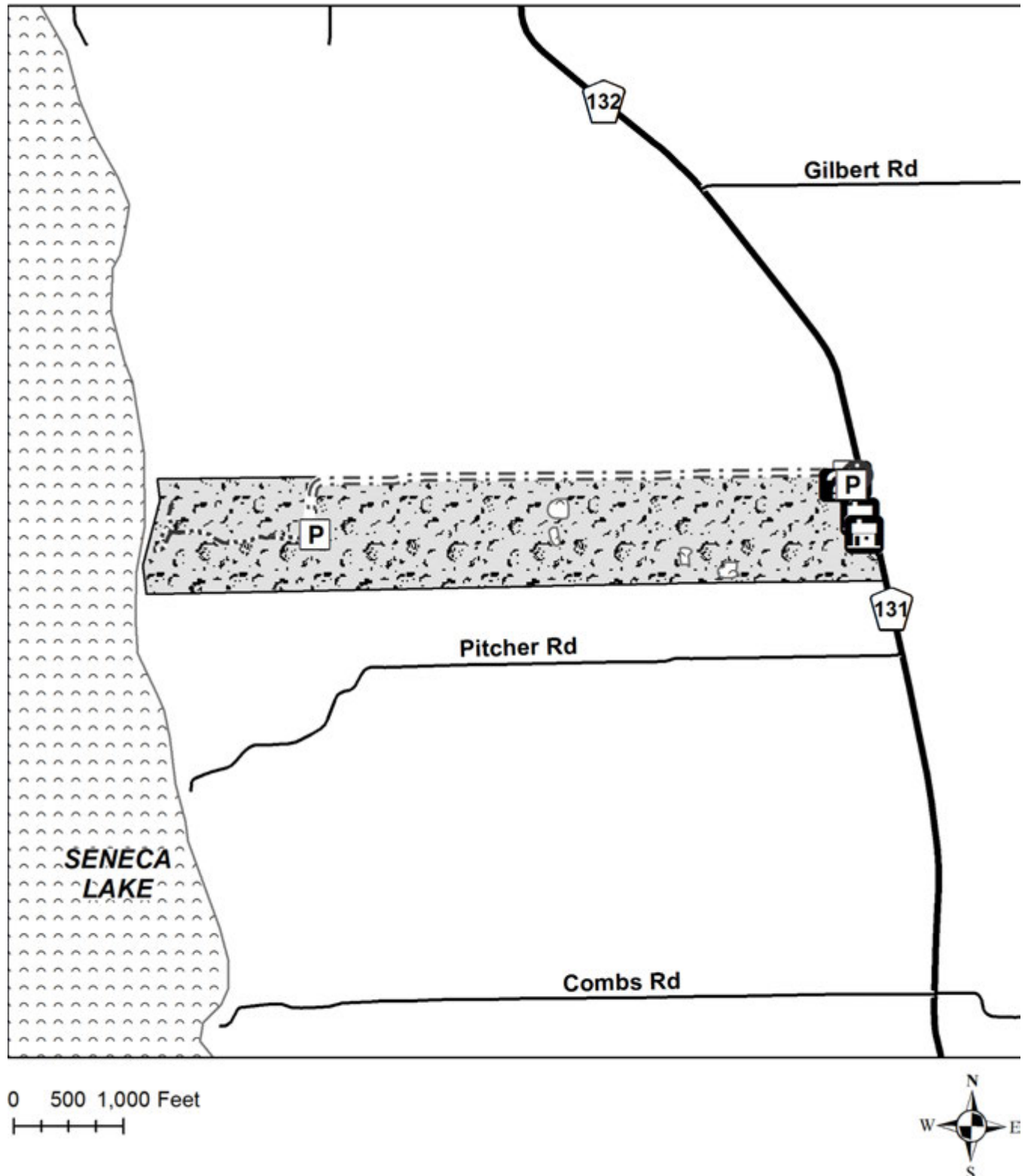
For Additional Information see: Roads (pg 30), Access Management (pg 90), Recreation (pg 35), Public Recreation and Use Management (pg 128), Maintenance and Facilities Management (pg 138).

STID HILL MUA, SOUTH - Facilities



For Additional Information see: Roads (pg 30), Access Management (pg 90), Recreation (pg 35), Public Recreation and Use Management (pg 128), Maintenance and Facilities Management (pg 138).

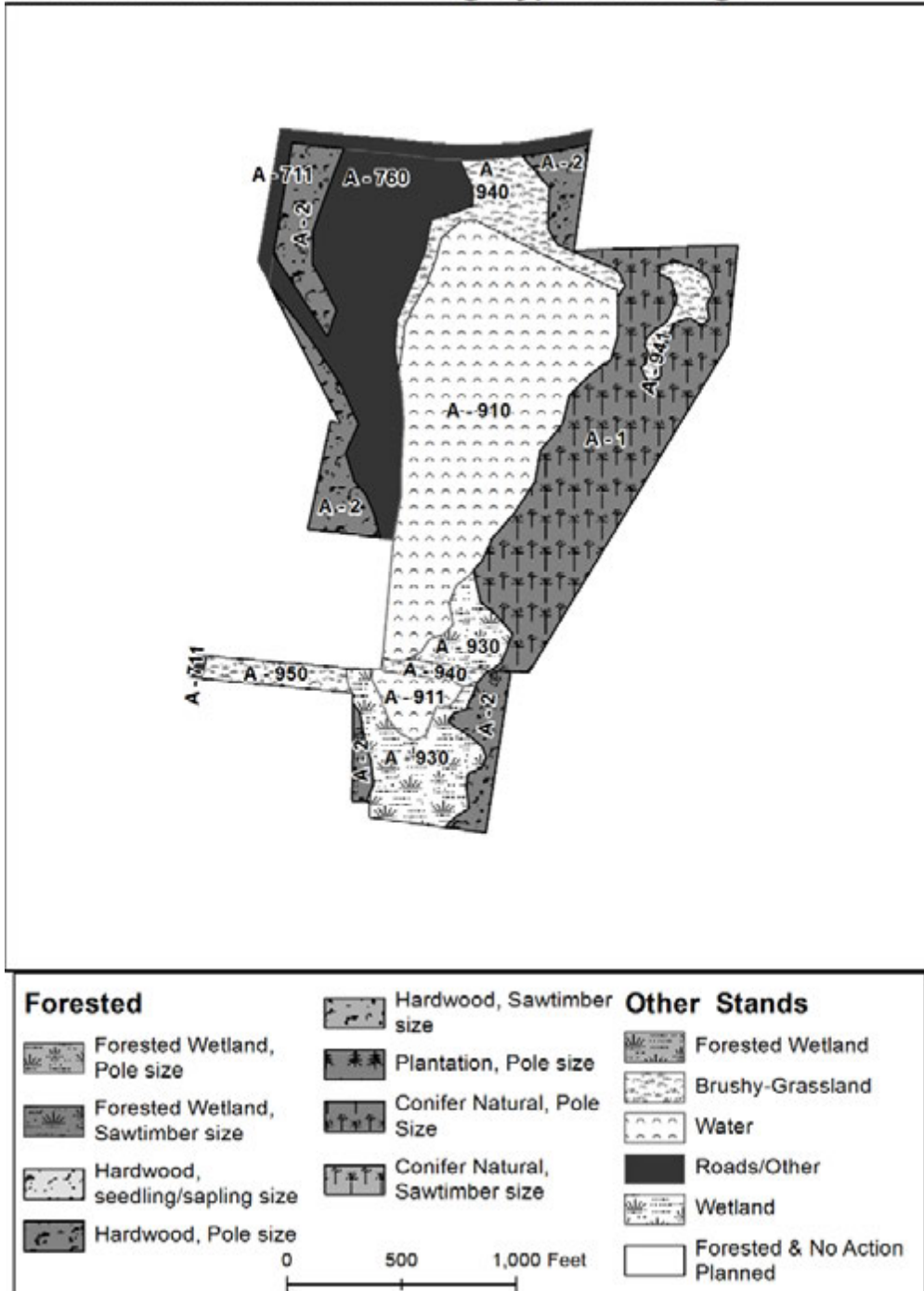
WILLARD WMA - Facilities



Vegetative Types and Stages

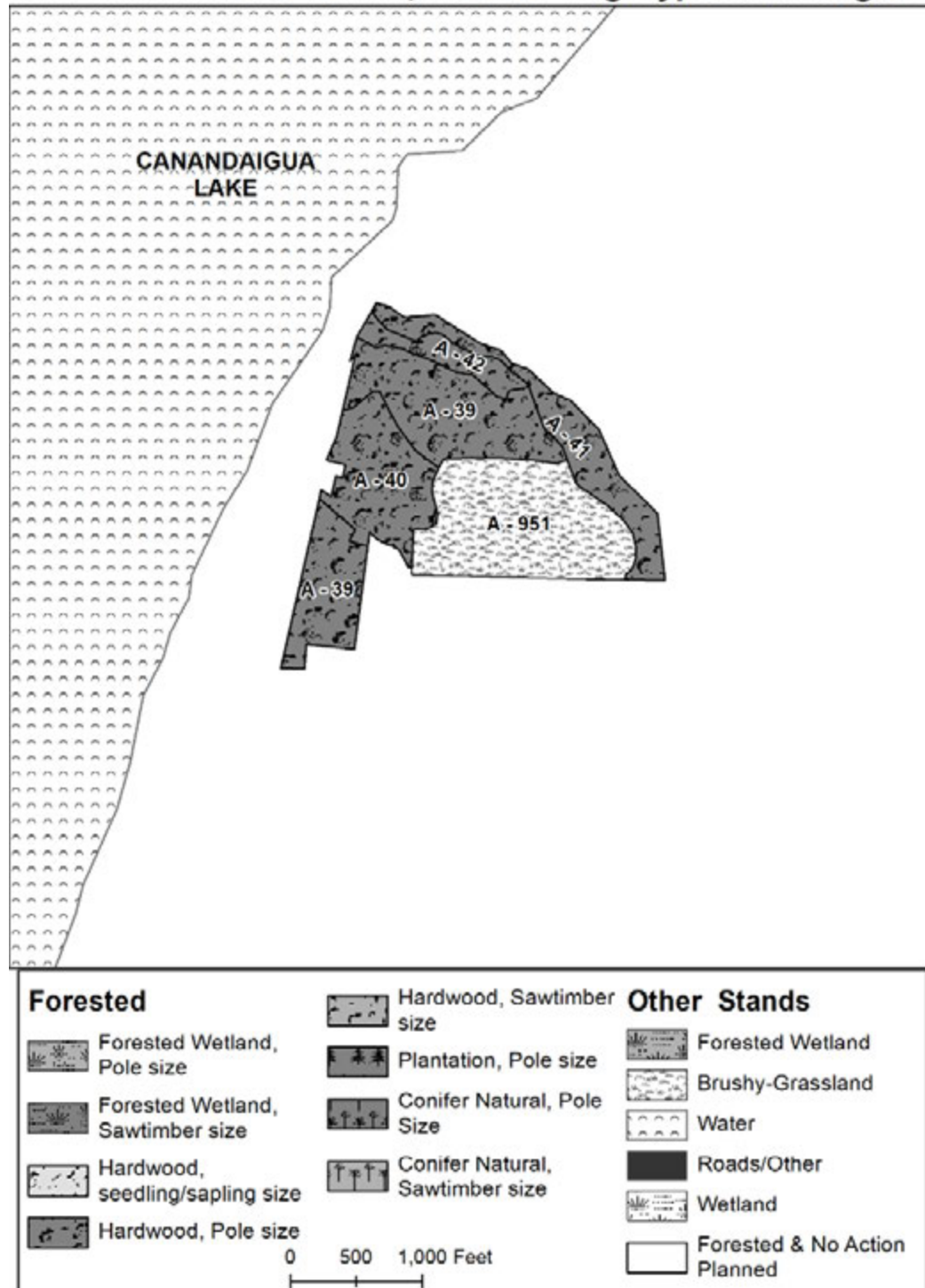
See Also: Timber and Vegetation (pg 51), Timber and Vegetation Management (pg 95), and Appendix F: Vegetation Management (pg 206). A stand is group of plants with similar characteristics that are analyzed and treated as a single unit. Each parcel is divided into one or more compartments, and each compartment divided into stands. Compartments are given a letter designation, and stands a number. This letter-number combination is used for tracking, mapping and planning the actions and activities that happen in and on NYS DEC owned land.

AVON REGIONAL OFFICE - Veg. Types and Stages



See Also: Timber and Vegetation (pg 51), Timber and Vegetation Management (pg 95), and Appendix F: Vegetation Management (pg 206). A stand is group of plants with similar characteristics that are analyzed and treated as a single unit. Each parcel is divided into one or more compartments, and each compartment divided into stands. Compartments are given a letter designation, and stands a number. This letter-number combination is used for tracking, mapping and planning the actions and activities that happen in and on NYS DEC owned land.

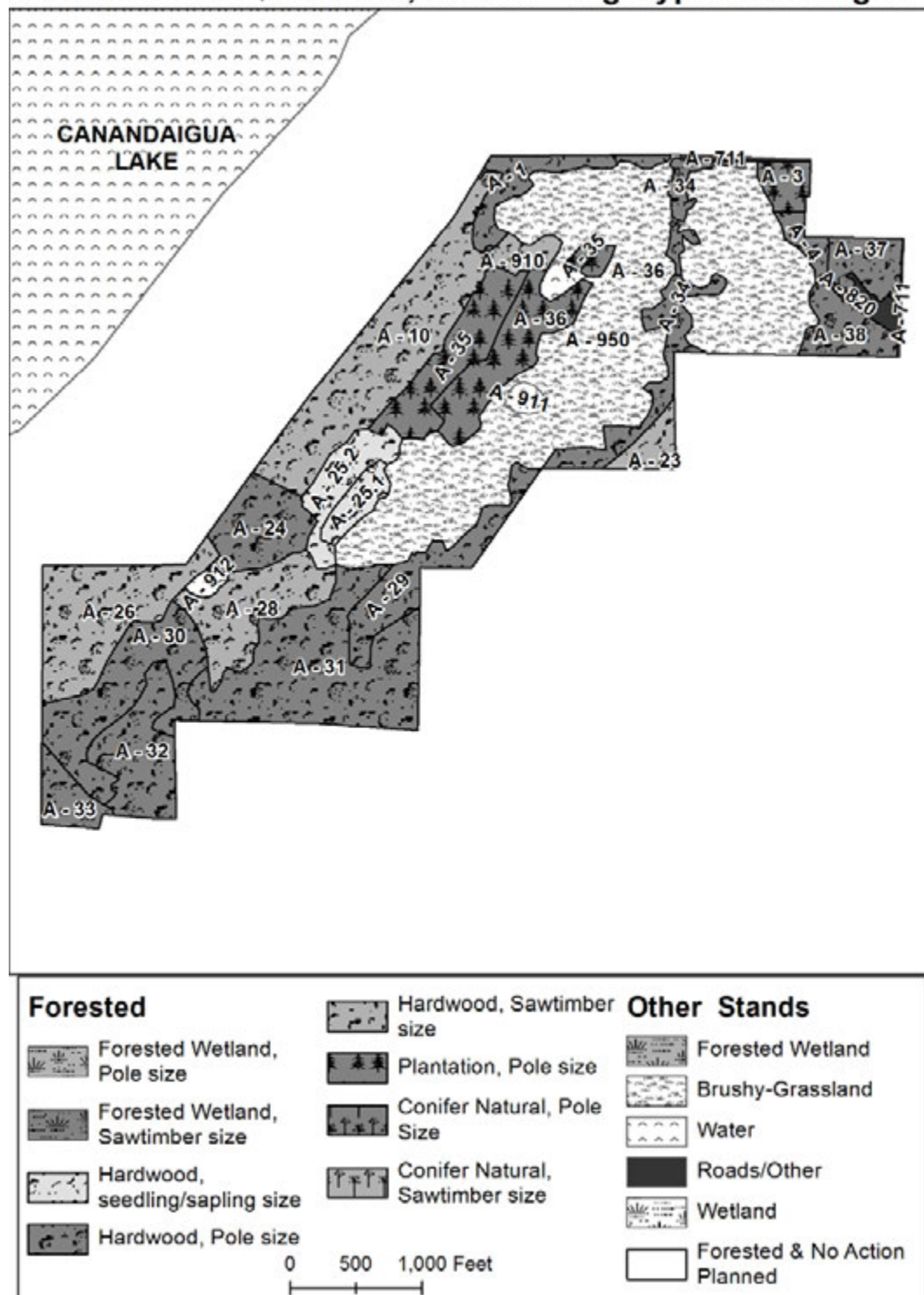
BARE HILL UNIQUE AREA, NORTH - Veg. Types and Stages



Appendices

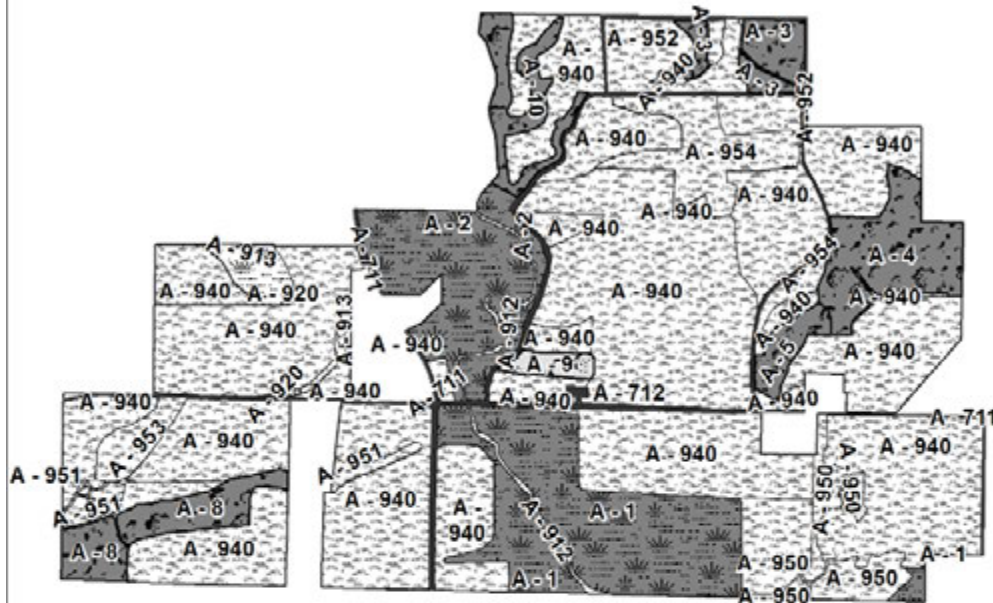
See Also: Timber and Vegetation (pg 51), Timber and Vegetation Management (pg 95), and Appendix F: Vegetation Management (pg 206). A stand is group of plants with similar characteristics that are analyzed and treated as a single unit. Each parcel is divided into one or more compartments, and each compartment divided into stands. Compartments are given a letter designation, and stands a number. This letter-number combination is used for tracking, mapping and planning the actions and activities that happen in and on NYS DEC owned land.

BARE HILL UNIQUE AREA, SOUTH - Veg. Types and Stages



See Also: Timber and Vegetation (pg 51), Timber and Vegetation Management (pg 95), and Appendix F: Vegetation Management (pg 206). A stand is group of plants with similar characteristics that are analyzed and treated as a single unit. Each parcel is divided into one or more compartments, and each compartment divided into stands. Compartments are given a letter designation, and stands a number. This letter-number combination is used for tracking, mapping and planning the actions and activities that happen in and on NYS DEC owned land.

HONEOYE CREEK WMA, NORTH - Veg. Types and Stages



Forested

- Forested Wetland, Pole size
- Forested Wetland, Sawtimber size
- Hardwood, seedling/sapling size
- Hardwood, Pole size

- Hardwood, Sawtimber size
- Plantation, Pole size
- Conifer Natural, Pole Size
- Conifer Natural, Sawtimber size

Other Stands

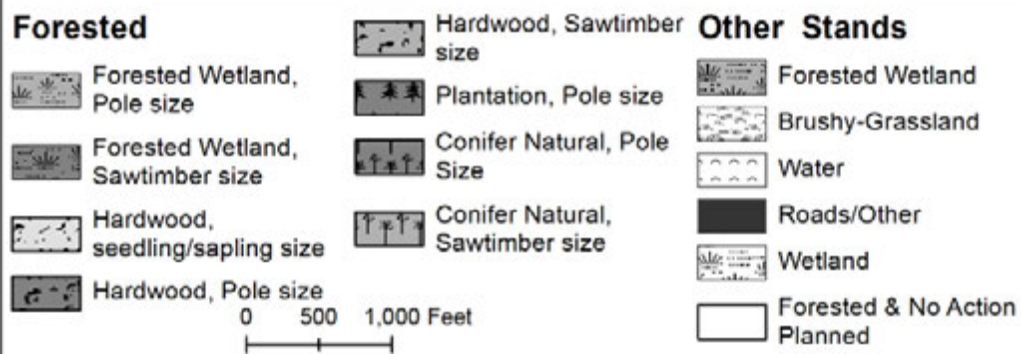
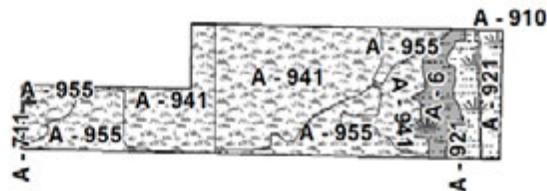
- Forested Wetland
- Brushy-Grassland
- Water
- Roads/Other
- Wetland
- Forested & No Action Planned

0 500 1,000 Feet

Appendicies

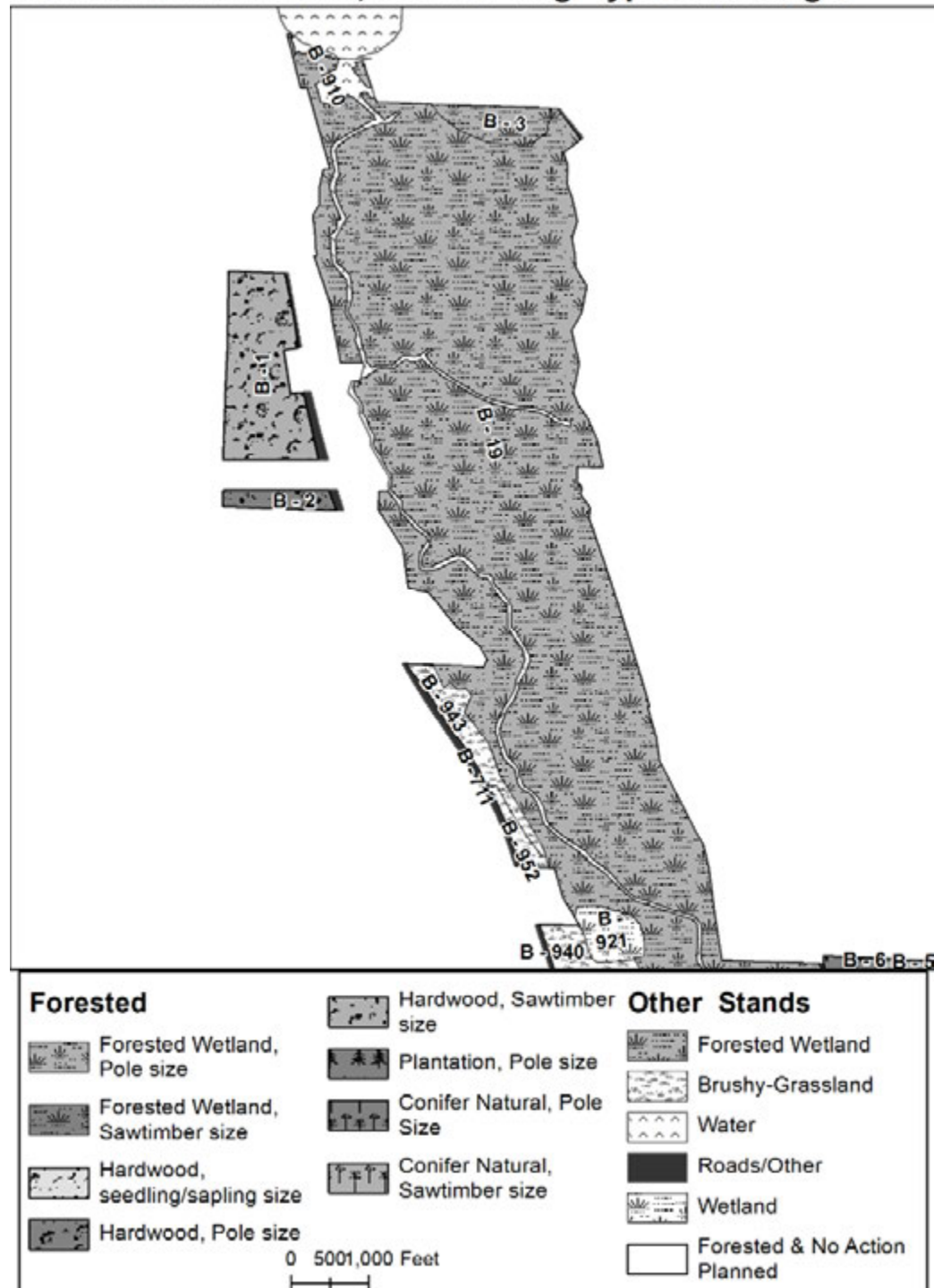
See Also: Timber and Vegetation (pg 51), Timber and Vegetation Management (pg 95), and Appendix F: Vegetation Management (pg 206). A stand is group of plants with similar characteristics that are analyzed and treated as a single unit. Each parcel is divided into one or more compartments, and each compartment divided into stands. Compartments are given a letter designation, and stands a number. This letter-number combination is used for tracking, mapping and planning the actions and activities that happen in and on NYS DEC owned land.

HONEOYE CREEK WMA, SOUTH - Veg. Types and Stages



See Also: Timber and Vegetation (pg 51), Timber and Vegetation Management (pg 95), and Appendix F: Vegetation Management (pg 206). A stand is group of plants with similar characteristics that are analyzed and treated as a single unit. Each parcel is divided into one or more compartments, and each compartment divided into stands. Compartments are given a letter designation, and stands a number. This letter-number combination is used for tracking, mapping and planning the actions and activities that happen in and on NYS DEC owned land.

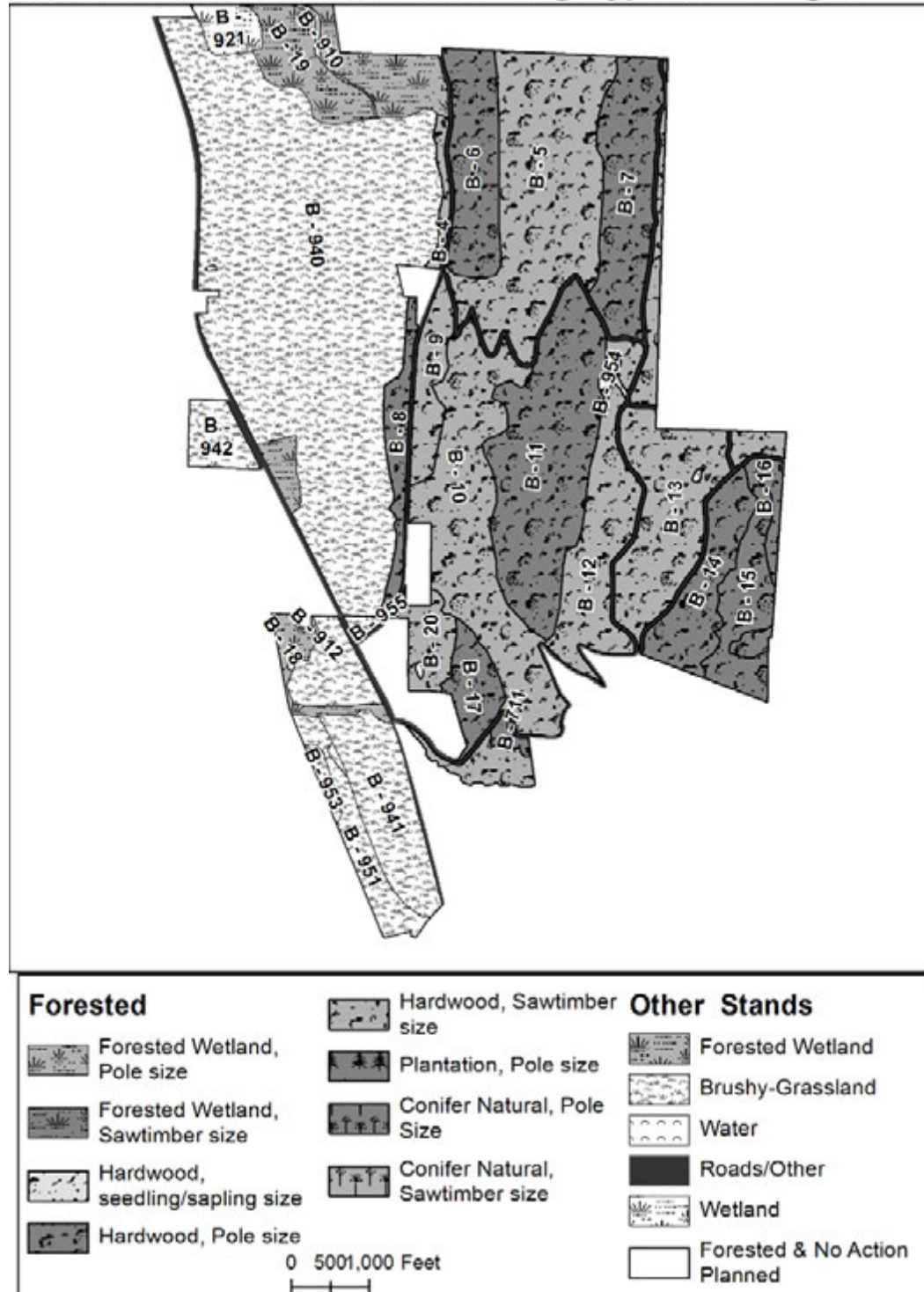
HONEOYE INLET WMA, NORTH - Veg. Types and Stages



Appendices

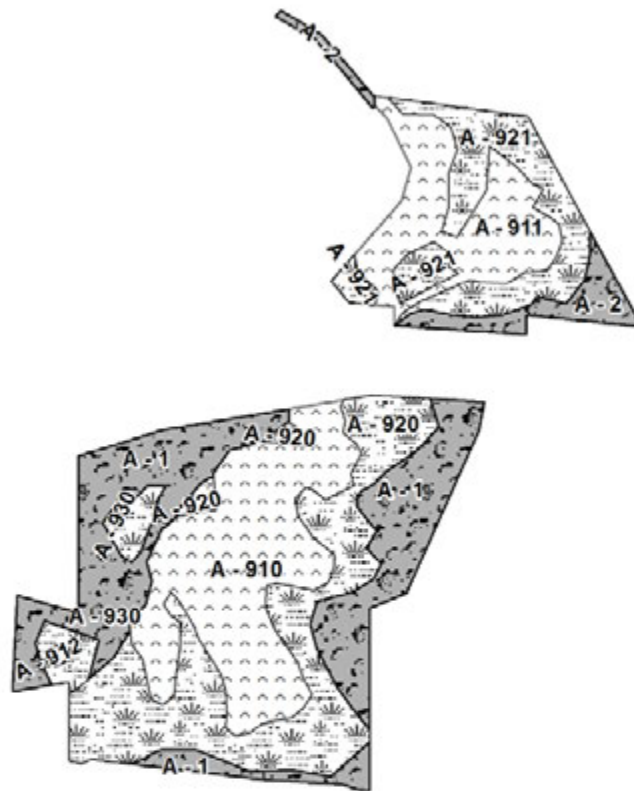
See Also: Timber and Vegetation (pg 51), Timber and Vegetation Management (pg 95), and Appendix F: Vegetation Management (pg 206). A stand is group of plants with similar characteristics that are analyzed and treated as a single unit. Each parcel is divided into one or more compartments, and each compartment divided into stands. Compartments are given a letter designation, and stands a number. This letter-number combination is used for tracking, mapping and planning the actions and activities that happen in and on NYS DEC owned land.

HONEOYE INLET WMA, SOUTH - Veg. Types and Stages



See Also: Timber and Vegetation (pg 51), Timber and Vegetation Management (pg 95), and Appendix F: Vegetation Management (pg 206). A stand is group of plants with similar characteristics that are analyzed and treated as a single unit. Each parcel is divided into one or more compartments, and each compartment divided into stands. Compartments are given a letter designation, and stands a number. This letter-number combination is used for tracking, mapping and planning the actions and activities that happen in and on NYS DEC owned land.

JUNIUS PONDS UNIQUE AREA - Veg. Types and Stages



Forested

- Forested Wetland, Pole size
- Forested Wetland, Sawtimber size
- Hardwood, seedling/sapling size
- Hardwood, Pole size

- Hardwood, Sawtimber size

- Plantation, Pole size
- Conifer Natural, Pole Size
- Conifer Natural, Sawtimber size

Other Stands

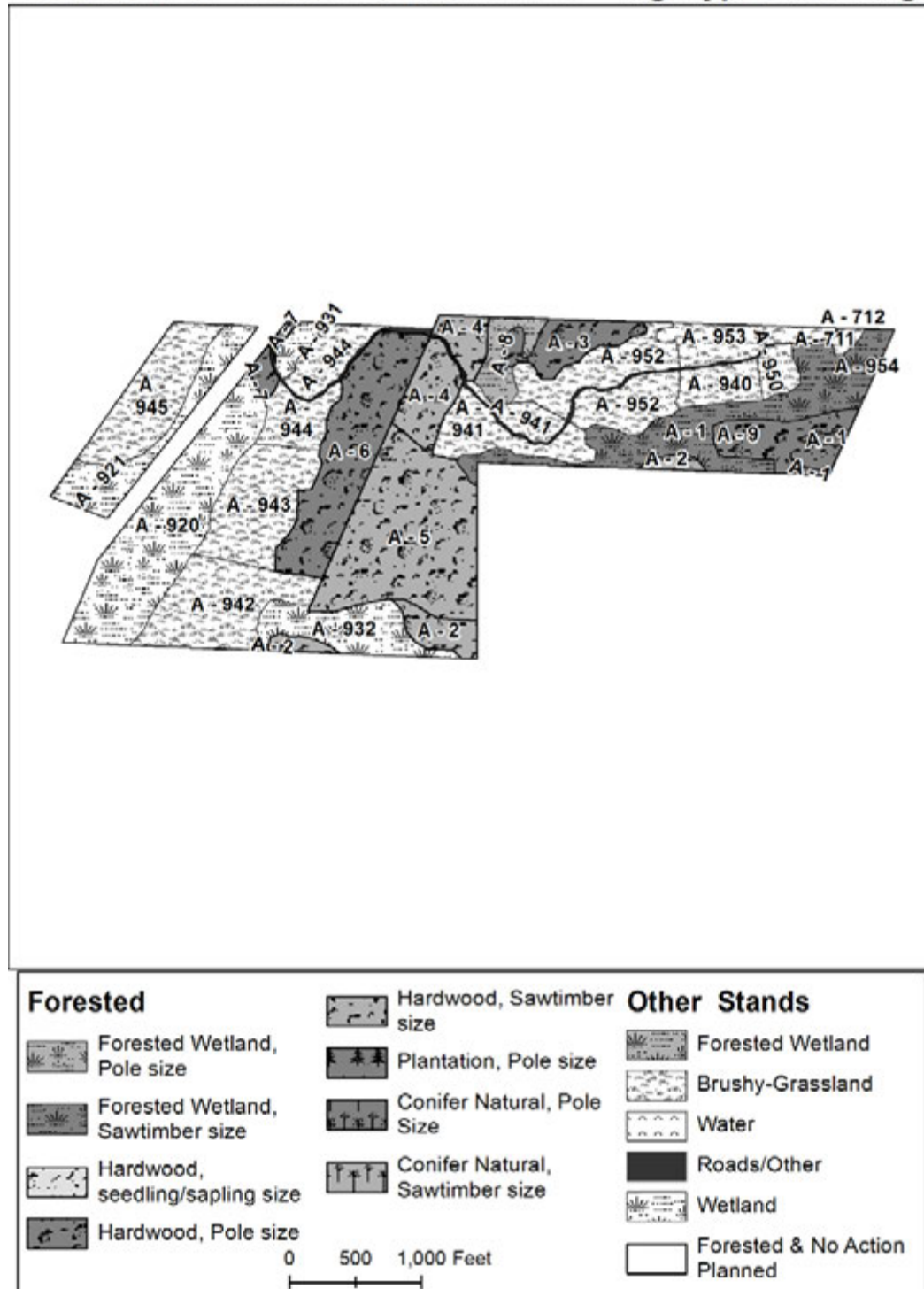
- Forested Wetland
- Brushy-Grassland
- Water
- Roads/Other
- Wetland
- Forested & No Action Planned

0 500 1,000 Feet

Appendices

See Also: Timber and Vegetation (pg 51), Timber and Vegetation Management (pg 95), and Appendix F: Vegetation Management (pg 206). A stand is group of plants with similar characteristics that are analyzed and treated as a single unit. Each parcel is divided into one or more compartments, and each compartment divided into stands. Compartments are given a letter designation, and stands a number. This letter-number combination is used for tracking, mapping and planning the actions and activities that happen in and on NYS DEC owned land.

RUSH OAK OPENINGS UNIQUE AREA - Veg. Types and Stages



See Also: Timber and Vegetation (pg 51), Timber and Vegetation Management (pg 95), and Appendix F: Vegetation Management (pg 206). A stand is group of plants with similar characteristics that are analyzed and treated as a single unit. Each parcel is divided into one or more compartments, and each compartment divided into stands. Compartments are given a letter designation, and stands a number. This letter-number combination is used for tracking, mapping and planning the actions and activities that happen in and on NYS DEC owned land.

STID HILL MUA, NORTH - Veg. Types and Stages



Forested

- Forested Wetland, Pole size
- Forested Wetland, Sawtimber size
- Hardwood, seedling/sapling size
- Hardwood, Pole size

0 500 1,000 Feet

- Hardwood, Sawtimber size

- Plantation, Pole size

- Conifer Natural, Pole Size

- Conifer Natural, Sawtimber size

Other Stands

- Forested Wetland

- Brushy-Grassland

- Water

- Roads/Other

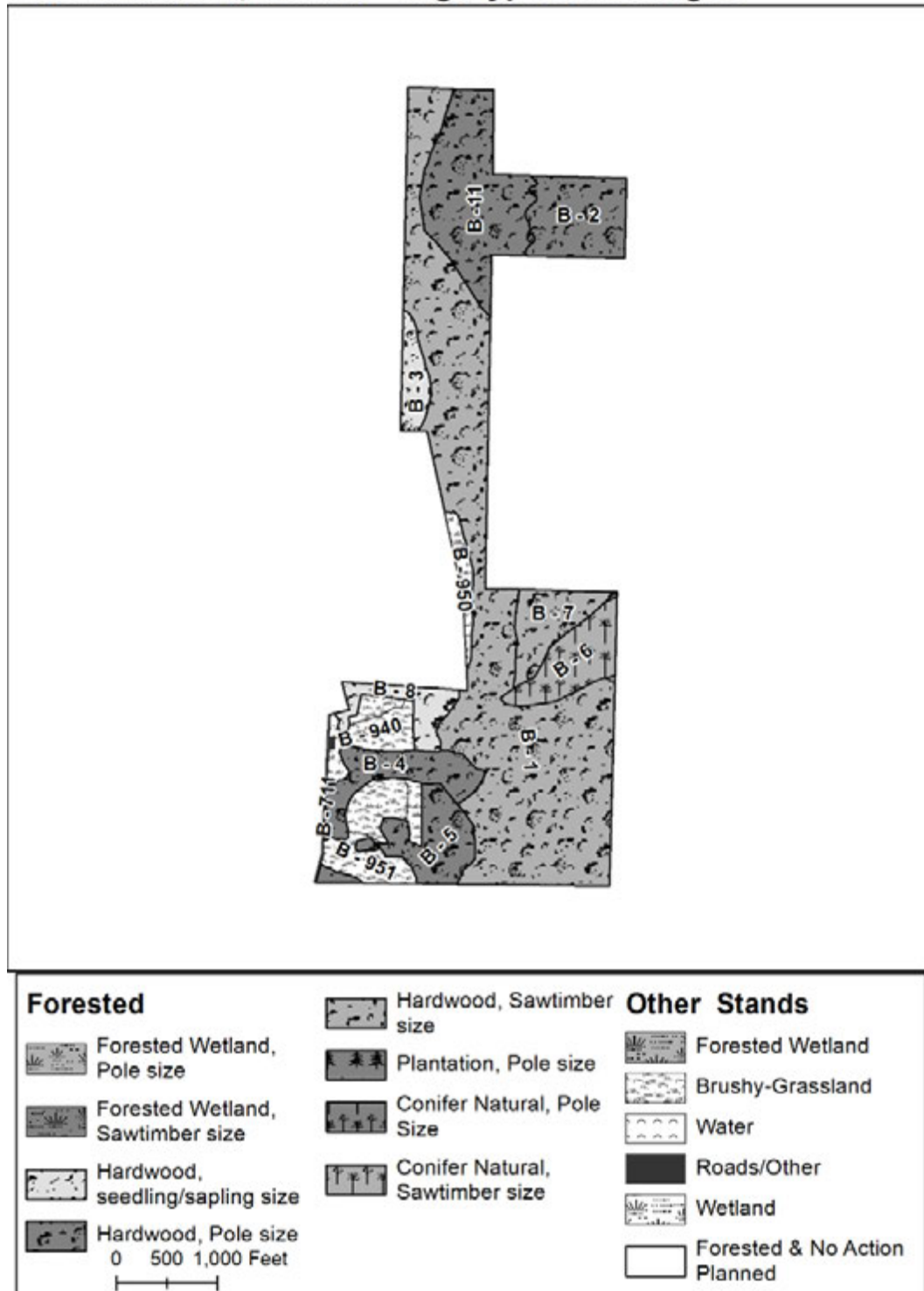
- Wetland

- Forested & No Action Planned

Appendices

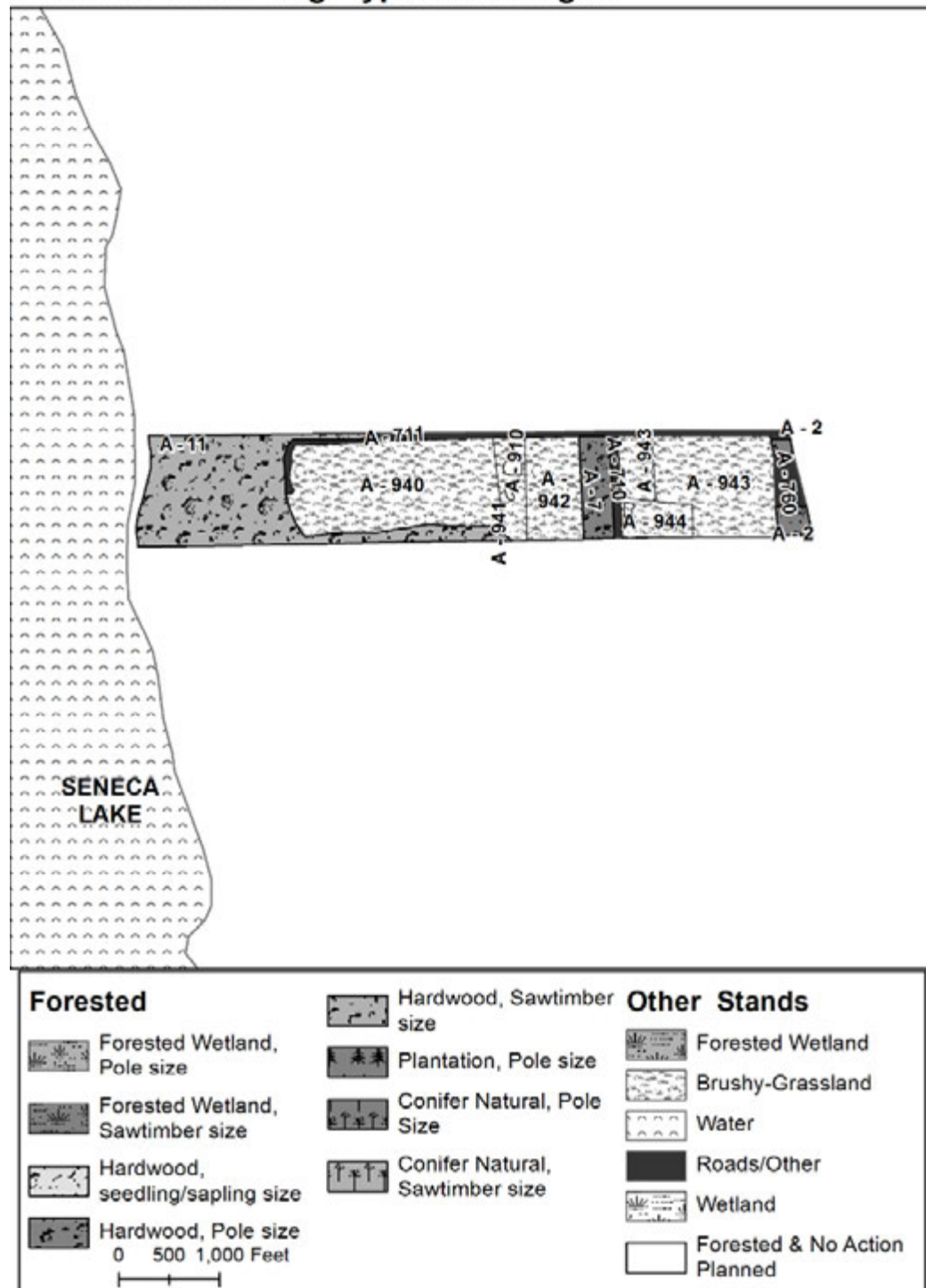
See Also: Timber and Vegetation (pg 51), Timber and Vegetation Management (pg 95), and Appendix F: Vegetation Management (pg 206). A stand is group of plants with similar characteristics that are analyzed and treated as a single unit. Each parcel is divided into one or more compartments, and each compartment divided into stands. Compartments are given a letter designation, and stands a number. This letter-number combination is used for tracking, mapping and planning the actions and activities that happen in and on NYS DEC owned land.

STID HILL MUA, SOUTH - Veg. Types and Stages



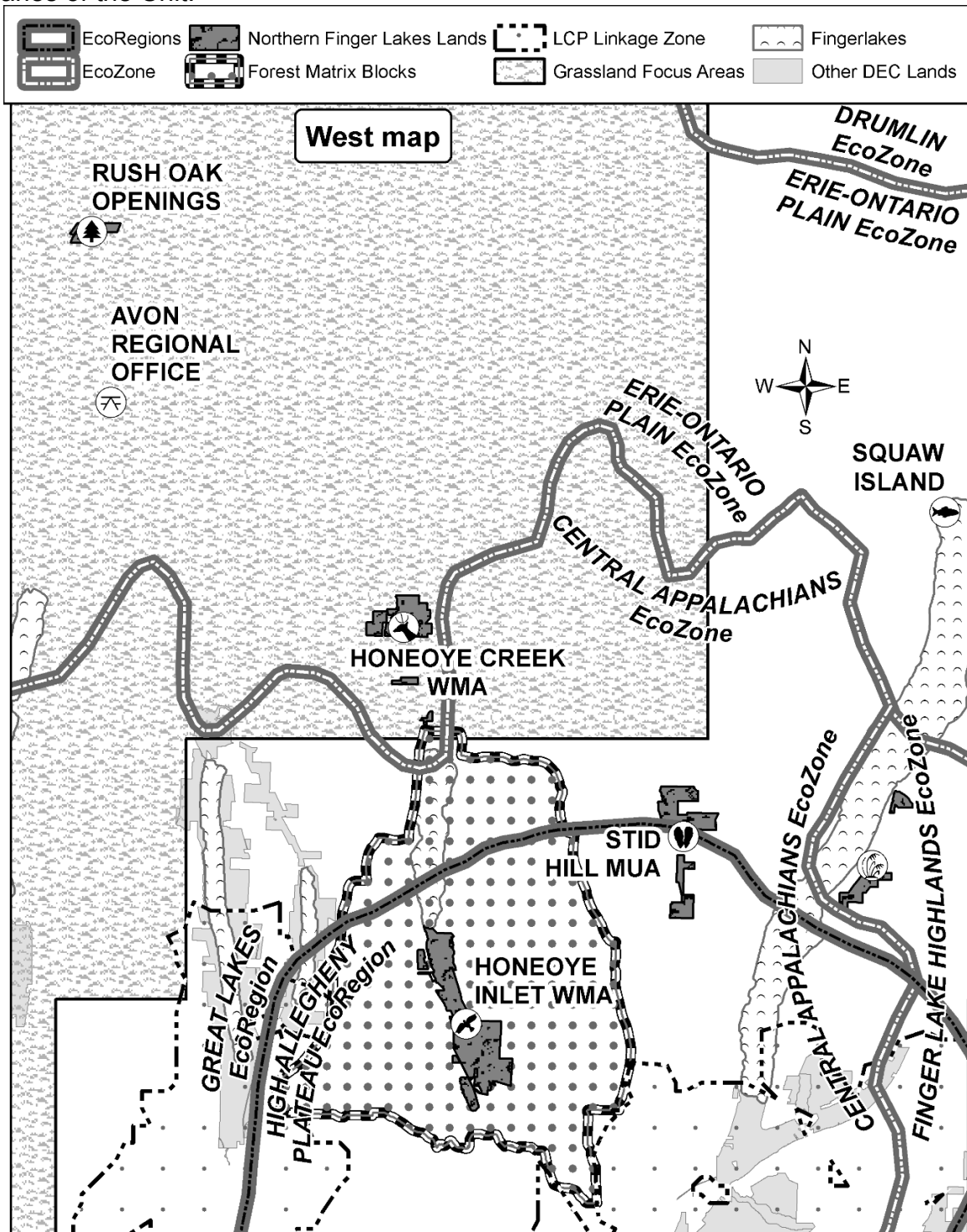
See Also: Timber and Vegetation (pg 51), Timber and Vegetation Management (pg 95), and Appendix F: Vegetation Management (pg 206). A stand is group of plants with similar characteristics that are analyzed and treated as a single unit. Each parcel is divided into one or more compartments, and each compartment divided into stands. Compartments are given a letter designation, and stands a number. This letter-number combination is used for tracking, mapping and planning the actions and activities that happen in and on NYS DEC owned land.

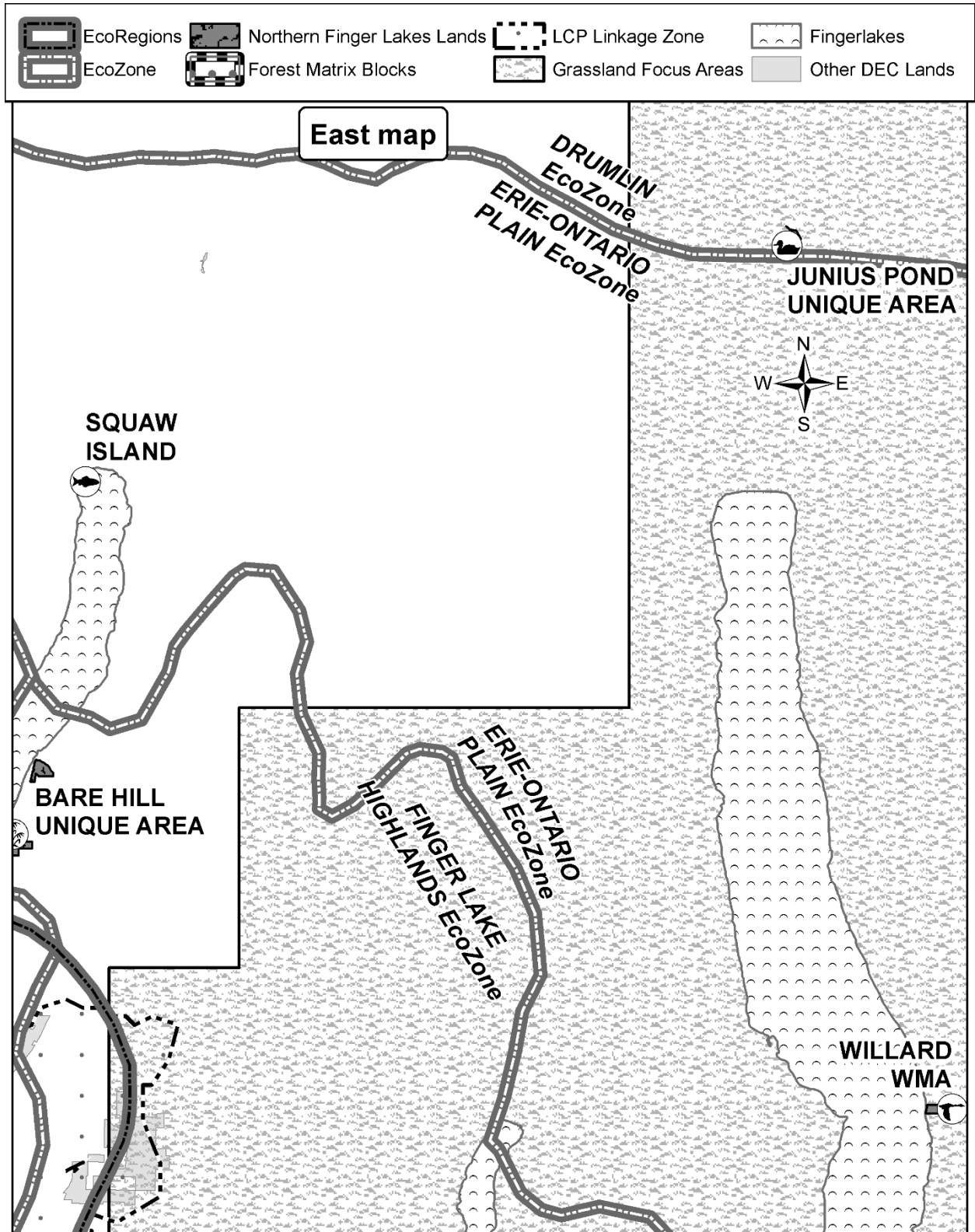
WILLARD WMA - Veg. Types and Stages



Ecoregions, Forest Matrix Block and Least Cost Path Corridors, Grassland Focus Areas

For additional information see the Timber and Vegetation (pg 51), Forest Matrix Blocks and Least Cost Path Corridors (pg 60), Significant Plants and Communities (pg 56) and Grassland Focus Areas (pg 58) sections. In addition, this plan does not, and cannot, cover any actions or activities on private land within the Forest Matrix Block but outside the boundaries of the Unit.

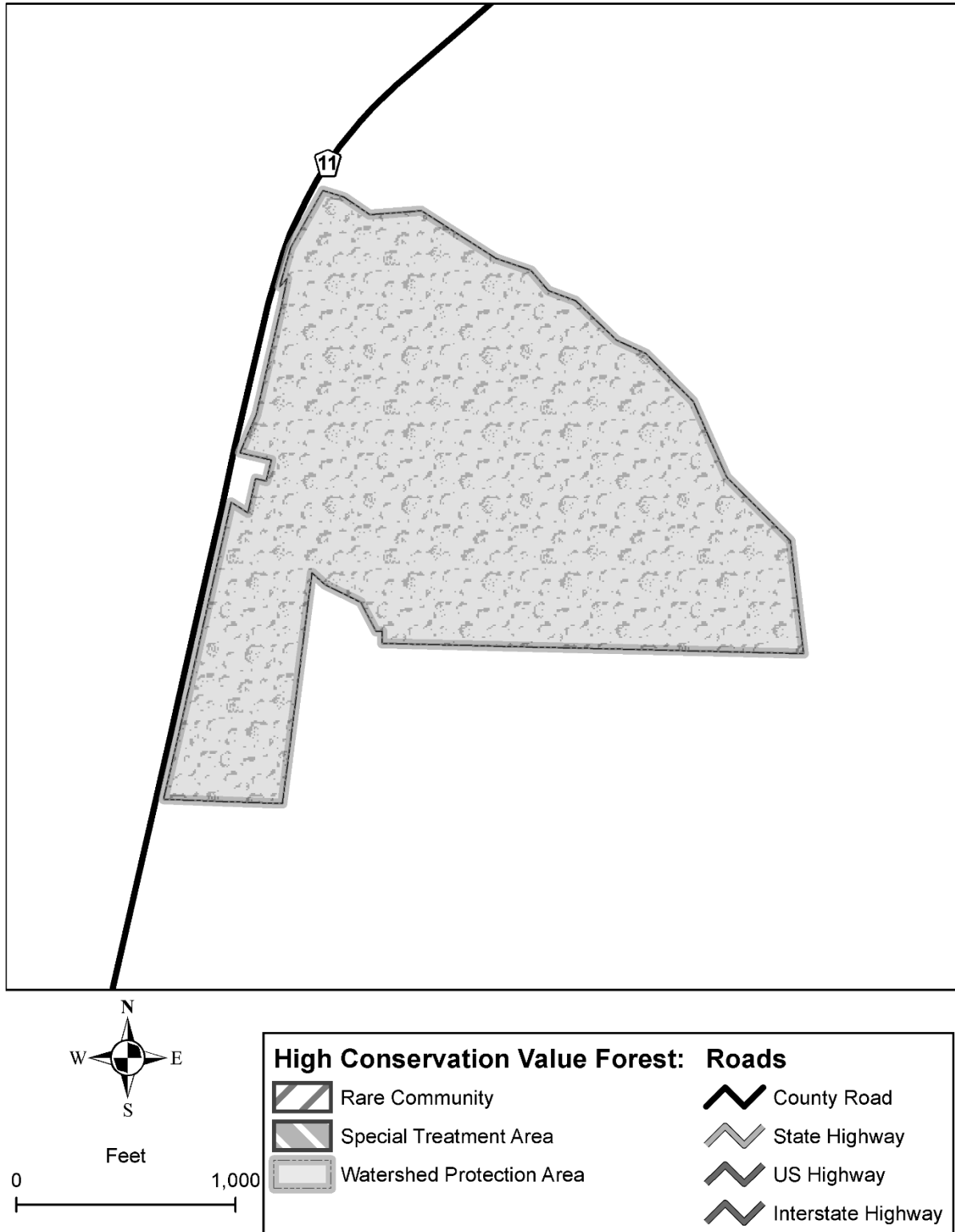




High Conservation Value Forests

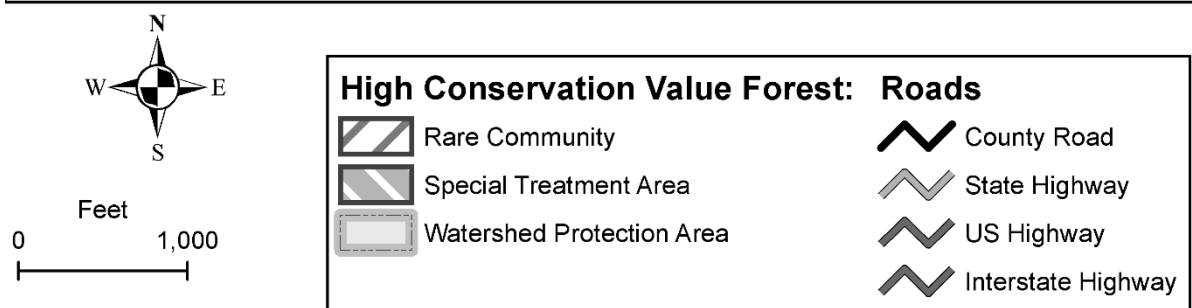
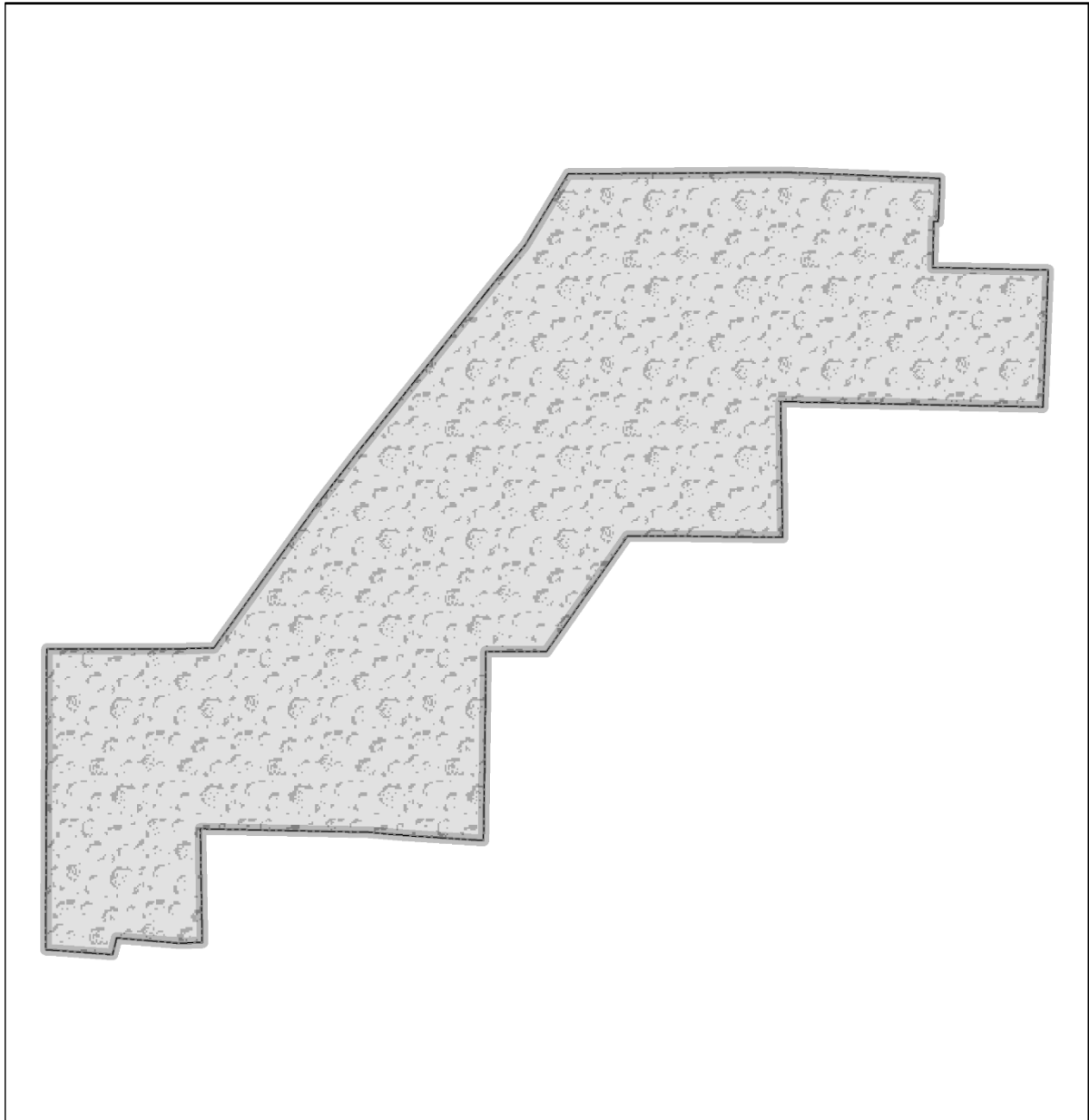
For additional information see the High Conservation Value Forest (HCVF) section on page 55.

BARE HILL UNIQUE AREA, NORTH



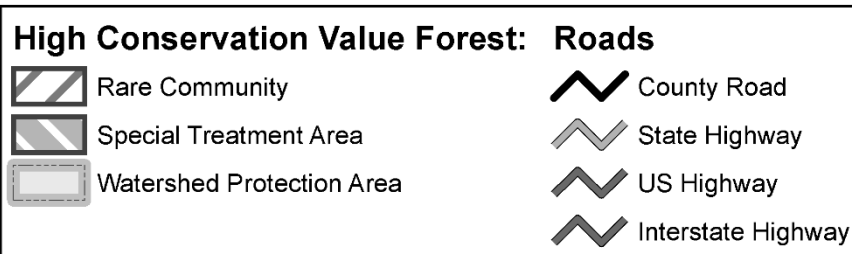
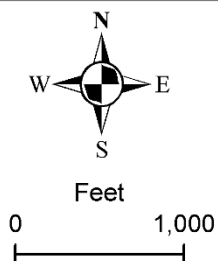
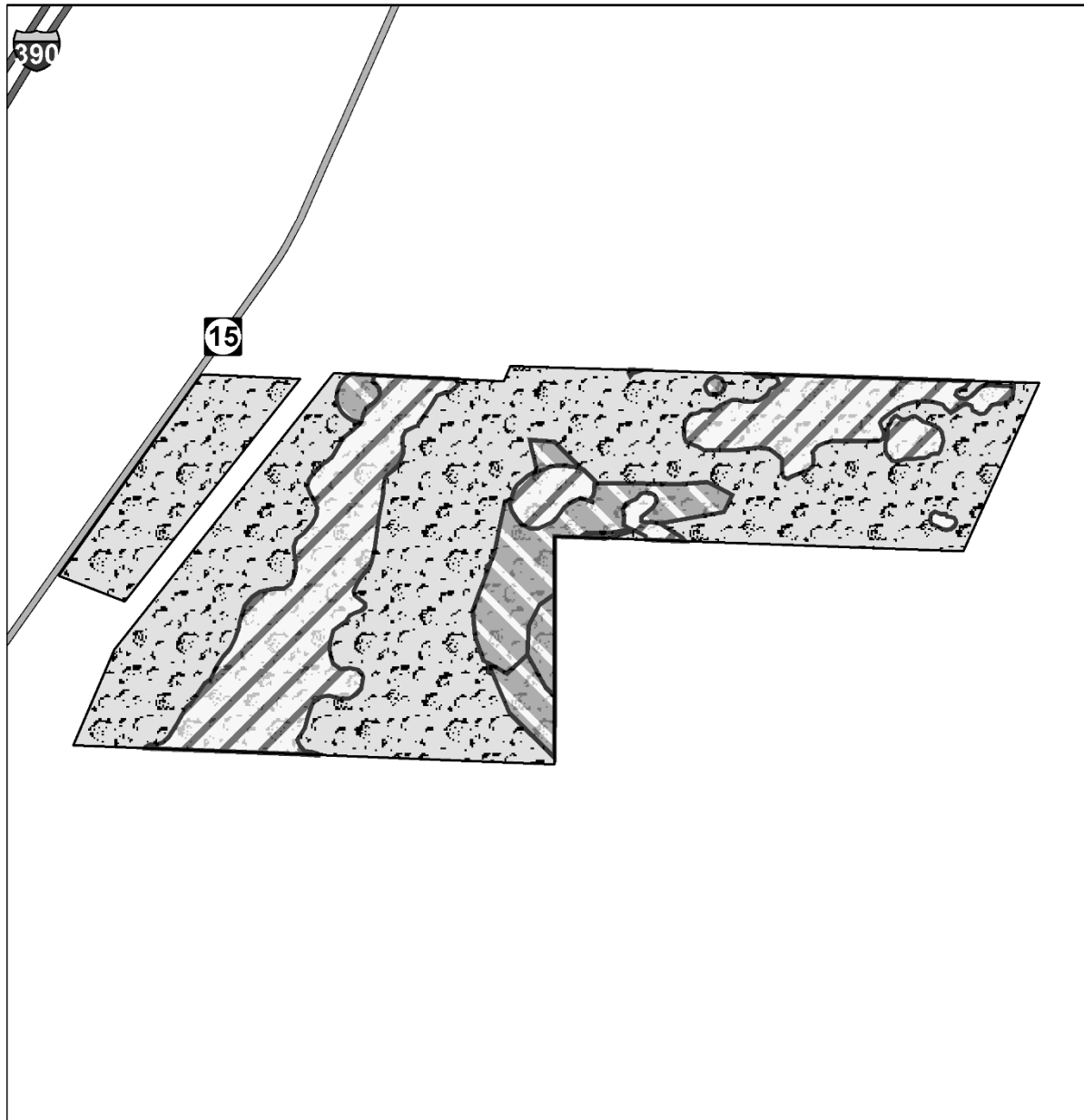
For additional information see the High Conservation Value Forest (HCVF) section on page 55

BARE HILL UNIQUE AREA, SOUTH



For additional information see the High Conservation Value Forest (HCVF) section on page 55

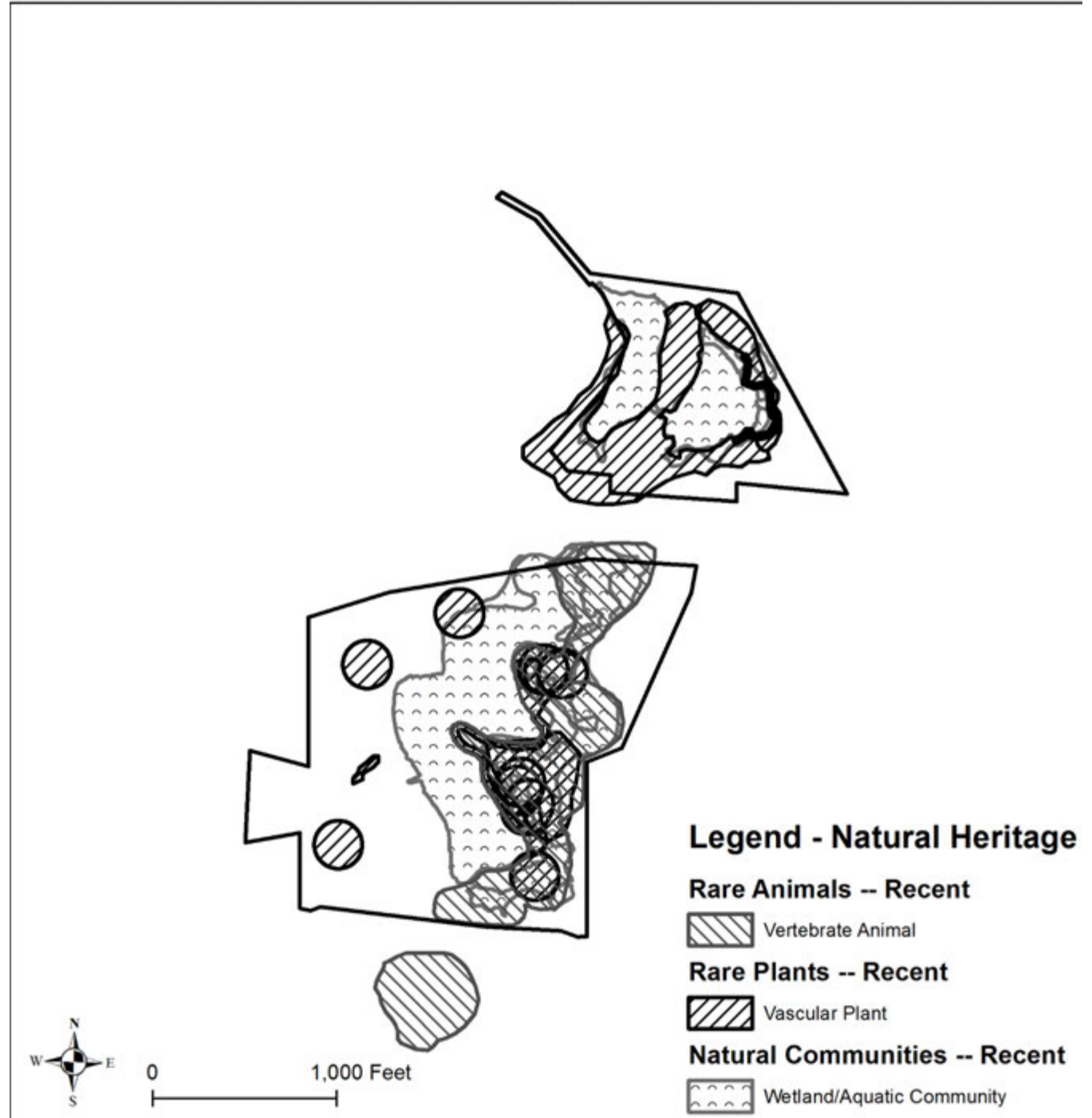
RUSH OAK OPENINGS UNIQUE AREA



Natural Heritage

See also: Significant Plants and Communities (pg 56), Threatened, Endangered or Special Concern Species (pg 65), and Fish and Wildlife Habitat Management (pg 120).

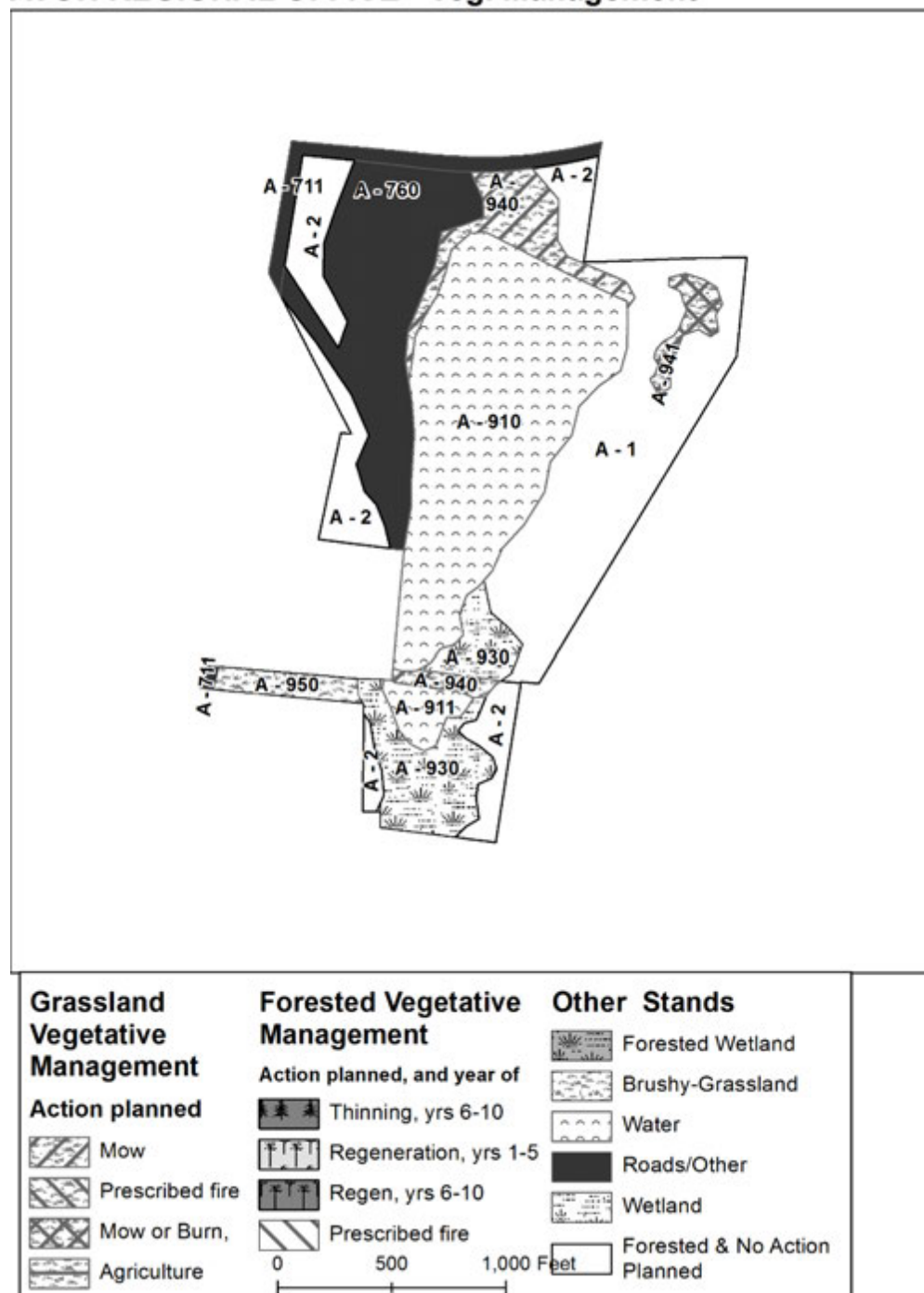
Junius Ponds UA - Natural Heritage Rare Plants & Animals



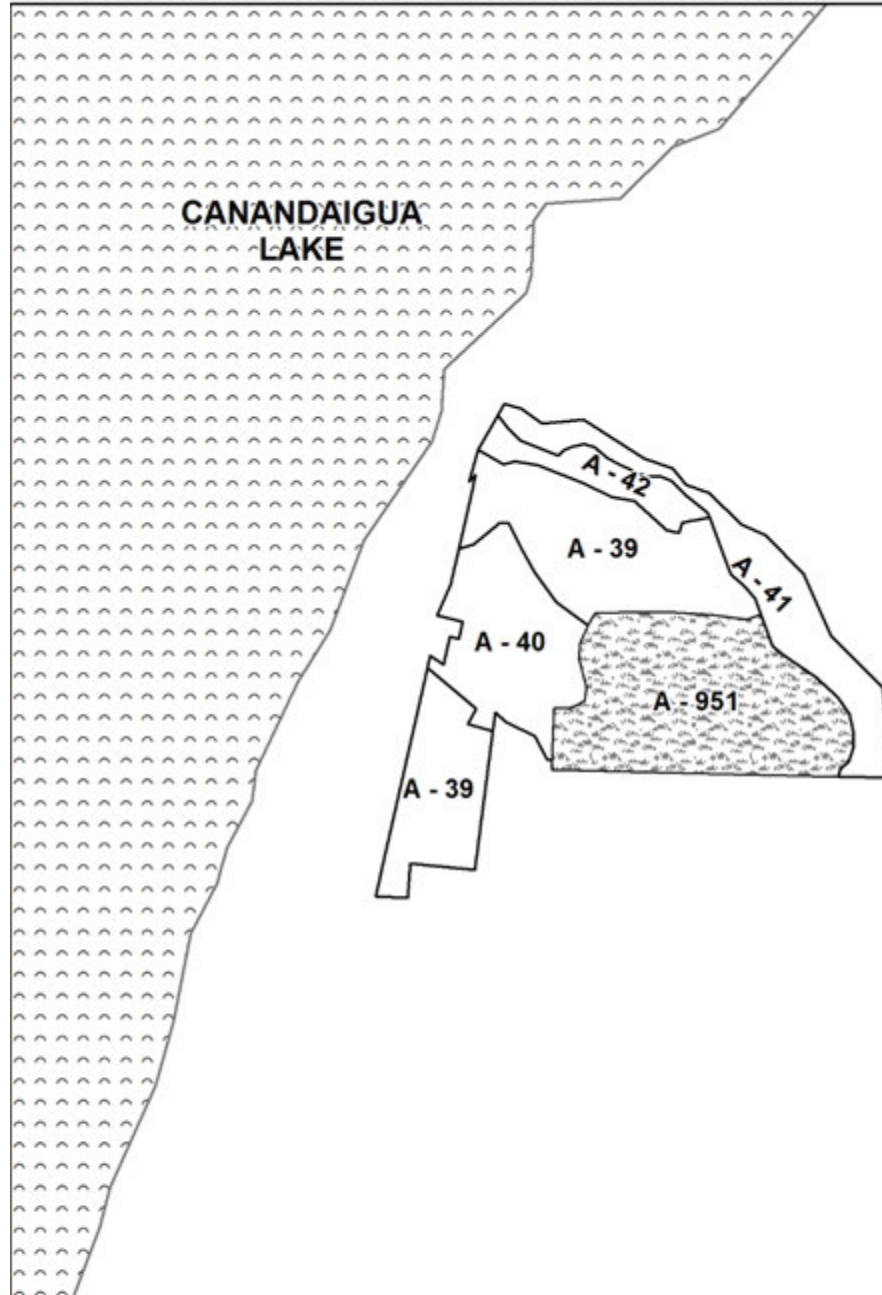
Vegetative Management

See Also: Timber and Vegetation (pg 51), Timber and Vegetation Management (pg 95), and Appendix F: Vegetation Management (pg 206). A stand is group of plants with similar characteristics that are analyzed and treated as a single unit. Each parcel is divided into one or more compartments, and each compartment divided into stands. Compartments are given a letter designation, and stands a number. This letter-number combination is used for tracking, mapping and planning the actions and activities that happen in and on NYS DEC owned land.

AVON REGIONAL OFFICE - Veg. Management



BARE HILL UNIQUE AREA, NORTH - Veg. Management



Grassland Vegetative Management

Action planned

- Mow
- Prescribed fire
- Mow or Burn,
- Agriculture

Forested Vegetative Management

Action planned, and year of

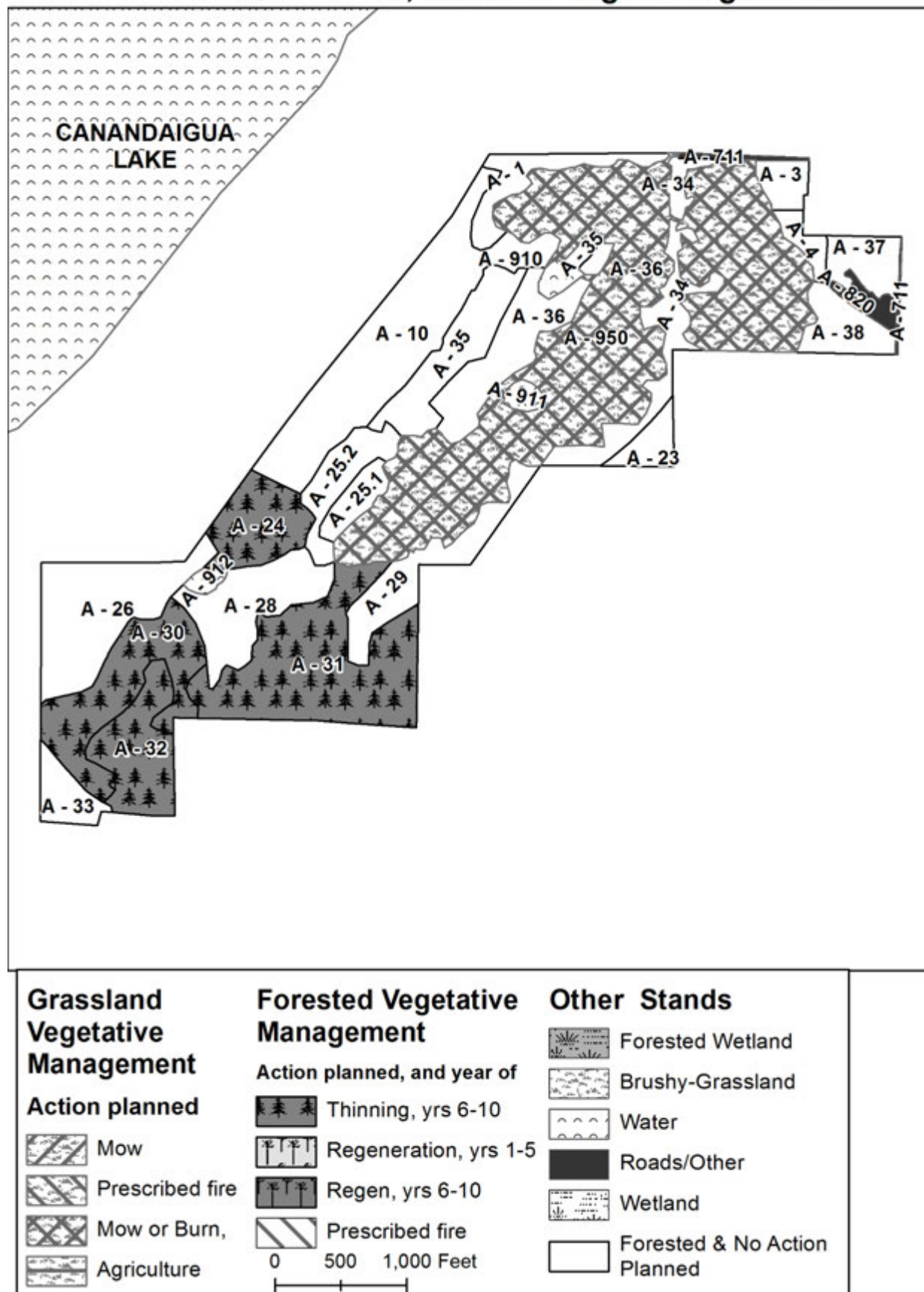
- Thinning, yrs 6-10
- Regeneration, yrs 1-5
- Regen, yrs 6-10
- Prescribed fire

0 500 1,000 Feet

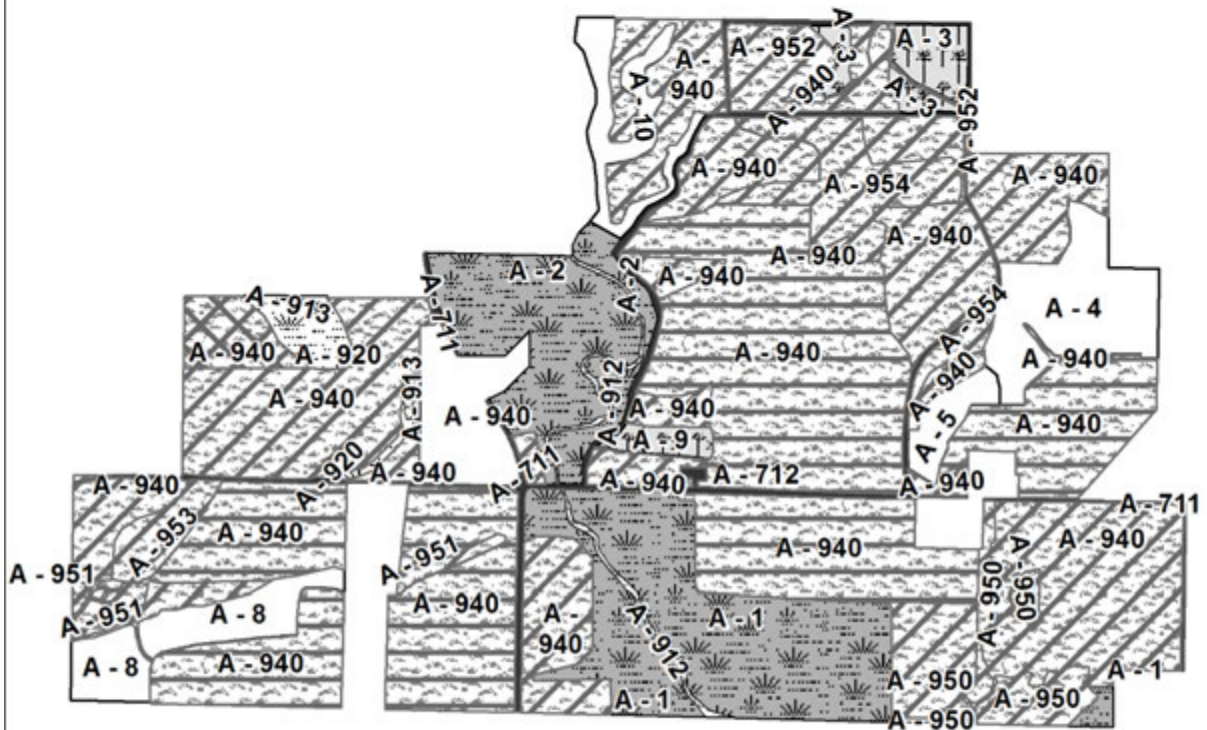
Other Stands

- Forested Wetland
- Brushy-Grassland
- Water
- Roads/Other
- Wetland
- Forested & No Action Planned

BARE HILL UNIQUE AREA, SOUTH - Veg. Management



HONEOYE CREEK WMA, NORTH - Veg. Management







Grassland Vegetative Management

Action planned

-  Mow
-  Prescribed fire
-  Mow or Burn,
-  Agriculture

Forested Vegetative Management

Action planned, and year of

-  Thinning, yrs 6-10
-  Regeneration, yrs 1-5
-  Regen, yrs 6-10
-  Prescribed fire

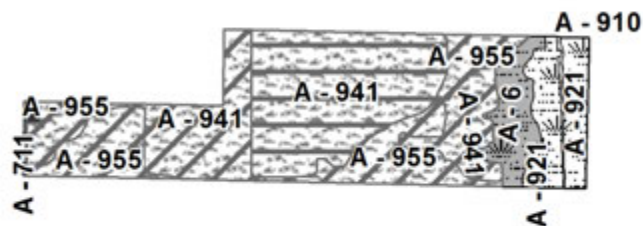
0 500 1,000 Feet



Other Stands

-  Forested Wetland
-  Brushy-Grassland
-  Water
-  Roads/Other
-  Wetland
-  Forested & No Action Planned

HONEOYE CREEK WMA, SOUTH - Veg. Management






Grassland Vegetative Management

Action planned

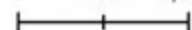
-  Mow
-  Prescribed fire
-  Mow or Burn,
-  Agriculture

Forested Vegetative Management

Action planned, and year of

-  Thinning, yrs 6-10
-  Regeneration, yrs 1-5
-  Regen, yrs 6-10
-  Prescribed fire

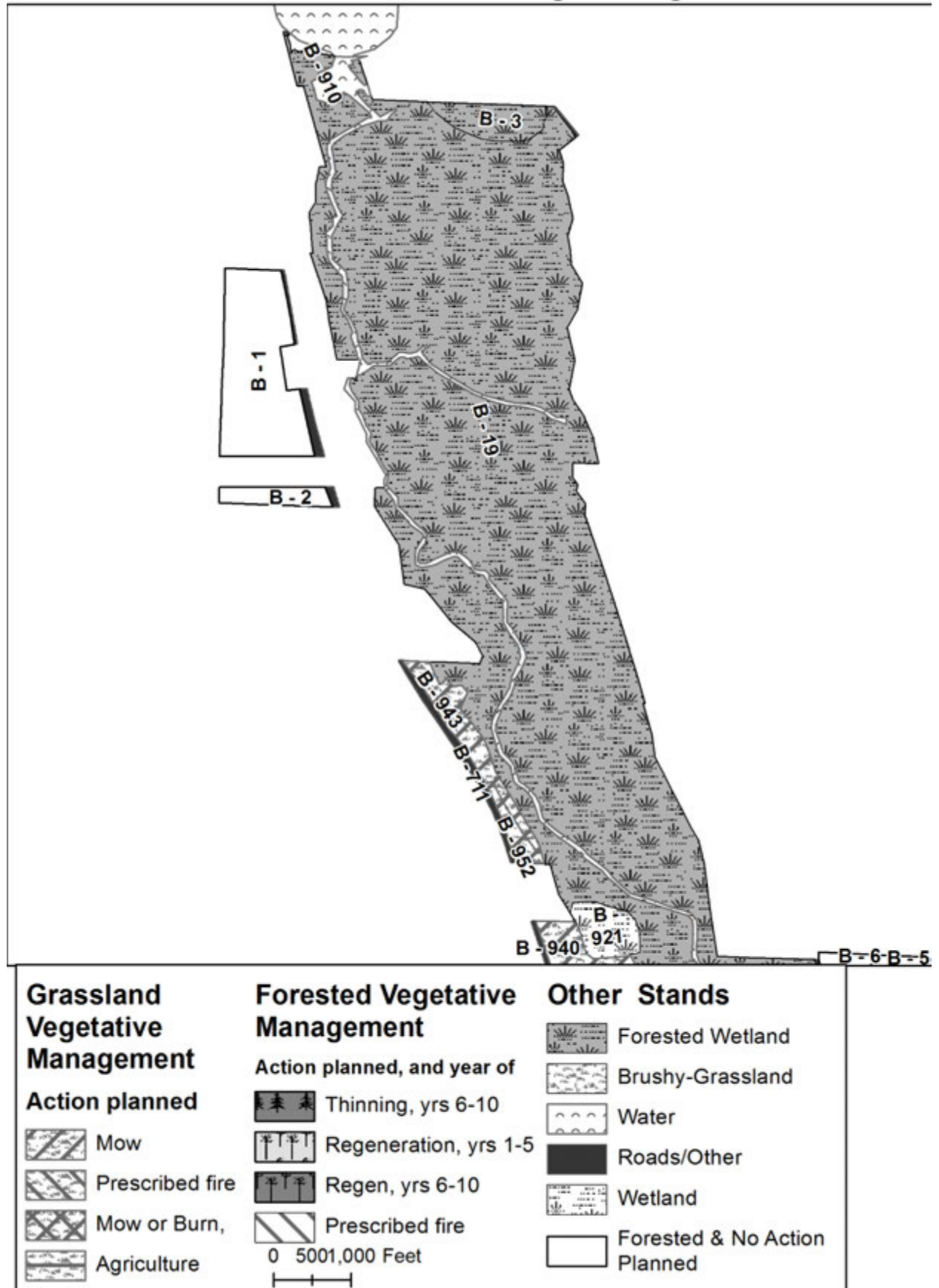
0 500 1,000 Feet



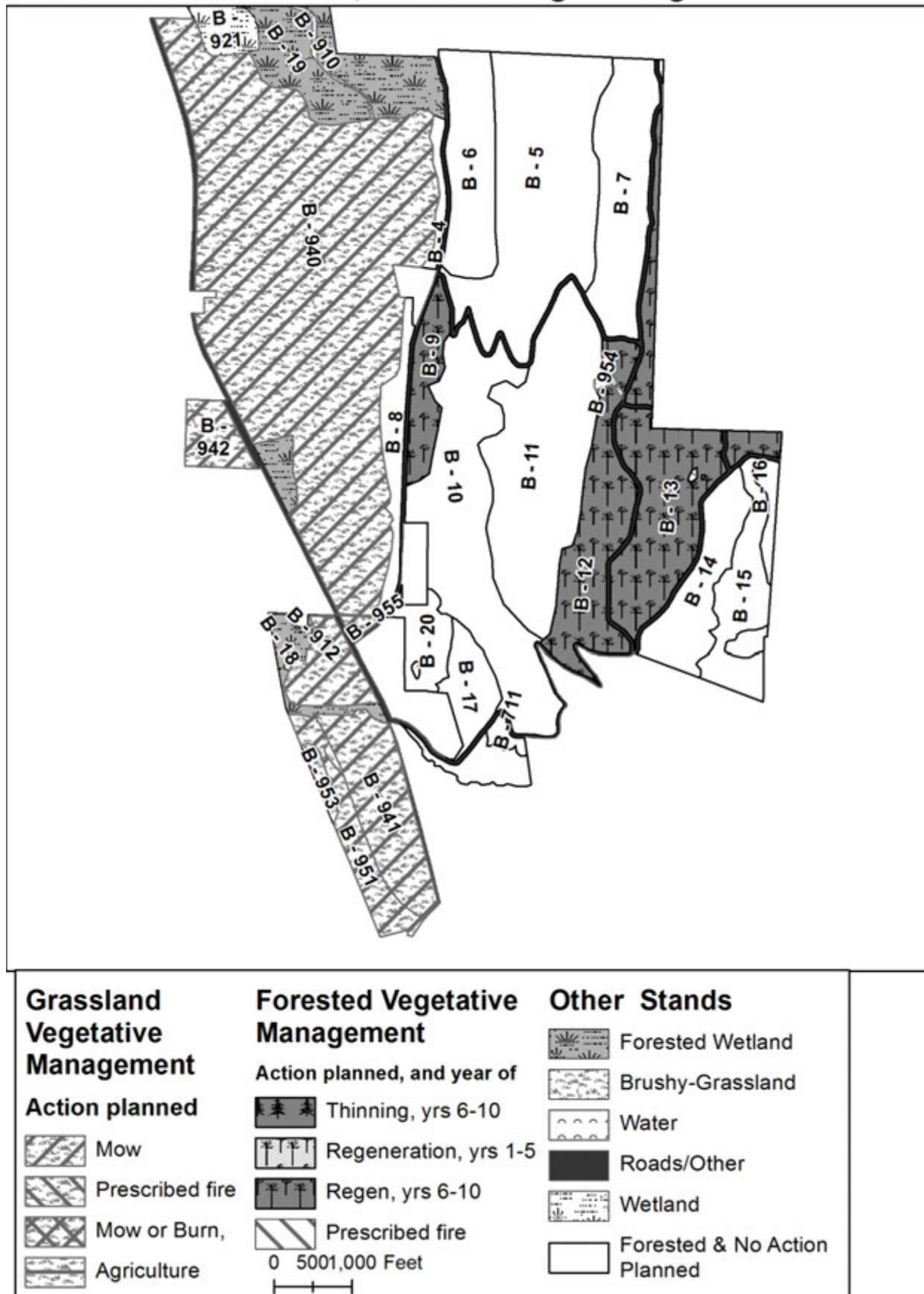
Other Stands

-  Forested Wetland
-  Brushy-Grassland
-  Water
-  Roads/Other
-  Wetland
-  Forested & No Action Planned

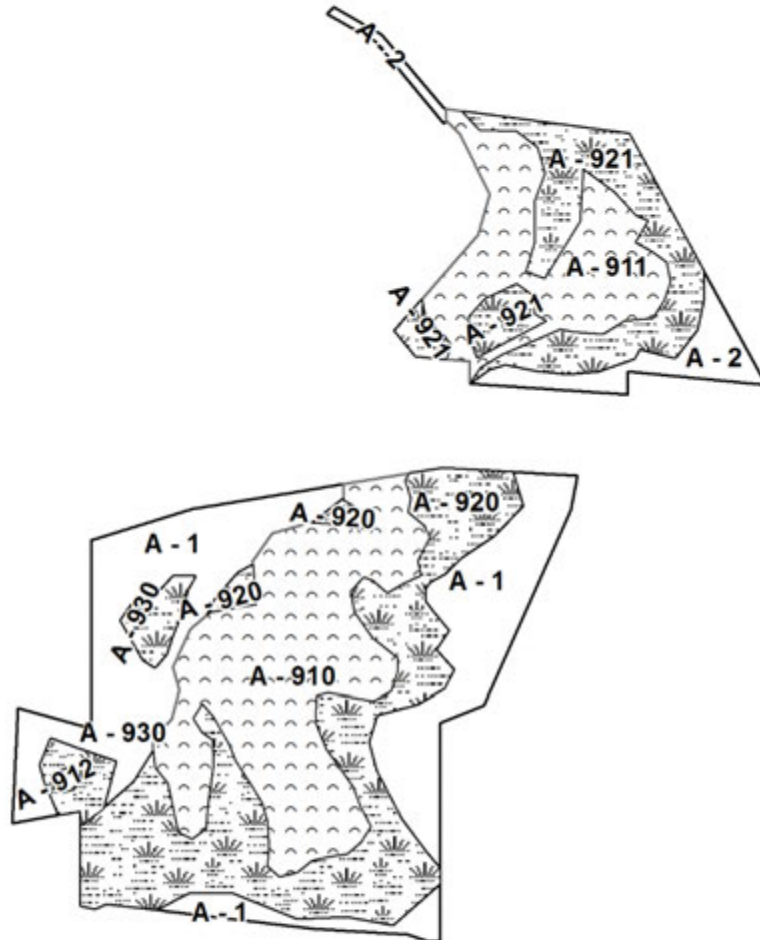
HONEOYE INLET WMA, NORTH - Veg. Management



HONEOYE INLET WMA, SOUTH - Veg. Management



JUNIUS PONDS UNIQUE AREA - Veg. Management



Grassland Vegetative Management

Action planned

- Mow
- Prescribed fire
- Mow or Burn,
- Agriculture

Forested Vegetative Management

Action planned, and year of

- Thinning, yrs 6-10
- Regeneration, yrs 1-5
- Regen, yrs 6-10
- Prescribed fire

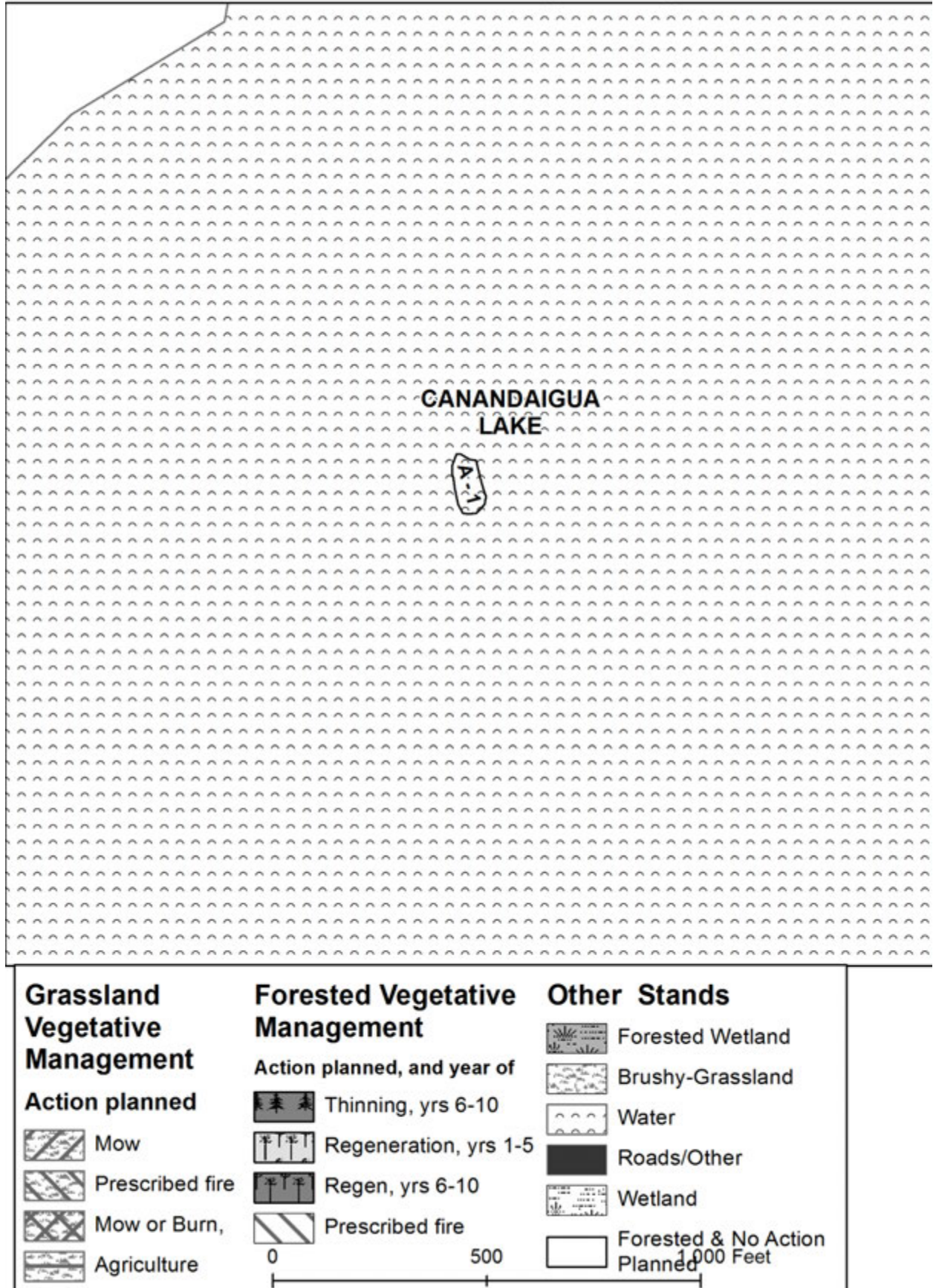
0 500 1,000 Feet

Other Stands

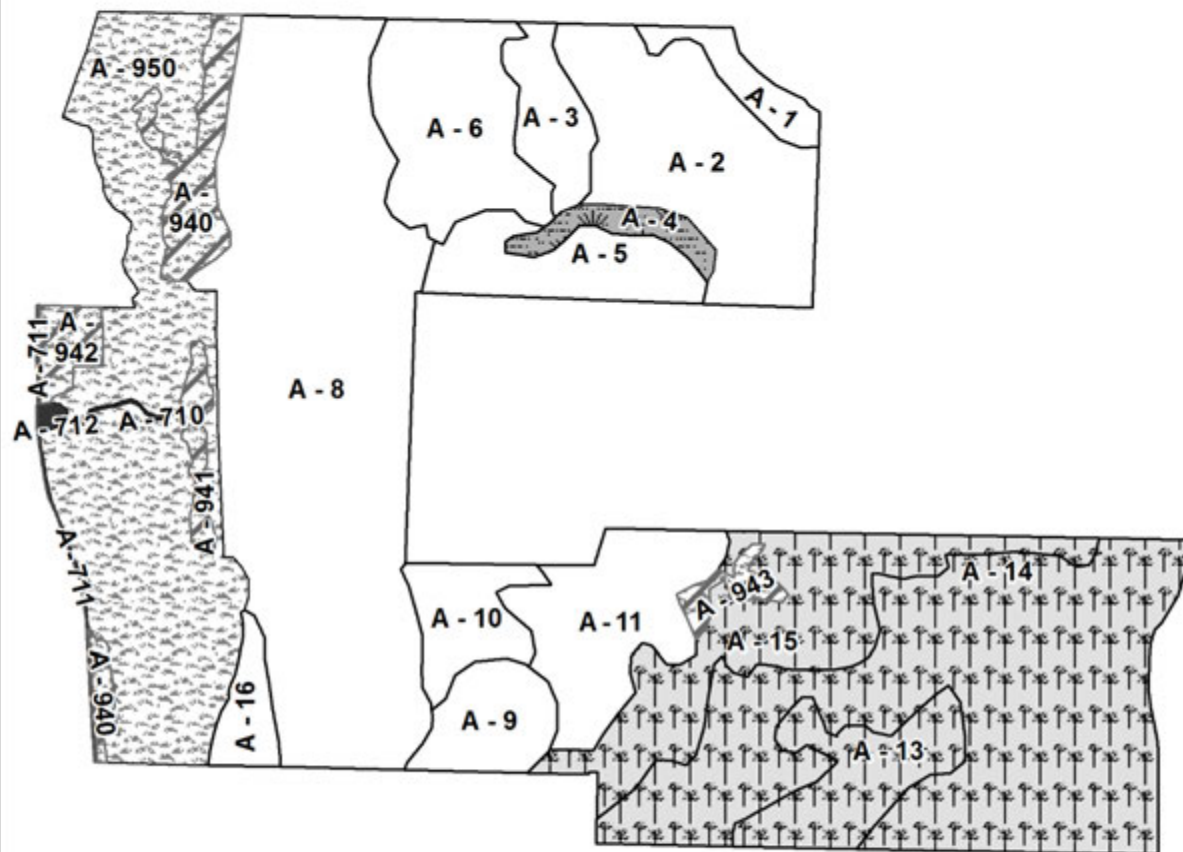
- Forested Wetland
- Brushy-Grassland
- Water
- Roads/Other
- Wetland
- Forested & No Action Planned



SQUAW ISLAND UNIQUE AREA - Veg. Management



STID HILL MUA, NORTH - Veg. Management



Grassland Vegetative Management

Action planned

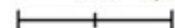
- Mow
- Prescribed fire
- Mow or Burn,
- Agriculture

Forested Vegetative Management

Action planned, and year of

- Thinning, yrs 6-10
- Regeneration, yrs 1-5
- Regen, yrs 6-10
- Prescribed fire

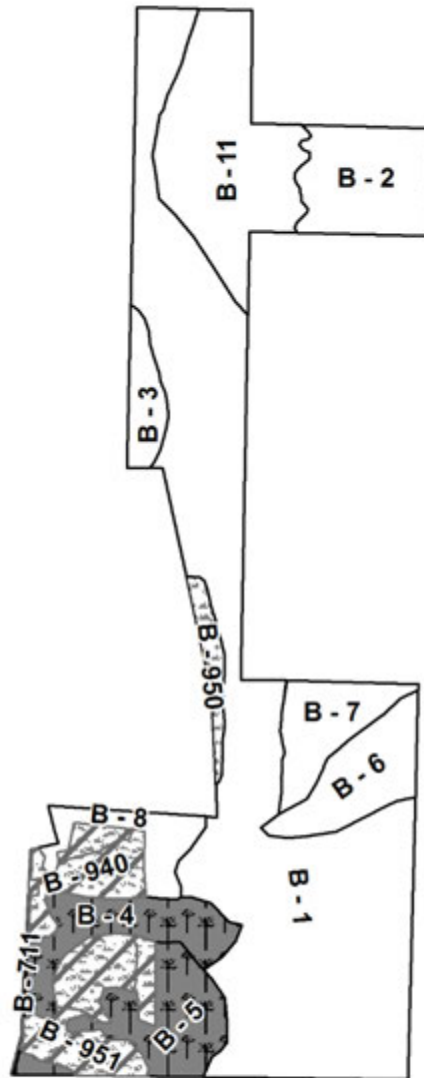
0 500 1,000 Feet



Other Stands

- Forested Wetland
- Brushy-Grassland
- Water
- Roads/Other
- Wetland
- Forested & No Action Planned

STID HILL MUA, SOUTH - Veg. Management



Grassland Vegetative Management

Action planned

- Mow
- Prescribed fire
- Mow or Burn,
- Agriculture

Forested Vegetative Management

Action planned, and year of

- Thinning, yrs 6-10
- Regeneration, yrs 1-5
- Regen, yrs 6-10
- Prescribed fire

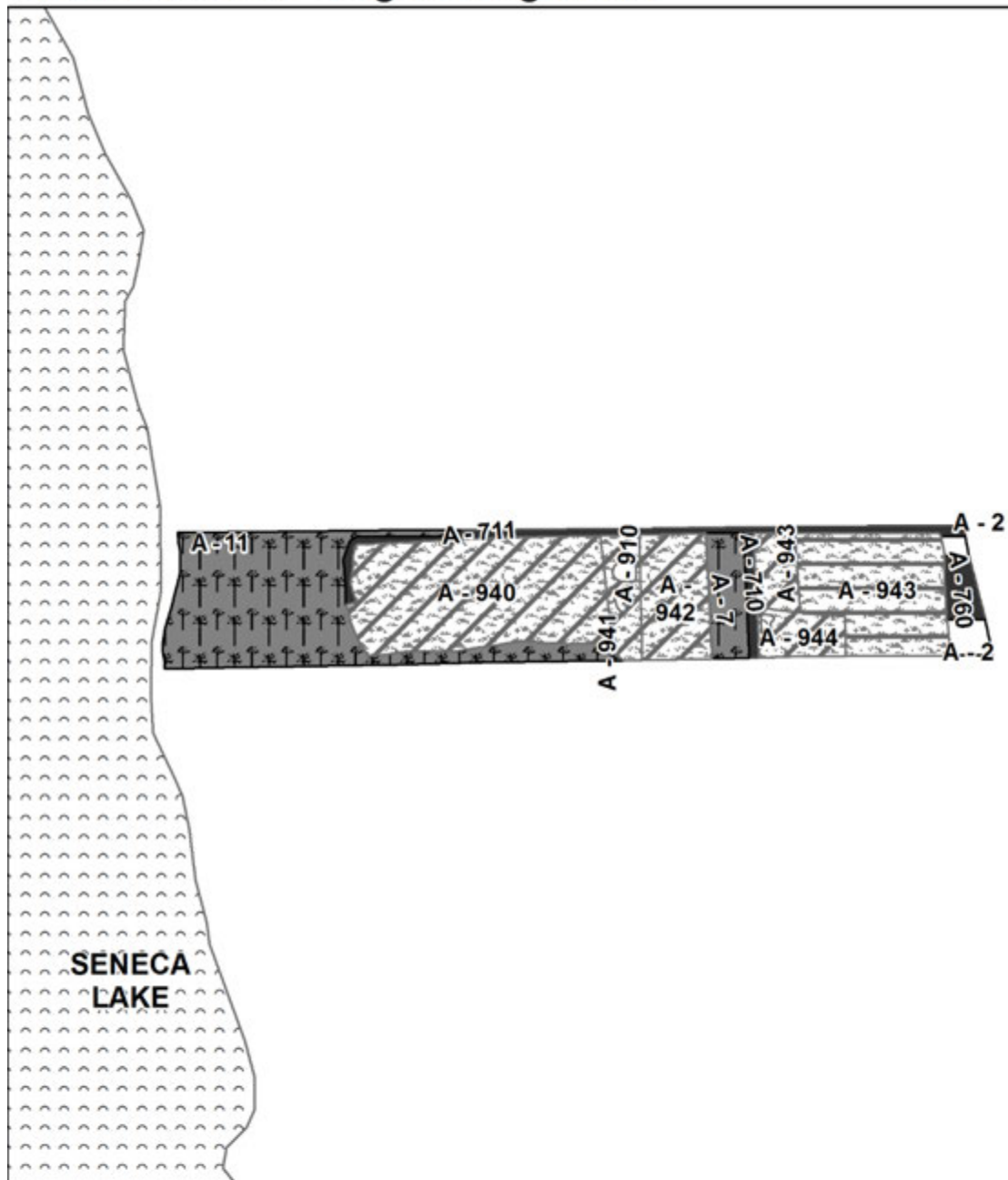
0 500 1,000 Feet



Other Stands

- Forested Wetland
- Brushy-Grassland
- Water
- Roads/Other
- Wetland
- Forested & No Action Planned

WILLARD WMA - Veg. Management







Grassland Vegetative Management

Action planned

-  Mow
-  Prescribed fire
-  Mow or Burn,
-  Agriculture

Forested Vegetative Management

Action planned, and year of

-  Thinning, yrs 6-10
-  Regeneration, yrs 1-5
-  Regen, yrs 6-10
-  Prescribed fire

0 500 1,000 Feet

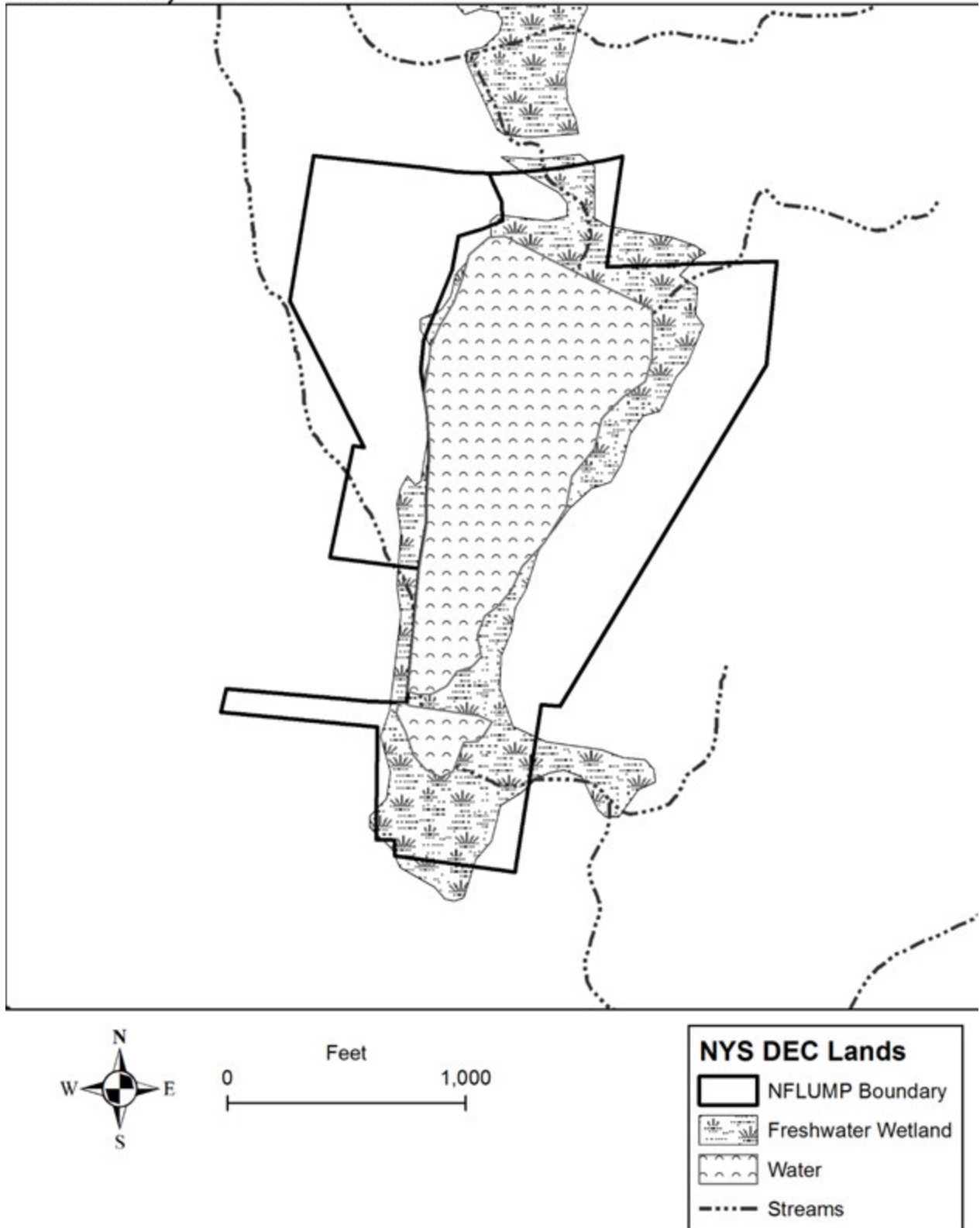


Other Stands

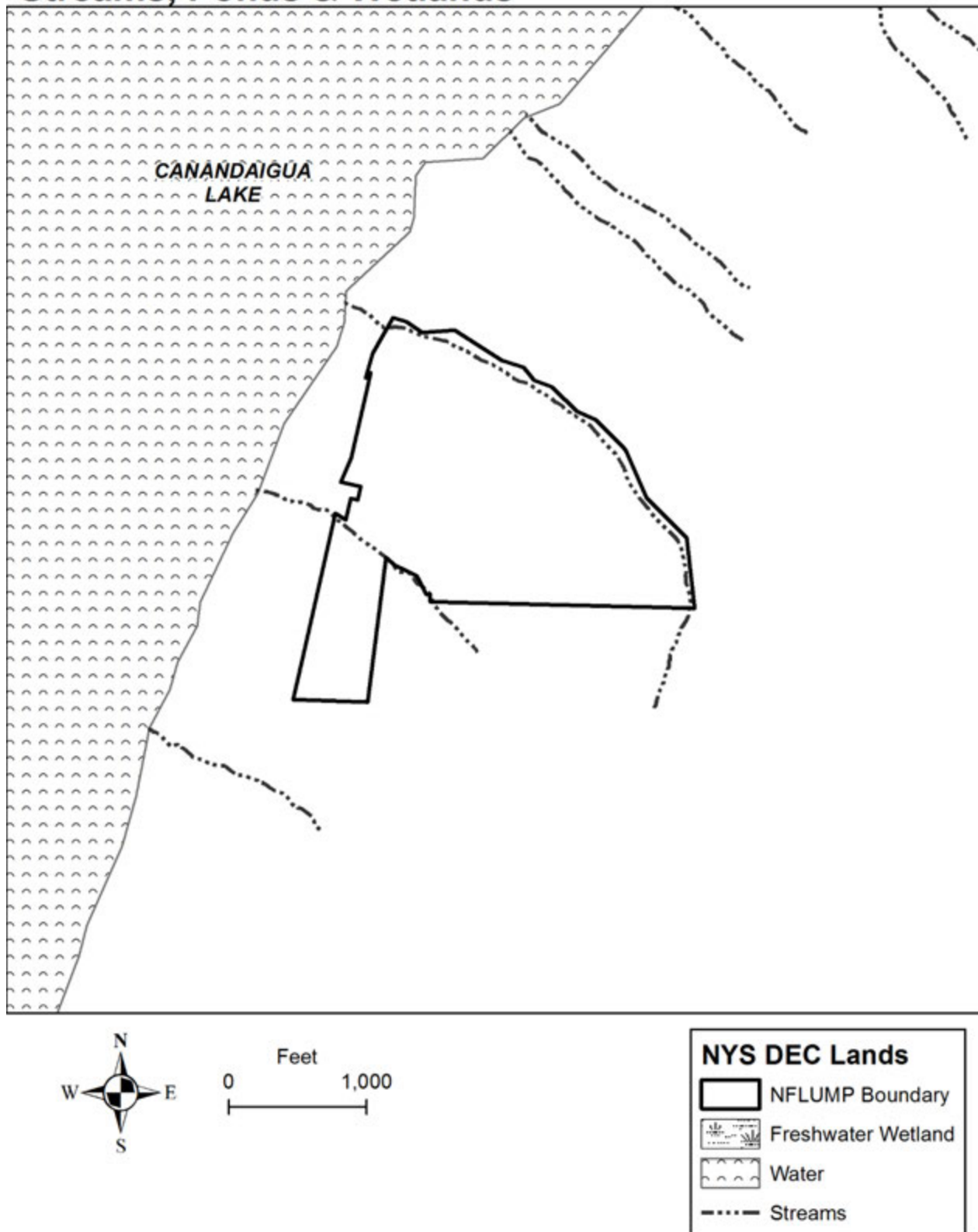
-  Forested Wetland
-  Brushy-Grassland
-  Water
-  Roads/Other
-  Wetland
-  Forested & No Action Planned

Streams, Ponds and Wetlands

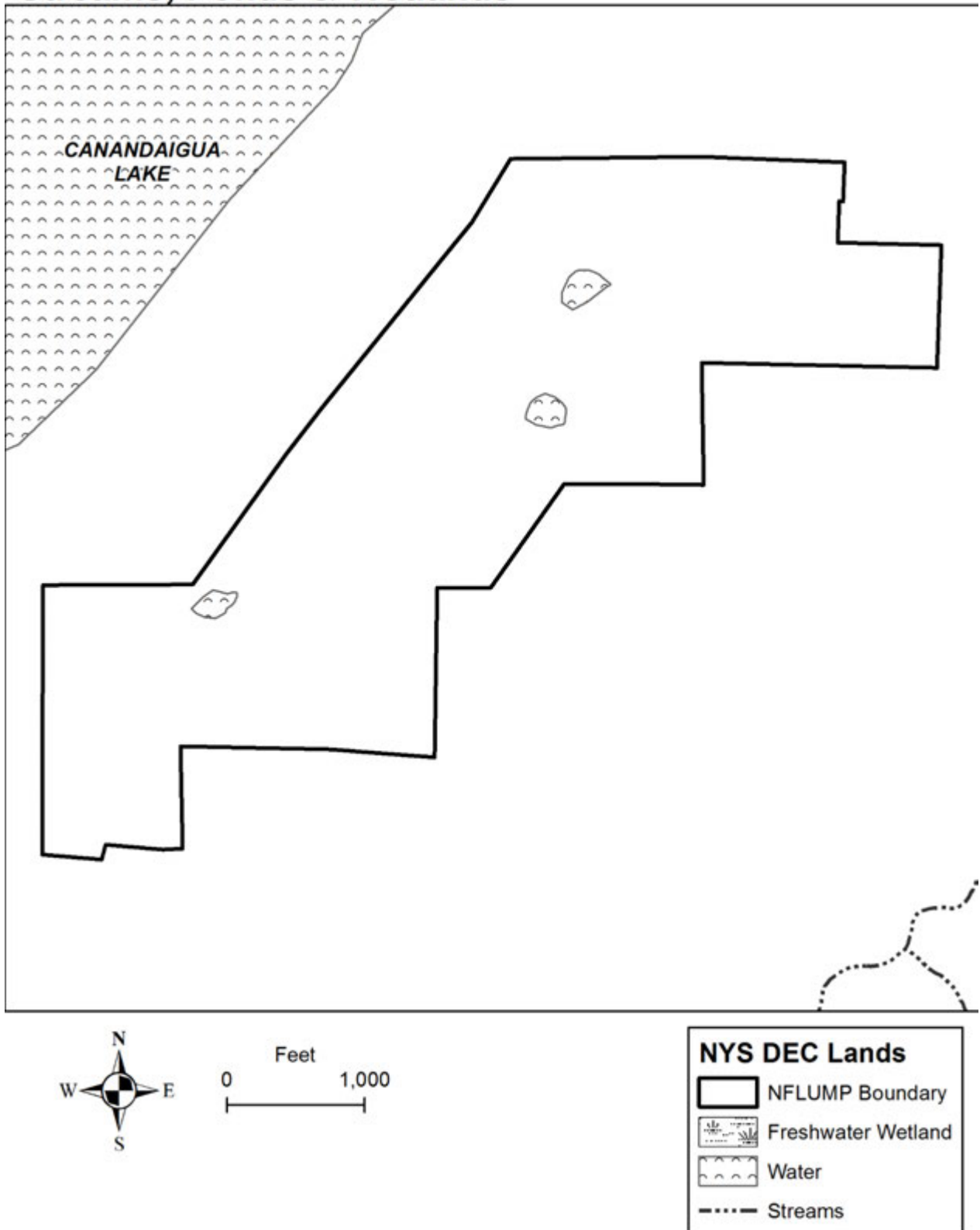
AVON REGIONAL OFFICE Streams, Ponds & Wetlands



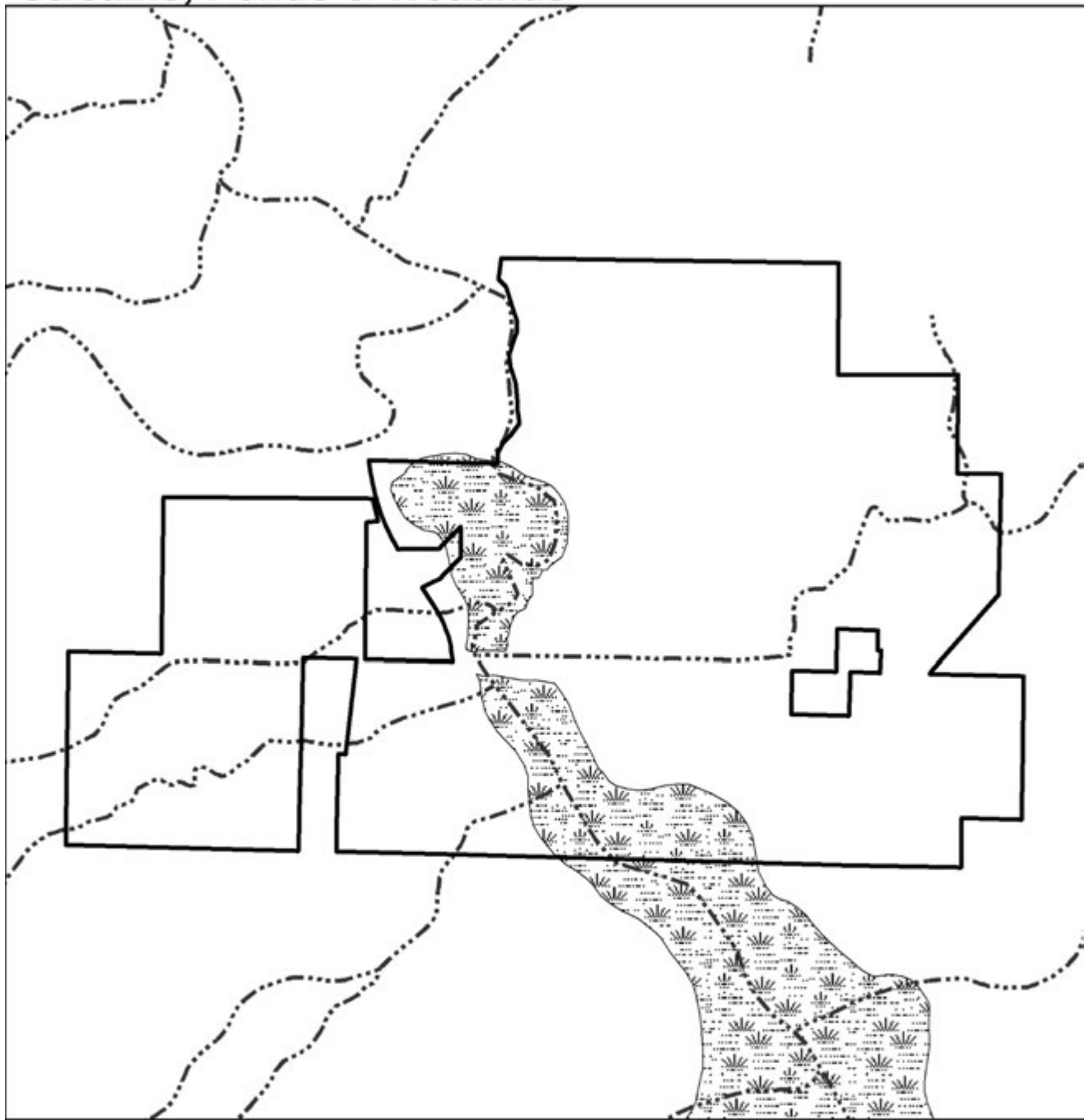
BARE HILL UNIQUE AREA, NORTH Streams, Ponds & Wetlands



BARE HILL UNIQUE AREA, SOUTH Streams, Ponds & Wetlands







HONEOYE CREEK WMA, NORTH Streams, Ponds & Wetlands



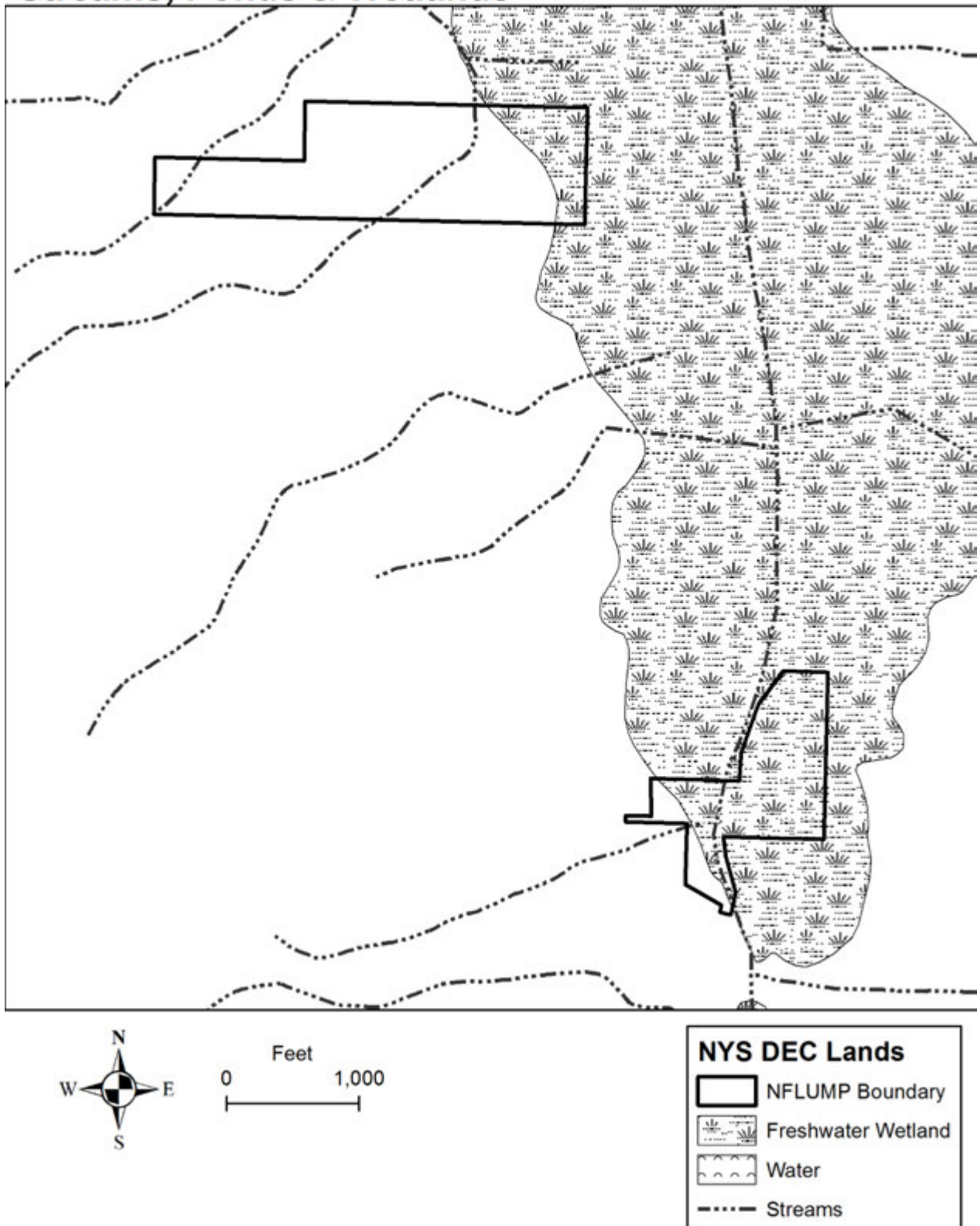
Feet
0 1,000

A horizontal scale bar with a vertical tick at each end, labeled '0' and '1,000'.

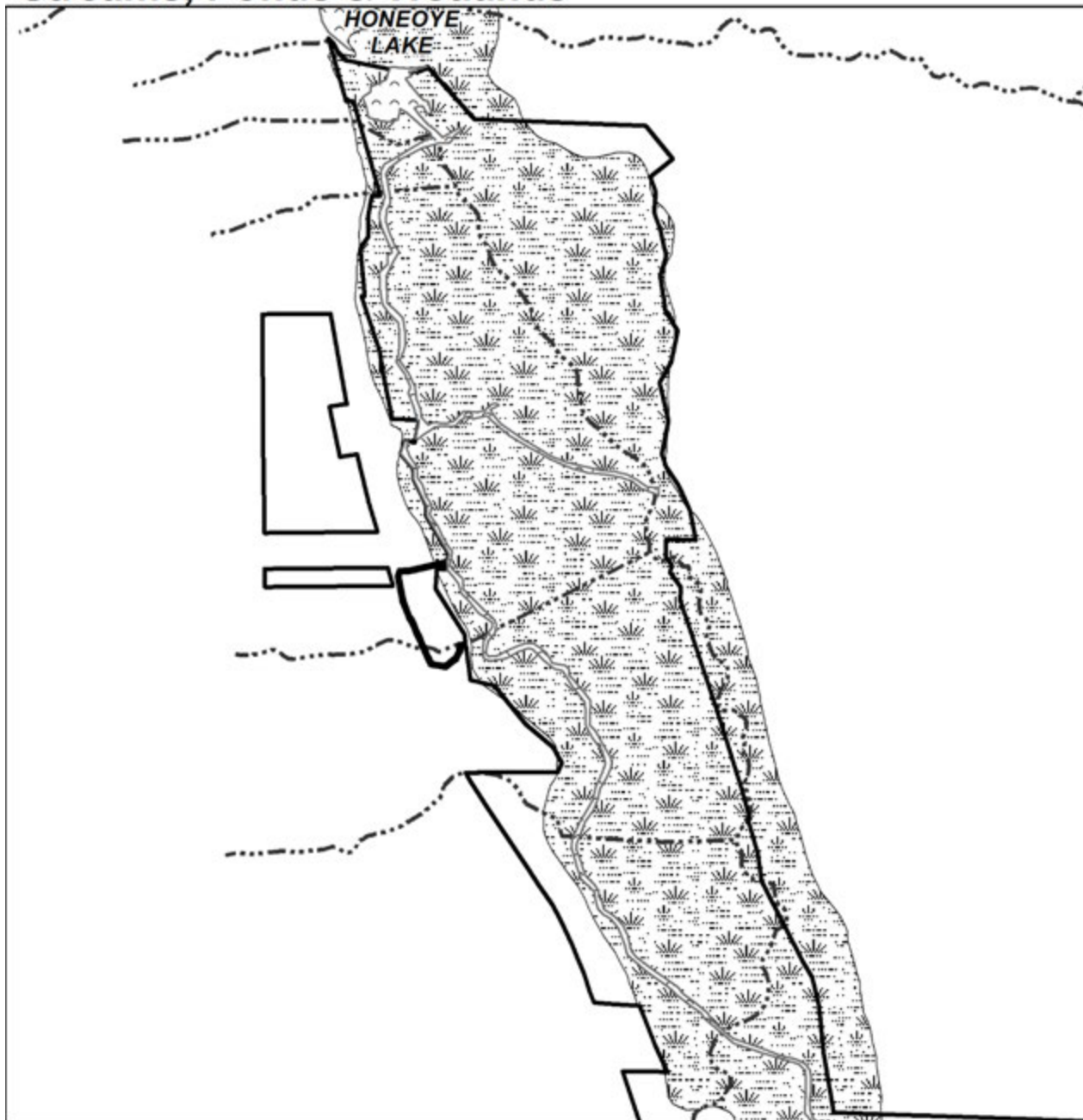
NYS DEC Lands

-  NFLUMP Boundary
-  Freshwater Wetland
-  Water
-  Streams

HONEOYE CREEK WMA, SOUTH Streams, Ponds & Wetlands







HONEOYE INLET WMA, NORTH Streams, Ponds & Wetlands

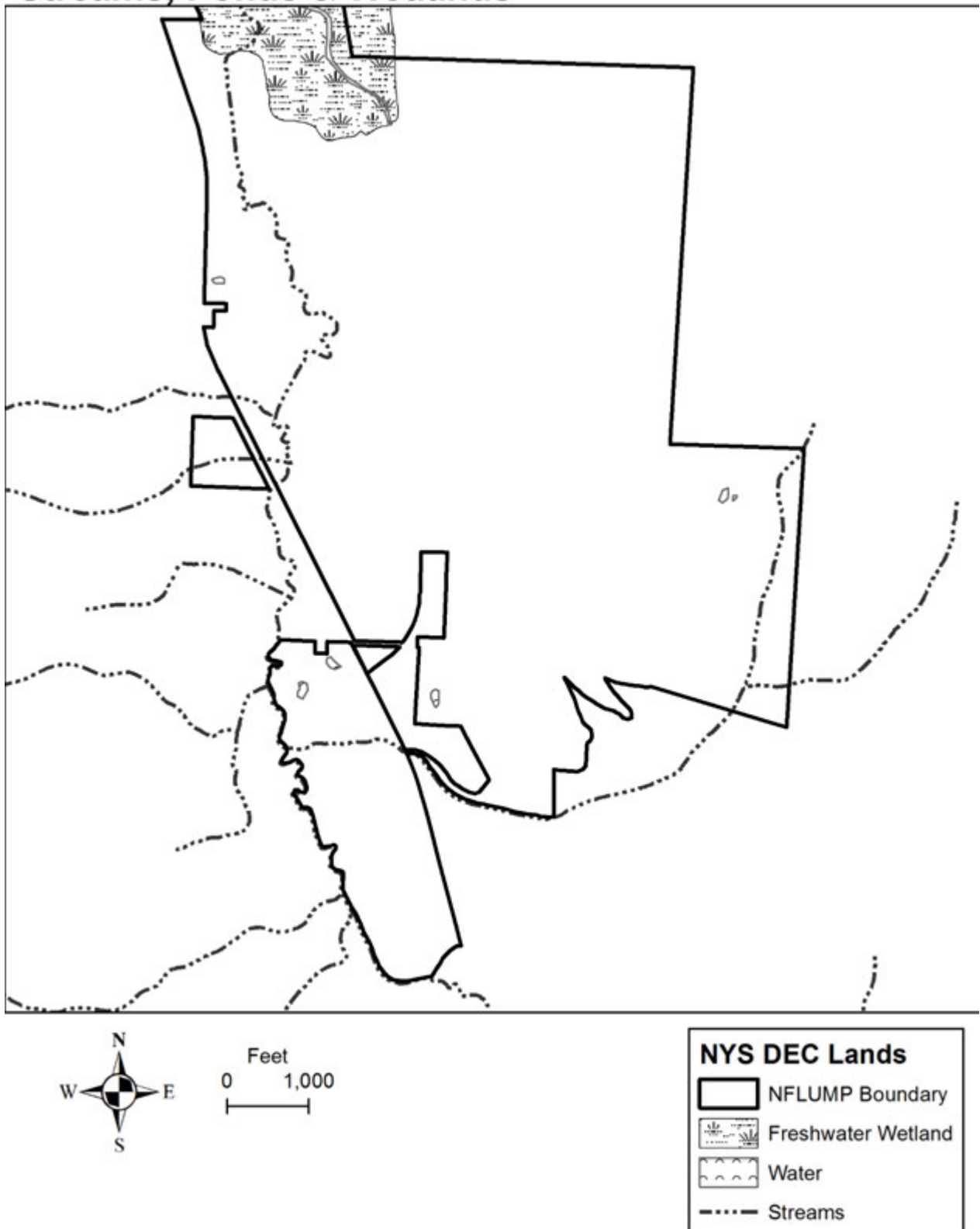


Feet
0 1,000

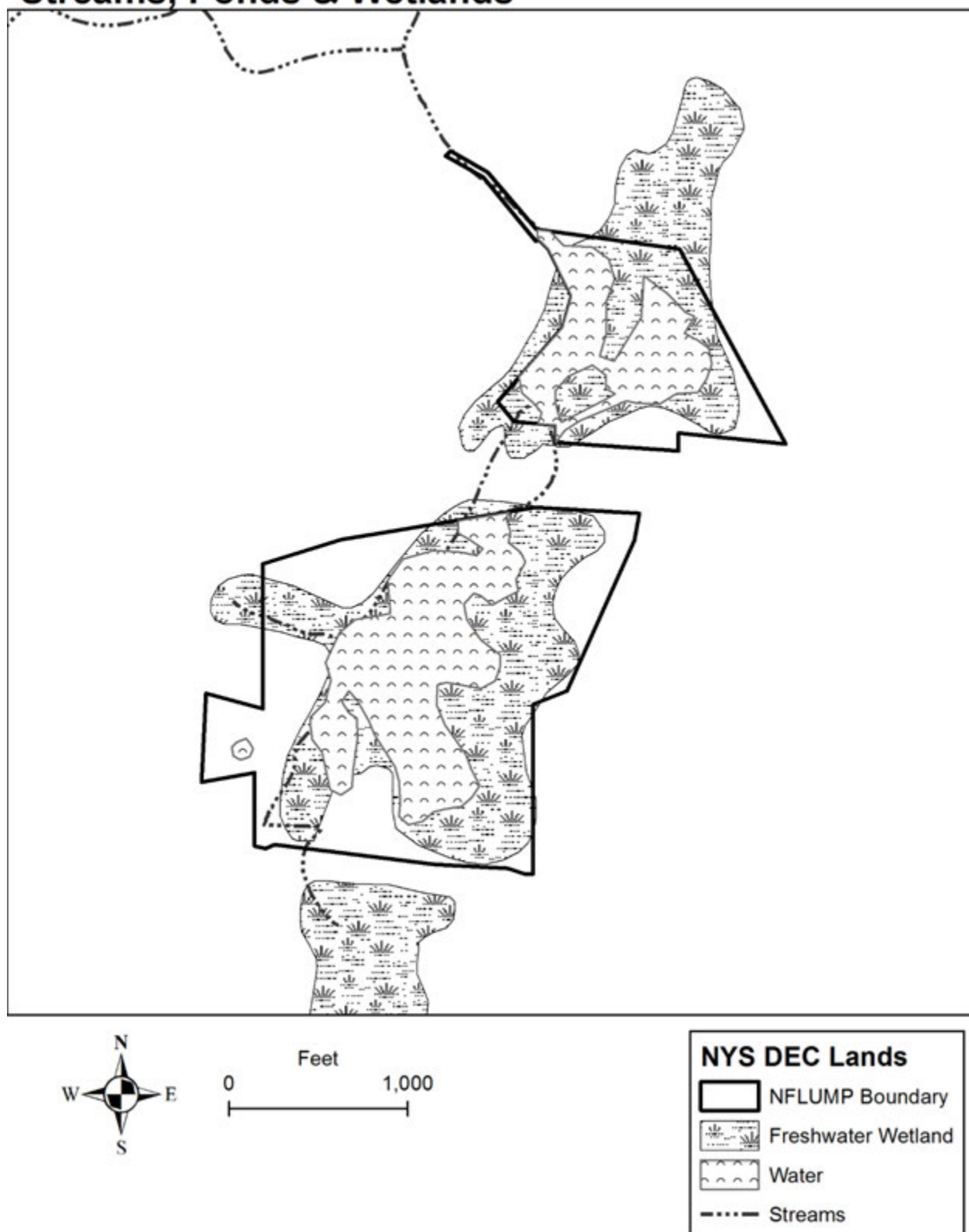
NYS DEC Lands

-  NFLUMP Boundary
-  Freshwater Wetland
-  Water
-  Streams

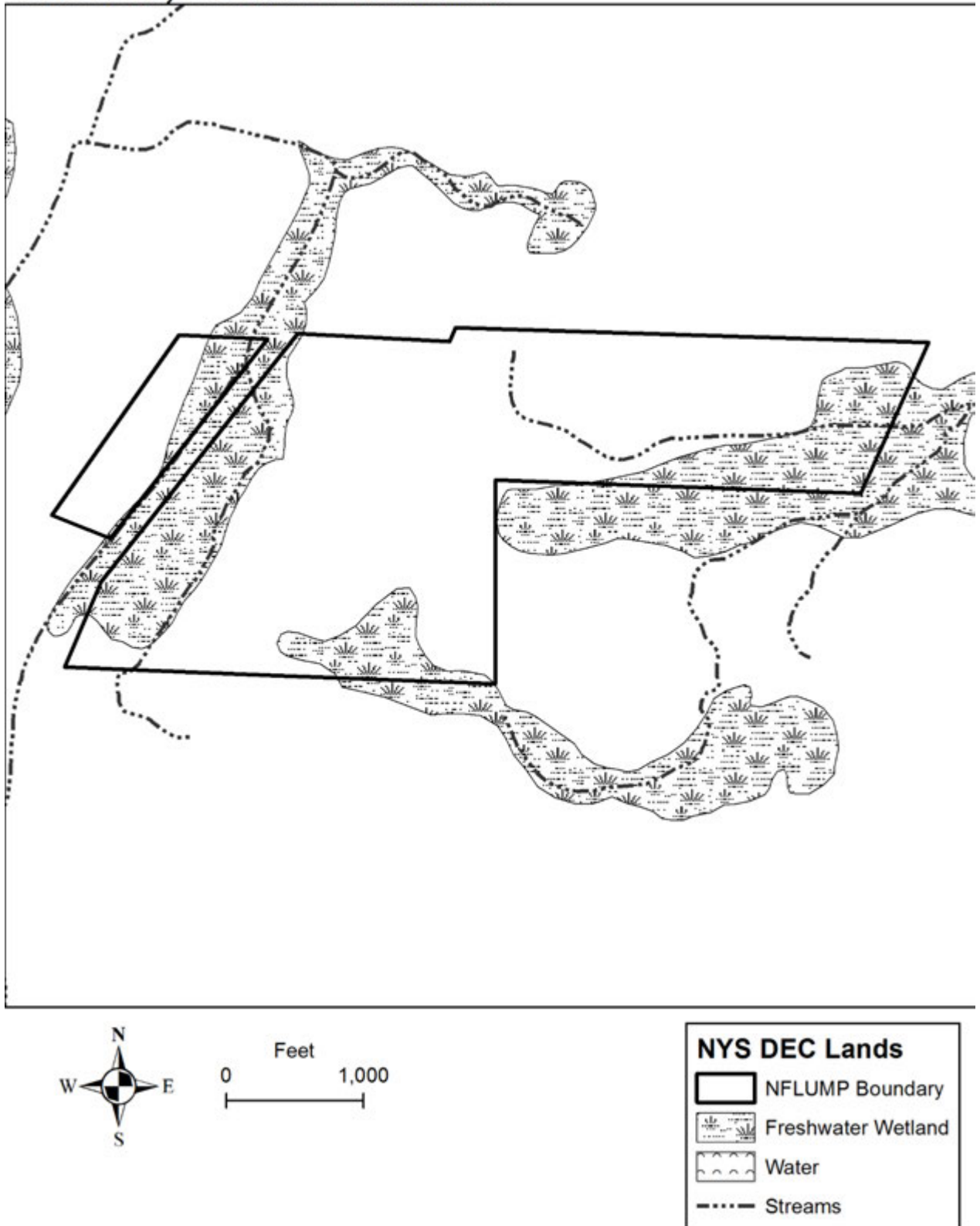
HONEOYE INLET WMA, SOUTH Streams, Ponds & Wetlands



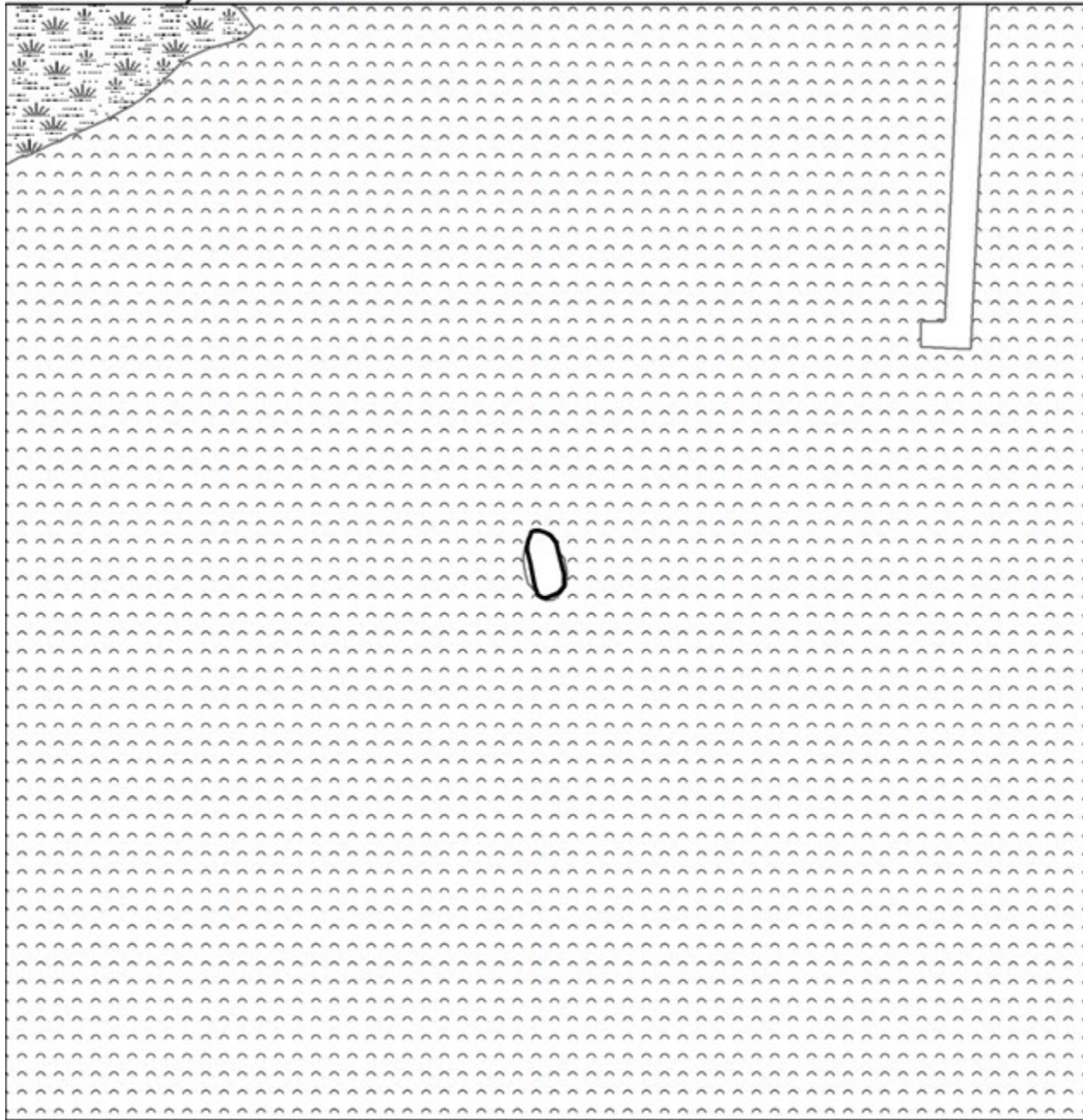
JUNIUS PONDS UNIQUE AREA Streams, Ponds & Wetlands



RUSH OAK OPENINGS UNIQUE AREA Streams, Ponds & Wetlands



SQUAW ISLAND UNIQUE AREA Streams, Ponds & Wetlands







Feet

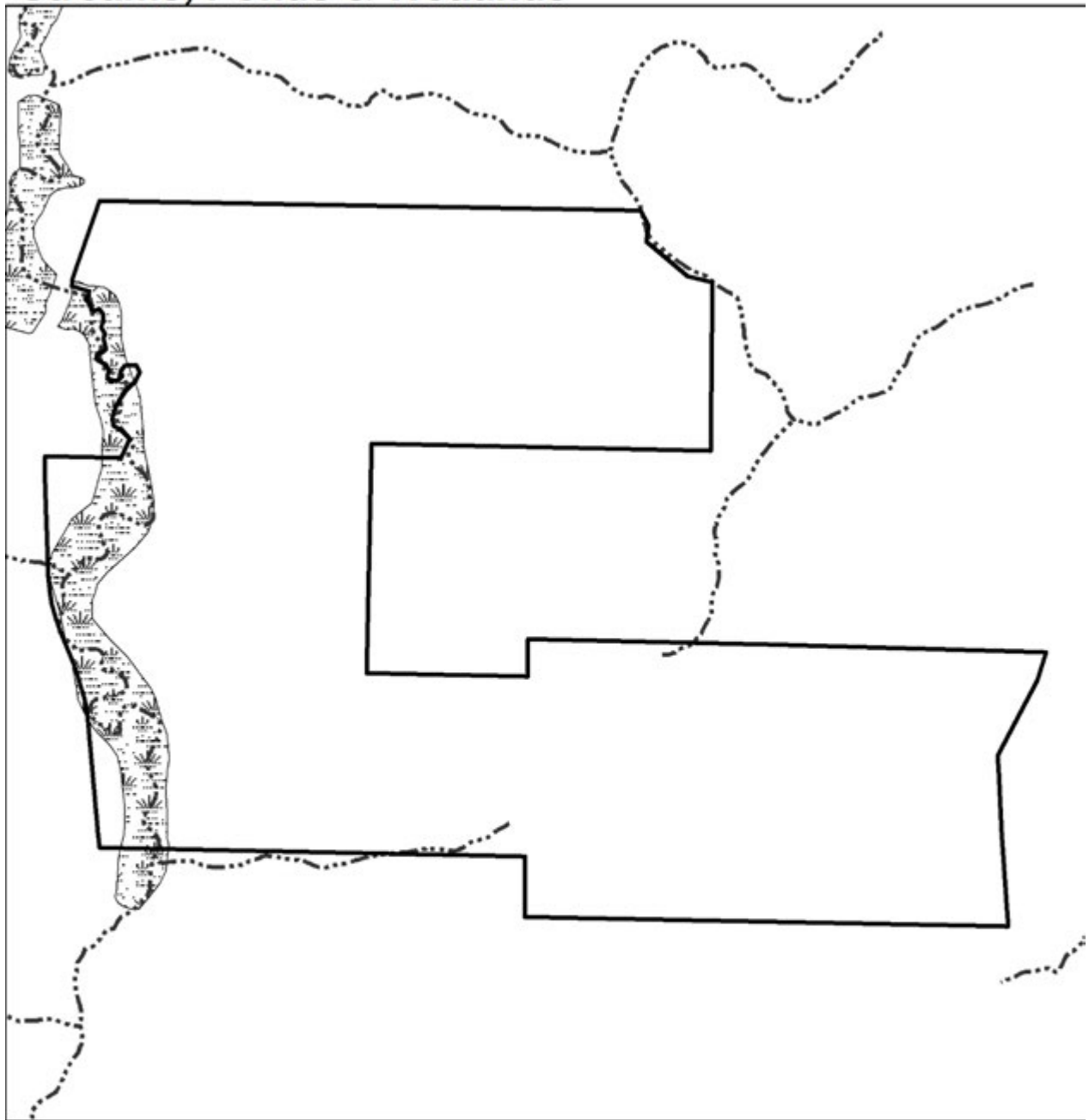
0

1,000

NYS DEC Lands





-  NFLUMP Boundary
-  Freshwater Wetland
-  Water
-  Streams

STID HILL MUA, NORTH Streams, Ponds & Wetlands

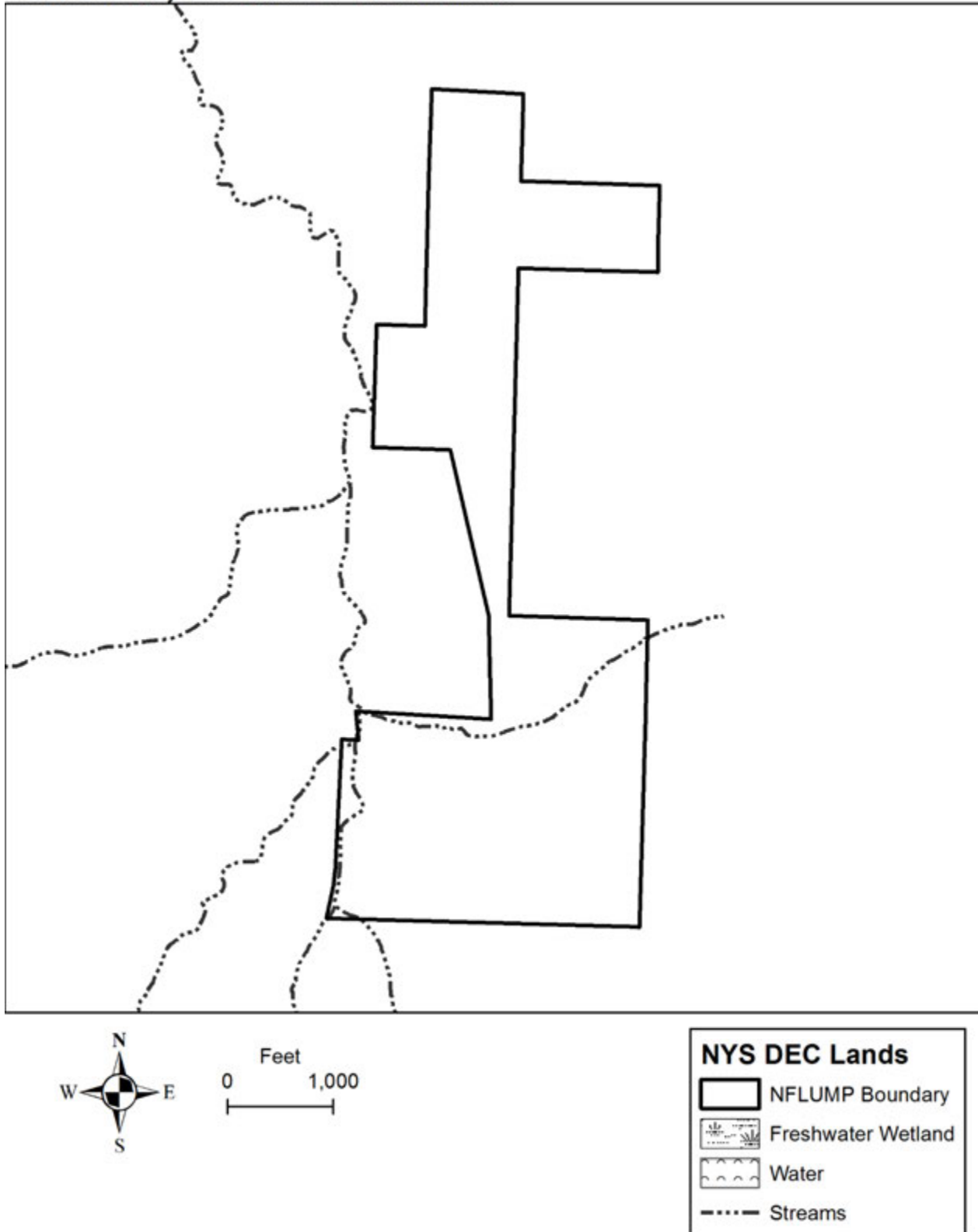


Feet
0 1,000

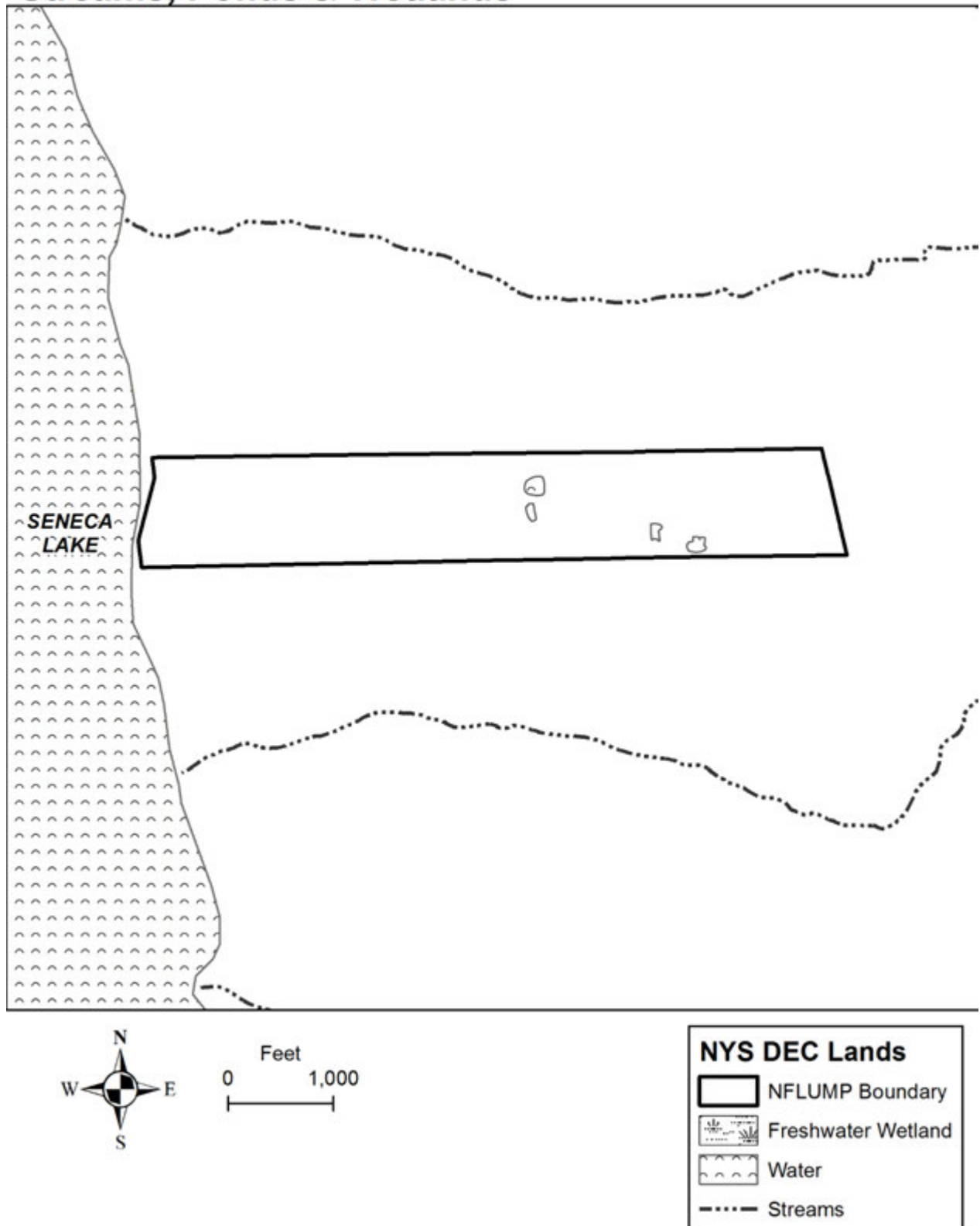
NYS DEC Lands

-  NFLUMP Boundary
-  Freshwater Wetland
-  Water
-  Streams

STID HILL MUA, SOUTH Streams, Ponds & Wetlands

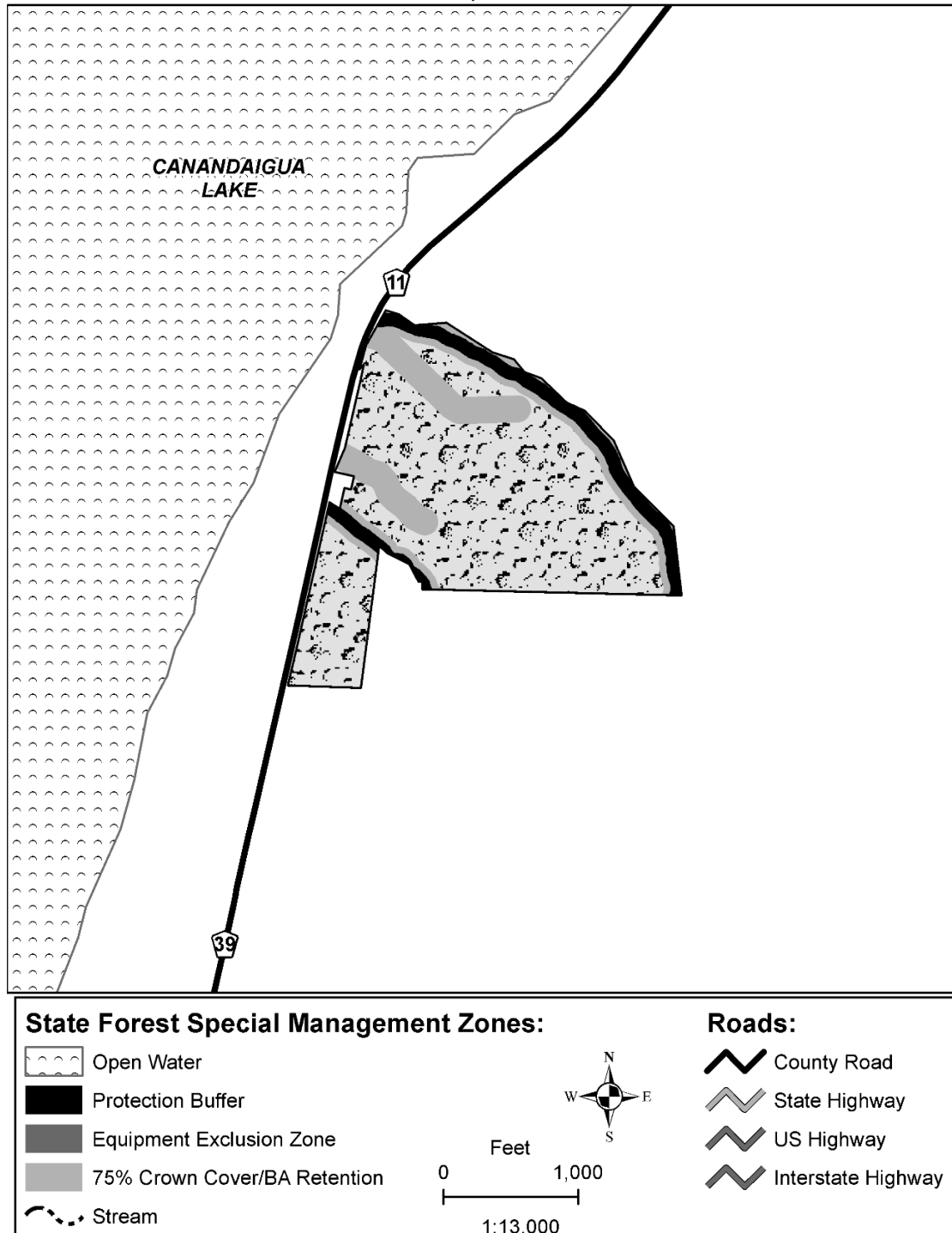


WILLARD WMA Streams, Ponds & Wetlands

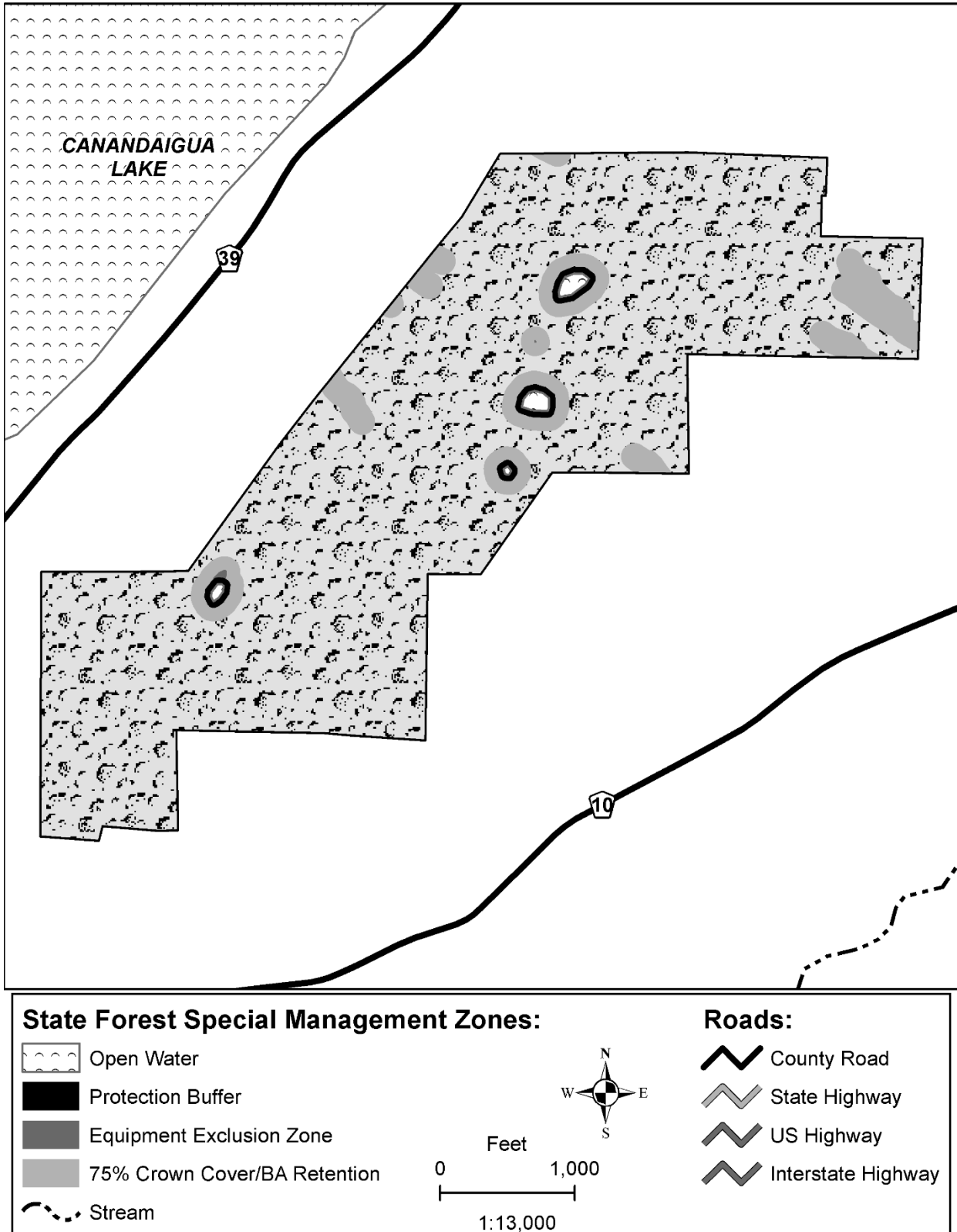


Special Management Zones

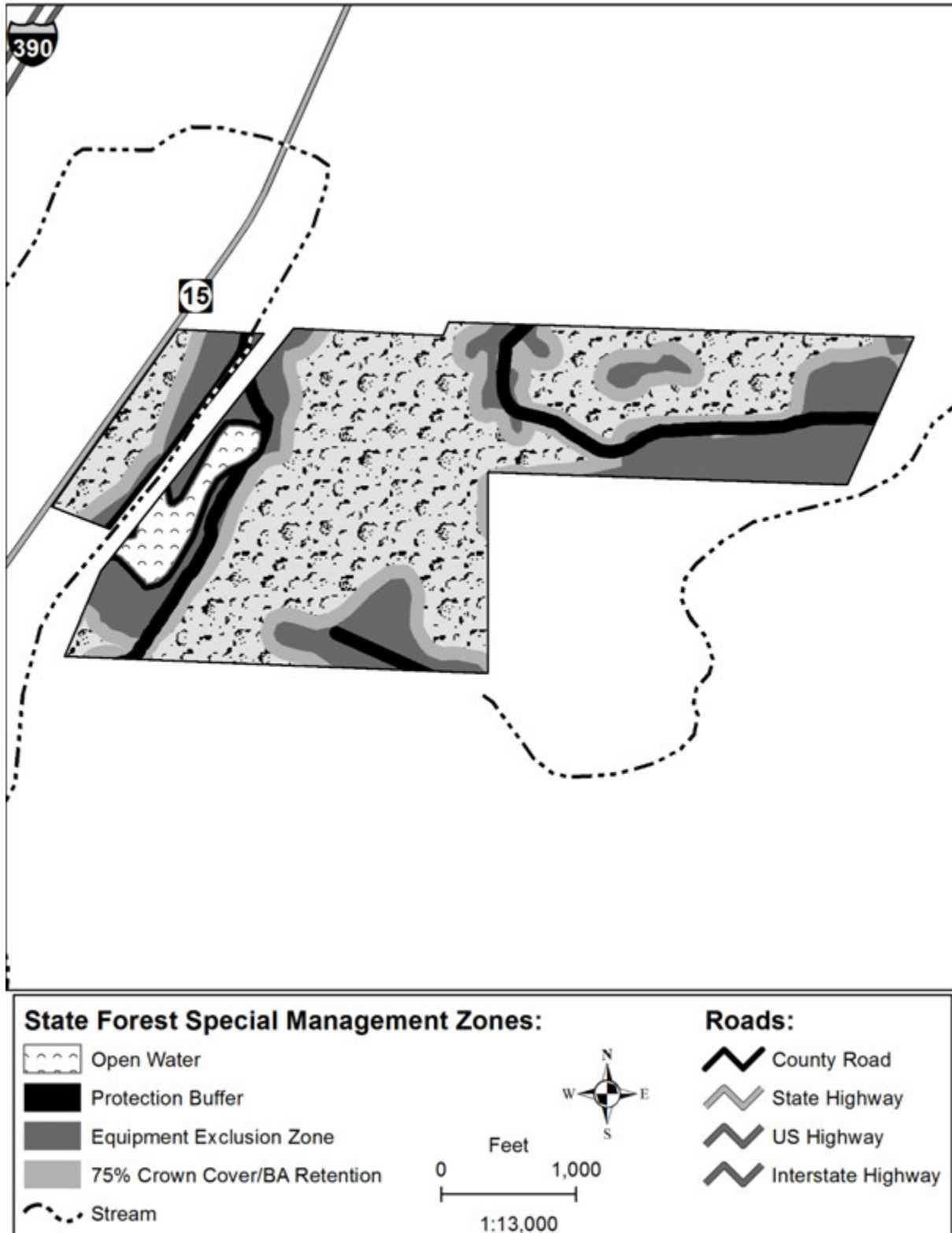
Computer generated location of the Special Management Zones (SMZ's), for more information see pages 56 and 104. SMZ's are areas around specific features (intermittent streams, vernal pools, wetlands, etc.) where management must be modified as compared to what is permissible in the general forest zone. The actual configuration of the zones can only be done during sale layout, following field reconnaissance, which is beyond the scope of this plan. **BARE HILL UNIQUE AREA, NORTH**



BARE HILL UNIQUE AREA, SOUTH

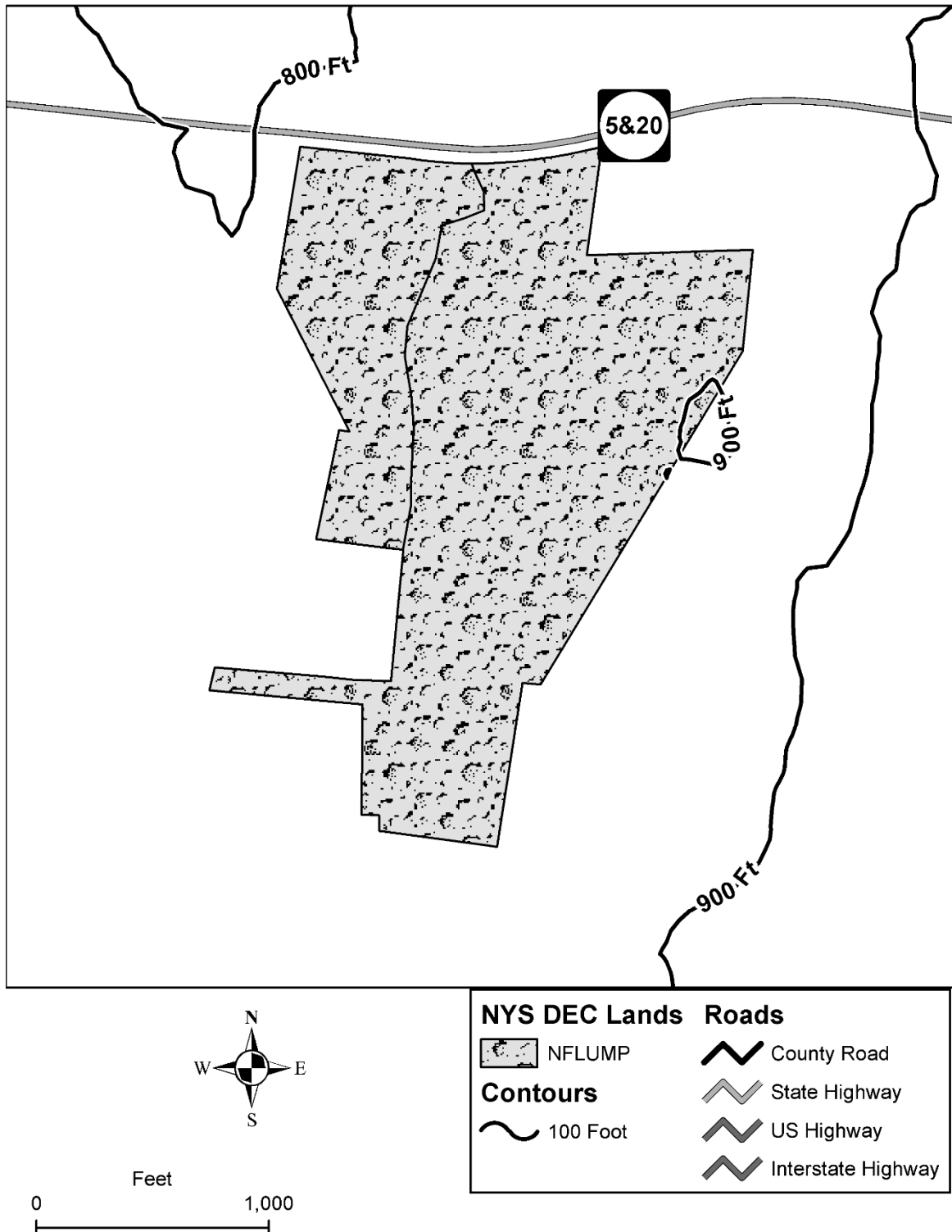


RUSH OAK OPENINGS UNIQUE AREA

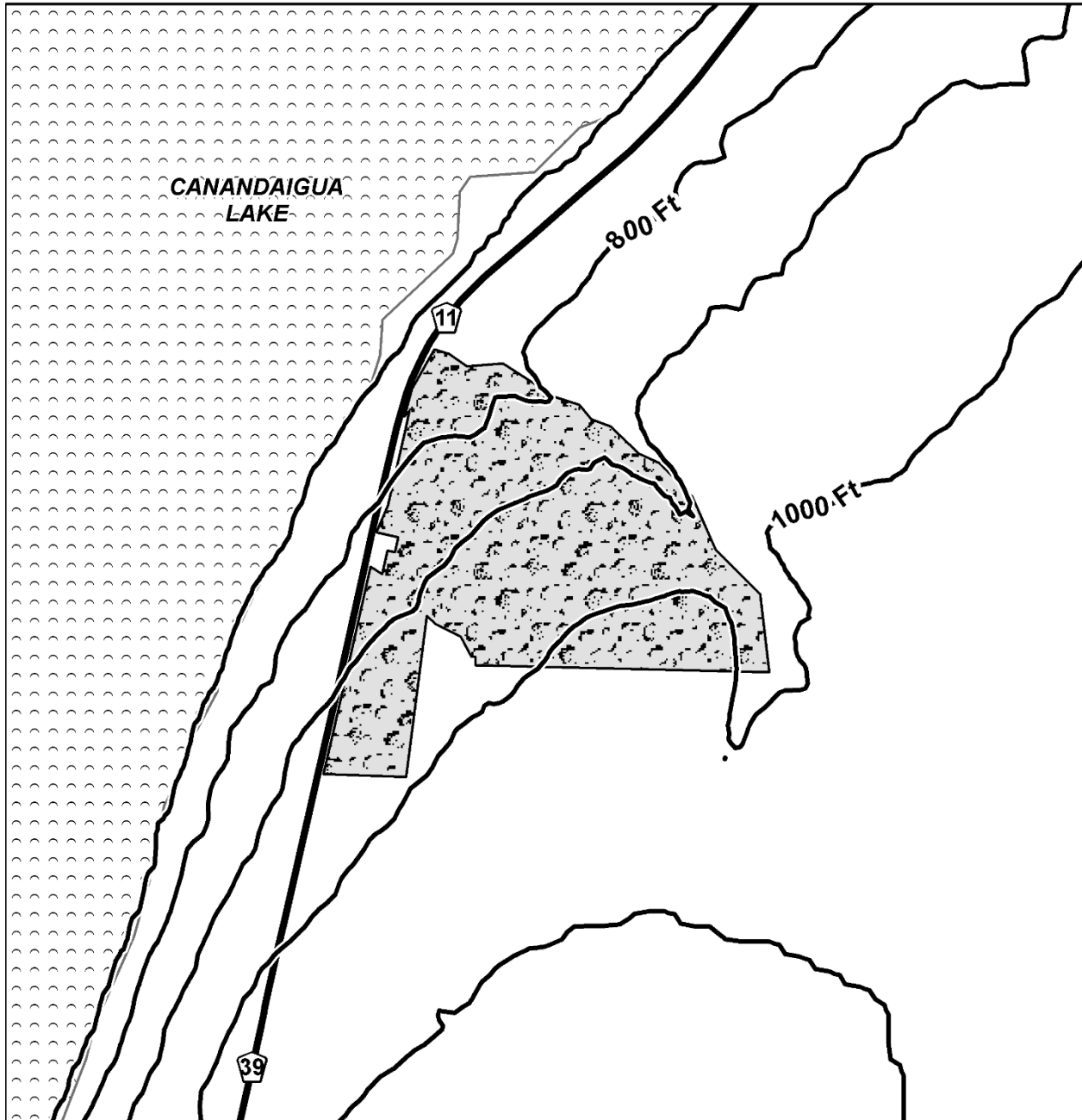


Contour Lines

AVON REGIONAL OFFICE



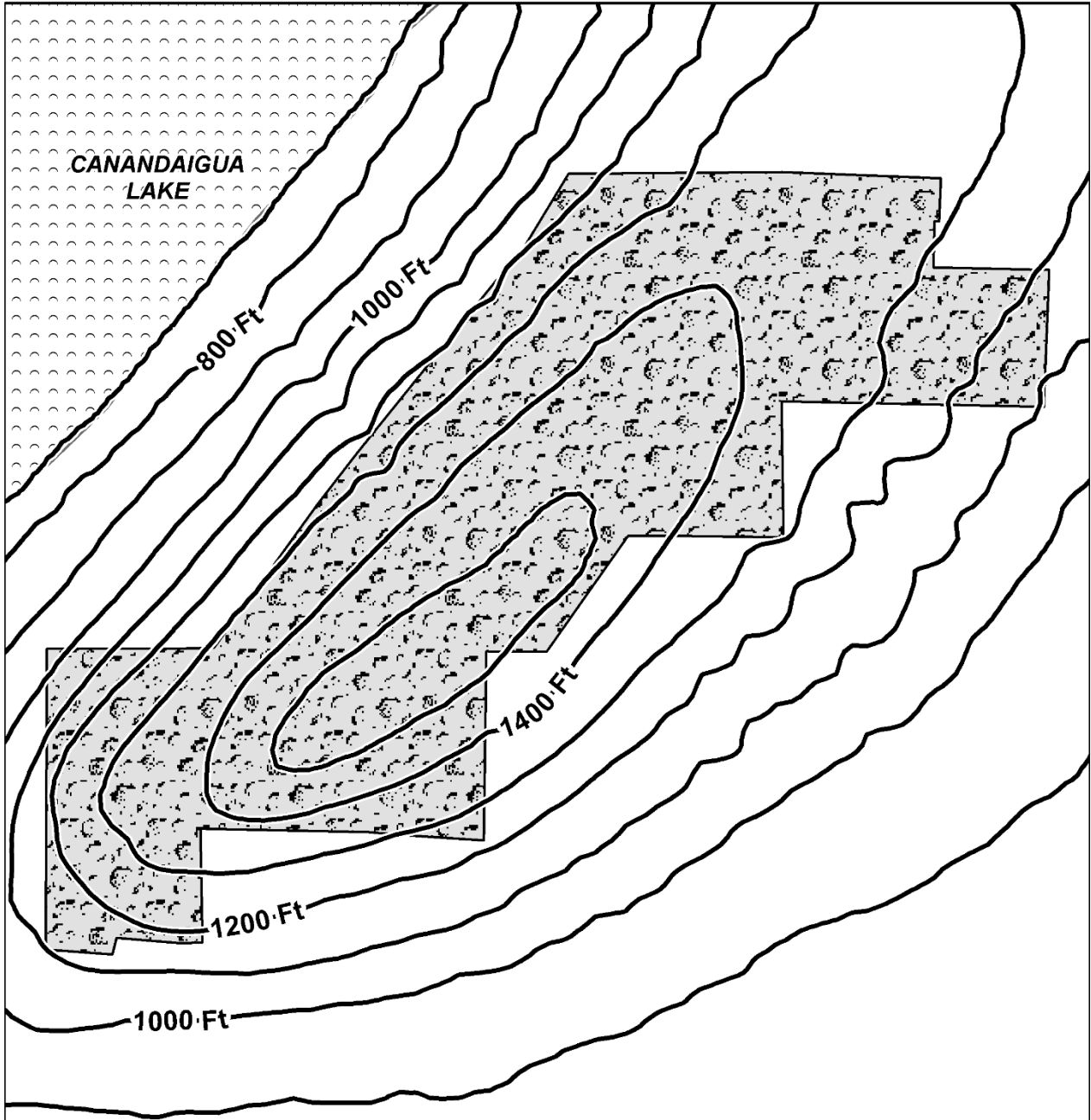
BARE HILL UNIQUE AREA, NORTH



Feet
0 1,000

NYS DEC Lands		Roads	
	NFLUMP		County Road
Contours			State Highway
	100 Foot		US Highway
			Interstate Highway

BARE HILL UNIQUE AREA, SOUTH



Feet
0 1,000

NYS DEC Lands

NFLUMP

Contours

100 Foot

Roads

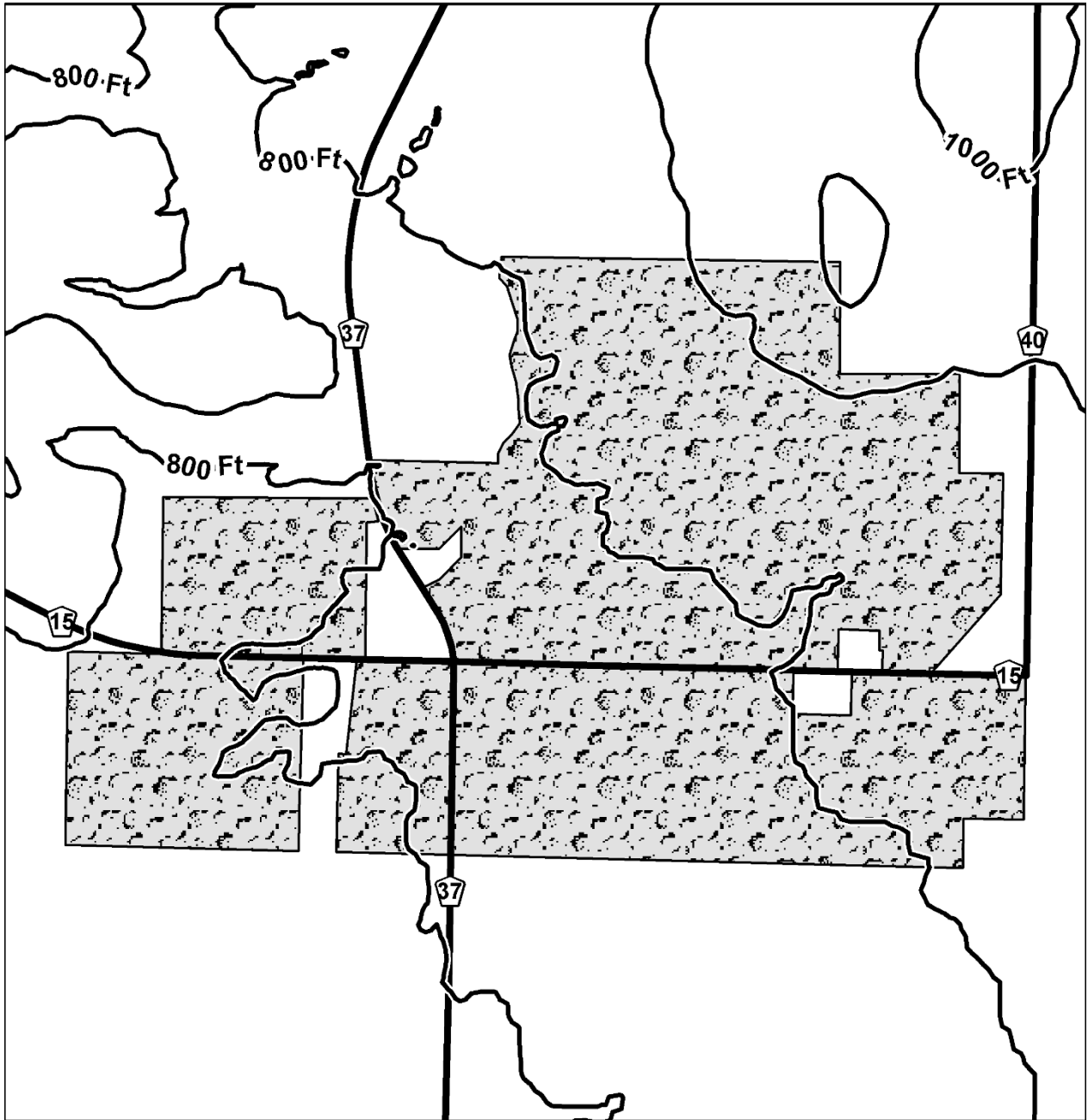
County Road

State Highway

US Highway

Interstate Highway

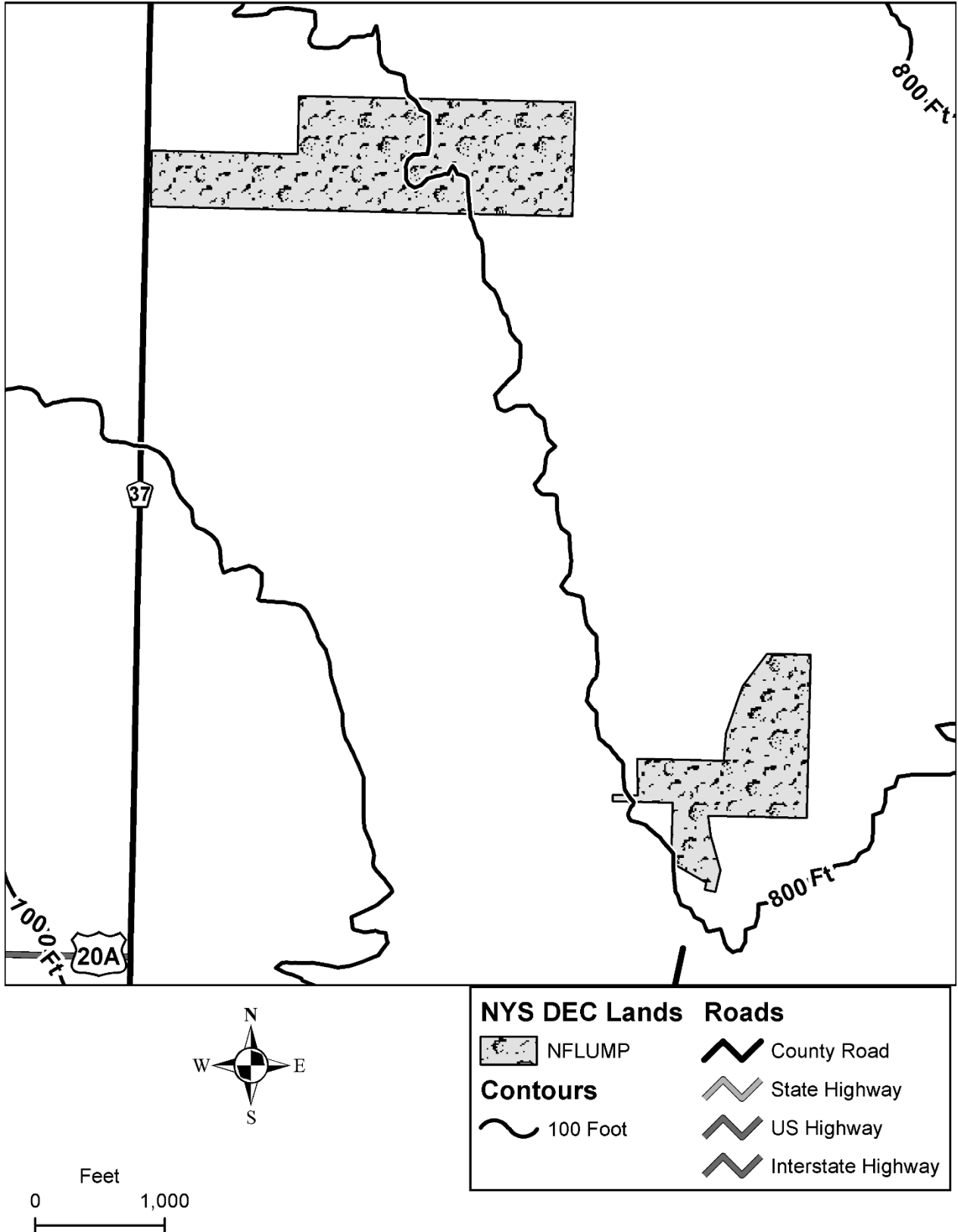
HONEOYE CREEK WMA, NORTH



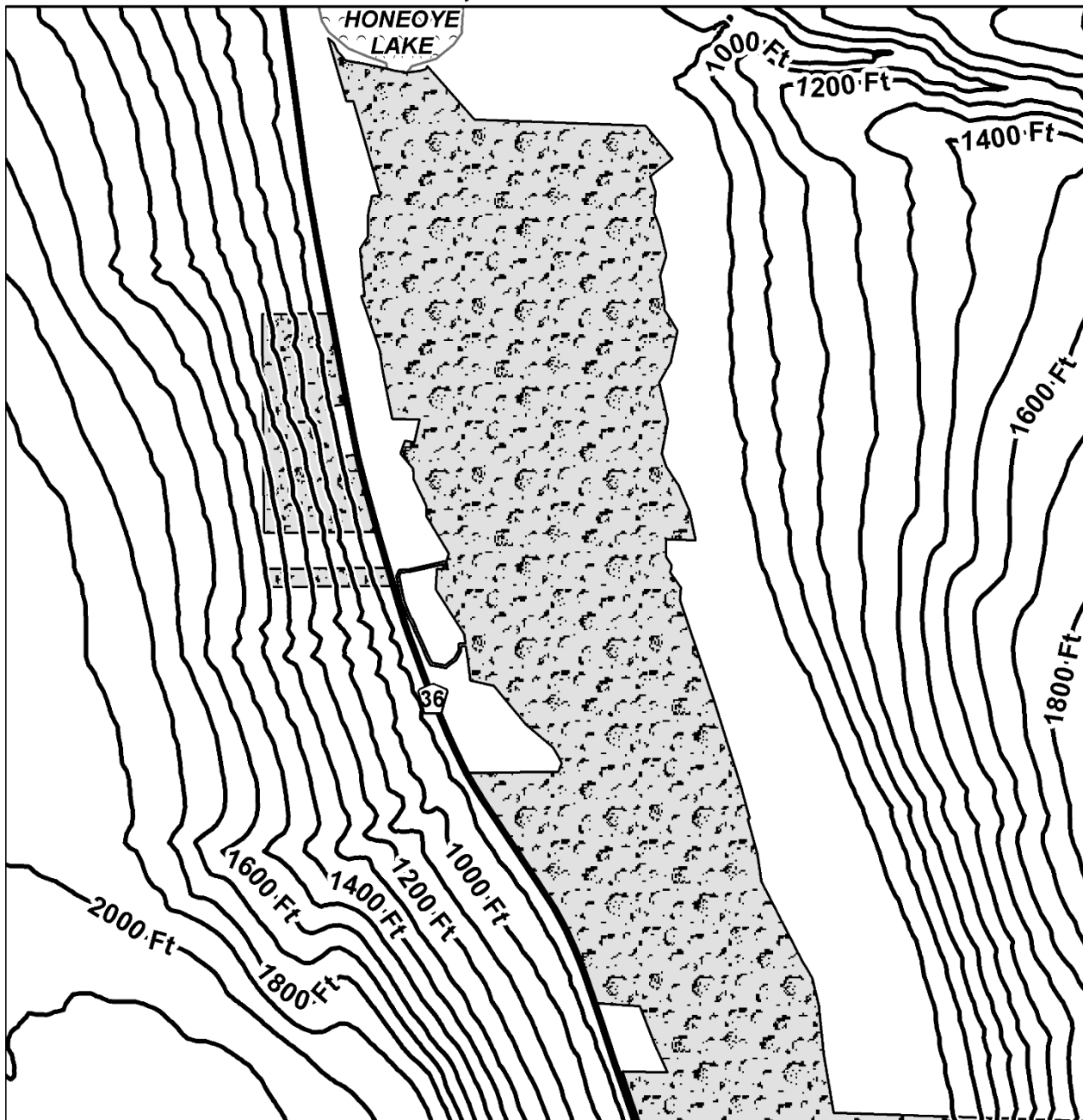
Feet
0 1,000

NYS DEC Lands		Roads	
	NFLUMP		County Road
Contours			State Highway
	100 Foot		US Highway
			Interstate Highway

HONEOYE CREEK WMA, SOUTH



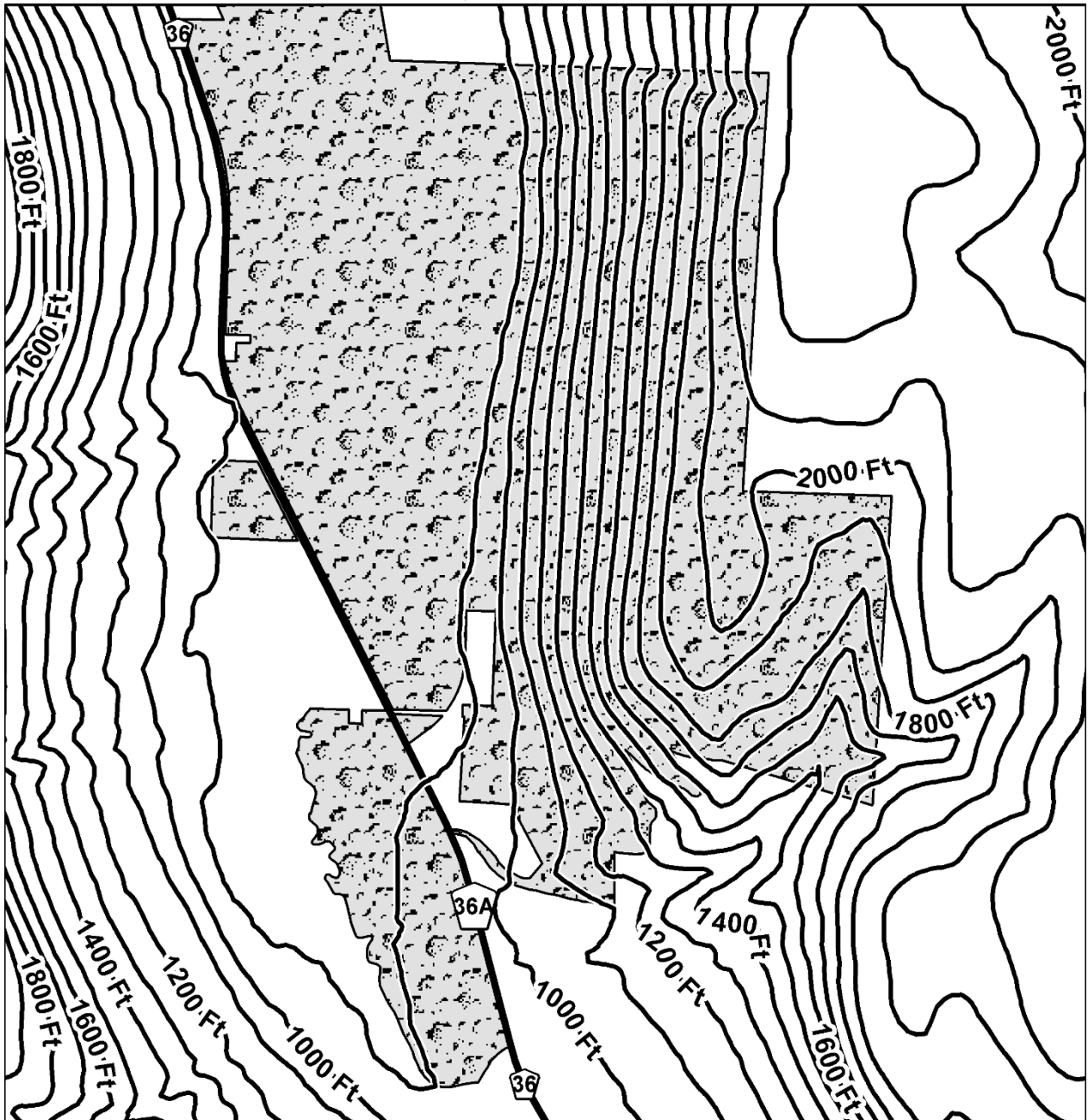
HONEOYE INLET WMA, NORTH



Feet
0 1,000

NYS DEC Lands		Roads	
	NFLUMP		County Road
Contours			State Highway
	100 Foot		US Highway
			Interstate Highway

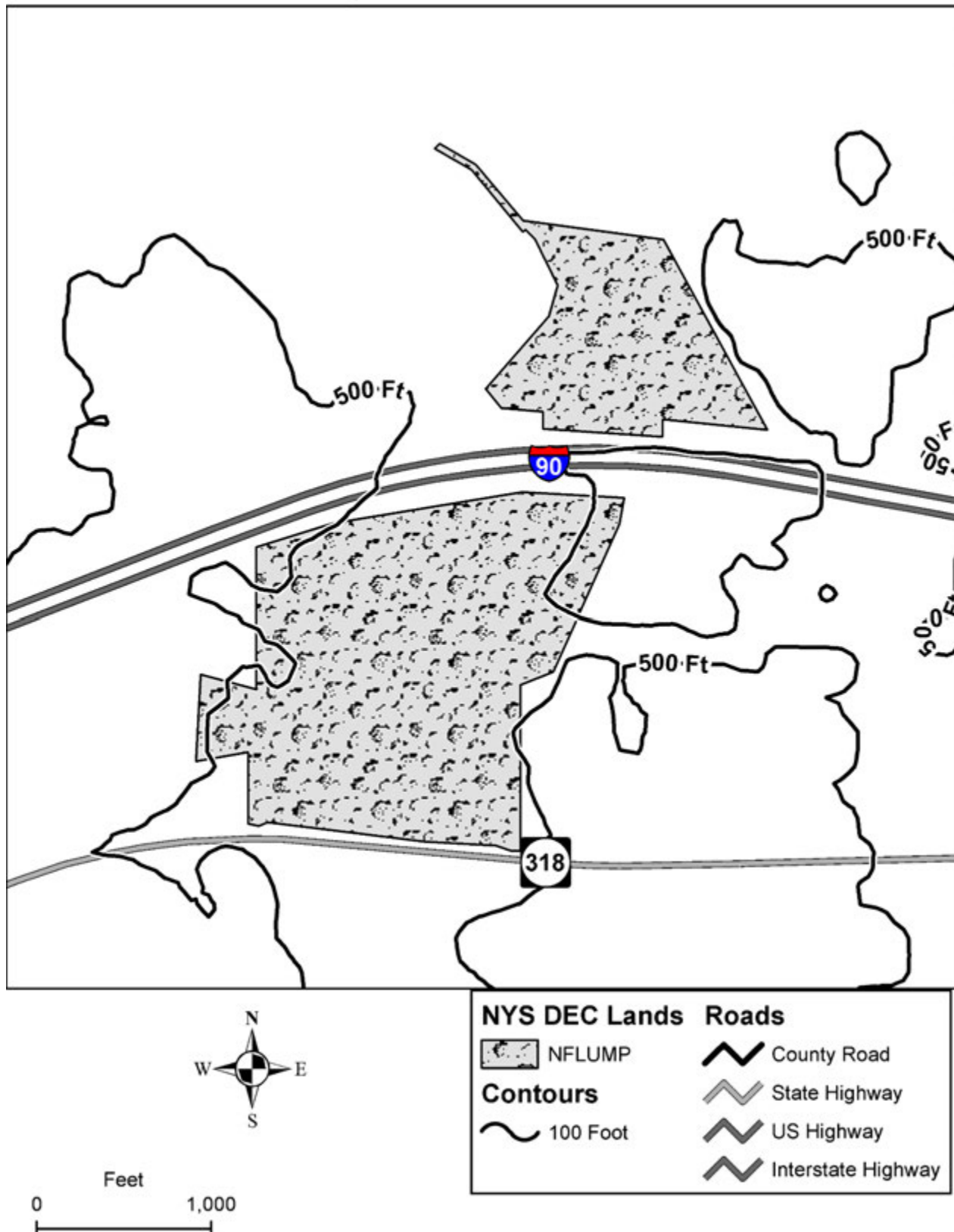
HONEOYE INLET WMA, SOUTH



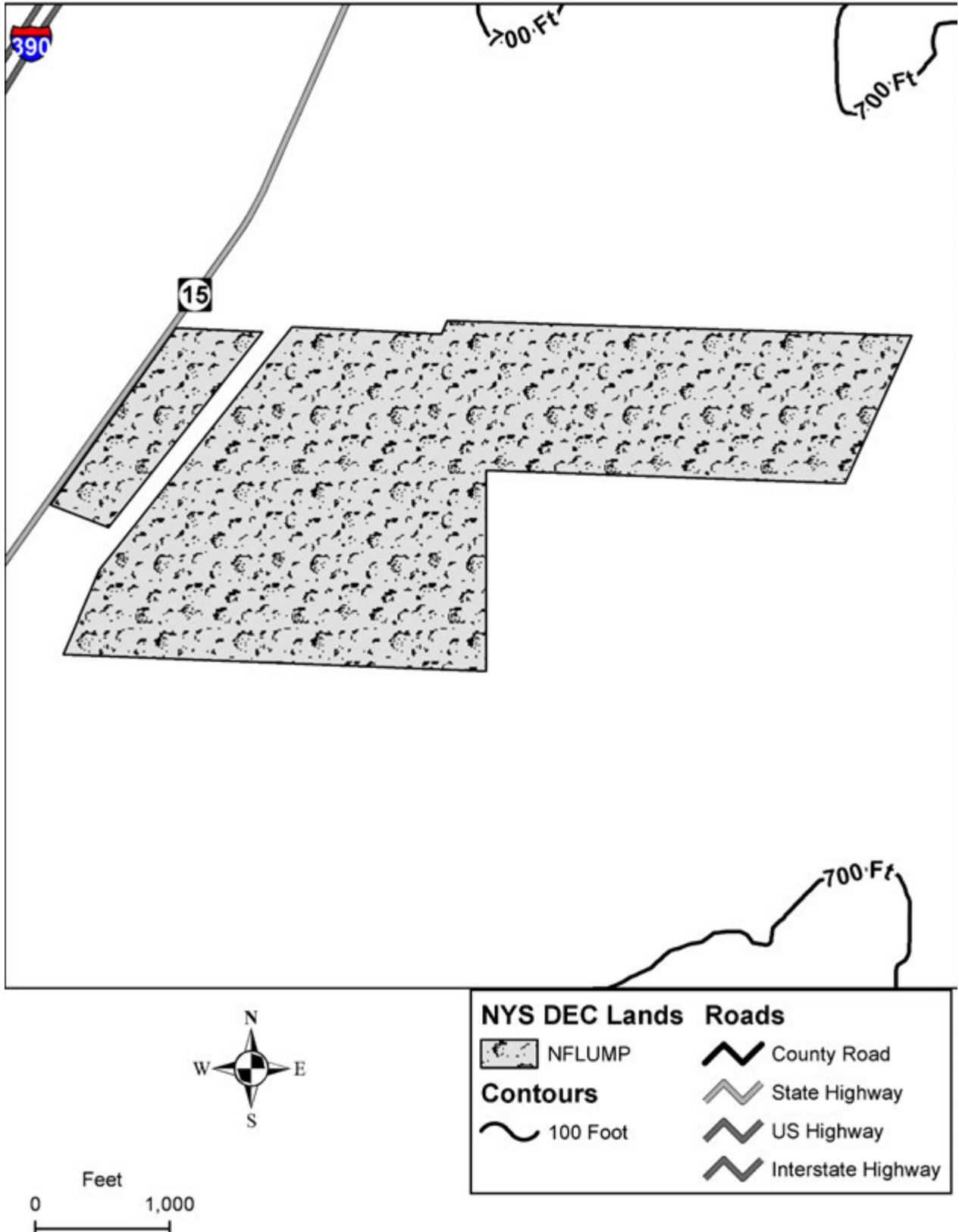
Feet
0 1,000
|-----|

NYS DEC Lands		Roads	
	NFLUMP		County Road
Contours			State Highway
	100 Foot		US Highway
			Interstate Highway

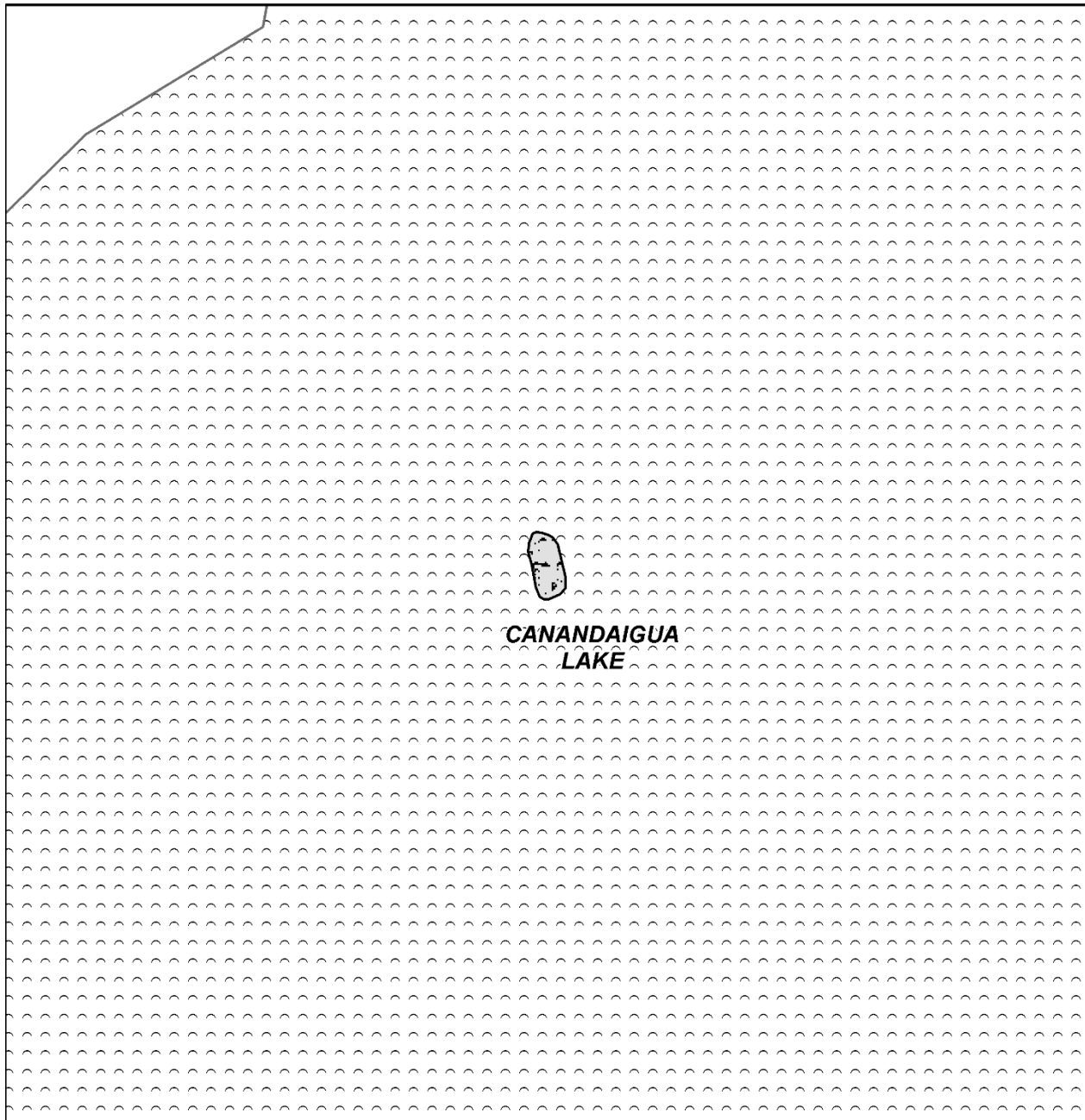
JUNIUS POND UNIQUE AREA



RUSH OAK OPENINGS UNIQUE AREA



SQUAW ISLAND UNIQUE AREA



Feet



NYS DEC Lands



NFLUMP

Contours



100 Foot

Roads



County Road



State Highway

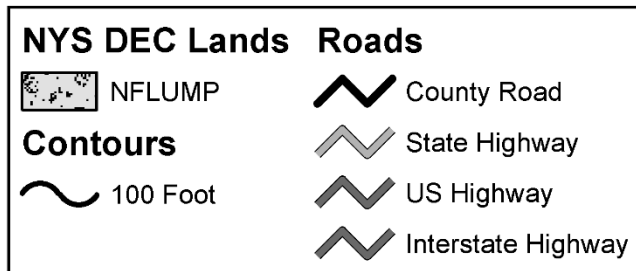
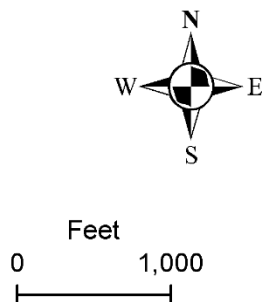
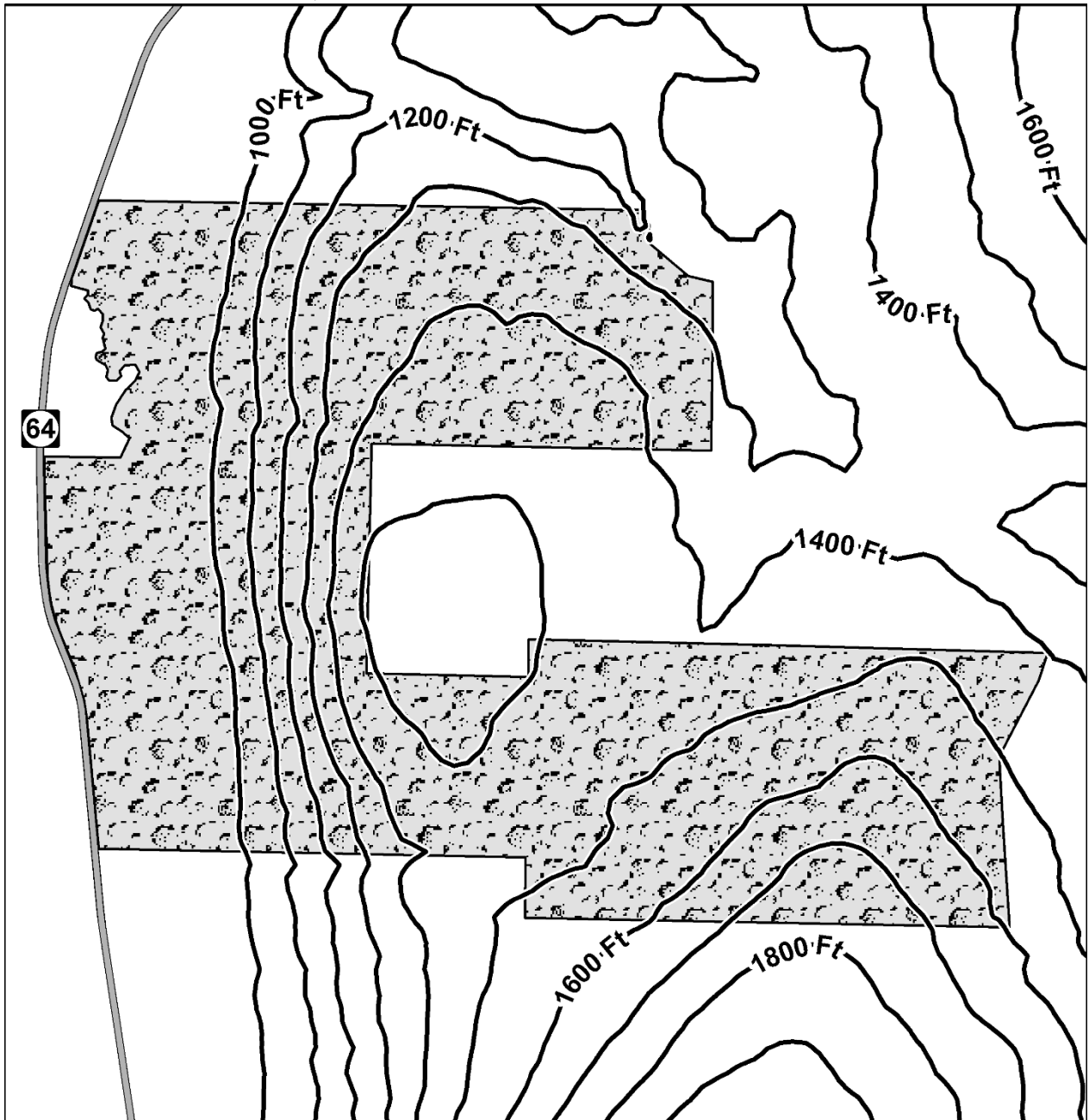


US Highway

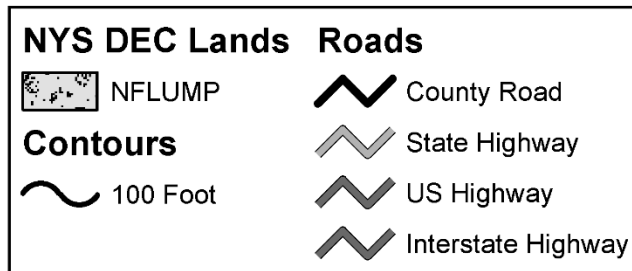
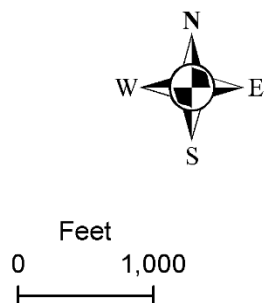
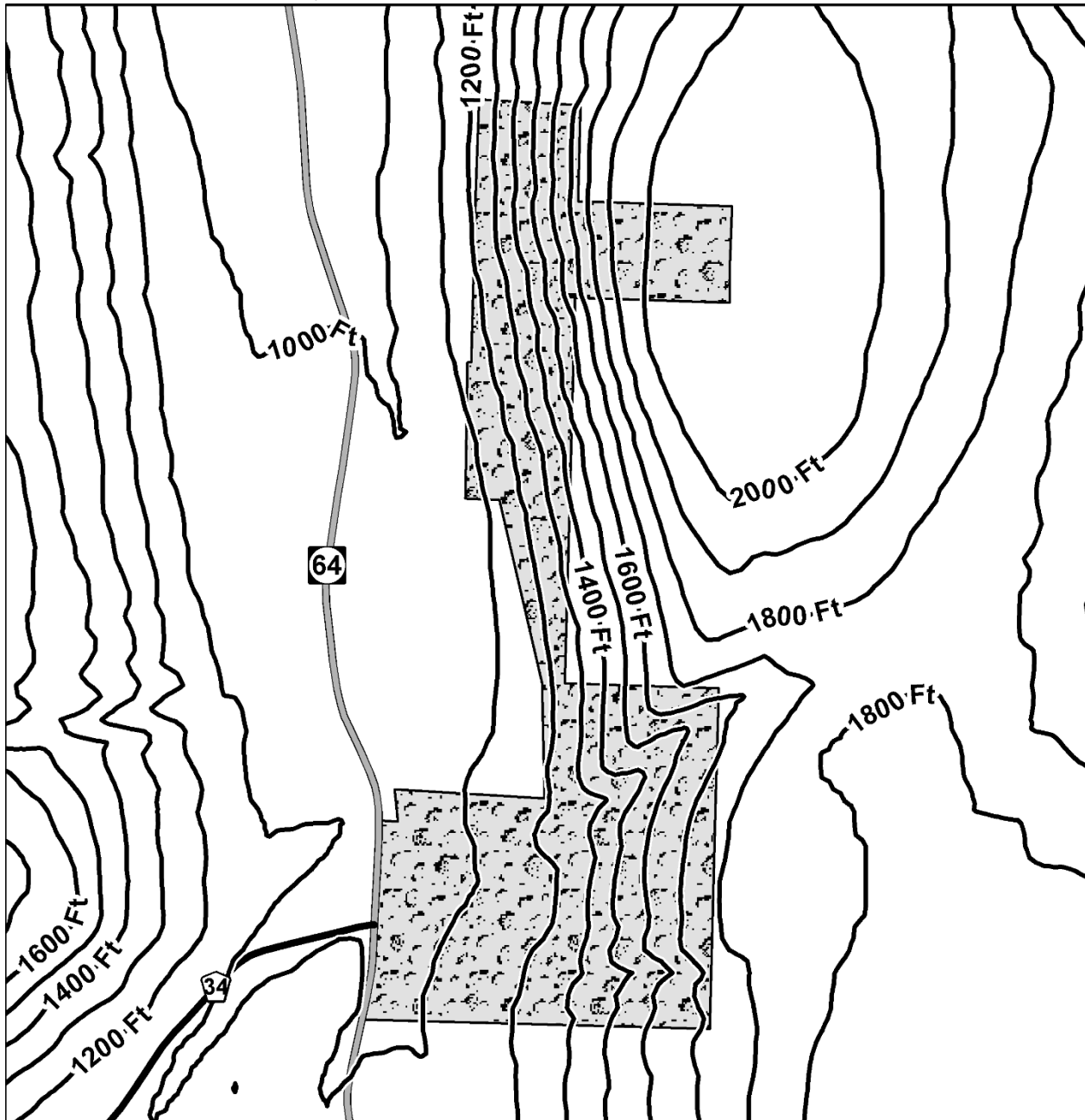


Interstate Highway

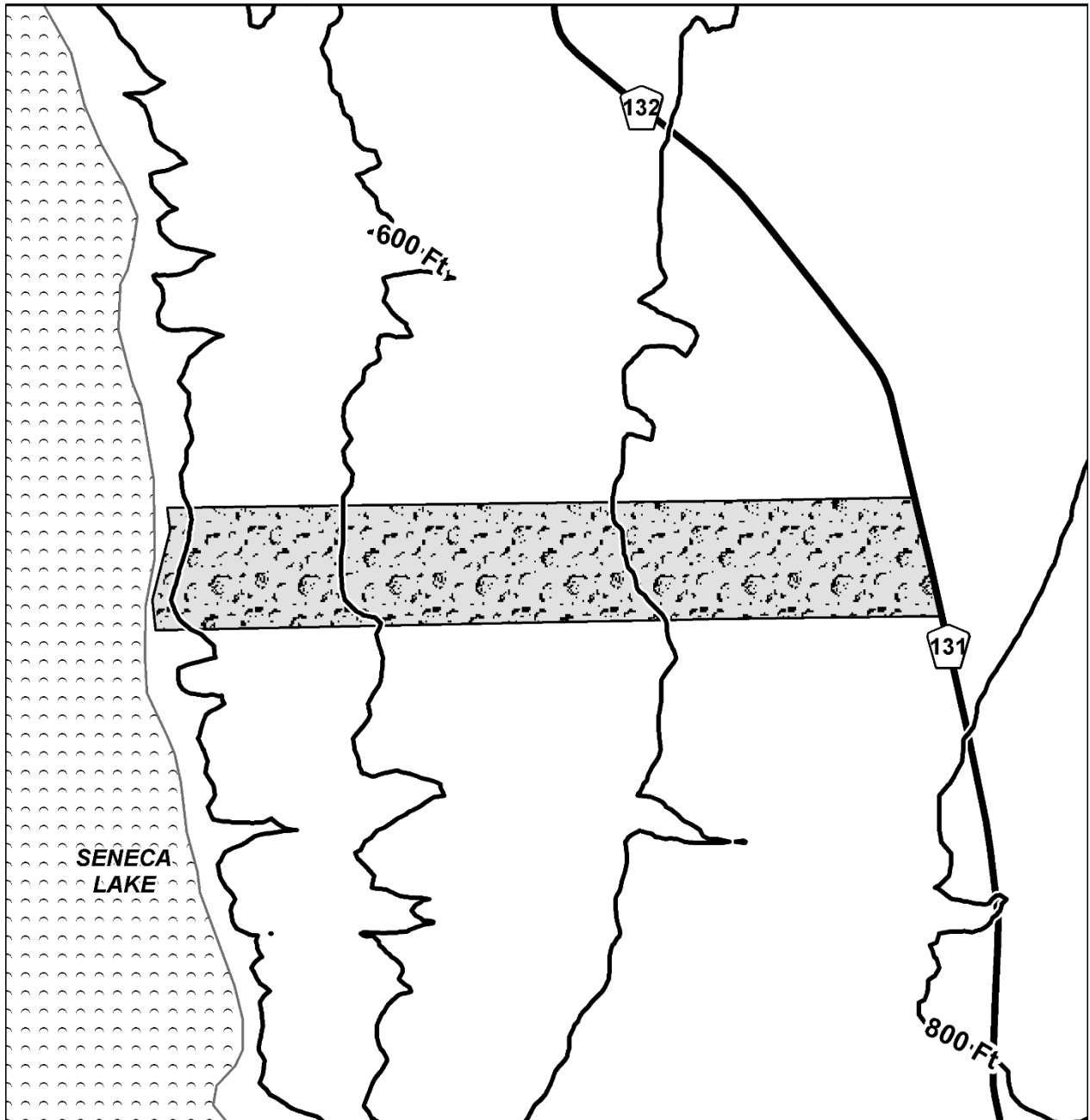
STID HILL MUA, NORTH



STID HILL MUA, SOUTH



WILLARD WMA



Feet
0 1,000

A horizontal scale bar with a vertical tick at 0 and another at 1,000 feet.


NYS DEC Lands

 NFLUMP


Contours

 100 Foot

Roads

 County Road

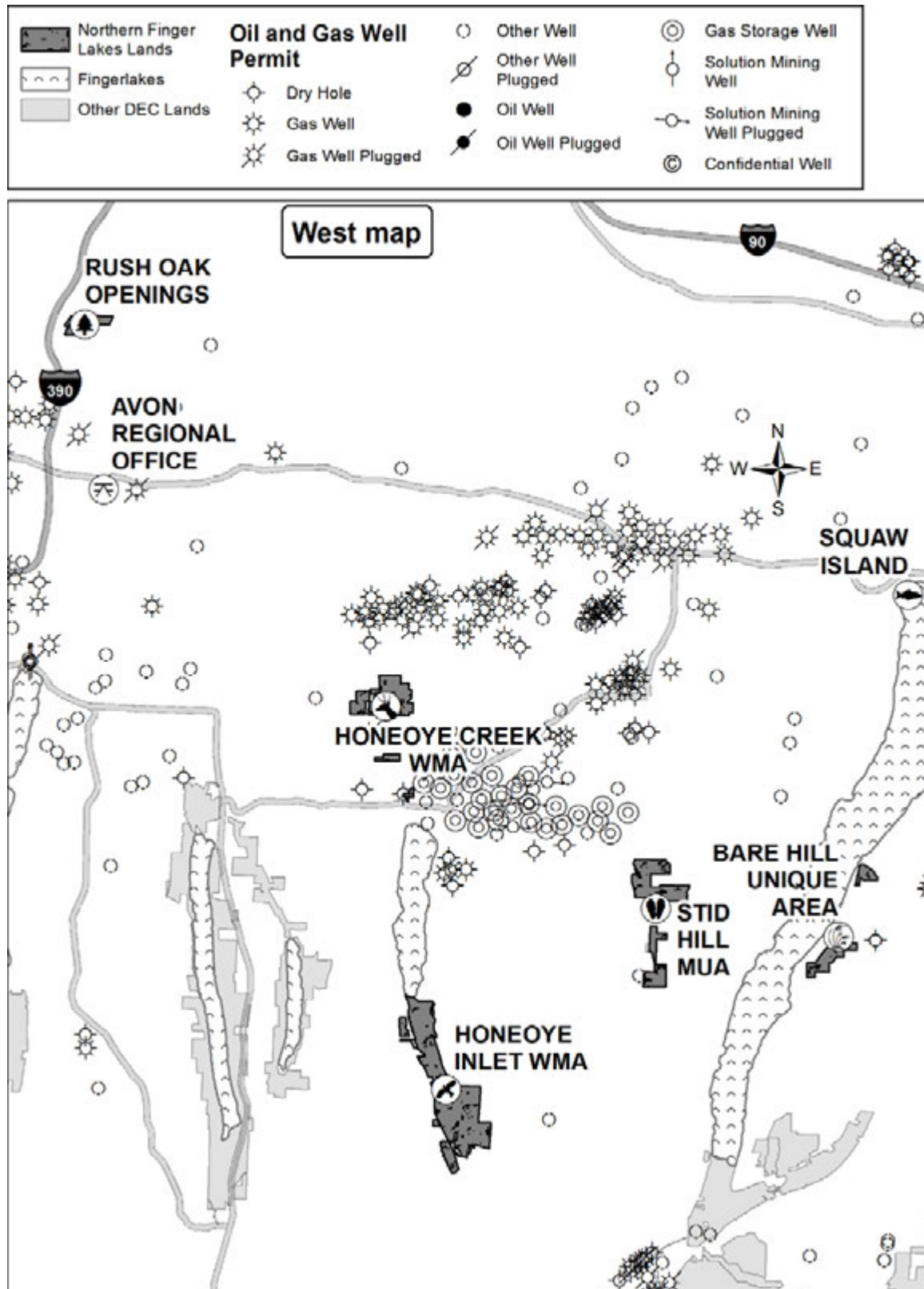
 State Highway

 US Highway

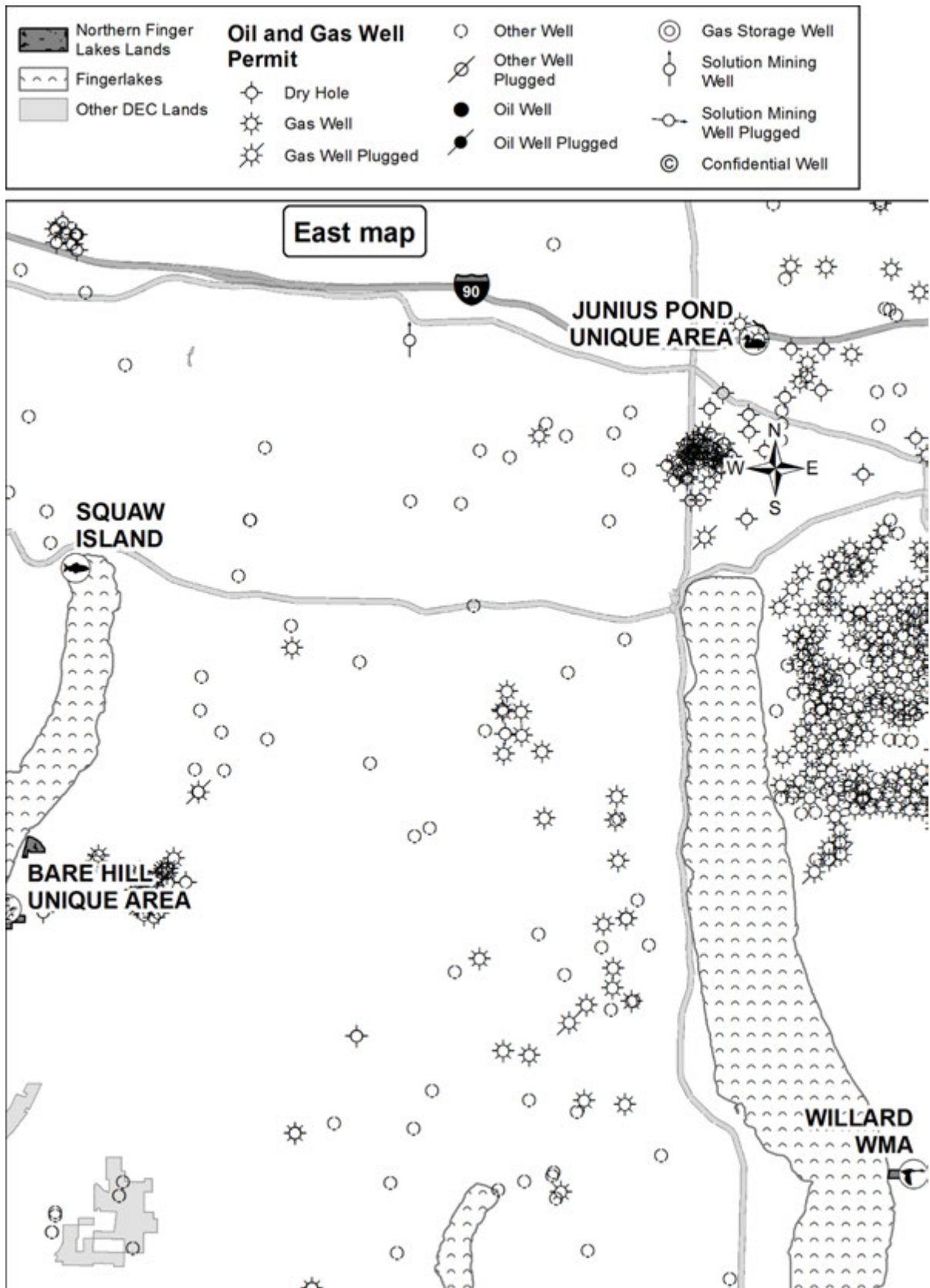
 Interstate Highway

Geology – Oil, Gas, and Solution Mining Map

See also Mineral Resources on page 47 and Mineral Resource Management on page 144.

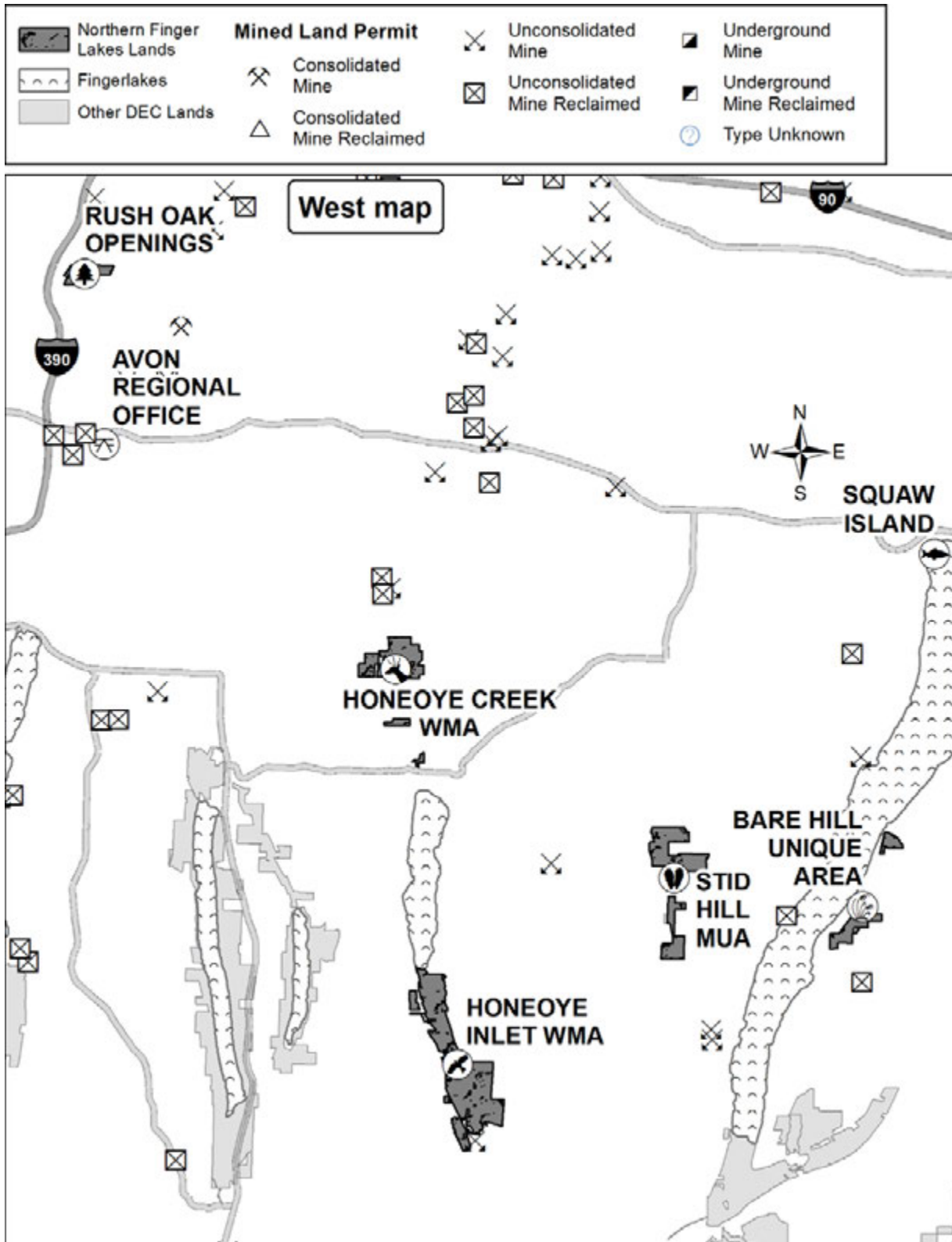


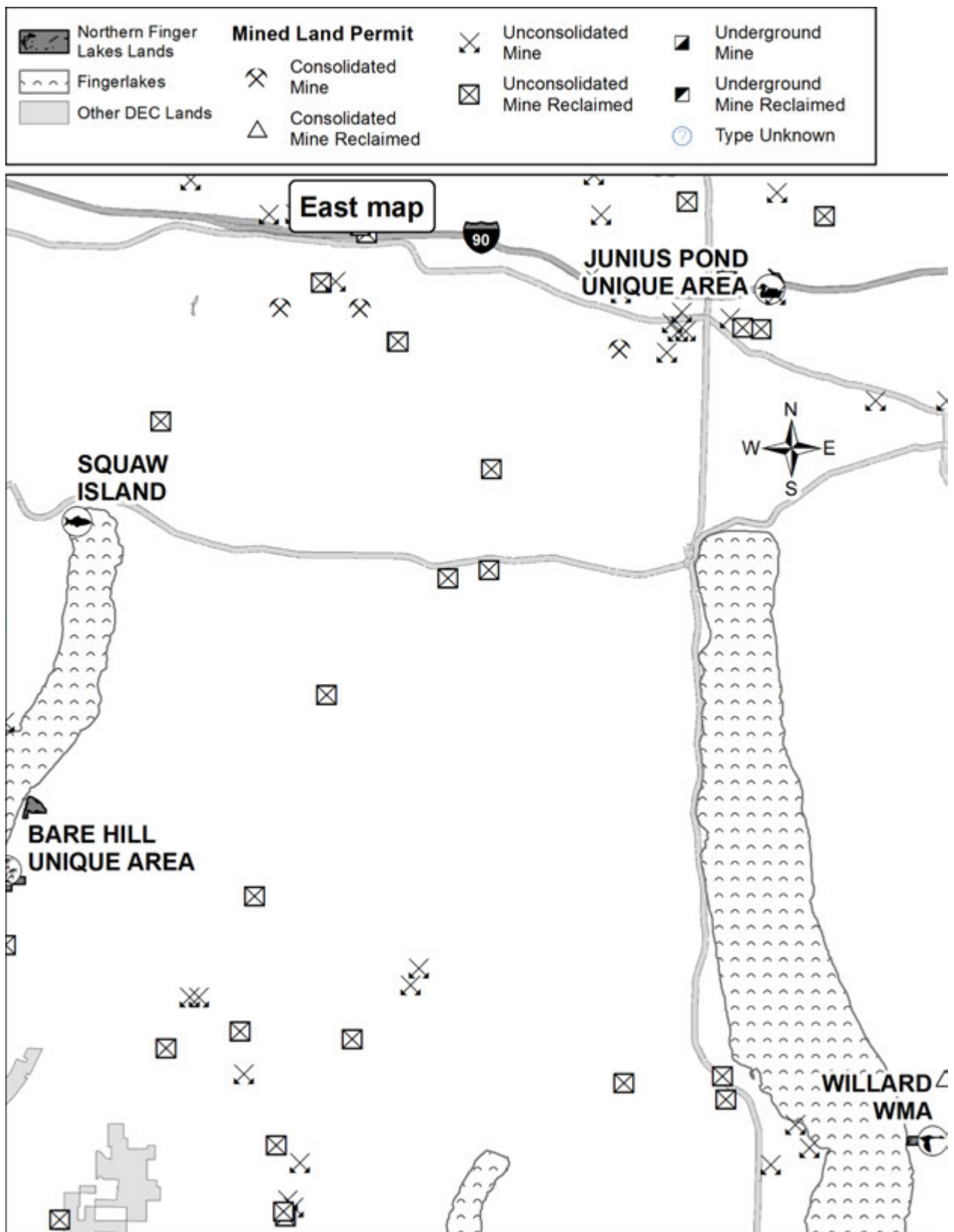
See also Mineral Resources on page 47 and Mineral Resource Management on page 144



Geology - Sand, Gravel and Other Mine Locations

See also Mineral Resources on page 47 and Mineral Resource Management on page 144.

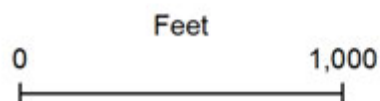
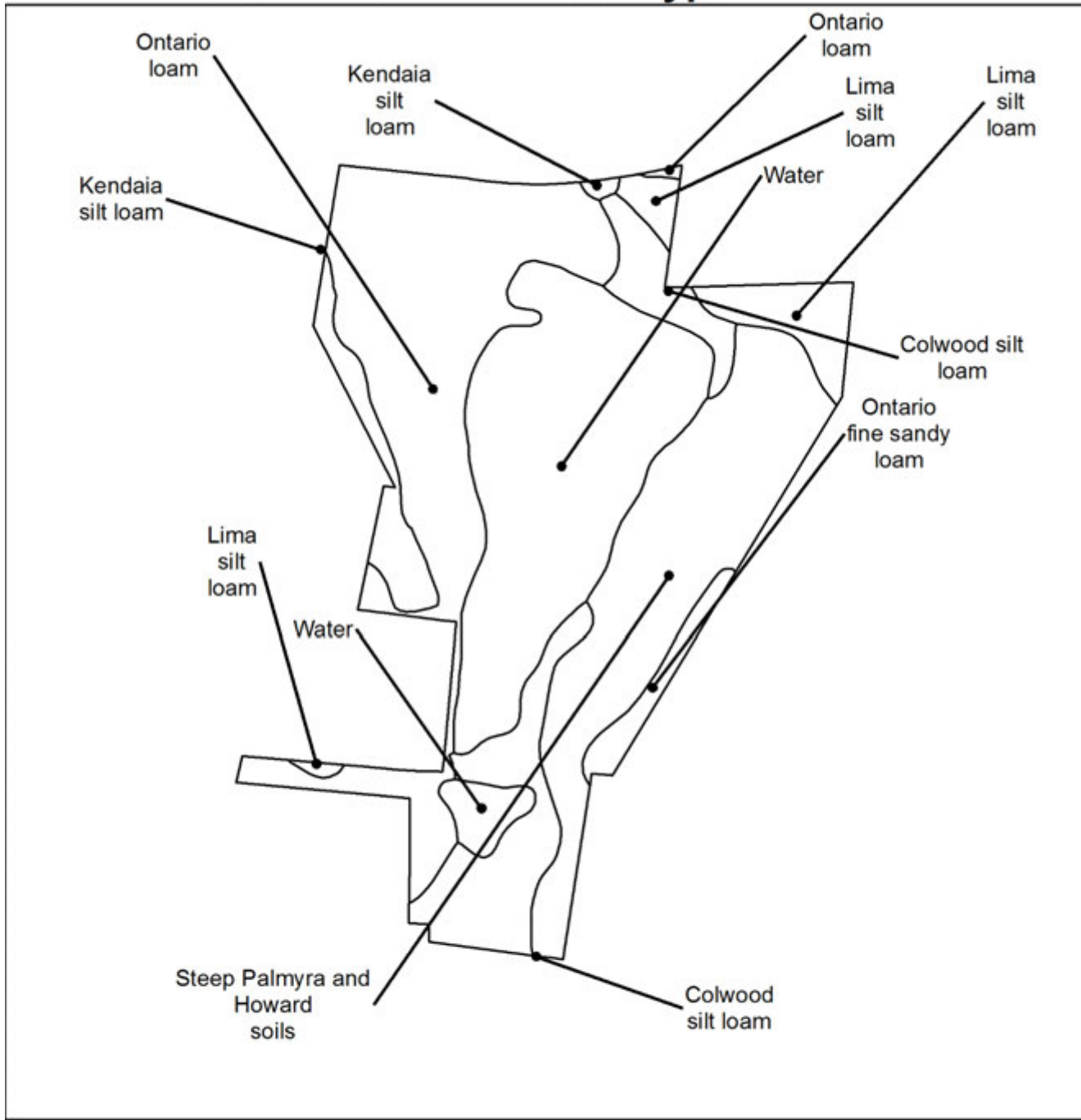




Soil Maps

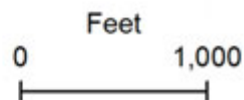
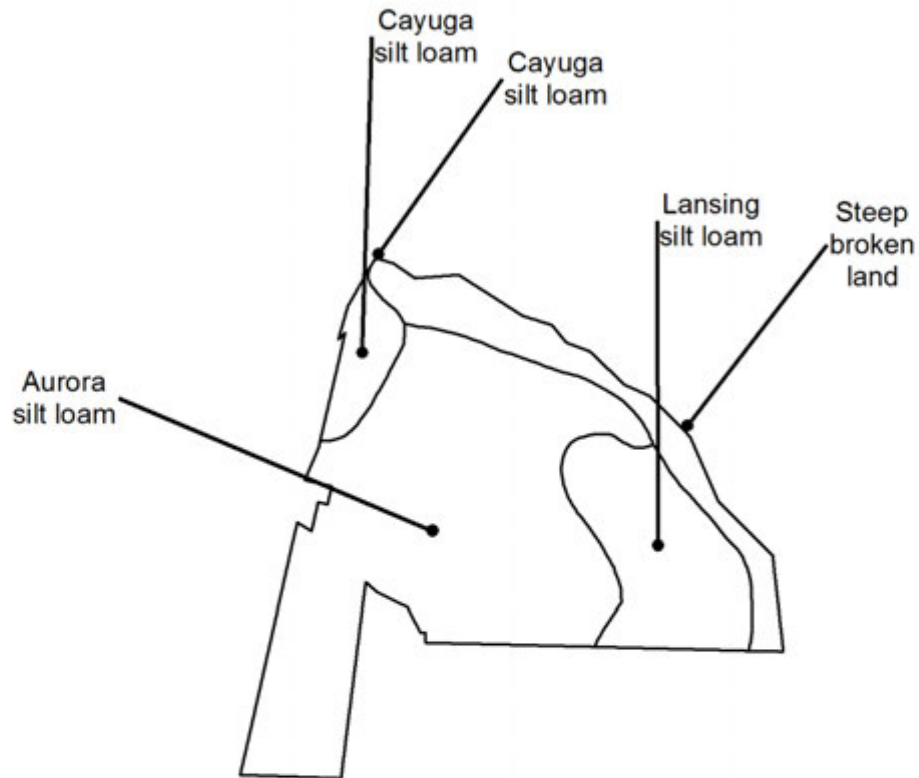
To make these maps easier to read, the following soil type maps have been greatly simplified. For greater detail and information please look online at <http://soildatamart.nrcs.usda.gov> or contact the Yates, Monroe, Seneca, Livingston or Ontario NRCS offices. See also Soils and Table 5: Soils, starting on page 42.

AVON REGIONAL OFFICE - Soil Type



To make these maps easier to read, the following soil type maps have been greatly simplified. For greater detail and information please look online at <http://soildatamart.nrcs.usda.gov> or contact the Yates, Monroe, Seneca, Livingston or Ontario NRCS offices. See also Soils and Table 5: Soils, starting on page 42.

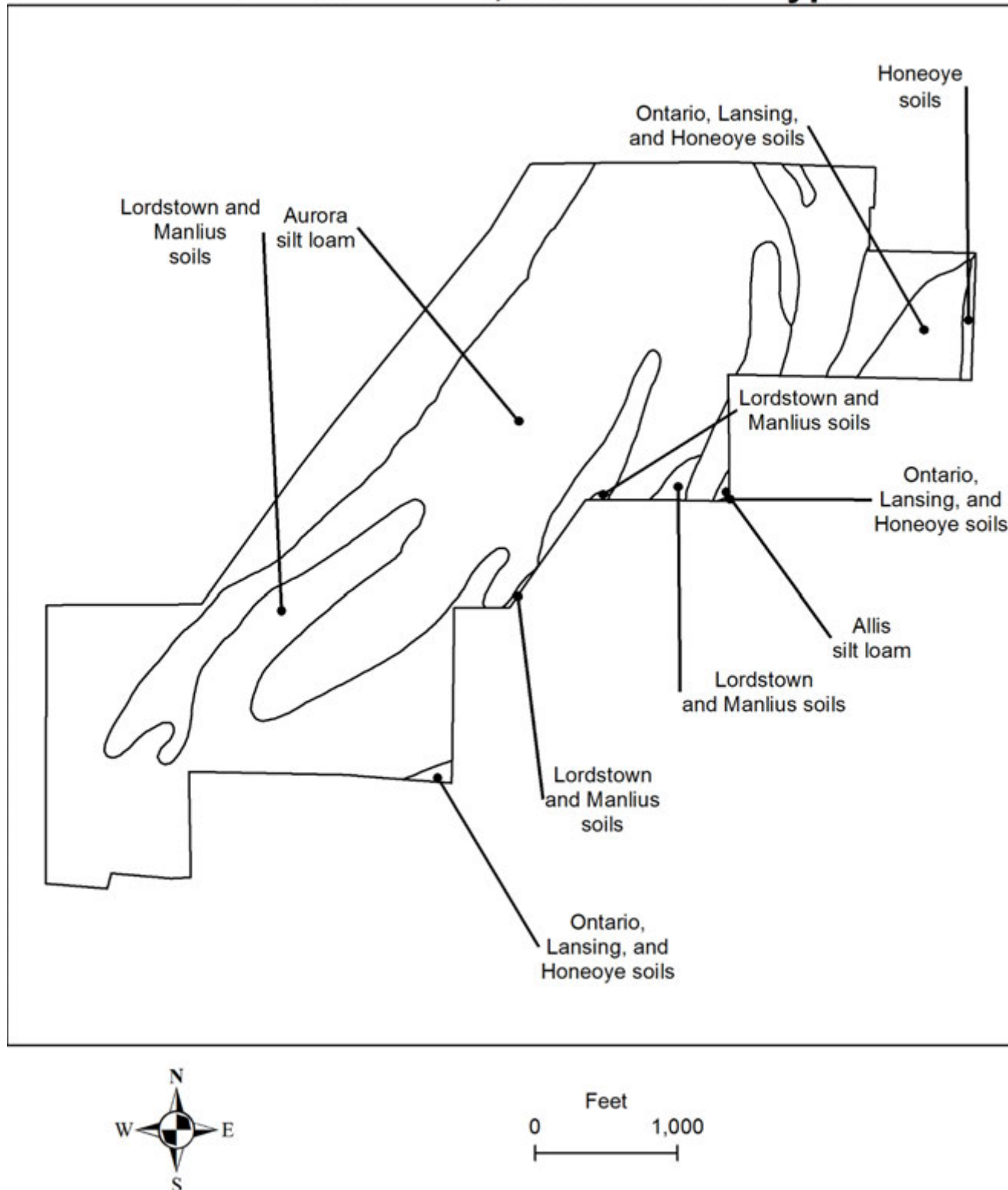
BARE HILL UNIQUE AREA, NORTH - Soil Type



Appendices

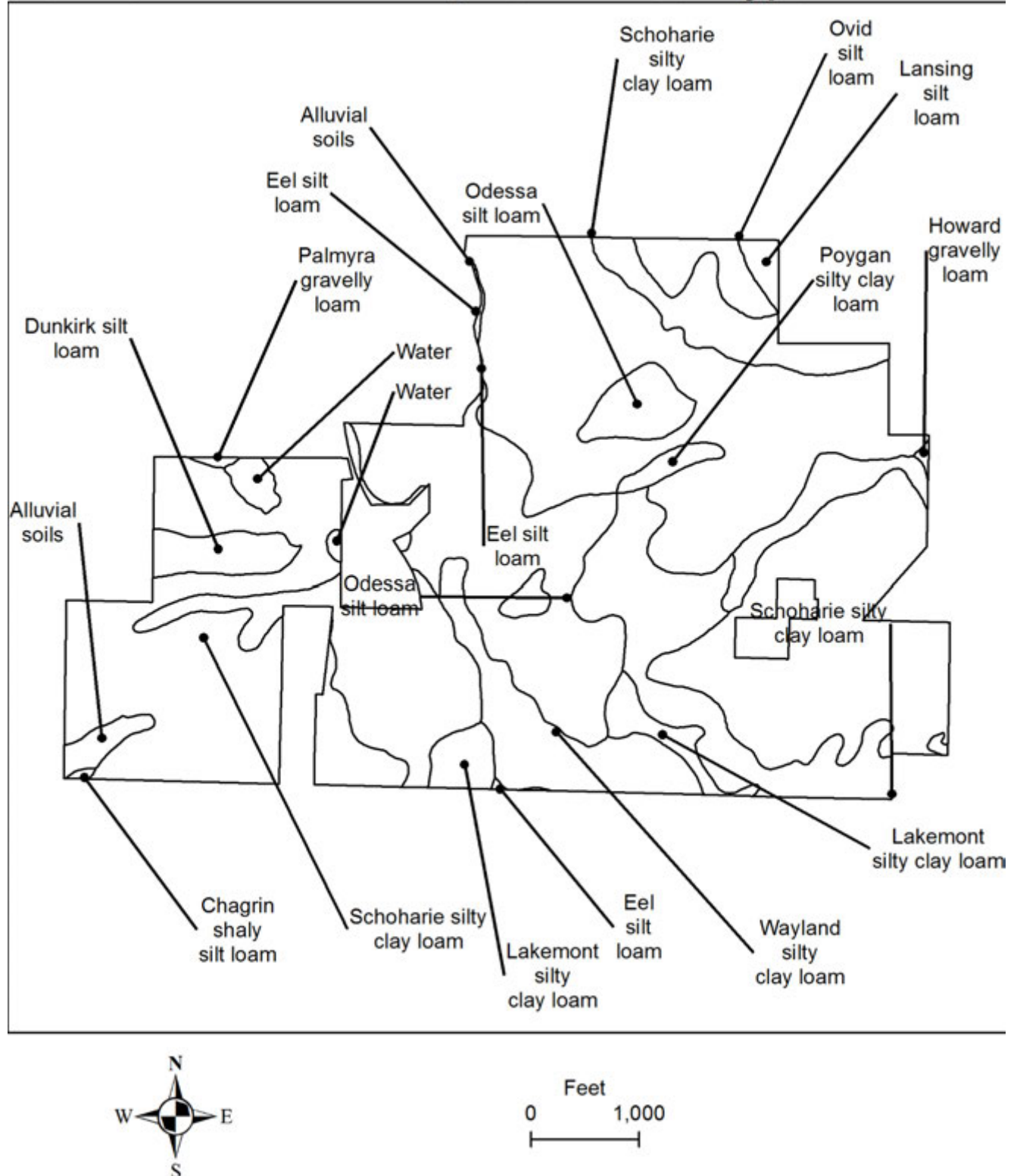
To make these maps easier to read, the following soil type maps have been greatly simplified. For greater detail and information please look online at <http://soildatamart.nrcs.usda.gov> or contact the Yates, Monroe, Seneca, Livingston or Ontario NRCS offices. See also Soils and Table 5: Soils, starting on page 42

BARE HILL UNIQUE AREA, SOUTH - Soil Type



To make these maps easier to read, the following soil type maps have been greatly simplified. For greater detail and information please look online at <http://soildatamart.nrcs.usda.gov> or contact the Yates, Monroe, Seneca, Livingston or Ontario NRCS offices. See also Soils and Table 5: Soils, starting on page 42

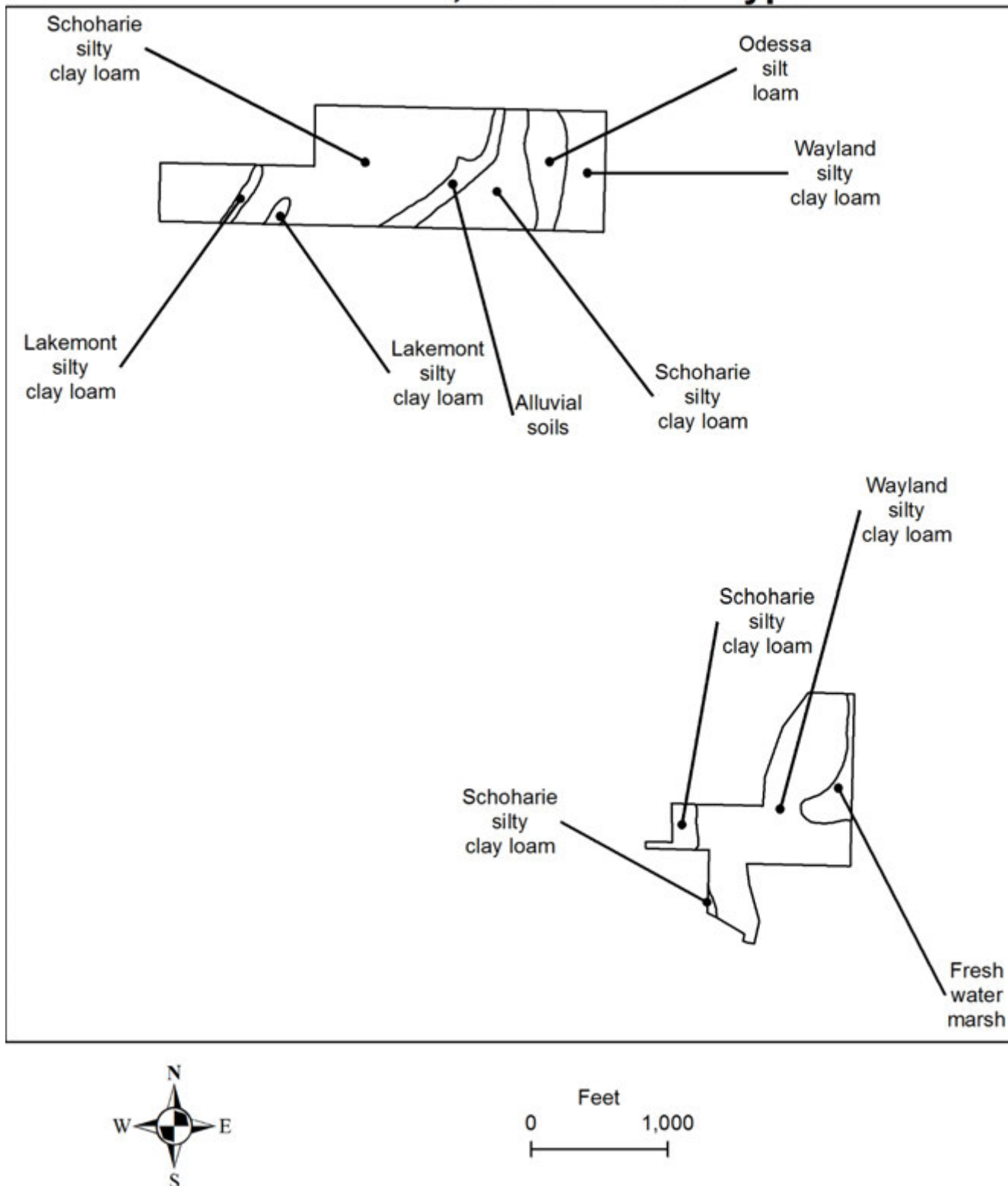
HONEOYE CREEK WMA, NORTH - Soil Type



Appendices

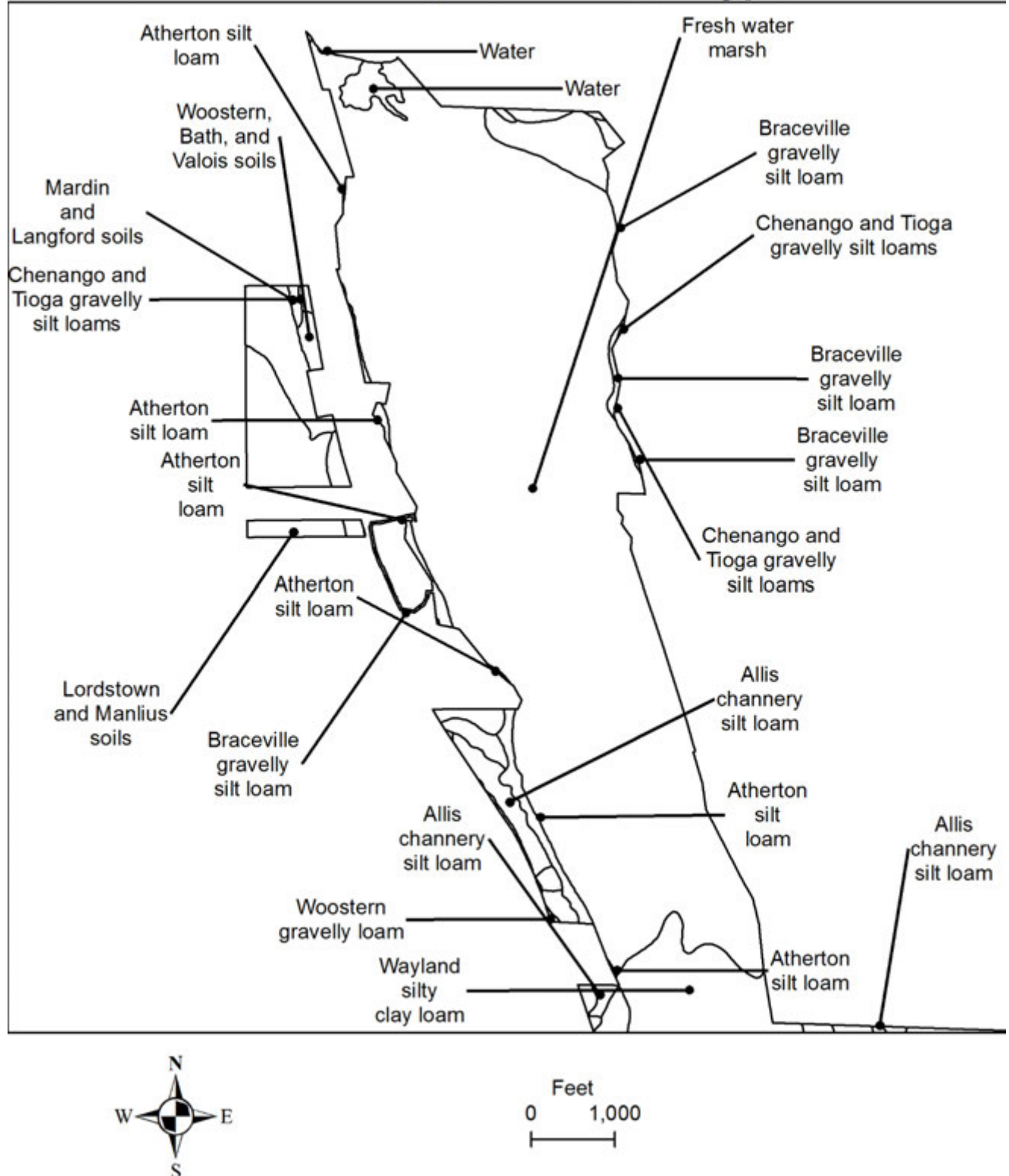
To make these maps easier to read, the following soil type maps have been greatly simplified. For greater detail and information please look online at <http://soildatamart.nrcs.usda.gov> or contact the Yates, Monroe, Seneca, Livingston or Ontario NRCS offices. See also Soils and Table 5: Soils, starting on page 42.

HONEOYE CREEK WMA, SOUTH - Soil Type



To make these maps easier to read, the following soil type maps have been greatly simplified. For greater detail and information please look online at <http://soildatamart.nrcs.usda.gov> or contact the Yates, Monroe, Seneca, Livingston or Ontario NRCS offices. See also Soils and Table 5: Soils, starting on page 42.

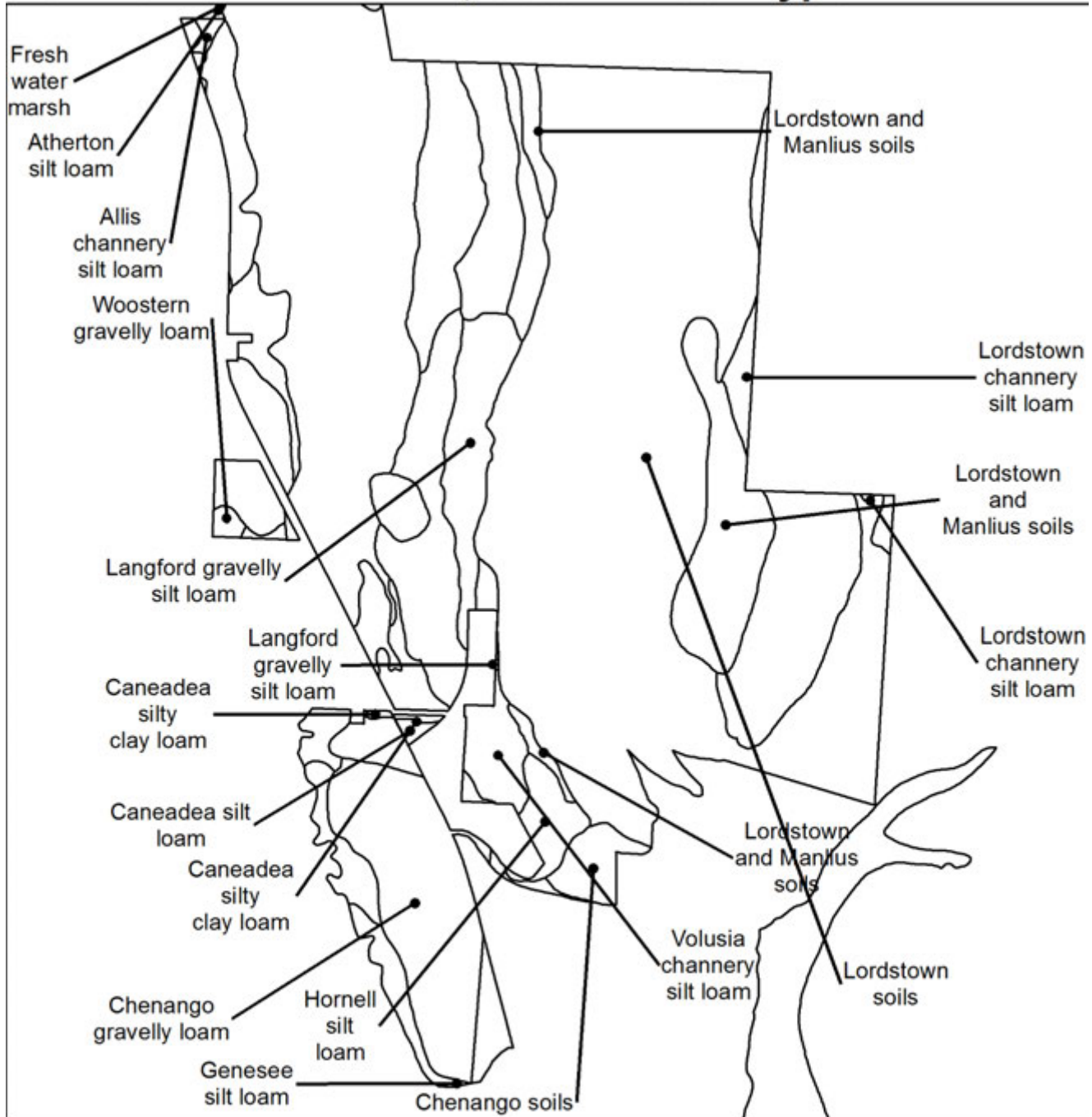
HONEOYE INLET WMA, NORTH - Soil Type



Appendices

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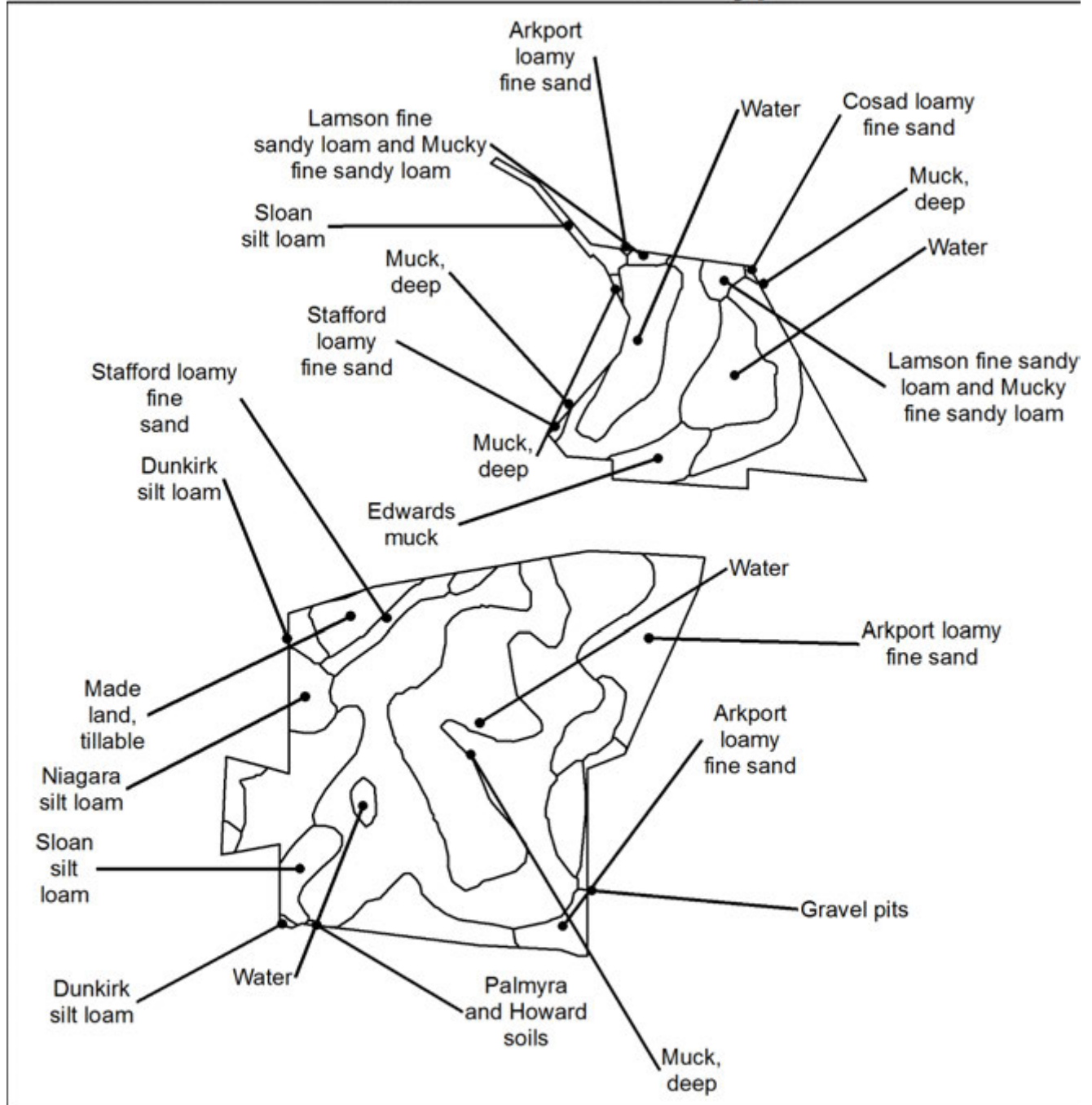
HONEOYE INLET WMA, SOUTH - Soil Type



Feet
0 1,000

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JUNIUS POND UNIQUE AREA - Soil Type

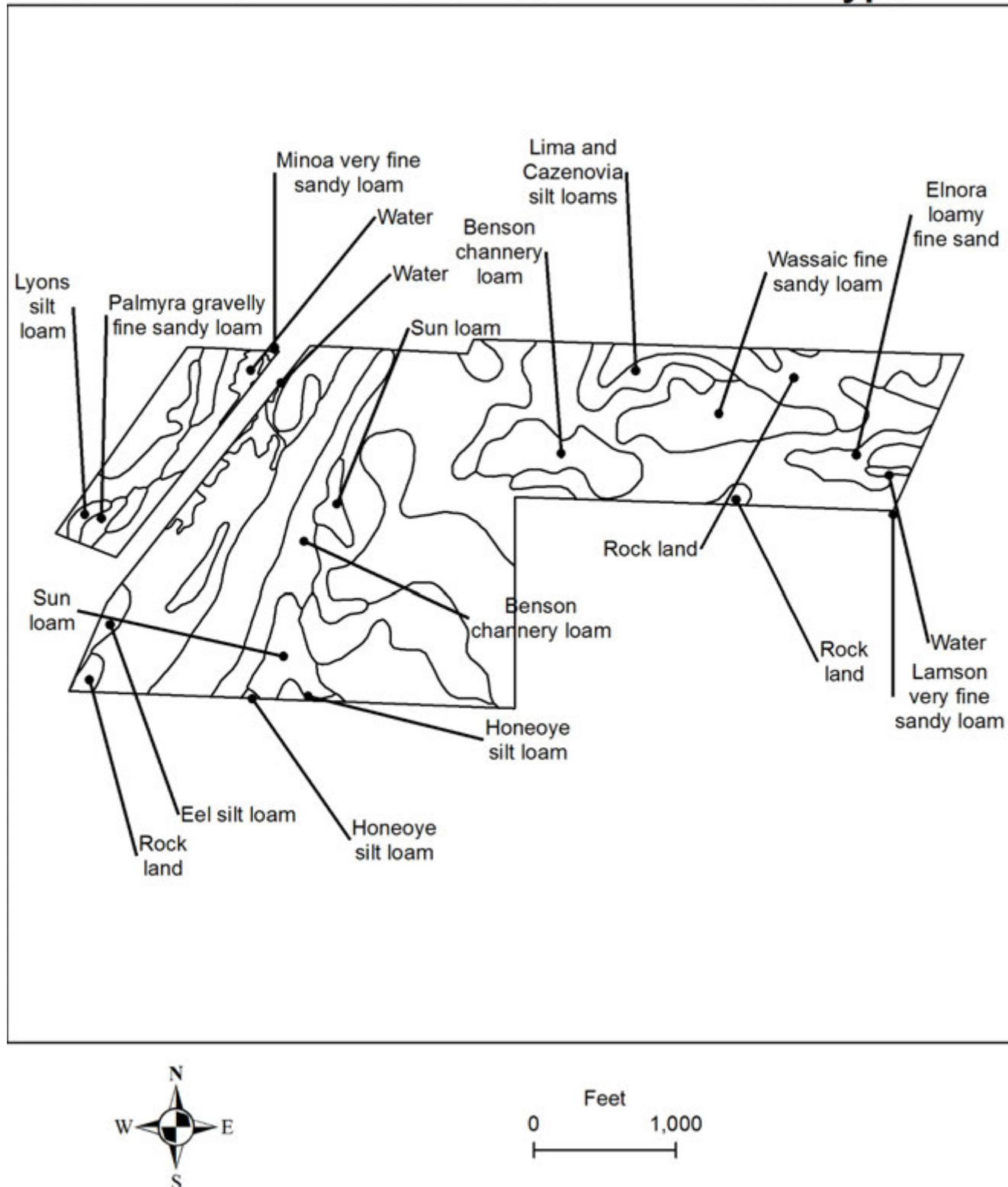


Feet
0 1,000

Appendices

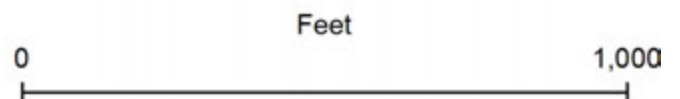
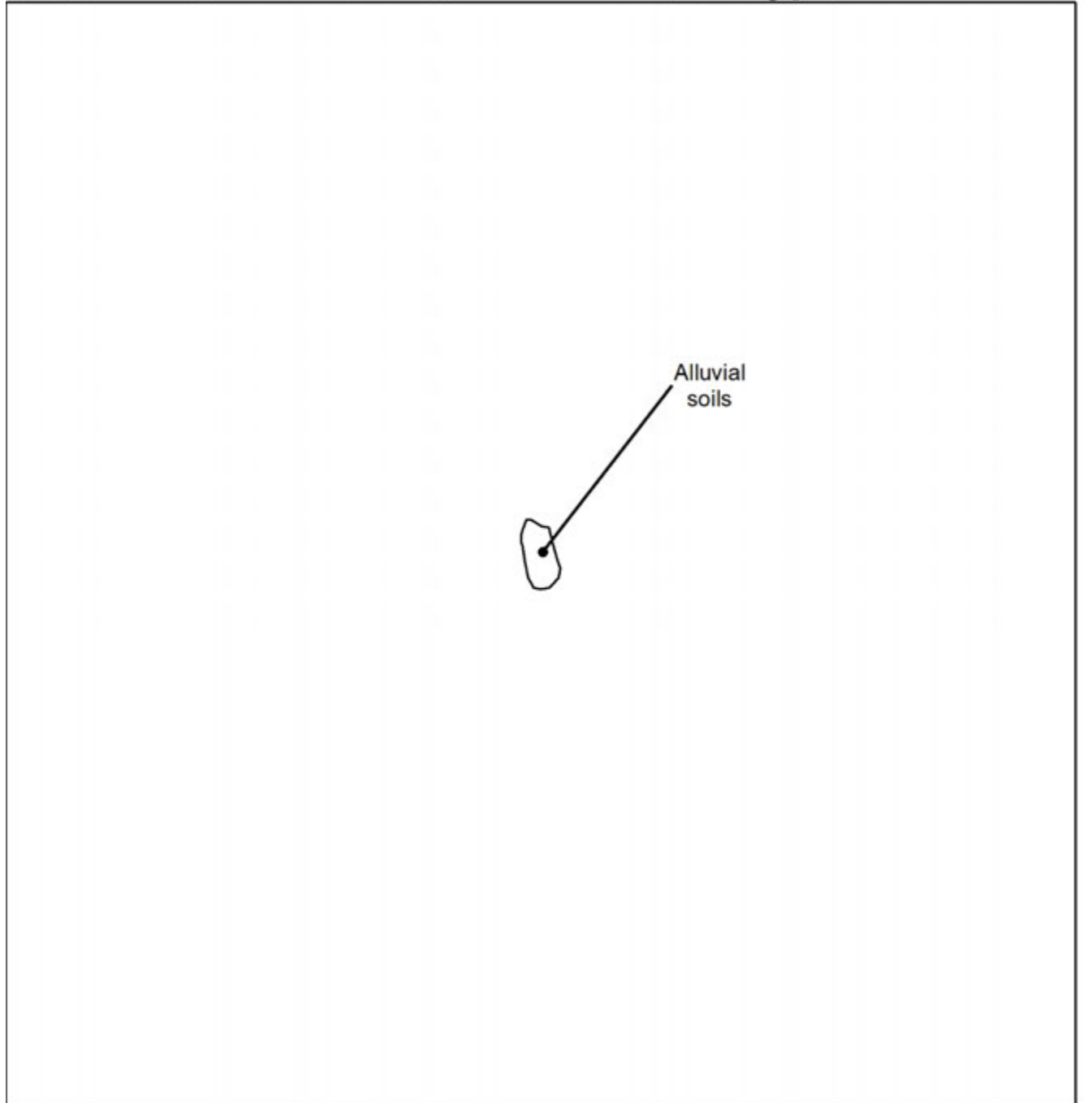
To make these maps easier to read, the following soil type maps have been greatly simplified. For greater detail and information please look online at <http://soildatamart.nrcs.usda.gov> or contact the Yates, Monroe, Seneca, Livingston or Ontario NRCS offices. See also Soils and Table 5: Soils, starting on page 42.

RUSH OAK OPENINGS UNIQUE AREA - Soil Type



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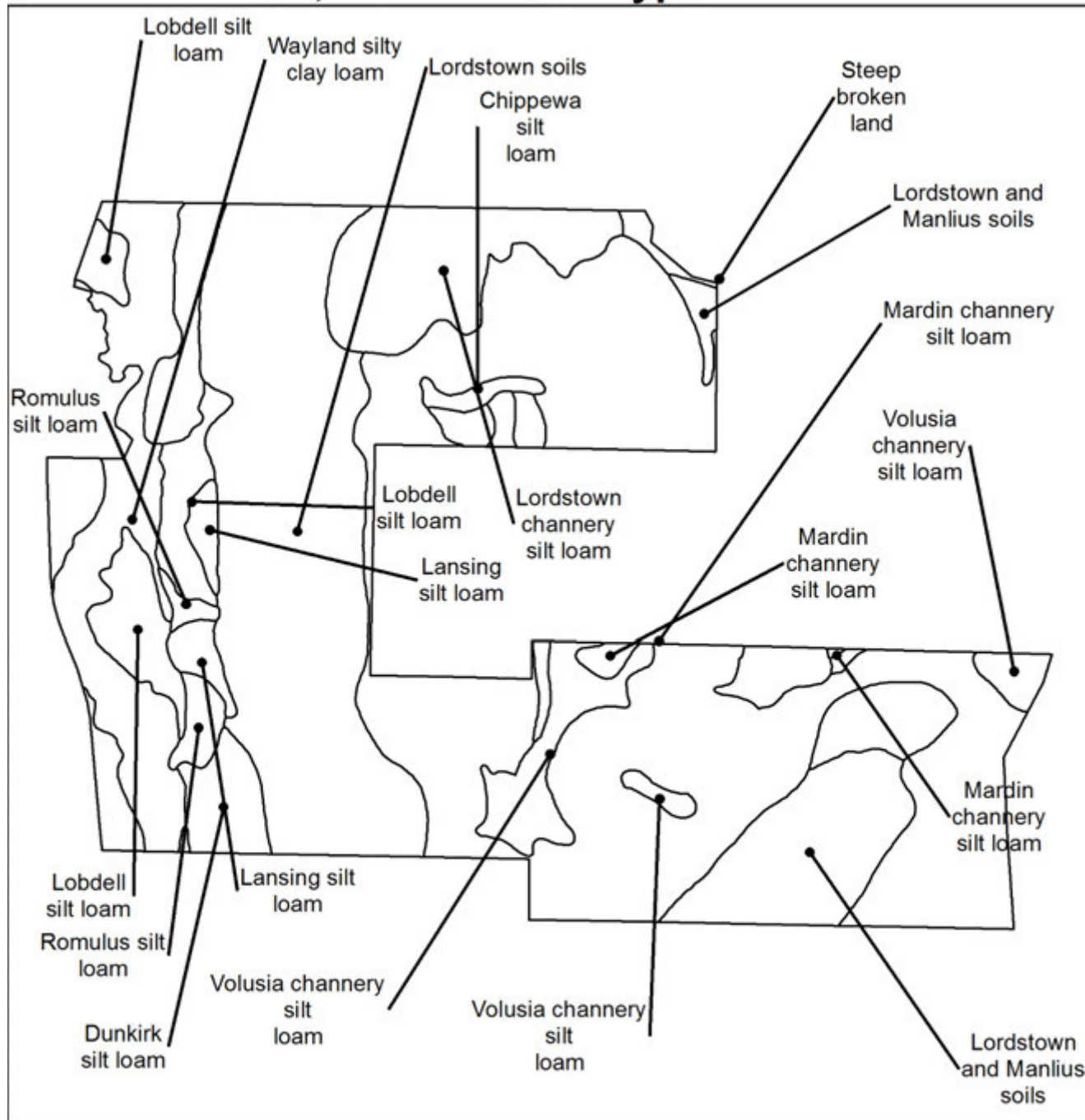
SQUAW ISLAND UNIQUE AREA - Soil Type



Appendices

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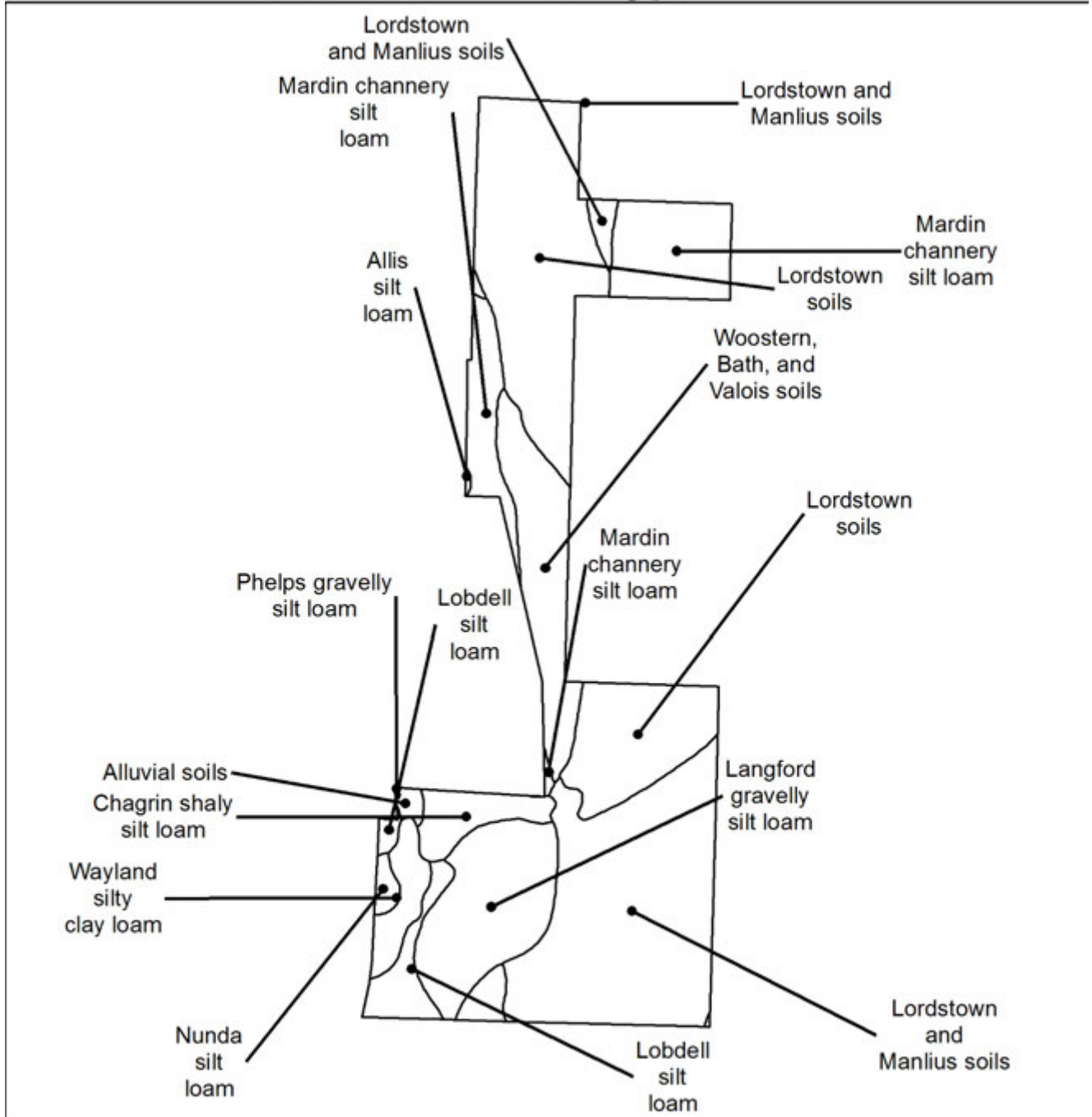
STID HILL MUA, NORTH - Soil Type



Feet
0 1,000

To make these maps easier to read, the following soil type maps have been greatly simplified. For greater detail and information please look online at <http://soildatamart.nrcs.usda.gov> or contact the Yates, Monroe, Seneca, Livingston or Ontario NRCS offices. See also Soils and Table 5: Soils, starting on page 42.

STID HILL MUA, SOUTH - Soil Type

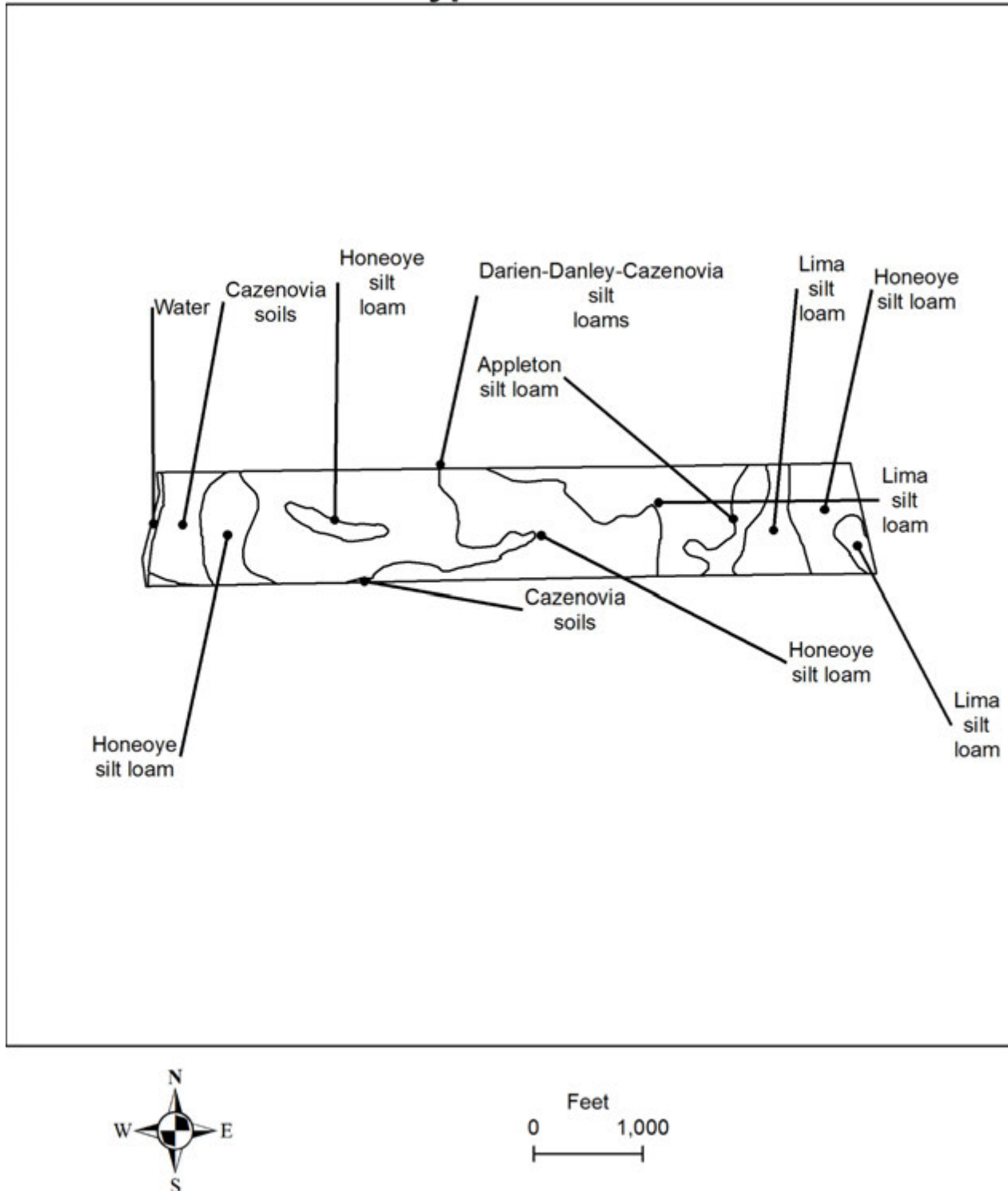


Feet
0 1,000

Appendicies

To make these maps easier to read, the following soil type maps have been greatly simplified. For greater detail and information please look online at <http://soildatamart.nrcs.usda.gov> or contact the Yates, Monroe, Seneca, Livingston or Ontario NRCS offices. See also Soils and Table 5: Soils, starting on page 42

WILLARD WMA - Soil Type



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This plan will be located at: www.dec.ny.gov/lands/99999.html