

**Habitat Management Plan  
for  
Oriskany Flats Wildlife Management Area  
2016 - 2025**



**Mohawk River flowing adjacent to Oriskany Flats WMA.**

Photo: Amy Hoyt, NYSDEC

Division of Fish and Wildlife  
Bureau of Wildlife

317 Washington Street, Watertown, New York 13601

April 22, 2016



**Department of  
Environmental  
Conservation**

Prepared by:

Erik Latremore, Biologist 1 (Wildlife), Rachel Hillegas, Forester 1  
And James Canevari, Forestry Technician 2  
Young Forest Initiative

Steve Heerkens, Biologist 1 (Wildlife)  
Land Management & Habitat Conservation Team

Reviewed and approved by:

*James F. Farquhar III*

James Farquhar, Regional Wildlife Manager  
Bureau of Wildlife

June 20, 2016

Date

*James F. Farquhar III*

James Farquhar, Chief  
Bureau of Wildlife

8/24/2016

Date

*Douglas L. Stang*

Doug Stang, Acting Director  
Division of Fish and Wildlife

8/24/2016

Date



Financial support for development of this Habitat Management Plan was provided by the Federal Aid in Wildlife and Sport Fish Restoration Program and non-federal funds administered by the New York State Department of Environmental Conservation including Habitat & Access Stamp funds.

## TABLE OF CONTENTS

---

<i>SUMMARY</i> .....	3
<i>I. BACKGROUND AND INTRODUCTION</i> .....	4
PURPOSE OF HABITAT MANAGEMENT PLANS .....	4
WMA OVERVIEW .....	5
LANDSCAPE CONTEXT .....	8
<i>II. MANAGEMENT STRATEGIES BY HABITAT TYPE</i> .....	9
FOREST .....	9
SHRUBLAND.....	14
GRASSLAND.....	16
AGRICULTURAL LAND .....	17
WETLANDS (NATURAL AND IMPOUNDED) .....	18
OPEN WATER (WATERBODIES AND WATERCOURSES) .....	21
HABITAT MANAGEMENT SUMMARY .....	22
<i>III. FIGURES</i> .....	23
<i>IV. APPENDICES</i> .....	29
APPENDIX A: DEFINITIONS .....	29
APPENDIX B. STATEMENT OF CONFORMITY WITH SEQRA.....	32
APPENDIX C: FOREST MANAGEMENT PRESCRIPTIONS .....	34
APPENDIX D: AMENDMENTS.....	37

## LIST OF FIGURES

---

FIGURE 1. Location and access features at Oriskany Flats WMA. ....	23
FIGURE 2. Significant ecological communities on Oriskany Flats WMA.....	24
FIGURE 3. Wetlands, open water, and streams of Oriskany Flats WMA. ....	25
FIGURE 4. Land cover types and conservation lands in the landscape surrounding Oriskany Flats WMA. ....	26
FIGURE 5. Percent cover of land cover types within three miles of Oriskany Flats WMA.....	27
FIGURE 6. Habitat types and location(s) of proposed management on Oriskany Flats WMA....	28

## SUMMARY

---

Oriskany Flats Wildlife Management Area (WMA) is located in the Mohawk River floodplain. The WMA is known to have been extensively farmed in the past; a 1938 aerial photo shows virtually the entire area under cultivation. Today, the WMA consists of floodplain forest, emergent marsh, shrub swamp, successional hardwoods, and old field habitat. Some of the last remaining original Mohawk River corridor flows through the WMA. The WMA is situated between two major population centers (Utica and Rome, NY) with over 100,000 people living in the immediate vicinity. The WMA is dedicated to Dave Pierce, a local sportsman active in the Oneida County Sportsman's Federation whose efforts made the acquisition of Oriskany Flats possible in the 1980s.

The area around Oriskany Flats WMA is historically significant for several reasons. The Mohawk River and Oriskany Creek were used as travel corridors by Native Americans. The property also shares borders with the Oriskany Battlefield Monument and it is believed the WMA lands may have been part of the retreat field during that significant battle of the Revolutionary War. In addition, the WMA borders the 1825 Erie Canal and the 1913 Barge Canal.

Oriskany Flats WMA is floodplain habitat and was originally intended to be managed for shallow water impoundments, as well as old field management for waterfowl and game bird nesting habitat. The WMA is a popular general hunting destination in Oneida County and is used as a site for stocking adult ring-necked pheasants. Some formalized access has been developed to facilitate public use.

Oriskany Flats WMA has been used for opportunities to create wetland and stream habitat, and public access points as part of several large development projects occurring off-site through New York State Department of Transportation (2000s) and more recently for the Mohawk Valley Economic Development Group (EDGE; 2014-16). NYS Department of Environmental Conservation (DEC) partnered with these entities as well as the Oneida County Soil and Water District and the United States Army Corp of Engineers to create over 100 acres of wetland habitat, 1,500 feet of stream, two parking areas, Mohawk River boat access, and approximately 15 acres of upland habitat. The intent of all these efforts is to manage these resources on publicly owned lands to benefit wildlife and public use.

Habitat management goals for Oriskany Flats WMA include:

- Managing approximately 7% of the WMA (20% of the forested landscape) as young forest (0-10 years) to promote American woodcock, wild turkey, and white-tailed deer habitat;
- Maintaining approximately 29% as intermediate and mature forested wetland;
- Managing approximately 30% as early successional shrublands;
- Managing approximately 7% as grasslands;
- Continuing agricultural agreements on approximately 4% of the WMA; and
- Maintaining approximately 22% as wetlands to provide prime breeding and migratory stopover habitat for marsh birds and waterfowl.

# ***I. BACKGROUND AND INTRODUCTION***

## **PURPOSE OF HABITAT MANAGEMENT PLANS**

---

### **BACKGROUND**

Active management of habitats to benefit wildlife populations is a fundamental concept of wildlife biology, and has been an important component of wildlife management in New York for decades. Beginning in 2015, DEC Division of Fish and Wildlife (DFW) initiated a holistic planning process for wildlife habitat management projects. Habitat Management Plans (HMPs) are being developed for WMAs and other properties administered by DFW Bureau of Wildlife, including select Multiple Use and Unique Areas. The goal of HMPs is to guide habitat management decision-making on those areas to benefit wildlife and facilitate wildlife-dependent recreation. HMPs guide management for a ten year time period, after which the plans and progress on implementation will be assessed and HMPs will be modified as needed.

HMPs serve as the overarching guidance for habitat management on WMAs. These plans incorporate management recommendations from Unit Management Plans (UMPs), existing WMA habitat management guidelines, NY Natural Heritage Program's WMA Biodiversity Inventory Reports, Bird Conservation Area guidelines, and other documents available for individual WMAs.

### **SCOPE AND INTENT**

Primary purposes of this document:

- Provide the overall context of the habitat on the WMA and identify the target species for management;
- Identify habitat goals for WMA-specific target species, contemplating juxtaposition of all habitat types to guide the conservation and management of sensitive or unique species or ecological communities;
- Identify acreage-specific habitat goals for the WMA to guide management actions;
- Provide specific habitat management prescriptions that incorporate accepted best management practices;
- Establish a forest management plan to meet and maintain acreage goals for various forest successional stages;
- Address management limitations such as access challenges (e.g., topography); and
- Provide the foundation for evaluating the effectiveness of habitat management.

Within the next five years, this HMP will be integrated into a comprehensive WMA Management Plan that will include management provisions for facilitating compatible wildlife-dependent recreation, access, and facility development and maintenance.

Definitions are provided in Appendix A.

The effects of climate change and the need to facilitate wildlife adaptation under expected future conditions will be incorporated into the habitat management planning process and will be

included in any actions that are recommended in the HMPs. For example, these may include concerns about invasive species, anticipated changes in stream hydrology, and the desirability for maintaining connectedness on and permeability of the landscape for species range adjustments.

This plan and the habitat management it recommends will be in compliance with the State Environmental Quality Review Act (SEQRA), 6NYCRR Part 617. See Appendix B. The recommended habitat management also requires review and authorization under the Endangered Species Act (ESA), National Environmental Policy Act (NEPA), and State Historic Preservation Act (SHPA), prior to implementation.

## WMA OVERVIEW

---

### LOCATION

Oriskany Flats WMA is located in DEC Region 6, Towns of Marcy, Rome, and Whitestown, Oneida County (Figure 1).

### TOTAL AREA

806 acres

### HABITAT INVENTORY

A habitat inventory of the WMA was conducted in 2014 and is proposed to be updated every ten to fifteen years to document the existing acreage of each habitat type and to help determine the location and extent of future management actions. Table 1 summarizes the current acreage by habitat type and the desired acreage after management. Desired conditions were determined with consideration of habitat requirements of targeted wildlife, current conditions on the WMA, and conditions in the surrounding landscape (see Landscape Context section below).

Table 1. Summary of current and desired habitat acreage on Oriskany Flats WMA.

Habitat Type	Current Conditions (as of 2014)			Desired Conditions	
	Acres	Percent of WMA	Miles	Acres	Percent of WMA
Forest <sup>a</sup>	286	36%		230	Decrease to 29% <sup>b</sup>
Young forest	0	0%		56	Increase to 7% <sup>b</sup>
Shrubland	302	38%		282	Decrease to 35%
Grassland	60	7%		60	No change
Agricultural land	36	4%		36	No change
Wetland (natural) <sup>c</sup>	54	7%		54	No change
Wetland (impounded) <sup>c</sup>	58	7%		78	Increase to 10%
Open water	0	0%		0	No change
Other	0	0%		0	No change

Table 1. Continued

Habitat Type	Current Conditions (as of 2014)			Desired Conditions	
	Acres	Percent of WMA	Miles	Acres	Percent of WMA
Roads	10	1%	1.5	10	No change
Rivers and streams			6.8		No change
<b>Total Acres:</b>	806	100%		806	

<sup>a</sup> Forest acreage includes all mature and intermediate age classes of natural forest, plantations, and forested wetlands. Young forest is reported separately. Definitions are provided in the Forest section of this plan.

<sup>b</sup> The forest management proposed in this plan aims to regenerate flood plain forest, promote regeneration of native species, and create woodcock habitat. See Landscape Context and Forest sections.

<sup>c</sup> Wetland acreage does not include forested wetlands, since they are included in the Forest category.

## **ECOLOGICAL RESOURCES**

### ***Wildlife Overview:***

Wildlife present on Oriskany Flats WMA includes many species commonly found throughout northern New York and the flood plains of the Mohawk Valley, such as:

- Beaver, muskrat, mink, river otter
- A variety of songbirds and migratory waterfowl
- White-tailed deer, wild turkey, grey squirrel
- Bullfrog, northern leopard frog, green frog, eastern American toad, spring peeper
- Northern water snake, garter snake
- Jefferson’s blue spotted salamander

### ***Wildlife and Plant Species of Conservation Concern:***

The following federal or state listed Endangered (E), Threatened (T), or Special Concern (SC) species and/or Species of Greatest Conservation Need (SGCN) may occur on the WMA (Table 2).<sup>1</sup> SGCN listed below include species that have been documented on or within the vicinity of the WMA that are likely to occur in suitable habitat on the WMA. Other SGCN may also be present on the WMA. Data sources include: the NY Natural Heritage Program, NY Breeding Bird Atlases,<sup>2</sup> NY Reptile and Amphibian Atlas,<sup>3</sup> DEC wildlife surveys and monitoring, and eBird.<sup>4</sup>

<sup>1</sup> The 2015 New York State Wildlife Action Plan identifies 366 Species of Greatest Conservation Need (SGCN) including 167 High Priority SGCN. Available online at <http://www.dec.ny.gov/animals/7179.html>.

<sup>2</sup> Available online at <http://www.dec.ny.gov/animals/7312.html>.

<sup>3</sup> Available online at <http://www.dec.ny.gov/animals/7140.html>.

<sup>4</sup> Available online at <http://ebird.org/content/ebird/about/>. © Audubon and Cornell Lab of Ornithology.

Table 2. Species of conservation concern that may be present on Oriskany Flats WMA, including state and federal Endangered (E) and Threatened (T) species, state Species of Special Concern (SC), High Priority SGCN (HP), and SGCN (x).

Species Group	Species	Federal Status	NY Status	NY SGCN Status
Birds	American black duck			HP
	American woodcock			x
	Bald eagle		T	x
	Blue-winged teal			x
	Common nighthawk			HP
	Great egret			x
	Greater yellowlegs			x
	Ruffed grouse			x
	Wood thrush			x
Mammals	None known			
Fish	None known			
Amphibians and reptiles	Common mudpuppy			x
	Snapping turtle			x
	Wood turtle			HP
Invertebrates	None known			
Plants	None known			

***Significant Ecological Communities:***

There are no significant ecological communities on Oriskany Flats WMA as identified by the NY Natural Heritage Program (Figure 2). Additional information about significant ecological communities is available in *Ecological Communities of New York State, Second Edition*<sup>5</sup> and in the Oriskany Flats WMA Biodiversity Inventory Final Report (1998) prepared by the NY Natural Heritage Program.

***Special Management Zones:***

Special Management Zones (SMZs) are areas adjacent to wetlands, perennial and intermittent streams, vernal pool depressions, spring seeps, ponds and lakes, recreational trails, and other land features requiring special consideration. SMZs on Oriskany Flats WMA include:

- Four wetlands regulated by Article 24 of the Environmental Conservation Law (ECL) and several additional wetlands shown on the National Wetlands Inventory (NWI; Figure 3). Each state-regulated wetland is protected by a buffer zone of 100 feet from the delineated wetland boundary, known as the adjacent area. There may be forestry

<sup>5</sup> Edinger, G. J., D. J. Evans, S. Gebauer, T. G. Howard, D. M. Hunt, and A. M. Olivero. 2014. *Ecological Communities of New York State, Second Edition*. New York Natural Heritage Program, NYS Department of Environmental Conservation, Albany, NY. Available online at <http://www.dec.ny.gov/animals/97703.html>.

prescriptions associated with forested wetlands and adjacent areas, and each management prescription will be reviewed individually for determination of impacts.

- 12 streams and man-made ditches (a watercourse entirely within the WMA) or segments of streams (a stream that meanders in and out of the WMA). The highest stream classification is Class C therefore no streams are regulated by Article 15 of the ECL, however water quality standards will be adhered to.<sup>6</sup>
- Oriskany Flats WMA contains or is adjacent to several archeological sites including the 1825 Old Erie Canal and the NYS Oriskany Battlefield Monument. Sites or resources listed in the State or National Register of Historic Places have **NOT** been found by surveys in the past on this WMA.

Guidelines for habitat management projects within these areas are outlined in the Division of Lands and Forests *Rules for Establishment of Special Management Zones on State Forests and Wildlife Management Areas*.<sup>7</sup> Some habitat management activities may either be prohibited or restricted in order to protect these features. Any deviations from these guidelines will be addressed in the individual stand prescriptions.

## LANDSCAPE CONTEXT

---

The goals of this HMP have been developed with consideration of surrounding landscape features, the availability of habitats, and other conservation lands adjacent to Oriskany Flats WMA (Figures 4 and 5). The landscape within a three mile radius of the WMA is a mix of privately-owned land and NYS Canals land including:

- Deciduous forest (29%)
- Early successional shrubland (16%)
- Development (15%)
- Pasture/hay and grassland (13%)
- Wetlands (7% combining open water, emergent, and woody wetlands)
- Cultivated crops (7%)
- Grassland/herbaceous (6%)
- Evergreen forest (4%)
- Mixed forest (3%)

Currently, the forested landscape on Oriskany Flats WMA includes no young forest, well under DFW's Young Forest Initiative (YFI) goal of managing at least 10% of the forested landscape on most WMAs as young forest.<sup>8</sup> The lack of young forest on both the WMA and surrounding landscape makes the goal of creating young forest habitat essential. The forest management proposed in this plan aims to replace 20% of mature forest with young forest habitat, promote regeneration of native species, and provide improved hunting opportunities.

---

<sup>6</sup> Information about stream classification is available online at <http://www.dec.ny.gov/permits/6042.html>.

<sup>7</sup> Available online at <http://www.dec.ny.gov/outdoor/104218.html>.

<sup>8</sup> Additional information about DEC's Young Forest Initiative and the YFI Strategic Plan is available online at <http://www.dec.ny.gov/outdoor/104218.html>.

## II. MANAGEMENT STRATEGIES BY HABITAT TYPE

DEC will continue active management of wildlife habitats on Oriskany Flats WMA to provide the following benefits:

- Maintain habitat characteristics that will benefit wildlife abundance and diversity within the New York landscape.
- Promote Best Management Practices for targeted wildlife and habitats.
- Provide opportunities for wildlife-dependent recreation such as trapping, hunting, and bird watching compatible with the ongoing habitat management practices and species management considerations.
- Improve habitat quality by reducing invasive species, if present and identified for treatment.

### FOREST

---

Forested acreage includes the following forest types:

**Natural forest:** naturally forested acres, including hardwoods and softwoods. Includes any upland forested acreage that is not young forest, i.e., pole stands, other intermediate forest age classes, mature forest, and old growth forest.

**Plantation:** planted forested acres, generally planted in rows dominated by one or two species.

**Forested wetland:** wetland acres where forest or shrub vegetation accounts for greater than 50% of hydrophytic vegetative cover and the soil or substrate is periodically saturated or covered with water.

**Young forest:** young or regenerating forested acres, which are typically aged 0-10 years since a disturbance or regeneration cut, depending upon the site conditions. May include both natural forest and plantations.

**Young forest (forested wetland):** young, regenerating forested wetland acres.



Oriskany Flats floodplain forest.

Photo: NYSDEC

Forest management on Oriskany Flats WMA incorporates an approach to create and/or maintain the diversity of forest age classes that are required to support a diversity of wildlife. In 2015, DEC launched the YFI to increase the amount of young forest on WMAs to benefit wildlife that require this transitional, disturbance-dependent habitat.

**MANAGEMENT OBJECTIVES**

- Increase young forest from zero to 56 acres (20% of the total forested area) to improve habitat for young forest-dependent wildlife, targeting American woodcock, white-tailed deer, and wild turkey.
  - Create 36 acres of patch or strip clearcuts on a rotation, to provide dense floodplain hardwood regeneration.
  - Conduct 20 acres of seed tree cuts to promote hard mast production and regenerate aspen.
- Soften the transitions between young and mature forest (i.e., create feathered edges).
- Encourage dispersal of native hardwoods (oak and hickory) to promote regeneration and increase availability of hard mast for wildlife.

**DESCRIPTION OF EXISTING FOREST HABITAT AND TARGET SPECIES**

There are 286 forested acres on Oriskany Flats WMA. Nearly all of the forested areas are forested wetlands (Figure 6). Table 3 provides a summary of the forested areas, including the most common species found in each.

Table 3. Summary of the acreage and dominant overstory species for each forest type present on Oriskany Flats WMA.

<b>Forest Type</b>	<b>Acres (as of 2014)</b>	<b>Desired Acres</b>	<b>Overstory species</b>
Natural forest (mature/intermediate)	6	6	boxelder maple, red maple, elm
Plantation	0	0	-
Forested wetland	280	224	ash, maple, black willow, aspen
Young forest	0	0	-
Young forest (forested wetland)	0	56	-
<b>Total Forested Acres:</b>	286	286	

In general, the forested wetland stands on Oriskany Flats WMA are dominated by silver maple, black ash, red maple, cottonwood, and aspen. Some swamp white oak may be found on the property and will be protected and/or planted during habitat projects. Very little evergreen cover exists on the WMA. The soils are moderately to poorly drained with areas along the CSX railroad where soils are poorly drained. Overall soil quality is good. Soil groups include Walkkill, Wakeville, Hamlin silt loam and Palms, Adrian, Carlisle muck.<sup>9</sup> Quality floodplain forest habitat is limited due to expansive stands of reed canary grass that inhibits seed

<sup>9</sup> Soil classification information available from: US Department of Agriculture, Natural Resources Conservation Service. Available online at <http://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/?stateId=NY>.

germination. There is little understory regeneration in some stands due to canopy cover (shade), flood frequency, and competition from shrubs such as buckthorn, dogwood, and honeysuckle.

Target species for young forest habitat management include American woodcock, white-tailed deer, and wild turkey. These species rely on areas of young forest adjacent to mature forest for nesting, foraging, and cover and will benefit from management that creates the following habitat requirements:

- American woodcock habitat requirements:
  - Singing ground – Open areas from 1 to >100 acres, usually in an abandoned field.
  - Foraging – Moist, rich soils with dense overhead cover of young alder, aspen or birch.
  - Nesting – Young, open, second growth woodlands.
  - Brood rearing – Similar to nesting except also including bare ground and dense ground cover.
  - Roosting – Open fields (minimum of 5 acres) or blueberry fields and reverting farm fields.<sup>10</sup>
- White-tailed deer habitat requirements (in northern hardwood forests):
  - Fawning areas – Vary from open forest to hay fields to brushy cover.
  - Spring/Summer diet – Primarily herbaceous vegetation (clover, *Rubus* sp., forbs, etc.), hardwood foliage, soft mast, and agricultural crops where available.
  - Fall diet – Hard mast, preferably acorns, hardwood foliage, and agricultural crops where available.
  - Winter diet – Hardwood buds, fallen leaves, hard mast, and conifers, preferably white cedar.
  - Bedding cover – Varies from open hardwoods with laydowns to dense thickets of early succession shrublands or hard and softwood regeneration.<sup>11</sup>
- Wild turkey habitat requirements:
  - Strutting areas – Open fields with short vegetation, <12 inches preferred, and mature hardwoods.
  - Nesting cover – Blowdowns and the bases of trees and stumps in open hardwoods and brushy cover in early successional habitats and field edges.
  - Brood rearing – Best brooding cover are fields with herbaceous vegetation from 12-18 inches preferred.
  - Foraging – ranges from open old-field areas to mature forests:
    - Spring diet – Tubers and invertebrates.
    - Summer diet – Poults diets consist primarily of invertebrates. Adult diets consist of invertebrates and tubers, switching over to herbaceous vegetation and soft mast as summer progresses.
    - Fall diet – Hard and soft mast, seeds, and invertebrates.
    - Winter diet – Hard and soft mast, seeds (birch if available), and hardwood buds.
  - Winter cover – Mature conifer stands.

---

<sup>10</sup> US Department of Agriculture, Natural Resources Conservation Service. 2010. American Woodcock: Habitat Best Management Practices for the Northeast by Scot J. Williamson. Wildlife Insight. Washington, DC.

<sup>11</sup> Halls, L. K., ed. 1984. White-tailed Deer: Ecology and Management. The Wildlife Management Institute. Stackpole Books, PA. 864 pp.

- Roosting – Mature hardwoods and softwoods. Adults with poults tend to roost on the ground under large trees with a dense understory of young trees, shrubs, downed trees, rock outcrops, or brushy fields.<sup>12, 13</sup>

**MANAGEMENT HISTORY**

Due to the access constraints (agricultural ditching) and the presence of substantial hydric soils, Oriskany Flats WMA’s forests have not been managed (Figure 6).

**IMPLEMENTATION PLAN AND ANTICIPATED SCHEDULE**

The following management is proposed for the next 10 years with a young forest acreage goal of reaching approximately 56 acres:

- **Management planned for 2016-2020** (Table 4, Figure 6):
  - Rotational patch clearcut in Stand 13 (20 acres).
  - Seed tree cut in Stand 2 (10 acres)
- **Management planned for 2021-2025** (Table 5, Figure 6):
  - Rotational patch clearcut in Stand 13 (16 acres).
  - Seed tree cut in Stand 2 (10 acres)

Table 4. Forest management schedule for the first five-year period of this HMP (2016-2020).

Stand	Acres	Size Class	Forest Type		Management Direction	Treatment Type
			Current	Future		
2*	10	Pole Timber 6”-11” DBH	Other Natural Stands	Seedling- Sapling- Natural	Wildlife	Seed Tree
13	20	Small Sawtimber 12”-17” DBH	Swamp Hardwood	Swamp Hardwood and Seedling- Sapling- Natural	Wildlife	Clearcut

Table 5. Forest management schedule for the second five-year period of this HMP (2021-2025).

Stand	Acres	Size Class	Forest Type		Management Direction	Treatment Type
			Current	Future		
2*	10	Pole Timber 6”-11” DBH	Other Natural Stands	Seedling- Sapling- Natural	Wildlife	Seed Tree
13	16	Small Sawtimber 12”-17” DBH	Swamp Hardwood	Swamp Hardwood and Seedling- Sapling- Natural	Wildlife	Clearcut

\*If resources allow, see the following description of Stand 2 for more information.

<sup>12</sup> USDA – NRCS. 1999. Wild Turkey (*Meleagris gallopavo*) Fish and Wildlife Habitat Management Leaflet. 12 pp.  
<sup>13</sup> Dickson, J. G. 1992. The Wild Turkey: Biology and Management. National Wild Turkey Federation and USDA Forest Service. Stackpole Books, PA. 480 pp.

Stand locations and planned management actions are also summarized in Figure 6. Specific forest stand descriptions and detailed management prescriptions will be prepared for each proposed forest management area prior to implementation (see template, Appendix C). Briefly, habitat management for each of these stands will include the following:

- **Stand 13**, a silver maple/red maple forested wetland, will be managed on a 20-year patch clearcut rotation, with approximately 65 acres being cut over the next twenty years. Between 20-30% of the acreage will be cut every five years, totaling 36 acres within the ten years covered by this plan. The patches will be in irregular shapes ranging in size from 3 to 10 acres, to mimic natural disturbance. The rotational cuts will encourage dense wetland hardwood regeneration which will provide prime woodcock habitat in a range of age classes. The edges of Stand 13 will be thinned up to 200 feet in from Stands 16, 17, 19, and 20 to soften the transition between the stands. A stadium effect will be created by leaving smaller trees near the edge of Stand 13 and larger trees further into the stand. At least a 200 foot buffer will be left along the Mohawk River.
- **Stand 2** will be treated as time, resources, and access allow. Management in this stand will primarily involve cutting the trees and leaving them there (“drop and lop” method), due to limited access for heavy equipment. Patch clearcuts or seed tree harvests would promote dense aspen and red maple regeneration. The planned management in Stand 2 would create roughly 20 acres of young forest habitat over the ten years covered by this plan.

**BEST MANAGEMENT PRACTICES**

Forest management on all WMAs follows Best Management Practices to protect soil and water resources, promote quality wildlife habitat, and establish healthy forests (Table 6).

Table 6. Best Management Practices for forest management on WMAs.

<b>Resource</b>	<b>Guidance Document</b> <sup>14</sup>
Soils	<i>Rutting Guidelines for Timber Harvesting on Wildlife Management Areas</i>
Water quality	<i>NYS Forestry Best Management Practices for Water Quality</i>
Wildlife	<i>Retention Guidance on Wildlife Management Areas</i>
Plantations	<i>Plantation Management Guidance on Wildlife Management Areas</i>

***Wildlife Considerations:***

To protect wildlife movements throughout the Mohawk River and on the WMA, Stand 9, a 27 acre forested wetland along the Mohawk River, will not be managed as part of this plan and future plans. Preservation of Stand 9 will allow forest succession to continue along the Mohawk River corridor. It is anticipated that wildlife will use this as a travel corridor.

***Forest Health Considerations:***

Opportunities to protect existing fruit bearing species such as wild apple, highbush cranberry, crabapple, and thorn apple will be evaluated as encountered. If site conditions are appropriate, seedlings of the above may be planted to establish additional food and seed sources.

---

<sup>14</sup> All guidance documents referenced here are available online at <http://www.dec.ny.gov/outdoor/104218.html>.

Preferably, management on the WMA would be accomplished with the use of mechanical equipment, since it would be more efficient than cutting by hand. However, access to Oriskany Flats WMA with equipment is limited by poorly drained soils across the WMA, the Mohawk River to the northeast, the CSX railroad to the southwest, and a network of old drainage ditches and channels. Access to Stand 2, in particular, may not be possible with mechanical equipment. Therefore, management in these stands may primarily be accomplished by leaving the cut timber within each stand (“drop and lop” method).

***Pre- and Post-treatment Considerations:***

Herbicides may be used to treat invasive brush species.

Pre- and post-treatment actions to promote the desired forest regeneration will be addressed in detail in the silvicultural prescriptions.

**MANAGEMENT EVALUATION**

In order to determine whether the desired forest regeneration and wildlife response(s) have been achieved by the management outlined above, pre- and post-management assessments will be conducted in accord with guidelines in the *Young Forest Initiative Monitoring Plan: 2016-2025*.<sup>15</sup> The Monitoring Plan establishes statewide standards for evaluating vegetation and target wildlife responses to forest management to determine if the outcome is as prescribed.

Regeneration assessments will be conducted within one year of harvest completion, three, and five years after the harvest or until the forester determines adequate natural or artificial (i.e., planting) regeneration has been securely established. YFI wildlife target species selected for Oriskany Flats WMA, which may be assessed to determine response to management, include:

- American woodcock
- White-tailed deer
- Wild turkey

## **SHRUBLAND**

---

Shrublands are early successional habitats dominated by woody plants typically less than ten feet tall with scattered open patches of grasses and forbs that provide floristic diversity. Shrublands are typically characterized by >50% cover of shrubs and <25% canopy cover of trees.

**MANAGEMENT OBJECTIVES**

- Provide 282 acres of shrubland habitat for shrubland obligate species and other wildlife, including several YFI target species.
- Clear brush and trees in Stands 1, 5 and 10 to improve shrubland habitat.
- Convert approximately 20 acres of shrubland to shallow water wetland habitat by utilizing ditch plugs through the EDGE mitigation project.

---

<sup>15</sup> New York State Department of Environmental Conservation (NYSDEC). 2016. Young Forest Initiative Monitoring Plan 2016-2025. Albany, NY. Available online at: <http://www.dec.ny.gov/outdoor/104218.html>

**DESCRIPTION OF EXISTING SHRUBLAND HABITAT AND TARGET SPECIES**

There are 302 acres of shrublands on Oriskany Flats WMA that consist of red-osier and grey-stemmed dogwood, ash, willow, and honeysuckle. The shrublands vary in size from 3 acres to 151 acres and are mostly seasonally wet. In many locations reed-canary grass and spirea dominate the ground cover around the shrub patches and prevent tree and shrub seed establishment. This is a significant hurdle as soils can be too wet to work on with machinery and the sheer quantity of these competing species makes conversion to a native ground cover difficult.



**Oriskany Flats shrubland edge of a forested wetland.**

Photo: NYSDEC

A suite of wildlife will benefit from shrubland habitat including several of the YFI target species:

- American woodcock
- White-tailed deer
- Wild turkey

**MANAGEMENT HISTORY**

Shrubland management has existed primarily in the form of brush mowing stands of shrub and pioneer trees that are continually invading old field habitat. There have not been specific projects aimed at managing stands of shrubland due to access issues related to the former farming practices, primarily the presence of drainage ditches. These ditches are numerous and are found throughout the WMA. They were created to drain off seasonal water flow and Mohawk River flood events. These ditches range in size from a few feet wide to 100 feet in some locations.

**IMPLEMENTATION PLAN AND ANTICIPATED SCHEDULE**

- **Management planned for 2016-2020** (Figure 6, Table 7):
  - Maintain and enhance shrublands within parts of Stand 10 once the timber management is completed in Stand 13. Manageable acres will be determined once access is created and wetland boundaries can be delineated.
  - Convert approximately 20 acres of shrubland to shallow wetland as part of the EDGE mitigation project (see Wetland section, below, for details).
- **Management planned for 2021- 2025** (Figure 6, Table 7):
  - Evaluate Stand 5 for access to mechanical equipment and determine manageable acreage. Upwards of 26 acres could be managed for old field and shrubland habitat.

- Remove thick brush and control invasive species in shrublands as opportunities are evaluated.

### **BEST MANAGEMENT PRACTICES**

Brush hogging or hydro-axing will be conducted from mid-July through early October when dry conditions normally persist or during the winter when conditions allow and there is minimal interference with nesting activities of wildlife.

### **MANAGEMENT EVALUATION**

Pre-treatment surveys for American woodcock were initiated in 2016 to document response to future habitat management for shrublands and young forest. We will continue to evaluate opportunities to manage shrublands throughout the life of this document.

## **GRASSLAND**

---

Grasslands are open, grassy areas with a minimal amount of shrub and tree cover (<35%) that are maintained, or could be maintained, without significant brush cutting. Grassland management will restore and maintain habitat that will be used by migratory birds as well as contribute to the goal of building self-sustaining grassland bird populations.

### **MANAGEMENT OBJECTIVES**

- Maintain and/or enhance the existing 60 acres of grassland fields to provide grassland field habitat for breeding, nesting, and wintering species.
- Manage for pheasant stocking and hunting.
- Provide nesting habitat and cover for waterfowl.
- Monitor fields for invasive species and eradicate where feasible.

### **DESCRIPTION OF EXISTING GRASSLAND HABITAT AND TARGET SPECIES**

The habitat currently consists of goldenrod species and woody shrubs. The fields are mowed annually to suppress these species and limit colonizing by woody vegetation. The fields vary in size from 6 acres to 23 acres.

Grasslands (old-field management) on this WMA are managed (mowed) by DEC Division of Operations staff. Oriskany Flats WMA is not in a grassland focus area, but maintaining a higher quality grassland or open field habitat is a goal to maximize the habitat benefits for all species that require this type of habitat. Grassland management may also improve habitat for pollinators (insects).

Species that benefit from grassland best management practices include:

- American woodcock
- Ring-necked pheasant
- White-tailed deer
- Red-winged blackbird
- Pollinators

## **MANAGEMENT HISTORY**

Historically, old field habitat was mowed annually (acreage varied) to maintain cool season grass stands and suppress woody plant species.

In 2014, a mitigation project began to create wetlands and rehabilitate existing upland fields. As part of that mitigation several hedge rows, colonizing pole timber, and shrubs were removed to enhance mowing and provide higher quality grassland cover. This aspect of the mitigation project was completed in 2015.

## **IMPLEMENTATION PLAN AND ANTICIPATED SCHEDULE**

- **Management planned for 2016-2025** (Figure 6):
  - Continue mowing large grassland fields (Stands 16, 17, 20, 21, and 27) on an annual, biennial, or triennial basis depending on vegetation growth to prevent woody growth while also allowing for thatch.
  - Utilize DEC Operations staff to achieve the desired acres to be mowed annually.

## **BEST MANAGEMENT PRACTICES**

The following provides guidance for grassland habitat management on WMAs in NY. For more detailed information and recommendations see *A Plan for Conserving Grassland Birds in New York*.<sup>16</sup> In particular, refer to the plan for species-specific habitat requirements and detailed recommendations regarding grassland management and restoration techniques.

Late mowing (preferably after August 15<sup>th</sup>) may occur in the large grassland fields as identified by the land manager or department. However, it is not anticipated that Oriskany Flats WMA will harbor a significant number of critical grassland bird species, if any. Mowing may occur earlier in the year to help control woody brush and reduce vigor of goldenrod and other less desirable plant species.

## **MANAGEMENT EVALUATION**

None.

## **AGRICULTURAL LAND**

---

Agricultural lands on WMAs include any acreage on which crops are grown, primarily areas that are under cooperative agreements or farming contracts, but also including wildlife food plots.

## **MANAGEMENT OBJECTIVES**

- Maintain existing agricultural agreements totaling 36 acres to provide forage for a suite of species.

---

<sup>16</sup> Morgan, M. and M. Burger. 2008. *A Plan for Conserving Grassland Birds in New York: Final Report to the New York State Department of Environmental Conservation under Contract #C005137*. Audubon New York, Ithaca, NY.

## **DESCRIPTION OF EXISTING AGRICULTURAL LANDS HABITAT**

The WMA is known to have been extensively farmed at one time with photographic evidence indicating the entire area under cultivation. Less than 35 acres of the WMA (Figure 6) are managed for row crops, primarily corn production (composed of two small fields). Maintaining these agreements provides numerous wildlife and public use benefits such as:

- 1) Provides cover, edge, and forage opportunities for wildlife during the growing season and after harvest for species such as wild turkey and migratory waterfowl.
- 2) These fields are popular areas for hunters pursuing stocked ring-necked pheasants. The row crops provide edge habitat for birds and relatively easy accessible property for hunters and dogs.
- 3) Facilitates easy conversion to a new habitat type in the future should management focus or priorities change by maintaining open soil conditions.
- 4) The two DEC owned fields currently under agricultural agreement are bordered on either end by private crop land which creates similar habitat conditions found on the WMA.

## **MANAGEMENT HISTORY**

One cooperative agricultural agreement (for growing corn) had been in place consecutively for decades. The current agreement is still active until 2019.

## **IMPLEMENTATION PLAN AND ANTICIPATED SCHEDULE**

- **Management planned for 2016-2025** (Figure 6):
  - Renew agricultural lease – dependent on farmer interest.

## **BEST MANAGEMENT PRACTICES**

Harvest practices which result in residual forage availability will be encouraged to provide food for a suite of wildlife species. Agreements might be adjusted according to recommendations of the YFI team, land manager, and/or regional wildlife manager to ensure habitat value for wildlife.

## **MANAGEMENT EVALUATION**

Monitor conditions of the agreement and adjust the conditions if necessary.

## **WETLANDS (NATURAL AND IMPOUNDED)**

---

Natural wetlands are areas where the soil or substrate is periodically saturated or covered with water, including emergent (perennial herbaceous vegetation accounts for >50% of hydrophytic vegetative cover) and scrub-shrub wetlands (woody vegetation under 20 feet tall accounts for >50% of hydrophytic vegetative cover). Impounded wetlands are areas similar to natural wetlands, but where water is held back by a berm, road, or other structure. Forested wetlands are addressed in the Forest section above.

## **MANAGEMENT OBJECTIVES**

- Maintain 112 acres of natural and impounded wetlands as they currently exist.

- Create approximately 20 acres shallow wetland habitat from wet shrubland as part of the EDGE mitigation project. Actual acreage converted is contingent on site characteristics.
- Maintain 227 acres of mature forested wetlands as they currently exist.
- Create 56 acres of young forested wetlands.
- Provide stopover/resting habitat for migratory waterfowl.



### **DESCRIPTION OF EXISTING WETLAND HABITAT AND TARGET SPECIES**

Oriskany Flats WMA currently has 112 acres (14% of WMA) of natural and impounded wetlands and 280 acres of forested wetlands; please see the Forest Section regarding the forested wetlands (Figure 3). Migratory waterfowl use the impounded wetlands during migration as stopover/resting habitat. Some waterfowl species also nest around these areas, specifically wood ducks. Fishing and trapping are popular recreational activities in the ponds. The wetlands are diverse and provide habitat for species such as:

- American woodcock, red-winged blackbird
- Beaver, muskrat
- Painted turtle
- Bullfrog, northern leopard frog, green frog, eastern American toad, spring peeper
- Migratory waterfowl

## **MANAGEMENT HISTORY**

DEC entered into a wetland mitigation agreement with the New York State Department of Transportation (DOT) and the United States Army Corp of Engineers (USACE) to create wetland habitat on old agriculture fields as mitigation for wetland disturbance related to the creation of NYS Highway Route 840. The concept was to provide a project on public lands that would maintain management oversight and create a viable mitigation product that would provide greater benefit for fish and wildlife than is typically accrued in project-specific mitigation projects. That project resulted in the creation of 5+ acres of shallow pothole ponds and 1,900 feet of newly created small stream habitat. In addition, fields dominated by reed-canary grass, an invasive species, were cleared and floodplain tree species were planted to increase habitat diversity. Also, in 2009, a 1,500' earthen berm was built to capture seasonal flood waters and create an impoundment approximately 45-50 acres in size in an area that was dominated by reed-canary grass. By flooding out some areas of reed-canary grass, the habitat converted to emergent marsh conditions. Even in areas where reed-canary grass still dominates, the impoundment has created water conditions that support frogs, salamanders and small fish species. While the flooding has not killed off as much reed-canary grass as hoped, the vegetative and wildlife diversity has increased significantly.

The property was also identified as a location for additional mitigation work through the Mohawk Valley Economic Development Growth Enterprises Corporation (EDGE). The mitigation agreement with EDGE and USACE calls for the creation of forest wetland habitats, rehabilitation of old field habitats, and create open water wetland habitat in Stand 8 which is heavily dominated by reed-canary grass and spirea. At this writing, the project is not yet completed and site constraints have modified the original design. The project is anticipated to be completed in 2017. The work is consistent with the goals for the WMA and will provide better habitat diversity

Water levels in the impoundments and the WMA overall tend to fluctuate dramatically during the year due to seasonal flooding by the Mohawk River. While most flood events occur in the spring and fall, significant to severe rainfall anytime during the year can flood large portions of the WMA. Typically, flood events can eliminate access to the property by the public for one to several days.

## **IMPLEMENTATION PLAN AND ANTICIPATED SCHEDULE**

- **Management planned for 2016-2025:**
  - Continue routine maintenance on dikes and control structures so that they function to impound water (i.e., mowing dikes, beaver debris removal).
  - In 2016 the impoundment was drained to facilitate repair to the water control structure and berm. Additional damage was discovered and further repair will carry over into 2017.

## **BEST MANAGEMENT PRACTICES**

Date restrictions for water level management or equipment in wetlands will be followed to protect hibernating amphibians and reptiles (October 1<sup>st</sup> – March 31<sup>st</sup>).

Typical water level management follow a 5-7 year wet – dry cycle. Complete drawdown events are undertaken as management needs and goals are met.

At Oriskany Flats WMA the impoundment will be drawn down every 5 years to create habitat variation, aerate the soil, and regenerate obligate wetland species such as rushes, cattail, and sedges. Because the area was completely drawn down in 2016 for structure repair, it is anticipated another drawdown action will not be considered until at least 2021.

### **MANAGEMENT EVALUATION**

Continue to monitor invasive species and eradicate if feasible.

## **OPEN WATER (WATERBODIES AND WATERCOURSES)**

---

Open water is defined as any area of open water, generally with less than 25% cover of vegetation or soil and typically named (e.g., Perch Lake, South Colwell Pond).

### **DESCRIPTION OF EXISTING OPEN WATER HABITAT**

There are 12 streams, segments of streams, and old agricultural ditches on the WMA totaling about 6.8 miles. Beyond these streams, there is no other open water (no named lakes or ponds) or any plan to develop such habitat.

## HABITAT MANAGEMENT SUMMARY

---

In summary, Table 7 lists the habitat management actions planned for Oriskany Flats WMA over the next ten years. Any substantive changes will be appended to this HMP annually or as needed (Appendix D).

Table 7. Summary of habitat management actions recommended for Oriskany Flats WMA, 2016-2025. (Also see Figures 3 and 6.)

Habitat	Management Action	Acres	Timeframe
Forest	Rotational patch clearcut floodplain forest in Stand 13.	36	2016-2025
Forest	Seed tree cut in parts of Stand 2 utilizing the drop and lop method.*	20	2016-2025
Shrubland	Create an impounded wetland in Stand 8 as part of the EDGE mitigation project.	20	2016-2025
Shrubland	Remove or thin areas of heavy shrubs or brush once access is established (primarily Stands 5 and part of 10).	± 244	2016-2025, as needed
Grassland	Continue mowing grassland fields (Stands 16, 17, 20, 21, and 27) on an annual, biennial, or triennial basis depending on vegetation growth to allow for thatch and prevent woody growth.	± 60	Annual, biennial, or triennial
Agricultural	Continue agricultural agreement (Stands 23 and 25).	33	2016-2025
Wetland	Continue routine maintenance on dikes and control structures so that they function to impound water (i.e., mowing dikes, beaver debris removal).	< 1	Annual

\*If resources allow – See Forest Section

# III. FIGURES

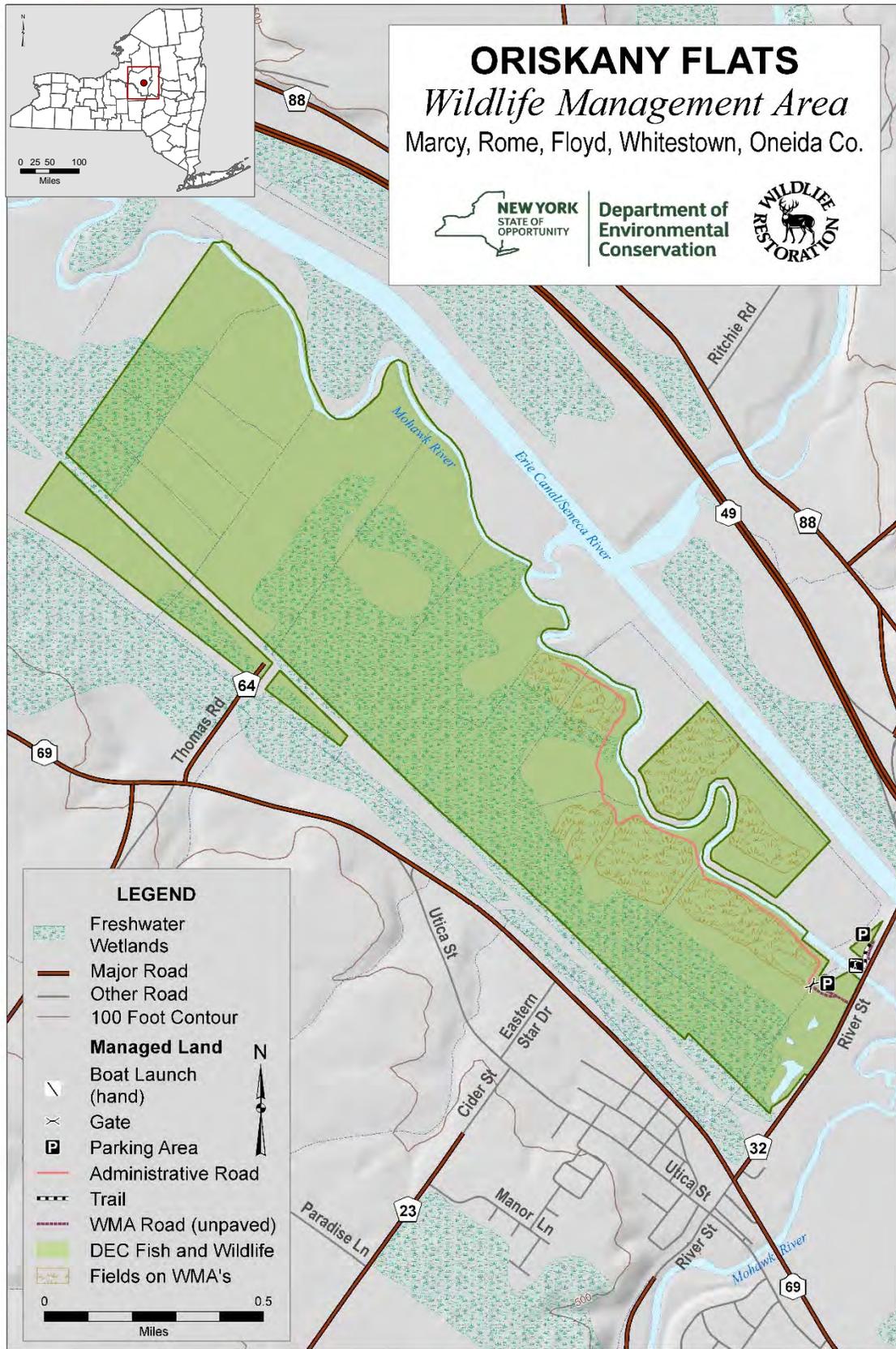


FIGURE 1. Location and access features at Oriskany Flats WMA.

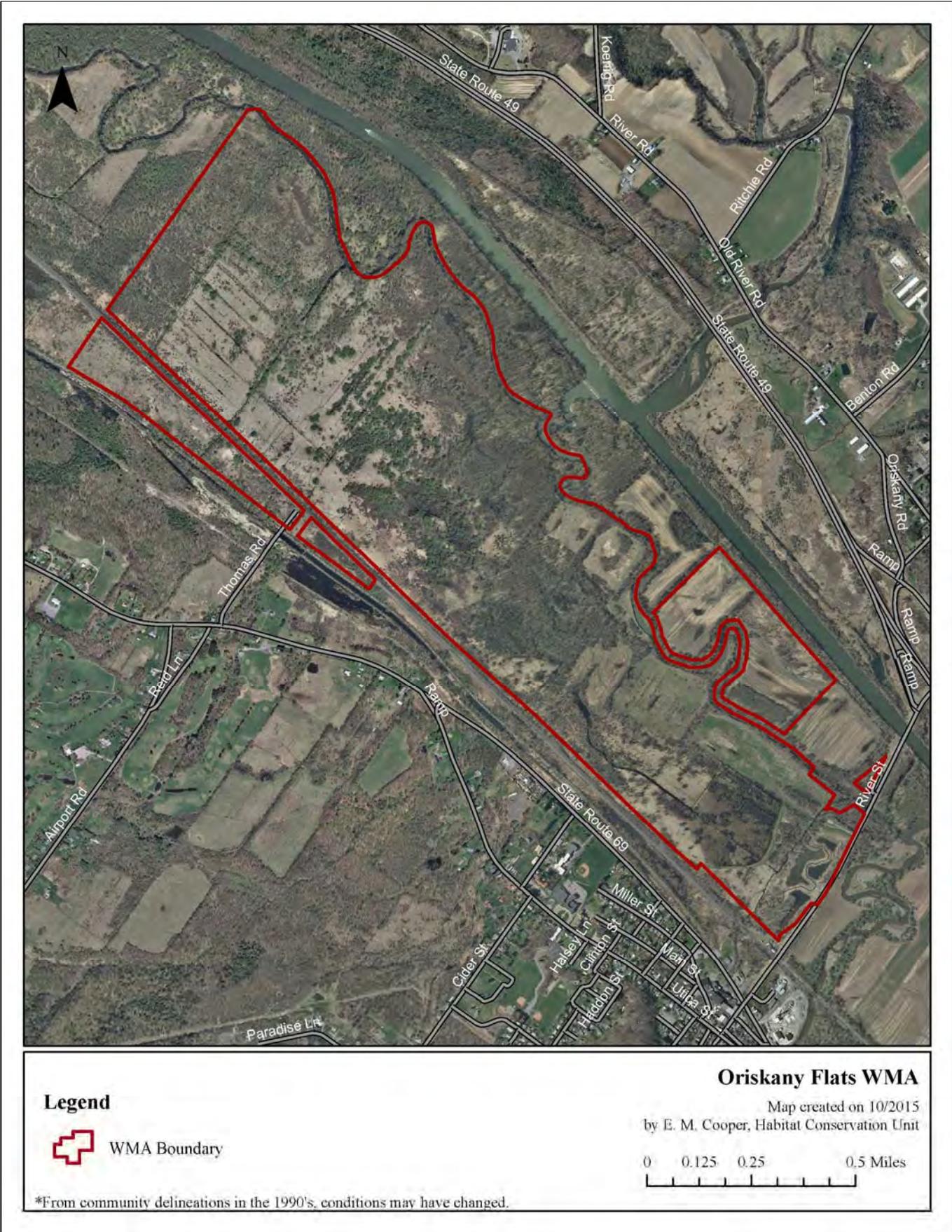


FIGURE 2. There are no significant ecological communities on Oriskany Flats WMA. Data from the NY Natural Heritage Program.

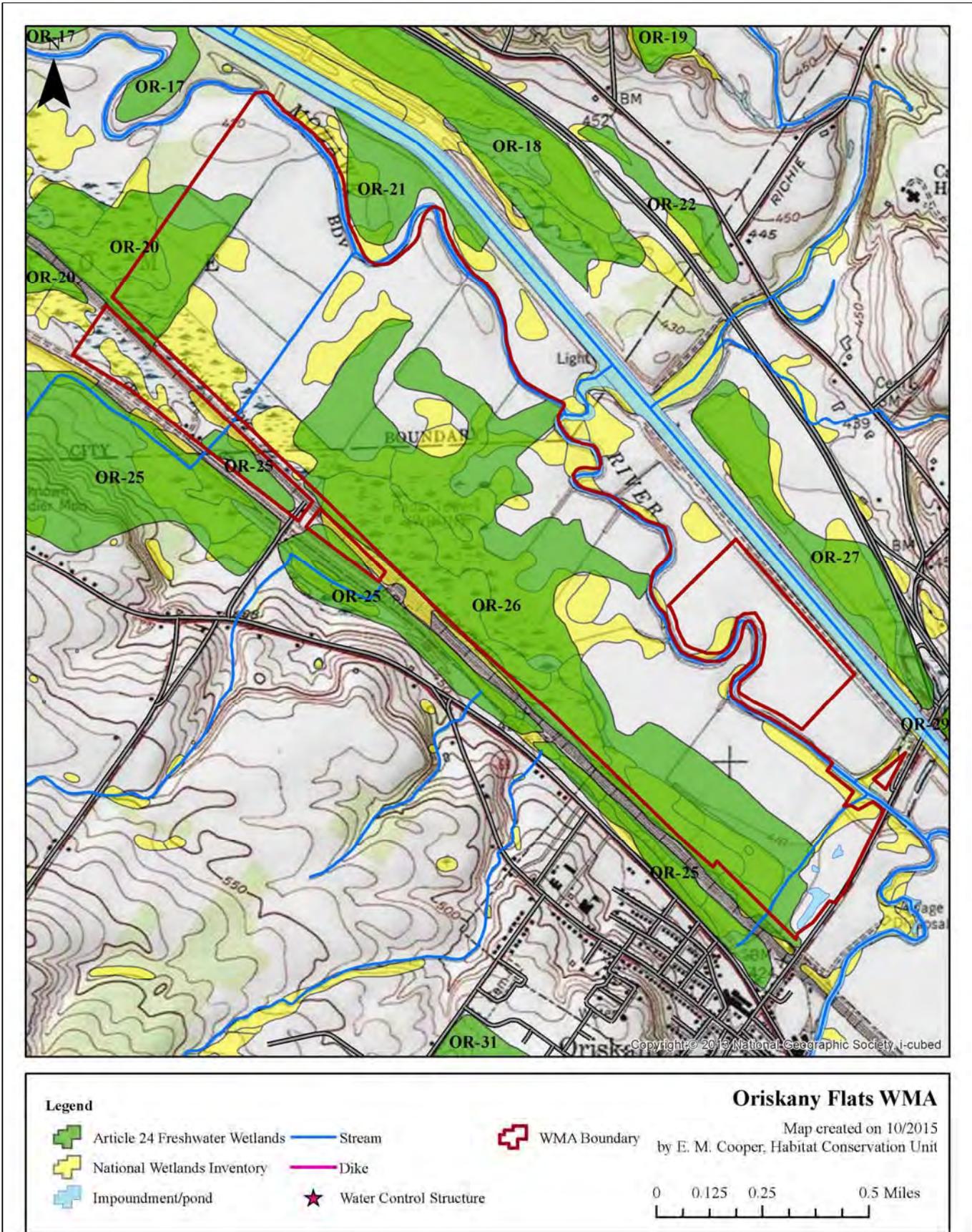


FIGURE 3. Wetlands, open water, and streams of Oriskany Flats WMA. Note: Wetland boundaries are not exact and may not be used for regulatory purposes without a current delineation.

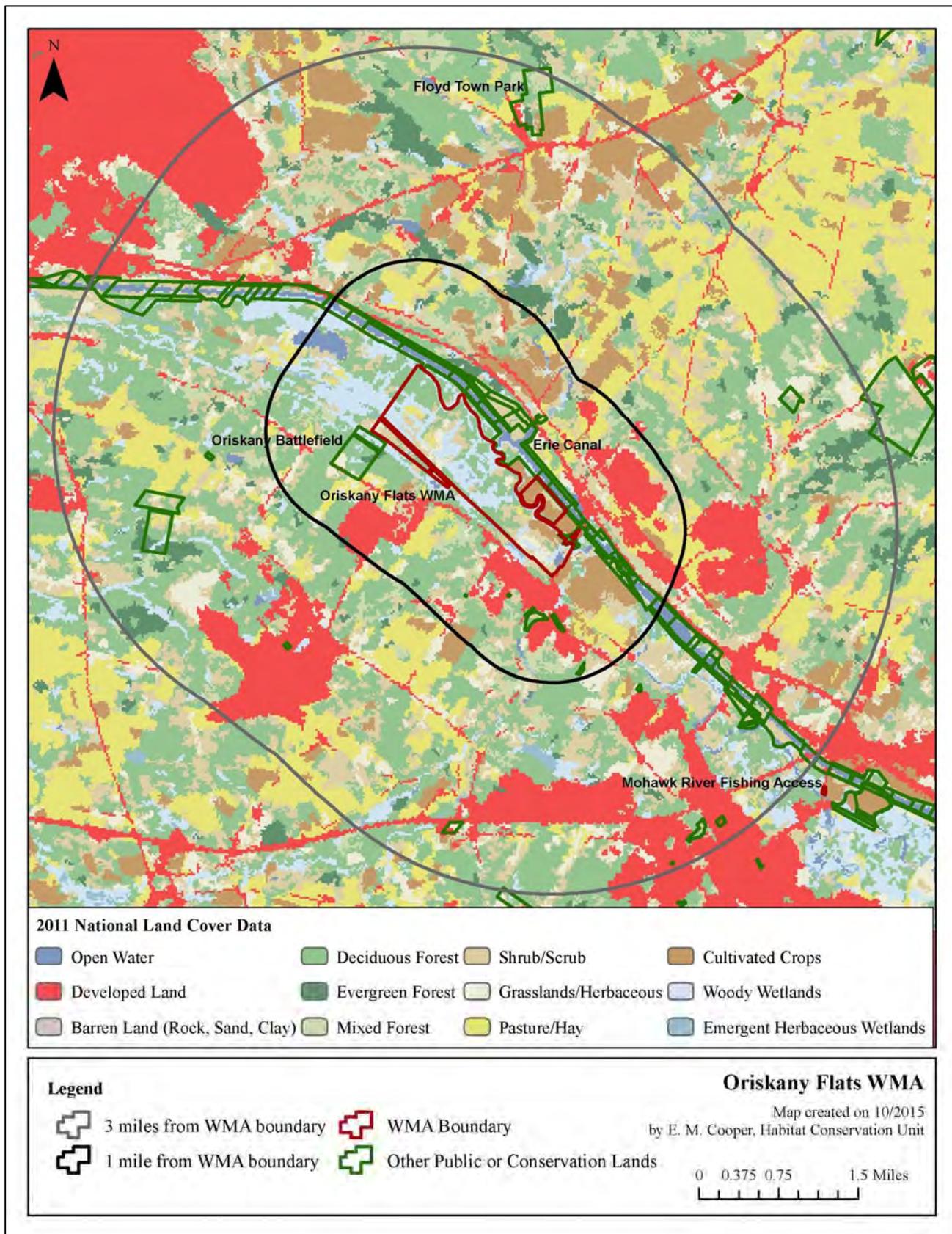


FIGURE 4. Land cover types and conservation lands in the landscape surrounding Oriskany Flats WMA. Conservation lands are from the NY Protected Areas Database available online at <http://www.nypad.org/>. Land cover types are from the 2011 National Land Cover Data (NLCD) and differ from the habitat types used in the WMA habitat inventory. NLCD definitions are available online at <http://www.mrlc.gov/nlcd2011.php>.

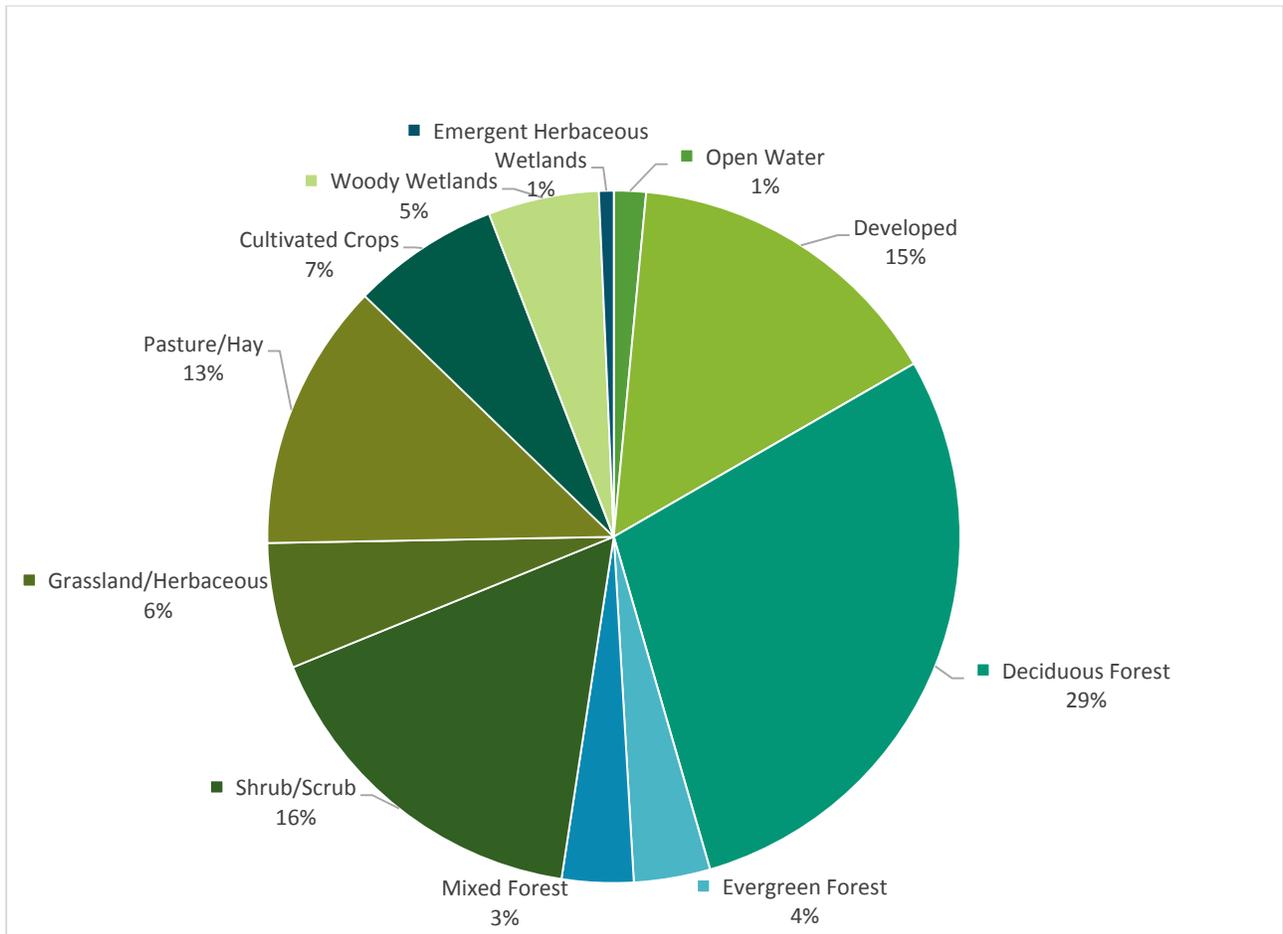


FIGURE 5. Percent cover of land cover types within three miles of Oriskany Flats WMA.

Land cover types are from the 2011 National Land Cover Data (NLCD) and differ from the habitat types used in the WMA habitat inventory. NLCD definitions are available online at <http://www.mrlc.gov/nlcd2011.php>.

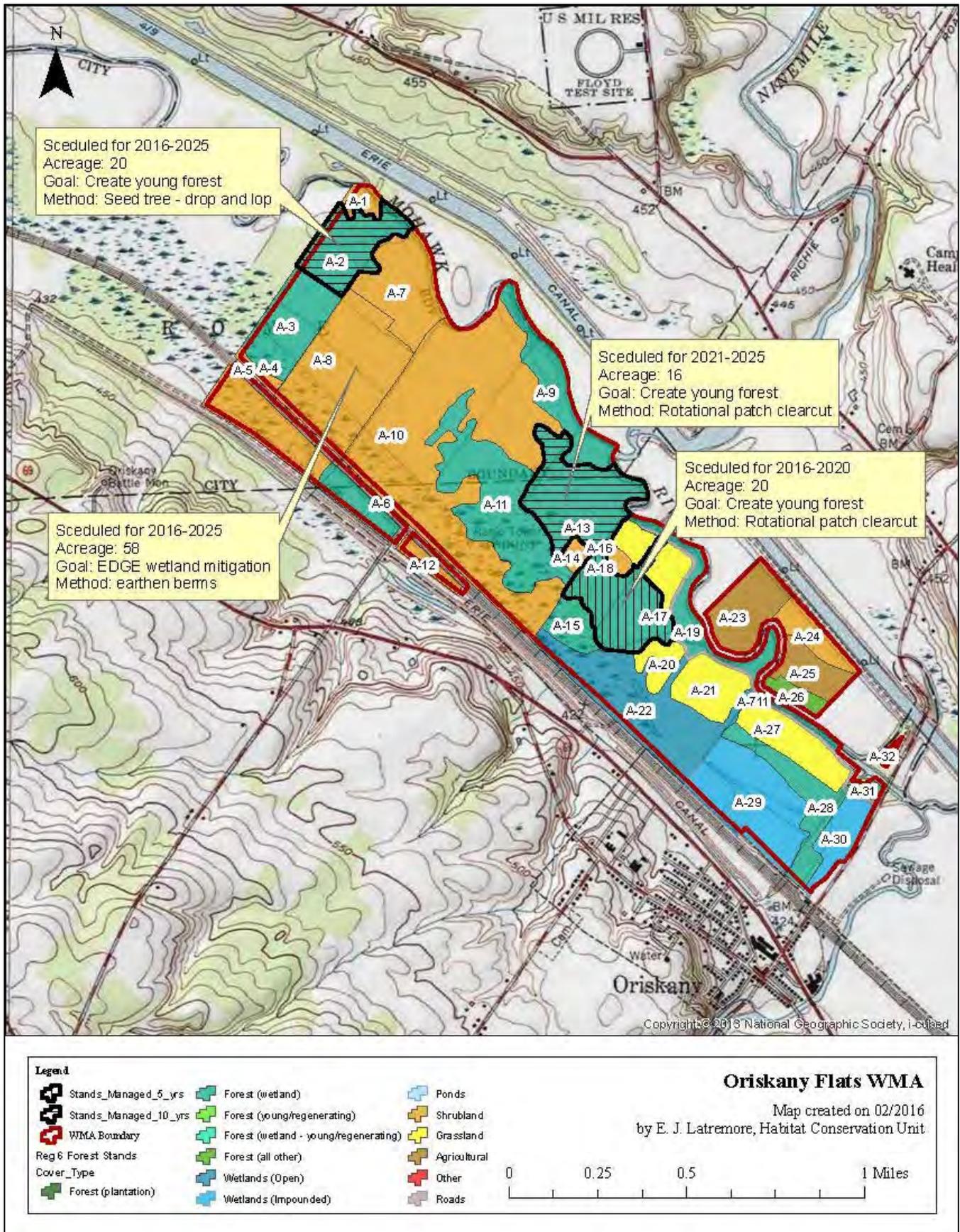


FIGURE 6. Habitat types and location(s) of proposed management on Oriskany Flats WMA. Numbers indicate the stand number from habitat inventory.

## IV. APPENDICES

### APPENDIX A: DEFINITIONS

---

The following key words were used in the development of this Habitat Management Plan. Definitions are from The Dictionary of Forestry, Society of American Foresters, J. A. Helms, Editor, unless otherwise noted.

**Best Management Practices:** (BMP) A practice or combination of practices that are determined to be the most effective and practicable means of avoiding negative impacts of habitat management.

**Biodiversity:** The variety and abundance of life forms, processes, functions, and structures of plants, animals, and other living organisms, including the relative complexity of species, communities, gene pools, and ecosystems at multiple spatial scales.

**Clearcut:** A forest regeneration or harvest method that entails the cutting of essentially all trees, producing a fully exposed microclimate for the development of a new age class. Depending on management objectives, a clearcut may or may not have reserve trees left to attain goals other than regeneration.

**Community:** An assemblage of plants and animals interacting with one another, occupying a habitat, and often modifying the habitat; a variable assemblage of plant and animal populations sharing a common environment and occurring repeatedly in the landscape. (NY Natural Heritage Program)

**Endangered Species:** Any species listed on the current state or federal endangered species list as being in danger of extinction throughout all or a significant portion of its range.

**Forb:** Any broad-leafed, herbaceous plant other than those in the Poaceae (Gramineae), Cyperaceae, and Juncaceae families (i.e., not grass-like).

**Forest:** An ecosystem characterized by a dense and extensive tree cover, often consisting of stands varying in characteristics such as species composition, structure, age class, and associated processes, and commonly including meadows, streams, fish, and wildlife.

**Forest Health:** The condition of a forest derived from concerns about such factors as its age, structure, composition, function, vigor, presence of unusual levels of insects or disease, and resilience to disturbance.

**Grassland Focus Area:** Regions of NY that support key, residual populations of grassland birds. There are currently eight focus areas, within which there is a concentrated conservation effort for these species. (A Plan for Conserving Grassland Birds in New York, Audubon NY.)

**Habitat:** A place that provides seasonal or year round food, water, shelter, or other environmental conditions for an organism, community, or population of plants or animals.

**Hardwood:** A broad leaved, flowering tree belonging to the botanical group Angiospermae, such as red maple, yellow birch, American beech, black cherry, etc.

**Impoundment:** A pond caused by a dam across a stream and used for purposes such as water supply, water power, or wildlife habitat. (Edinger et al. 2002. Ecological Communities of New York State, Appendix B)

**Landscape:** A spatial mosaic of several ecosystems, landforms, and plant communities across a defined area irrespective of ownership or other artificial boundaries and repeated in similar form throughout.

**Mast:** The fruit of trees considered as food for wildlife. Hard mast is the fruits or nuts of trees such as oak, beech, walnut, and hickories. Soft mast is the fruits and berries from plants such as dogwood, viburnum, elderberry, huckleberry, hawthorn, grape, raspberry, and blackberry.

**Multiple Use Area:** Lands that were acquired by DEC to provide outdoor recreation and wherever possible the conservation and development of natural resources. As their name suggests, they are to be managed for a broader range of public use. (Public Use of Lands Managed by the Bureau of Wildlife)

**Native:** A plant or animal indigenous to a particular locality.

**Old Growth Forest:** Forest with 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 canopy gaps formed by natural disturbances creating an uneven canopy, and a conspicuous absence of multiple stemmed trees. (Adapted from the NYS Strategic Plan for State Forest Management)

**Pole:** A tree of a size between a sapling (1" to 5" diameter at breast height) and a mature tree.

**Regeneration Cut:** A cutting procedure by which a new forest age class is created; the major methods are clearcutting, seed tree, shelterwood, selection, and coppice. The Young Forest Initiative includes these silvicultural treatments: clearcuts, seed tree cuts, and shelterwood cuts. Salvage (following a natural disturbance) will be considered based on the size and scope of the disturbance.

**Seed Tree Method:** A forest regeneration or harvest method that entails cutting of all trees except for a small number of widely dispersed trees retained for seed production and to produce a new age class in fully exposed microenvironment.

**Shelterwood Method:** A forest regeneration or harvest method that entails the cutting of most trees, leaving those needed to produce sufficient shade to produce a new age class in a moderated microenvironment.

**Shrubland:** A community dominated by woody plants typically less than ten feet tall with scattered open patches of grasses and forbs that provide floristic diversity. Typically characterized by >50% cover of shrubs and <25% canopy cover of trees. (Adapted from Edinger et al. 2002. Ecological Communities of New York State, Appendix B)

**Softwood:** A coniferous tree belonging to the botanical group Gymnospermae, such as white pine, Eastern hemlock, balsam fir, red spruce, etc.

**Special Management Zone:** A vegetation strip or management zone extending from wetland boundaries, high-water marks on perennial and intermittent streams, vernal pool depression, spring seeps, ponds and lakes, and other land features requiring special consideration. (Adapted from DEC Division of Lands and Forests Management Rules for Establishment of Special Management Zones on State Forests)

**State Rank of Significant Ecological Communities:**

S1 = Typically 5 or fewer occurrences, very few remaining individuals, acres, or miles of stream, or some factor of its biology making it especially vulnerable in New York State.

S2 = Typically 6 to 20 occurrences, few remaining individuals, acres, or miles of stream, or factors demonstrably making it very vulnerable in New York State.

S3 = Typically 21 to 100 occurrences, limited acreage, or miles of stream in New York State.

S4 = Apparently secure in New York State.

S5 = Demonstrably secure in New York State.

SH = Historically known from New York State, but not seen in the past 15 years.

SX = Apparently extirpated from New York State.

SE = Exotic, not native to New York State.

SR = State report only, no verified specimens known from New York State.

SU = Status unknown.

(Edinger et al. 2002. Ecological Communities of New York State, Appendix A)

**Stand:** In forestry, a contiguous group of trees sufficiently uniform in age-class distribution, composition, and structure, and growing on a site of sufficiently uniform quality, to be a distinguishable and manageable unit. In this HMP, the term “stand” is also applied to other habitat types (e.g., grassland, shrubland) to describe an area composed of similar vegetation composition and structure, as delineated during the habitat inventory.

**Stand Prescription:** A planned series of treatments designed to change current stand structure to one that meets management goals. Note: the prescription normally considers ecological, economic, and societal constraints.

**Target Species:** A suite of high priority wildlife species of conservation interest that are being targeted to benefit from management of a particular habitat type. For example, young forest target species at Oriskany Flats WMA include: American woodcock, white-tailed deer, wild turkey, and pheasants.

**Unique Area:** Lands that were acquired by DEC for their special natural beauty, wilderness character, geological, ecological, or historical significance for inclusion in the state nature and historical preserve. The primary purpose of these lands is to protect the feature of significance that led to the land being acquired by the state. (Public Use of Lands Managed by the Bureau of Wildlife)

**Upland:** Sites with well-drained soils that are dry to mesic (never hydric). (Edinger et al. 2002. Ecological Communities of New York State, Appendix B)

**Wetland:** “Freshwater wetlands means lands and waters of the state as shown on the freshwater wetlands map which contain any or all of the following:

- (a) lands and submerged lands commonly called marshes, swamps, sloughs, bogs, and flats supporting aquatic or semi-aquatic vegetation of the following types: wetland trees, wetland shrubs, emergent vegetation, rooted, floating-leaved vegetation, free-floating vegetation, wet meadow vegetation, bog mat vegetation, and submergent vegetation;
  - (b) lands and submerged lands containing remnants of any vegetation that is not aquatic or semi-aquatic that has died because of wet conditions over a sufficiently long period, provided that such wet conditions do not exceed a maximum seasonal water depth of six feet and provided further that such conditions can be expected to persist indefinitely, barring human intervention;
  - (c) lands and waters substantially enclosed by aquatic or semi-aquatic vegetation as set forth in paragraph (a) or by dead vegetation as set forth in paragraph (b) the regulation of which is necessary to protect and preserve the aquatic and semi-aquatic vegetation as set forth in paragraph (a) or by dead vegetation as set forth in paragraph (b) the regulation of which is necessary to protect and preserve the aquatic and semi-aquatic vegetation; and
  - (d) the waters overlying the areas set forth in (a) and (b) and the lands underlying.”
- (Refer to NYS Environmental Conservation Law, Article 24 § 24-0107 for full definition.)

**Wildlife Management Area:** Lands that were acquired by DEC primarily for the production and use of wildlife, including hunting and trapping. These areas provide and protect wildlife habitats that are particularly significant in their capacity to harbor rare, threatened or endangered species, host unusual concentrations of one or more wildlife species, provide an important resting and feeding area for migratory birds, provide important nesting or breeding area for one or more species of wildlife, or provide significant value for wildlife or human enjoyment of wildlife. (Public Use of Lands Managed by the Bureau of Wildlife)

**Young Forest:** Forests that result from a regeneration cut, typically having a dense understory where tree seedlings, saplings, woody vines, shrubs, and herbaceous vegetation grow together. Young forests are typically 0-10 years old. (Adapted from [www.youngforest.org](http://www.youngforest.org)). It is acknowledged that “young forests” will differ in their character in different ecological areas of the state and that 0-10 years is a continuum into more mature forest types. (Refer to: A DEC Strategic Plan for Implementing the Young Forest Initiative on Wildlife Management Areas 2015-2020)

## APPENDIX B. STATEMENT OF CONFORMITY WITH SEQRA

---

Habitat Management Plans will be in compliance with the 1979 *Programmatic Environmental Impact Statement on Habitat Management Activities of the Department of Environmental Conservation; Division of Fish and Wildlife* by following the criteria for site specific assessments included in this Programmatic Environmental Impact Statement (EIS) and by discussing further in Appendix B, Statement of Conformity with the State Environmental Quality Review Act (SEQRA). Appendix B will be included in each plan, thereby satisfying overall compliance with 6 NYCRR Part 617, the State Environmental Quality Review. If any of these criteria are exceeded an additional site specific environmental review will be required.

Most activities recommended in this HMP are a continuation of habitat management that DEC routinely conducts under the Programmatic EIS. Beginning in 2015, DEC's Young Forest Initiative (YFI) will considerably increase forest management on Wildlife Management Areas (WMA); YFI's conformity with SEQRA is specifically addressed below. The overarching goal of the YFI is to restore and maintain young forest habitat on WMAs in order to address the declining amount of young forest habitat in the state and provide habitat for key species of conservation interest, including both at-risk and game species. The habitat management activities to be carried out under the YFI are in compliance with the above referenced document and these management activities:

- Will not adversely affect threatened or endangered plants or animals or their habitat.
  - Careful review of the NY Natural Heritage Program's "Natural Heritage Element Occurrence" database in conjunction with a field survey when necessary prior to management activities taking place allows field staff to assess the presence or absence of threatened and endangered species. Appropriate actions will be taken if a threatened or endangered plant or animal is encountered in the project area including, but not limited to: establishing adequate buffer zones around known occurrences, moving the project area, or aborting the project altogether.
- Will not induce or accelerate significant change in land use.
  - The forestland affected by the YFI will be regenerated and remain forested land, therefore no land use change will take place.
- Will not induce significant change in ambient air, soil, or water quality.
  - All projects carried out under the YFI will protect air, soil and water quality through careful project planning, use of appropriate NYS Best Management Practices for Water Quality, and establishment of Special Management Zones around sensitive land and water features requiring special consideration.
- Will not conflict with established plans or policies of other state or federal agencies.
  - YFI projects will follow established plans or policies of other state and federal agencies. Additionally, all YFI projects will be in compliance with all relevant US Fish and Wildlife Service rules and regulations.
- Will not induce significant change in public attraction or use.
  - The WMA program is part of a long term effort to establish permanent access to lands in New York State for the protection and promotion of its fish and wildlife resources. Projects carried out under the YFI will continue to protect, promote and maintain public access to WMAs and their wildlife resources.
- Will not significantly deviate from effects of natural processes which formed or maintain area.
  - Habitat management projects under the YFI will be carried out primarily through even-aged forest management. Even-aged silvicultural systems are designed to mimic natural disturbances, such as flooding, wildfire, insect and disease outbreaks and storm damage often found in nature.
- Will not result in areas of significantly different character or ecological processes.
  - The even-aged silvicultural techniques that will be employed for habitat management projects under the YFI intentionally result in areas of different character and ecological processes. However, they are not considered significant as they are ephemeral or transitional and will not permanently alter the landscape.
- Will not affect important known historical or archeological sites.
  - Each YFI project will be reviewed by DEC's State Historic Preservation Officer (SHPO) as well as the Office of Parks, Recreation and Historic Preservation (OPRHP) to determine whether

project sites may potentially affect any historical or archeological sites. In addition, thorough field review prior to management activities taking place allows field staff to assess the presence or absence of any apparent historical or archeological sites that may not be found during the review process. Should known important historical or archeological sites present themselves necessary actions will be taken to protect these resources under the direction of DEC's SHPO and the OPRHP Archaeology Unit staff.

- Will not involve the application of herbicides, pesticides or other such chemicals.
  - YFI projects may involve the judicious use of pesticides which may be necessary to control invasive species, to protect rare and endangered plants from competition, or to control vegetation interfering with forest regeneration. If projects do require the use of herbicides or pesticides an additional site-specific environmental review will be required.
- Will not stimulate significant public controversy.
  - It is not anticipated that YFI projects will stimulate significant public controversy. A significant amount of public outreach and notification will be conducted on an on-going basis as well as prior to projects being implemented on the ground including, but not limited to: public information sessions regarding the Habitat Management Plans for each WMA, signage installation at project sites informing the public of the scope and purpose of the project, establishment of one demonstration area in each region to showcase YFI management techniques to the public, periodic informational articles published in local media outlets and the development of a public YFI website. The YFI has one full time position dedicated to facilitating the program's public outreach and communication efforts.



## **PRESCRIPTION NOTES**

***Species Composition:*** At a minimum, the three most common species found in the overstory should be included, assuming at least three species comprise the stand. Species that individually constitute less than 5% of the stand may be lumped together as “Other” or “Miscellaneous.” For instance, if beech, hemlock and yellow birch each make up 3% of the stand, they may be lumped together as “Other – 9%.”

***Natural Heritage Element Occurrence layer review:*** List those species that the Natural Heritage Element Occurrence (EO) data layer indicates are or were known to be present in the stand, or could be affected by treatments to the stand. For instance, if a rare fish was indicated in a water body that is a short distance downstream of a creek that flows through the stand, it should be listed in the prescription.

***SMZ layer review:*** The SMZ data layer includes Special Management Zones around all streams and wetlands, as well as vernal pools, spring seeps and recreation areas that staff have mapped and digitized. If any of these features are mapped incorrectly or are missing from current data layers, staff can correct their locations by editing their office layers.

***Retention data:*** Include numbers of existing snags, cavity trees, Coarse Woody Material, Fine Woody Material, and legacy trees. Ocular estimates are acceptable.

***Soil types and drainage:*** Specifically named soil types are useful, but not necessarily required. “Flat, sandy, well-drained hilltop” or “Steep, gravelly, moderately well-drained mid-slope” may be just as useful as “Hershisier-Koufax Sandy Silt Loam” in describing the soil conditions as they relate to management decisions. The important point is to note those characteristics that may limit equipment operation or establishment of regeneration. Soil type data is available for some counties on the Data Selector.

***Interfering vegetation:*** Indicate the existing amount of interfering vegetation such as beech, striped maple, fern, etc. This may be quantified using mil-acre plots or by ocular estimate.

***Technical guidance used:*** This may include stocking guides, articles found in technical journals, textbooks or other silviculture-related publications. Other sources of guidance may be acceptable as well.

***Treatment purpose:*** As used here, “treatment purpose” and “management objective” (see below) are two different things. Also, “treatment purpose” is not what is to be done (i.e., “reduce basal area by 25%” or “remove every third row”), but rather is an explanation of why it is being done (i.e., “stimulate regeneration and increase growth of residual stand” or “regenerate current stand and convert to young forest”).

***Management objective:*** As used here, the term “management objective” is somewhat general. At a minimum, the prescription should indicate the desired future age structure and stand type. An entry as general as “Even aged hardwood” is acceptable, but regional staff may be more specific if they so choose. The management objective for a stand may be specified in the Habitat Management Plan (HMP) for the Wildlife Management Area in question. If the existing HMP does not specify the management objective regional staff should choose the management objective when the prescription is written.

***Clearcut acreage and configuration:*** If the harvest involves one single clearcut, indicate the total contiguous area, in acres. If the harvest comprises more than one clearcut, indicate the total combined area of clearcuts, as well as the area of the largest clearcut.

***Natural Heritage/MHDB considerations:*** Indicate what measures will be taken to protect those elements or features that were found in the review of the Natural Heritage Element Occurrence and Special Management Zone (not applicable yet) layers.

***Retention considerations:*** Indicate whether or not existing levels meet the standards set forth in the Division’s policy on Retention on State Forests, or whether they are expected to do so as a result of the proposed treatment. Also indicate if or how the treatment was adjusted in order to improve compliance with the policy standards.

***Treatment description:*** The intended treatment should be clearly described. The amount of information necessary to accomplish this will vary greatly. For instance, in a row thinning of a pole timber sized plantation that had no SMZs or other special features, it may be sufficient to simply indicate “Remove two out of every six rows, taking two adjacent rows and leaving four rows between successive pairs being removed.” An intermediate thinning in a sawtimber sized hardwood stand with a recreational trail, two streams and a known occurrence of an endangered plant community would require significantly more detail. One rule of thumb that could be used is to describe the treatment so that a qualified forestry professional could use it to assist in marking the harvest.

Additionally, since we are focused on creating young forests you should also address the presence/absence of advanced regeneration. If you are planning on clearcutting without advanced regeneration, address how you are going to mitigate that. For example, “This aspen stand will be clearcut and it is anticipated that future regeneration will be established through aspen root sprouting”. Or, “This stand will be clearcut and replanted with Norway spruce to establish conifer cover.”

Furthermore, if you are planning on conducting a shelterwood or seed tree cut, please indicate when you are planning on returning to the stand to conduct the final harvest (overstory removal).

## **APPENDIX D: AMENDMENTS**

---

Any substantive changes to the habitat management described in this plan will be amended to the plan annually or as needed. Such changes may include: land acquisition, unforeseen natural disturbance, or any other change that alters the need for or the scope, method, or timing of management.

**FY 16-17 (4/1/16 - 3/31/17)**