

e-Appendix E

FOREST LEGACY EXPANSIONS

The 1990 Farm Bill created the Forest Legacy Program (FLP), which is administered by the United States Forest Service, to acquire forest land and conservation easements from willing sellers, in cooperation with participating states. Under the State grant option, New York is using Forest Legacy funds to enhance the State's Working Forest program and protect sensitive forest ecosystems highlighted in this Open Space Conservation Plan. Projects that are being undertaken using Legacy funds include the Adirondacks, Tug Hill, Taconic Ridge, Sterling Forest and the New York City Watershed in the Catskills. Eligible forest lands are located in Forest Legacy Areas (FLAs) delineated in the State's Assessment of Need (AON) and include those with one or more resource values, such as scenic, recreational, cultural and ecological values, as well as riparian areas, fish and wildlife habitats and threatened and endangered species. Potentially eligible lands also should provide opportunities for traditional forest uses, such as timber management and forest-based recreation. The existence of an imminent threat of conversion would be a primary consideration for eligibility and the land should possess strong environmental values. The 2014 draft Plan requests public comment on a proposal to amend the State's AON to create an Allegheny Plateau FLA, and to create a Shawangunk Ridge FLA.

A) PROPOSAL TO AMEND THE ASSESSMENT OF NEED TO CREATE AN ALLEGHENY PLATEAU FOREST LEGACY AREA

1) Objectives of the Proposed Amendment

This proposal seeks to amend the New York State AON for the Forest Legacy Program by creating a new Allegheny Plateau FLA in the High Allegheny Plateau region of western New York. The addition of this area into the FLP would help focus attention on the significance of this resource regionally, in terms of forest health and water quality issues. It is nationally significant as the headwater area of the Mississippi River and as a critical zone for species movement northward in response to a changing global climate. The ecological and economic contributions of the Allegheny Plateau forest have long been recognized, making inclusion in the FLA both timely and vitally important.

2) New York FLP Background

New York State completed a modified AON for the FLP in 1994. The Secretary of Agriculture

approved the AON. Eligibility Criteria were subsequently developed for which all FLAs in New York State must meet. This proposed amendment will show that the Allegheny Plateau region of New York meets or exceeds the Eligibility Criteria of the FLP. The Allegheny Plateau region is consistent with the goals of the FLP due to its ability to maintain and enhance water quality, prevent lands from being converted to non-forest uses, and protect important wildlife habitat.

3) **Proposed Forest Legacy Area – Allegheny Plateau**

a) **Description**

The Allegheny Plateau forests of western New York State are diverse and robust. Common community types found in this landscape include rich mesophytic forest, hemlock-northern hardwood forest, beech-maple mesic forest, and maple basswood rich mesic forest. While oak-hickory forests are not present as a forest type and do not dominate the overstory at the stand level, both species are smaller components of each of the hardwood types listed above. Albeit less common, other significant community types represented in this forest area are: the Allegheny oak forest found on unglaciated summits; floodplain forests along the rivers; and several open wetland types.

The soils of the Niagara Forest region could be considered some of the most productive left in native forest cover in the state, in terms of high plant abundance and vigor. These factors, along with landforms and climate, combine to allow for both northern and central Appalachian plants to thrive, providing for a rich diversity of species in both the overstory and understory. Some plant species of note include cucumber magnolia tree, yellow mandarin, black snakeroot, tulip tree, sugar maple, black cherry, and round-leaved orchids. Several rare species also occur here including state endangered mountain watercress and wild sweet-william.

The juxtaposition between the central hardwood and northern hardwood forest types is an important consideration in creating a Allegheny Plateau Forest Legacy area. With components of both, the Allegheny Plateau forests may prove to be of crucial importance in a world dominated by the effects of climate change, providing the necessary connectivity to both plant and animal species as their home ranges move northward.

Within the boundaries of the Allegheny Plateau Forest Legacy area is one of the four largest intact forested landscapes in the state. Animals species of note in these forestlands include: black bear, osprey, timber rattlesnake, goshawk, a diverse array of salamanders (including the rare Wehrle's, Longtail and Hellbender salamanders), and

neo-tropical migratory warblers including the uncommon cerulean, hooded, and yellow throated warblers. Here also lie important tributaries to the Allegheny River. The Allegheny River watershed supports the most diverse stream fish assemblages in New York State and also harbors a variety of mussels, including several rare species such as the endangered clubshell mussel and the wavyrayed lampmussel.

The economic stresses of the region are putting added burdens on our forests. Legacy Forests can help provide both immediate relief and long-term stability for forest products based companies by committing lands to sound forest management principles.

The proposed Allegheny Plateau Forest Legacy Area has been identified by several conservation groups, including The Nature Conservancy, Audubon, Western New York Land Conservancy, and the Nature Sanctuary Society of Western New York as an important or a high priority conservation area. In addition, the Allegheny Plateau region is valued by New Yorkers and non-New Yorkers alike, as reflected in tourism activity within the region's economy. Attracted in large measure by the natural resources and scenic beauty of the area, tourism in the Allegheny Plateau Forest Legacy region generates 7.5 percent of all labor income, with this sector accounting for 11 percent of all employment. Tourism in this area generates \$138 million in direct labor income and \$234 million when including indirect and induced impacts. This provides \$64 million in state and local taxes, with sales, property, and hotel bed taxes totaling over \$32 million locally (Tourism Economics, Chautauqua County, 2008).

The proposed Forest Legacy Area is approximately 1.8 million acres and contains all or portions of four counties in western New York. Forest-based recreation, such as hunting, fishing, and hiking attracts thousands of visitors to the region each year and is vital to the region's economy. Traditional forest products industries report an estimated \$40 million from stumpage values alone to New York's economy (2008 estimate of stumpage values).

b) Map of Proposed Area

A map following this section is provided to illustrate the proposed Allegheny Plateau Forest Legacy Area as delineated using GIS technology. The map shows land cover types, interstates, and the location of public lands and large cities. Boundary lines follow public roads or Rights-of-Way so as to be consistent with eligibility criteria and be identifiable on the ground.

c) Environmental Values that will be Protected

Forests of the Allegheny Plateau region face multiple threats. Unsustainable forest practices threaten to substantially reduce the supply and quality of forest products, as well as degrade water quality through higher volumes and faster flow rates of overland water. Retention of forest cover slows overland flows and aids water infiltration and percolation into the soils, reducing soil erosion and stream sedimentation. Forest loss has implications for fish habitat quality, as well as consumptive water use. Very quickly, compromises in forest health translate to both human health and economic concerns, affecting potable qualities, sport fishing, and other water related recreational activities. These environmental values are protected when our forests are protected.

Fragmentation of native forest cover, which hastens without forest protection incentives, has negative consequences for fish, wildlife, and human needs. A designated Forest Legacy area in the region will promote sustainable management of our forests, allowing them to realize their maximum potential for ecological and social values. Legacy Forests will help provide needed incentives to usher in a new era of forest stewardship regionally, and solidify the intergenerational stability of our natural resources.

Atmospheric deposition, climate change, and the advent of new pests and pathogens, whose arrival to our forests we are presently witnessing, will have more dramatic negative consequences when combined with other stresses. Reducing preventable stress by managing for healthy forests and sustainable practices will help the woodlands of the Allegheny Plateau be resilient in the face of the numerous challenges that lie ahead. The Allegheny Plateau forests also occupy the transition area from Appalachian hardwoods to northern hardwoods. This connectivity area may prove critical for the successful northward movement of species over the coming decades as a changing climate redraws home range maps. It is imperative that we maintain and protect the forests of this region, and thus the interface zone between major forest types.

d) Means for Protection

Acquisition of conservation easements or working forest conservation easements which extinguish all development rights on tracts is the preferred forest protection strategy. Timber rights may be retained by the owner and should be conditioned by the State of New York's Best Management Practices to minimize soil erosion. Easements that allow timber harvesting shall follow the prescriptions outlined in a timber management plan prepared by a professional forester and accepted by the New York State Department of Environmental Conservation (NYS DEC hereafter). Easements shall restrict the pursuit of mining, drilling, and excavation of natural resources subject to the regulations established by the State's Mined Land Reclamation Law and Environmental Conservation

Law (Article 23, Title 27), as well as revised laws. Easements shall prevent disposal of hazardous waste or material on subject properties. Easements shall also prevent construction of dams, impoundments, and other water resource developments unless there are proven benefits to wildlife, forests, and the people of the area. If seller only wishes to sell fee title, the Legacy program allows the State to purchase landholdings for inclusion into State ownership.

e) **Public Benefits in Establishing Allegheny Plateau Forest Legacy Area**

- (1) Enhanced protection of forests that maintain quality drinking water for millions of regional residents.
- (2) Reduced drinking water treatment costs resulting from improved quality of untreated water.
- (3) Maintenance of scenic appeal of the region, vital to the region's economy.
- (4) Protection of lands critical to maintaining and improving recreational opportunities, such as hunting, fishing, and hiking.
- (5) Protection of economic benefits provided by the region's forests, such as timber production and recreation.
- (6) Protection of important fish and wildlife habitat.

f) **Management Responsibilities**

The management of lands protected with Forest Legacy funding in New York State rests mostly within the NYS DEC at the present time. In the proposed area, the State of New York currently manages approximately 110,000 acres. As additional properties are protected, easements could be monitored by one of many land trusts that own property in the area. Indeed, some interest in this responsibility has been already expressed. This precedent has already been established with the Tug Hill Tomorrow Land Trust monitoring the Brown Tract on the Tug Hill Plateau.

4) **Eligibility Criteria**

- a) The Forest Legacy Subcommittee and the NYS DEC established Eligibility Criteria, for which the Secretary of Agriculture approved in the modified Assessment of Need.

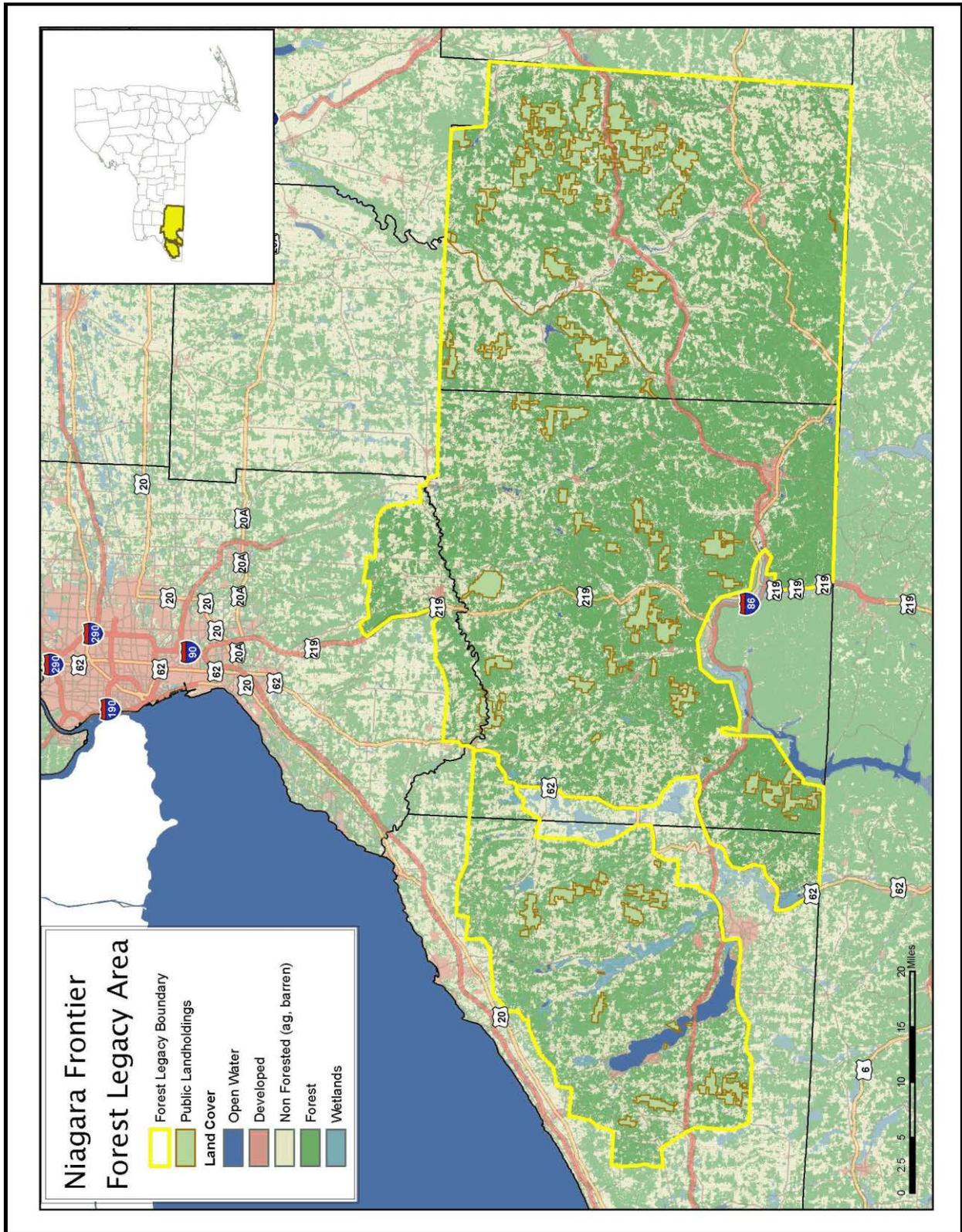
Eligibility Criteria include:

- (1) Forestland threatened by present or future conversion to a non-forest use.
- (2) Provide opportunities for the continuation of traditional uses.
- (3) Contain three or more of the following public values:
 - Public recreation opportunities
 - Riparian areas and wetlands
 - Important fish and wildlife habitat including known threatened and endangered

- species
 - Cultural areas such as areas of historical or archeological significance
 - Other ecological values
 - Scenic resources
 - Important plant communities
- (4) Contain at least 50% lands that meet the definition of forest land.
- (5) Identified in the New York State Open Space Plan as a major resource area and/or protection priority.
- b) **Criteria 1: Forestland threatened by present or future conversion to a non-forest use.** Forestlands in the Allegheny Plateau region face extreme pressure of conversion to non-forest uses. Developed recreation sites and new entertainment venues coupled with the scenic beauty of region make it highly susceptible to primary and secondary home development. Property taxes in the region are considerably higher than forestry revenues, forcing landowners to convert land to more profitable uses. If large amounts of forestland in the region continue to be converted or fragmented, the ecological viability of the forest resource is in jeopardy. As such, the ability of the forests in the region to maintain water quality is compromised.
- c) **Criteria 2: Provide opportunities for the continuation of traditional uses.** The forested landscape of the proposed region supports a stable forest industry. The forest products industry in the proposed area produces an estimated 92 million board feet of lumber annually (Directory of Primary Wood Using Industries; DEC 2008). In addition, there are business listings for 78 secondary wood users in the region (Directory of Secondary Wood Using Industries; DEC 2008). Funds from the Forest Legacy Program would help ensure the continuation of economically vital traditional uses of forestlands in the region.
- d) **Criteria 3: Contain three or more public values.** The Allegheny Plateau region contains at least five public values.
 - (1) **Recreation opportunities:** The Allegheny Plateau region ... "lies within a day's drive of 1/3 of the Nation's population" (USDA Allegheny National Forest, 2008), and is utilized by many Canadian visitors as well. It is renowned for its recreational opportunities. Forest-based recreation, such as hunting, world-class fishing, and hiking attract millions of visitors to the region each year and is vital to the economy.
 - (2) **Riparian areas and wetlands:** The proposed Forest Legacy region contains numerous riparian areas and wetlands that are vital to maintaining water quality for consumption by millions of people living throughout western New York.
 - (3) **Important fish and wildlife habitat:** The Allegheny River, Cattaraugus Creek , and the

forests of the Allegheny Plateau region provide some of the best sport fishing and hunting in the United States. Area forests are also critical staging areas for migrating songbirds, as they rest and recharge before and after they cross the Great Lakes. In addition, the region supports many federally listed, forest dwelling animal and plant species, such as the spreading globeflower, bald eagle, and Indiana bat.

- (4) **Important plant communities:** Several rare plant communities can be found in the region, such as the Appalachian oak-hickory forest, rich fens, and peat swamps.
 - (5) **Scenic resources:** The Allegheny Plateau is recognized as a scenic resource for New York State. Scenic resources are areas exhibiting outstanding arrangements of natural or manufactured features, including water features and/or land forms and/or vegetative patterns that provide inspiration, and hold interest and command attention of the viewing public.
- e) **D) Criteria 4: Contain at least 50% land that meets the definition of forest land.**
The proposed Allegheny Plateau Forest Legacy Area is approximately 64% forested.
- f) **Criteria 5: Identified in the New York State Open Space Plan as a major resource area and/or protection opportunity.** The Allegheny Plateau region has been identified in the New York Open Space Plan as a major resource area, and has been recommended as an amendment to the eligible Forest Legacy area in New York State.



B) CREATION OF A SHAWANGUNK RIDGE FOREST LEGACY AREA

1) FOREST LEGACY PROGRAM BACKGROUND

The Forest Legacy Program (FLP) (16 U.S.C. Sec. 2103c) was initiated in the 1990 federal Farm Bill as a means of assisting state agencies in protecting important forest lands that are at risk of being developed or converted to non-forest uses. The program, administered by the US Forest Service, provides matching grants to state agencies to acquire easements or fee title from willing sellers. Eligible lands are described in an Assessment of Need (AON) developed by each state.

New York State completed a modified AON for the Forest Legacy Program in 1994, which was approved by the Secretary of Agriculture. New York is currently using Forest Legacy funds to enhance the State's Working Forest program and protect sensitive forest ecosystems highlighted in the Open Space Conservation Plan. Projects within the state involving Forest Legacy funds have taken place in the Adirondacks, Tug Hill, Taconic Ridge, Sterling Forest and the New York City Watershed in the Catskills. Eligible lands must have one or more resource values (scenic, recreational, cultural and ecological values, riparian areas, fish and wildlife habitats and/or threatened and endangered species), are potentially at-risk from development or land-use conversion and should also provide opportunities to continue traditional forest uses, such as timber management and forest-based recreation.

This document is a proposal to amend the NYS Forest Legacy Program AON to include a new Shawangunk Ridge Forest Legacy Area. This would allow the NY State to apply for federal cost-share funds to assist with protection of valuable forest lands in the Shawangunk Ridge Region.

2) PROPOSED FOREST LEGACY AREA DESCRIPTION

a) General Description

The Shawangunk Mountains are the roughly 50 mile long northern section of a 256 mile long Kittatinny-Shawangunk Ridge and Corridor that runs north from Pennsylvania through New Jersey and into southeastern New York. The proposed Shawangunk Ridge Forest Legacy Area covers roughly 394,000 acres along the spine of the Shawangunks in Ulster, Sullivan and Orange counties, as well as portions of the adjacent Neversink River, Rondout Creek and Wallkill River valleys. The area includes one of few remaining ridgetop dwarf pine barrens in the world, one of the largest intact expanses of chestnut oak forest in the state at 38,000 acres and numerous high quality freshwater streams and rivers.

The Shawangunks have long been recognized as one of the highest priority landscapes for biodiversity conservation in the northeast and have been designated as one of Earth's "Last Great Places" by The Nature Conservancy. This highly varied landscape with its unique geological features sustains a great diversity of habitat types—including high elevation pine barrens, expansive hardwood forest, grasslands, high gradient

headwater streams and a variety of riverine and wetland habitats. The landscape is more than 80% forested, and includes several large unfragmented forest blocks with provide interior forest habitat for species such as bear, bobcat, coyote and fisher. The incredible diversity off forest dwelling, shrubland and grassland bird species has led to designation of three Audubon Important Bird areas and two NY State Bird Conservation areas within the proposed FLA. The ridge is also part of the Appalachian Raptor Migration Corridor. In addition, the wealth of scenic vistas and cultural historical sites around the ridge has led to the designation of an 88-mile scenic byway around the Northern Shawangunks by New York State. The Draft 2014 NYS Open Space Conservation Plan specifically identifies the Shawangunks and several other sites within the FLA as Regional Priority Project areas.

Vast areas of large, undisturbed forest laced with hiking trails, historic carriage roads and climbing cliffs make the ridge a popular destination for many outdoor enthusiasts, and more than 500,000 people visit the northern Shawangunks annually. Conservation efforts for over the last one hundred years have resulted in more than 30,000 acres of protected and publicly accessible land in the northern Shawangunks, including Mohonk Preserve, Minnewaska State Park Preserve, Witch’s Hole State Forest and Sam’s Point Preserve. Important protected lands along the southern portion of the Shawangunks in New York include Shawangunk Ridge State Forest, Wurtsboro Ridge State Forest, Bashakill Wildlife Management Area (WMA), Huckleberry Ridge State Forest and others.

b) Ecological Significance

The proposed FLA includes more than 100 different species and ecological communities tracked by the New York Natural Heritage Program, including 64 plant and animal species classified as Endangered, Threatened, or Special Concern in New York. At least twenty ecological communities also exist here that are identified as rare or uncommon in the state (state ranking of S1, S2 or S3). Particularly significant ecological resources include three federally listed animal species—dwarf wedgemussel (endangered), Indiana bat (endangered) and bog turtle (threatened)—the globally rare dwarf pine ridge ecological community and other unique community types such as ice cave talus, Atlantic white cedar swamp, pitch pine-blueberry peat swamp and riverside ice meadows.

The landscape includes huge variations in topography, bedrock, soil types and disturbance history that have resulted in several particularly significant ecological features within the proposed FLA. High elevation ridgetop pine barrens habitats exist on thin, acidic soils underlain by conglomerate bedrock at Minnewaska State Park Preserve and Sam’s Point Preserve. This highly unique ecological setting includes abundant exposed bedrock, and provides habitat for timber rattlesnakes and a huge diversity of shrub nesting bird species, three rare moths and the only known NY occurrences of the northern barrens tiger beetle and broom crowberry. Adjacent cliff habitats provide nesting sites for peregrine falcons.

The Bashakill wetland complex, including the Bashakill WMA, covers nearly 3,000 acres at the base of the Shawangunk Ridge in eastern Sullivan County. One of the largest freshwater wetlands in southeastern NY, this area provides habitat for over 200 bird

species, most notably pied-billed grebe, American bittern, least bittern, osprey, bald eagle, northern harrier, and northern goshawk. The wetland also hosts large migratory populations of numerous waterfowl species, including Canada goose, ring-necked duck and wood duck. Several other rare species, including long-tailed salamanders, blue-spotted sunfish, ironcolor shiner and spreading globeflower inhabit the area.

The Shawangunk Grasslands National Wildlife Refuge covers nearly 600 acres near the village of Wallkill in Ulster County. This is one of only two remaining areas in the Hudson Valley region that support the full assemblage of northern grassland birds and it is an important habitat for wintering raptors. Species of particular note found here include upland sandpiper, Henslow’s sparrow, northern harrier and short-eared owl.

The Shawangunk region also includes portions of several significant river systems, most notably the Esopus Creek, Rondout Creek, Wallkill River, Shawangunk Kill and Neversink River. Portions of the Delaware River and Mongaup River also lie along the proposed FLA boundary. These waterways provide habitat for important migratory fish such as the American eel and American shad as well as rare freshwater mussels including the dwarf wedgemussel and brook floater.

Table 1. List of significant ecological communities found in the Shawangunk Ridge FLA.

Ecological Community Type	Global Rarity Rank	State Rarity Rank	Ecological Community Type	Global Rarity Rank	State Rarity Rank
Acidic talus slope woodland	G4?	S3	Limestone woodland	G3G4	S2S3
Calcareous talus slope woodland	G3G4	S3	Perched bog	G3G4	S1S2
Chestnut oak forest	G5	S4	Pitch pine-blueberry peat swamp	G3?	S1
Cliff community	G5	S4	Pitch pine-oak-heath rocky summit	G4	S3S4
Confined river	G4	S3S4	Pitch pine-oak-heath woodland	G3G4	S2S3
Dwarf pine ridges	G1G2	S1	Red cedar rocky summit	G3G4	S3
Dwarf shrub bog	G4	S3	Red maple-hardwood swamp	G5	S4S5
Floodplain forest	G3G4	S2S3	Red maple-tamarack peat swamp	G3G4	S2S3
Hemlock-hardwood swamp	G4G5	S4	Riverside ice meadow	G2G3	S1
Hemlock-northern hardwood forest	G4G5	S4	Shale talus slope woodland	G3G4	S3
Highbush blueberry bog thicket	G4	S3	Spruce-fir swamp	G3G4	S3
Ice cave talus community	G3?	S1S2	Vernal pool	G4	S3S4
Inland Atlantic white cedar swamp	G2G3	S1			

Table 2. List of NY State-listed species documented (current and historical) by NY Natural Heritage Program from the proposed Shawangunk Ridge FLA

Species	NY Listing	Species	NY Listing
Allegheny Woodrat	E	Longtail Salamander	SC
Alpine Cliff Fern	E	Lowland Yellow Loosestrife	E
Appalachian Sandwort	T	Michaux's Blue-eyed-grass	E
Appalachian Shoestring Fern	E	Mock-pennyroyal	T
Arctic Rush	T	Mountain Spleenwort	T
Bald Eagle	T	Narrow-leaved Sedge	E
Beakgrass	E	Northern Cricket Frog	E
Black-edge Sedge	E	Northern Harrier	T
Bog Turtle	E	Northern Running-pine	E
Bradley's Spleenwort	E	Northern Wild Comfrey	E
Brook Floater	T	Ovate Spikerush	E
Broom Crowberry	E	Peregrine Falcon	E
Button-bush Dodder	E	Pied-billed Grebe	T
Carey's Smartweed	T	Prairie Wedgegrass	E
Clustered Sedge	T	Primrose-leaf Violet	T
Cut-leaved Evening-primrose	E	Puttyroot	E
Davis' Sedge	T	Reflexed Sedge	E
Downy Lettuce	E	Rhodora	T
Dwarf Sand-cherry	T	Riverbank Quillwort	E
Dwarf Wedgemussel	E	Riverweed	T
Eastern Small-footed Myotis	SC	Roseroot	E
Extra-striped Snaketail	SC	Rough Avens	E
Frank's Sedge	E	Scarlet Indian-paintbrush	E
Georgia Bulrush	E	Sedge Wren	T
Golden-seal	T	Short-eared Owl	E
Henslow's Sparrow	T	Swamp Buttercup	E
Hyssop-skullcap	E	Timber Rattlesnake	T
Indiana Bat	E	Upland Sandpiper	T
Inland Barrens Buckmoth	SC	Violet Wood-sorrel	T
Ironcolor Shiner	SC	Wood Reedgrass	E
Large Twayblade	E	Woodland Rush	E
Little-leaf Tick-trefoil	T		

c) Geology

The Shawangunk Mountains are widely known for the dramatic white cliff faces, deep ice cave crevices and expansive talus fields. The characteristic Shawangunk conglomerate rock that makes up the spine of the Shawangunks was formed over 400 million years ago, as sand and pebbles eroded from the ancient Taconic Mountains were deposited at

the edge of a shallow inland sea. As the inland sea level rose, these sediments were buried by a thick layer of limestone, before a series of folding and faulting events lifted and eventually exposed the resulting quartzite conglomerate. Subsequent glaciation removed any remaining soil and less resistant rock, revealing the stunning landscape that we see today. Conglomerate rocks in many areas of the ridge bear direct evidence of the most recent glaciation in the form of glacial striations and chatter marks.

Erosion of the soft shale underlying this extremely hard and erosion resistant conglomerate rock—along with weathering and faulting of the conglomerate itself—has created numerous fissures and ice caves. These unique geological features retain snow and ice well into the summer months, creating micro-climates similar to higher peaks in the nearby Catskill Mountains. Exposed cliff faces and associated ledges and talus slopes are also ecologically important, providing niche habitat for a variety of plants and animals, such as peregrine falcons, and the rare Appalachian sandwort.

A limestone karst system also runs along the base of the Shawangunks through the Roundout Creek Valley. This formation includes numerous caves which provide important hibernacula for bats and also provides an avenue for replenishment of natural aquifers in the region.

d) Human Use

The Shawangunks have a long history of human use and cultural significance, dating as far back as 8000 years or more. There are numerous early Native American rock shelter sites, as early inhabitants of the landscape frequently used the ridge areas for hunting and gathering important food items—such as chestnuts, acorns, blueberries, huckleberries and others. Following European settlement, forests of the Shawangunks were cut extensively to support the tanning, barrel making and charcoal industries and the durable conglomerate rock was quarried in many areas to make millstones. Groups of residents would also set up seasonal camps on ridgetop areas to pick blueberries, often setting fire to vast swaths of forest and barrens to enhance the crop for future years. In the late 1800s and early 1900s, the Delaware & Hudson Canal was actively used to move coal from Pennsylvania to the Hudson River, supporting a number of small communities in the Neversink River and Roundout Creek valley areas.

At just over an hour from New York City, the Shawangunks have long been a destination for those seeking outdoor recreation. Since the mid-19th century, numerous hotels and resorts have dotted the landscape. Only a small few remain, the most prominent of which is the Mohonk Mountain House which sits atop the ridge just outside of New Paltz. The Shawangunks are still widely visited as a recreational destination, with abundant opportunities for hiking, biking, world class rock climbing and cross country skiing. In addition to the numerous historic carriage roads at Mohonk Preserve and Minnewaska State Park Preserve, two long-distance trails—the Long Path and the Shawangunk Ridge Trail—span nearly the entire length of the Shawangunks. The Neversink, Delaware and Walkkill Rivers, Esopus and Rondout Creeks and numerous tributaries provide exceptional fishing and boating opportunities as well. Other more limited recreational activities include hunting, trapping and snowmobiling. Recreational activity

centered on the Shawangunks is still a major economic driver in the region, and many communities actively promote eco-tourism opportunities as a means of supporting local economies.

Lower lying areas in the Walkill and Rondout valleys have been extensively cultivated for agriculture, and many areas are still actively farmed. Some timber harvesting does occur in the proposed FLA area, but it is limited in scope and mainly takes place on relatively small privately-owned lands in addition to some state lands. Thin acidic soils in most of the upland areas are not particularly productive in terms of timber growth, except where topographic features have allowed deeper soils to develop over time.

e) Ecological Connectivity

The Shawangunk region has significant value at a regional and continental scale as a wildlife migration corridor, particularly with respect to migrating raptors. The mountain chain—which extends through New Jersey and into Pennsylvania—also functions as a critical linkage between central Appalachian landscapes and large forest blocks to the north and east, including the Delaware/Catskill FLA, Taconic Ridge FLA and NY-NJ Highlands FLA. This kind of ecological connectivity is expected to enhance the ability of wildlife and plants to migrate and disperse to new habitats in response to climate change. In recognition of this, the Wildlands Network has identified the “Shawangunk to Catskills Greenway” as one of 16 essential habitats in the Eastern US in need of protection to link together a 2,500 mile “Wildway” that spans from Florida to maritime Canada.

3) SIGNIFICANT THREATS TO FORESTS IN THE PROPOSED FLA

Development poses the most urgent and direct threat to forests in the proposed FLA area, particularly along unprotected ridgetop areas in the southern portion of the FLA and in the US Route 209 corridor which flanks the ridge to the west along its entire length. Several significant residential development proposals have been submitted in recent years for areas along the spine of the ridge south of Ellenville.

Maintenance of forest cover in these areas is critical for maintaining high quality watersheds for the Bashakill Wetlands and Neversink River. Dispersed suburban and exurban residential development from the city of Middletown also continues to expand into areas to the east of the Shawangunks in the southernmost portion of the proposed FLA.

In addition, commercial development continues to expand along Route 209 in Wawarsing and Rochester, threatening some of the most viable routes for connectivity between the Shawangunk Ridge and Catskill Mountain landscapes. Planned expansions to include gaming activities at one or more resort hotels in Ulster and Sullivan counties may also result in dramatic increases in both commercial and residential development pressure along the ridge, as well as expansion of existing road corridors (Route 17 and Route 209) to accommodate increased vehicle traffic.

4) CRITERIA ANALYSIS SUMMARY

According to the New York’s initial AON for the Forest Legacy Program, any Forest Legacy Area designated in the state must meet five criteria. These criteria are listed below with a brief summary description of how the proposed Shawangunk Ridge FLA meets the criteria.

- (1) **Encompasses forests that are threatened by present of future conversion to non-forest uses:** The close proximity of the landscape to New York City, recent population growth trends and development threats described above all contribute to the significant risk of forest conversion in the Shawangunk region.
- (2) **Provides potential opportunities for the continuation of traditional land uses:** A heavy focus of potential future acquisitions would be to enhance and/or expand existing recreational opportunities, particularly long distance trail corridors in the southern portion of the Shawangunks and providing increased access and trailhead areas. The NY DEC Draft Shawangunk Ridge Unit Management Plan also includes the continuation of timber harvesting on State Forest lands in this region and it is expected that timber harvesting would occur on newly acquired State Forest lands or easements, where appropriate and compatible with protection of sensitive ecological resources.
- (3) **Contains at least 50% lands that meet the definition of forest land:** Approximately 81% of the land within the proposed FLA meets the definition of “forest land” as described in the AON.
- (4) **Identified in the most recent version of the Open Space Conservation Plan as a major resource area and/or priority project area:** According to the Draft 2014 NYS Open Space Conservation Plan, the Shawangunk Ridge FLA contains two Regional Priority Conservation Project areas— Shawangunk Mountains Region—and overlaps portions of nine others—Neversink Highlands, Lower Neversink River Valley, Karst Aquifer Region, Great Rondout Wetlands, Plutarch/Black Creek Wetlands, Bashakill Wetland System, Hudson Valley/New York City Foodshed, New York Highlands and the Walkkill Valley.
- (5) **Contains three (3) or more of the following identified public values:**
 - **public recreation opportunities**
 - **riparian areas and wetlands**
 - **important fish and wildlife habitat with known threatened and endangered species**
 - **cultural areas such are areas of historical or archeological significance**
 - **other ecological values**
 - **scenic resources**
 - **important plant communities**

As detailed in the FLA description above, the proposed Shawangunk Ridge FLA contains outstanding examples of each of these seven identified public values. Designation as an FLA would provide support to further enhance these values and the benefits that they provide to local communities.

5) PROPOSED BOUNDARY FOR THE SHAWANGUNK RIDGE FLA

With the exception of Wawarsing and Rochester, the proposed FLA boundary would follow the municipal boundaries or the towns listed below. Wawarsing and Rochester are already partially included in the Delaware/Catskills FLA, and therefore only the portions of these

towns that fall outside of the Delaware/Catskills FLA will be considered in the Shawangunk Ridge FLA. This includes any parts of these towns not within either the New York City watershed area or the Catskill Park boundary (i.e. the “Blueline”).

List of Towns in the Proposed Shawangunk Ridge FLA

Marbletown

Rosendale

New Paltz

Gardiner

Shawangunk

Rochester (not including areas within the NYC Watershed or Catskill Park boundary)

Wawarsing (not including areas within the NYC Watershed or Catskill Park boundary)

Mamakating

Mount Hope

Greenville

Deer Park

6) MEANS OF PROTECTION

The preferred method of protection would be acquisition of conservation easements or working forest conservation easements by the NYS Department of Environmental Conservation (DEC). Fee acquisition of property may also be appropriate when a) the seller of a priority parcel does not wish to retain any ownership interest in the property; b) the parcel represents a worthwhile addition to existing state owned land; or c) significant natural communities or rare species exist on the property and fee acquisition represents the only viable means of protection.

7) GOALS & BENEFITS OF THE SHAWANGUNK RIDGE FLA

The overarching goal of the proposed Shawangunk Ridge FLA is to maintain high levels of forest cover within the FLA (>75%), with a focus on expanding and connecting important forest blocks in order to protect important forest habitats and maintain water quality.

a) Ecological & Public Benefits of Establishing a Shawangunk Ridge FLA

Establishment of a Shawangunk Ridge FLA and maintenance of a high level of forest cover via expanded land protection efforts would protect and/or enhance the myriad benefits that forest lands currently provide in the region, including habitat for wildlife, clean air and water, quality-of-life attributes and economic returns for local communities. Specifically, additional protected lands within the FLA would substantially contribute to the following:

- 1 Expansion of core forest habitat for wildlife and species migration/dispersal routes within the FLA landscape and with adjacent landscapes
- 2 Protection of high quality drinking water sources and important aquifer recharge areas

- 3 Protection of water quality and biodiversity in headwater tributaries, wetlands and critically important waterways (i.e. Neversink River, Delaware River, Shawangunk Kill, Wallkill River, Esopus Creek, Rondout Creek) within the FLA and in downstream areas
- 4 Maintenance of important ecological communities and rare species that exist within the FLA and contribute to regional and continental scale biodiversity
- 5 Enhancement of existing high quality recreational experiences, including unfragmented, long distance trail corridors and connections with adjacent communities and off-ridge recreational resources such as rail trails and the D&H Canal corridor
- 6 Where appropriate and compatible with protection of ecological resources, maintenance of working forest landscapes and sound timber management practices that facilitate forest regeneration

8) EXISTING STATE OWNED CONSERVATION LANDS IN THE PROPOSED FLA

- There are a number of existing state owned conservation lands within the proposed Shawangunk Ridge FLA area, including:
- Minnewaska State Park Preserve and Sam's Point Preserve (NYS Office of Parks, Recreation & Historic Preservation/Palisades Interstate Park Commission)
- Huckleberry Ridge, Graham Mountain, Wurtsboro Ridge, Roosa Gap, Shawangunk Ridge, and Vernooy Kill State Forests (NYS DEC)
- Witch's Hole, Shawangunk, Oak Ridge and Painter Hill Multiple Use Areas (NYS DEC)
- Bashakill, Cherry Island and Mongaup Valley Wildlife Management Areas (NYS DEC)
- Several detached parcels of Forest Preserve (NYS DEC)

9) PUBLIC INVOLVEMENT SUMMARY

The amendment to the NYS Forest Legacy Program Assessment of Need to include a Shawangunk Ridge Forest Legacy Area will be subject to public comment through the hearings conducted during the development of the 2014 New York State Open Space Conservation Plan. Descriptions of the Forest Legacy Program are found in the document's *Chapter VII. Resource Inventory / Programs & Partnerships*. This proposed FLA designation will be reviewed and approved by the New York State Forest Legacy Subcommittee of the State Stewardship Advisory Committee.

Proposed Shawangunk Ridge Forest Legacy Area

