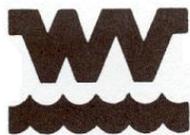


NATURAL RESOURCE INVENTORY AND ASSESSMENT OF THE LANDS MANAGED BY THE WINOOSKI VALLEY PARK DISTRICT



PREPARED BY CHARLEY EISEMAN
DECEMBER 2005



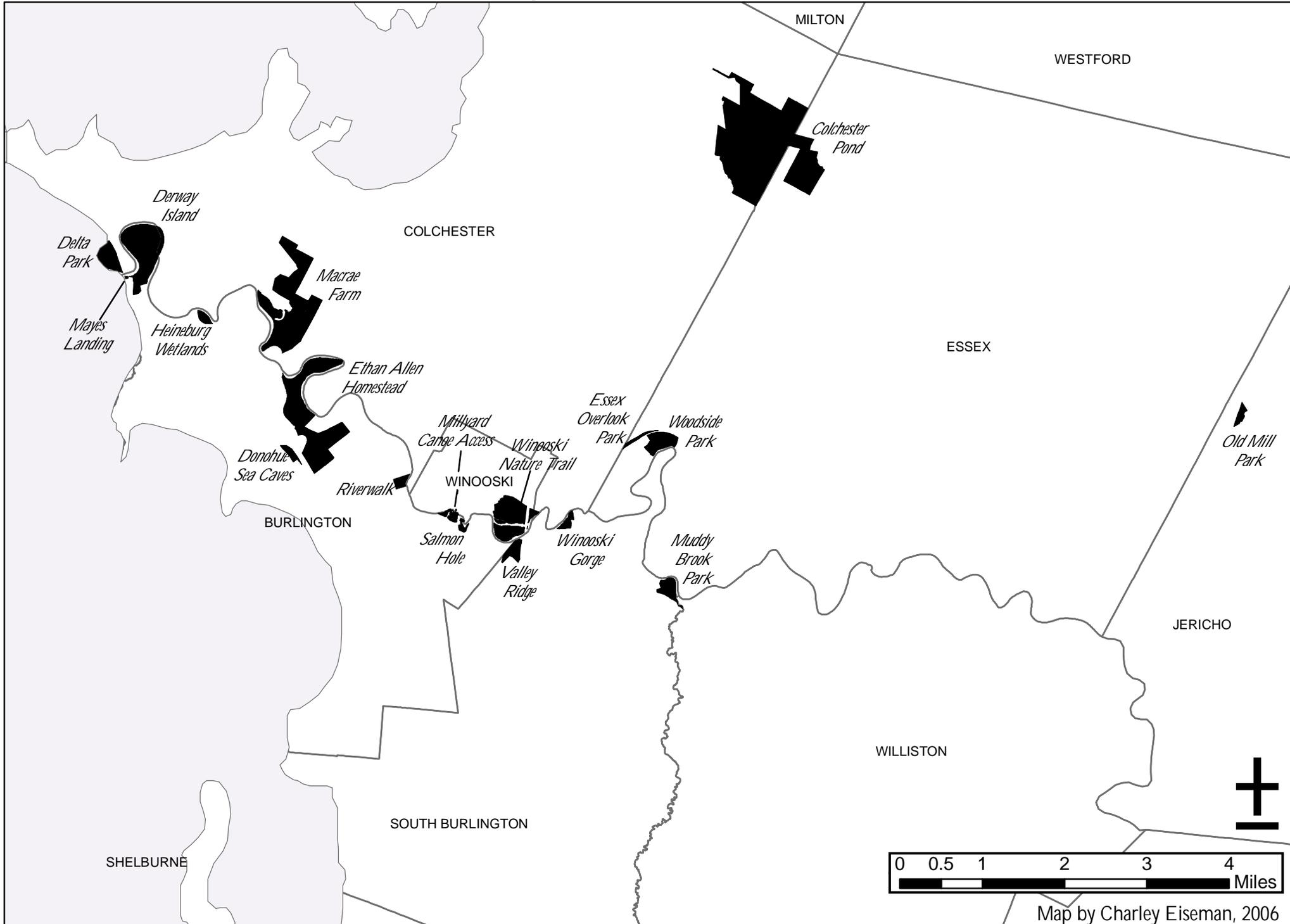
Winooski Valley Park District

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Winooski Valley Park District Properties



NATURAL RESOURCE INVENTORY AND ASSESSMENT
OF THE LANDS MANAGED BY THE WINOOSKI VALLEY PARK DISTRICT:
Natural Communities, Terrestrial Vertebrates, and Vascular Plants

Prepared by Charley Eiseman
December 2005

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Plant species list (14 pages)

Index of maps

30 full-color current cover and natural community maps

31 black-and-white current cover and natural community maps for photocopying

Stand-by-stand lists of current cover types, for use with black-and-white maps (7 pages)

Codes used in the black-and-white natural community maps (1 page)

Cover photo: River otter tracks at Ethan Allen Homestead Park.

Given that an otter's home range can cover more than 40 miles along a waterway, it is not unlikely that the one that left these tracks visits all of the WVPD properties along the Winooski River, from Muddy Brook Park to Delta Park.

MISSION STATEMENT: “The mission of the Winooski Valley Park District shall be the planning, acquisition, and management of lands and waters within the boundaries of its member municipalities in the Winooski River valley for purposes of conservation, preservation of natural areas, establishment of parks, and passive recreation.”

FIVE YEAR GOALS (from the May 2004 Master Plan):

- To plan for and conserve natural resources of regional significance through cooperative efforts with the State, member communities, the regional planning commission, and other local and regional organizations;
- To inventory and protect important natural areas, especially those that provide for the movement of wildlife, and to provide appropriate public access to those areas;
- To establish public parks that provide access to natural environments close to where people live and work. Parks will be designed and maintained to complement the natural features of the site;
- To increase community involvement in stewardship of the parks through in-house programs, and to act as a catalyst organization for educational and outreach programs which further the mission of the Park District.

INTRODUCTION

This document is the culmination of fieldwork conducted during the summer of 2005 on properties managed by the Winooski Valley Park District (WVPD), in support of the second goal stated above. The focus of this work was identification and mapping of current vegetation types, identification and mapping of potential vegetation (natural communities), and an inventory of vascular flora and vertebrate fauna. Information collected during this inventory and assessment will be used in several ways:

Guiding management. WVPD’s default management strategy is a hands-off approach, to let nature run its course. Exceptions to this include trail construction and maintenance, invasive species removal, continuation of agricultural uses on certain properties, mowing of high use areas, tree planting along riverbanks, and tree removal to maintain Delta Park’s beach pea population. WVPD is also open to small-scale forest management such as thinning of Macrae

Farm's red pine stands, or releasing of apple trees at Colchester Pond. This document will identify areas of parks where existing or potential trails could have negative impacts, for example areas with rare plants or animals, and areas with vegetation and soil that are particularly sensitive to foot traffic. The impact on biodiversity of current and potential management activities will be discussed. This will include a detailed look at the extent of exotic plant invasion within WVPD's natural areas and an assessment of the degree of threat they pose, as well as an exploration of issues such as visitor impacts and overbrowsing by deer. Finally, the rare plants and animals found on the properties will be considered to determine whether their presence warrants additional management activities.

Guiding future acquisitions. The representation of natural communities and habitat types on WVPD properties will be compared with the rest of the Burlington area, and with the state as a whole, to identify communities and habitat types that are underrepresented or absent from WVPD natural areas but might be found in the area covered by WVPD's seven member communities. Parcels adjacent to existing parks that are likely important to wildlife movement, or are otherwise of particular conservation interest, will be identified.

Informing environmental education programs. This document includes a narrative of northwestern Vermont's geologic and cultural history, with emphasis on how these events and processes have shaped the landscapes and natural communities of WVPD's parks. Where possible, reference is made to specific stands and features at specific parks. This includes discussion of changes that are currently taking place, for example where fields are reverting to forest, or where pines are being succeeded by deciduous trees.

METHODS

The primary focus of this inventory was the mapping of current and potential vegetative cover types for all of the properties managed by the Winooski Valley Park District. Fieldwork was conducted from June to August of 2005.

To map current vegetation, each property was thoroughly explored and areas of distinctly different vegetation (stands) were delineated, with the aid of aerial photographs and a GPS unit. Each stand was placed in one of 41 cover type categories (based on canopy species in the case of

forested stands), created for the purposes of this inventory. Refer to the Current Cover Type Descriptions section of this document for further explanation of these categories. For each stand, the plant species composition in each vegetative layer (canopy, subcanopy, shrubs, and herbs) was recorded, and the relative density of each layer was noted. Species of birds, mammals, reptiles, and amphibians encountered were listed for each stand, and notes were made on presence of habitat features such as snags, coarse woody debris, or talus. This stand-level information is presented at the end of this document.

Maps of potential vegetation were created by matching each stand to a natural community type¹ described in Thompson and Sorenson's *Wetland, Woodland, Wildland*. Natural community determination is based largely on vegetation, but also on soil, hydrology, topography, and disturbance regime. For example, a flat field adjacent to a river, with silty soil and species such as false nettle and marsh fern present, could be inferred to experience extended annual flooding, and would be placed in the Silver Maple-*Sensitive* Fern Riverine Floodplain Forest community. A field in a similar location, but with sandy soil, scattered ostrich fern, and a lack of more moisture-dependent herbaceous species, likely experiences shorter-duration annual flooding, and would belong to the Silver Maple-*Ostrich* Fern Riverine Floodplain Forest community. The presence of oaks and hickories in the hedgerows between the fields at Colchester Pond helped to determine that the fields would eventually succeed to Mesic Maple-Ash-Hickory-Oak Forest if abandoned. In white pine- or early successional hardwood-dominated stands, close attention was paid to shade tolerant tree species (e.g. sugar maple, beech, and hemlock) in the subcanopy and shrub layers, as these species can be expected to dominate in the future. The natural communities mapped often lined up with the stand delineations for current cover type, but in many cases multiple adjacent stands fell into the same community type, and occasionally one stand included two natural communities.

While the plant and animal lists presented here are extensive, they by no means represent a complete biological inventory. Species of fungi, lichens (except for rock tripe and reindeer lichen), nonvascular plants (besides a few mosses), fish, and invertebrates were not recorded at all. Nocturnal (bats, flying squirrels) and small (mice, voles, shrews, voles) mammals were not looked for, nor were herps for the most part—although newts, garter snakes, and various frogs

¹ A natural community is defined as “an interacting assemblage of organisms, their physical environment, and the natural processes that affect them.” A natural community map is a prediction of the assemblages of plants and other organisms that will develop on a landscape if natural processes are allowed to continue without human intervention.

were frequently encountered and recorded. Elusive larger mammals were likely missed at many parks, although sign of the full suite of large mammals expected in this region (except for black bear) was detected at one park or another. Vascular plants were fairly thoroughly documented, but most grasses were not identified, and plants of a few large and complex genera (*Aster*, *Carex*, *Polygonum*, *Solidago*) were not always identified to species. A handful of ephemeral spring wildflowers (e.g. spring beauty, Dutchman's breeches, dwarf ginseng) were likely missed because they disappeared before the field season began.

Complete species lists, indicating which species were found at which parks, are included at the end of this document. Animals are listed in the order they are presented in DeGraaf and Yamasaki's *New England Wildlife*, using the common and scientific names given in that book. Plants are alphabetized by the common names used in this document. For the most part, these are the same names used in *Wetland*, *Woodland*, *Wildland*, *Newcomb's Wildflower Guide*, and Cobb's Peterson *Field Guide to the Ferns*. Latin names, and determinations of native versus nonnative, follow the second edition of Gleason and Cronquist's *Manual of Vascular Plants*.

THE STORY OF THE VERMONT LANDSCAPE THROUGH WVPD's PARKS

The distribution of flora and fauna at WVPD's parks relates to events going back 500 million years. At that time, the land that is now the Champlain Valley was the continental shelf—under the Iapetus Ocean. Over time, the calcium carbonate shells of sea creatures accumulated on the ocean floor, forming calcium-rich rocks like dolostone and marble. A suite of modern plants is strongly associated with the calcium from this limestone. There are hints of this nutrient enrichment throughout the Valley, but this ancient history is most evident in the dolostone and marble outcrops at Winooski Gorge, the Donohue Sea Caves, the east end of the Winooski Nature Trail, and the north end of Macrae Farm. Here, calciphilic plants such as walking fern, smooth cliffbrake, and northern white cedar can be found in abundance.

During the colliding of continents that closed the Iapetus Ocean, the landscape buckled and folded, producing the parallel north-south bedrock features that characterize Vermont's landscape today. This pattern is evident in the ridges and valleys of the Colchester Pond property, where the present natural communities are strongly influenced by topography: the pond and numerous beaver-created wetlands fill the valleys, while the ridges support Dry Oak Forest and Dry-Oak-Hickory-Hophornbeam Forest.

The effects of the last glaciation (which ended 14,000 years ago) are evident everywhere on Vermont's landscape. A sheet of ice, so thick that it covered New England's highest peaks, flowed across the land, eroding mountains and plastering the landscape with an unsorted mixture of rocks, sands, and clays, called till. This glacial till is what underlies the vast majority of Vermont's soil, and is the source of the stonewalls that crisscross the New England landscape. Old Mill Park and Colchester Pond Natural Area are primarily underlain by till.

Stonewalls are absent from the rest of WVPD's parks, however, because the till underlying them is deeply buried in other sediments. As the glacier receded, the meltwater backed up against it and filled the Champlain Valley, forming a water body known as Lake Vermont. The edge of Lake Vermont was 600 feet above present sea level, partway up the cliffs of Colchester Pond.

As the glacier receded further, it allowed ocean water to enter the lake through the St. Lawrence Seaway, forming what is called the Champlain Sea. At this time the water level was 300 feet above present sea level—this was possible because the continent was still slowly bobbing back up after being weighed down by the glacier. The beach peas growing at Delta Park are a relic from this period. The deltas and beaches of the Champlain Sea are evident today as a layer of sand many meters thick, for example at Essex Overlook Park, Valley Ridge, and Macrae Farm. This sandy soil supports the Pitch Pine-Oak-Heath Sandplain Forest community, which is less evident today because fire has not been allowed to maintain it.

The rest of WVPD's parks sit on the nutrient-rich sands and silts that have been deposited by the Winooski River as it has meandered and cut its way down through the sediments of Lake Vermont and the Champlain Sea over the millennia. These alluvial soils are highly productive, and all of the floodplain forest of WVPD's parks was cleared for cultivation at some point since Europeans arrived.

Most of the forest out of the Valley was also cleared in the 1800s, but this was more for sheep pasture than for agriculture. When these pastures were abandoned, the forests began to regrow. The progression that generally followed can be seen by beginning to walk clockwise around Colchester Pond. Beyond a series of fields that are still maintained for hay production, there is a pasture that was abandoned several years ago. There are saplings of various wind-dispersed trees throughout the old field, but white pine is dominating because it is fast growing and because it is avoided by browsing mammals such as deer. Beyond this is a field that was

abandoned several years earlier; it is now a pine forest with more shade-tolerant deciduous species coming up in the understory. Finally, the next stand to the north is an older forest dominated by oaks and other deciduous trees. Old Mill Park similarly is an old-field pine forest, in this case reverting to Northern Hardwood Forest—the dominant natural community outside of the Champlain Valley. Old barbed wire fences and stonewalls throughout Vermont’s forests serve as constant reminders of a time not long ago when forest cover was scarce.

The forest clearing combined with trampling by livestock caused massive erosion on Vermont’s hillslopes. Hilltops such as those at Macrae Farm and Colchester Pond with bedrock close to the surface may have looked very different before they were deforested. All this sediment washed into the river. Floodplains in some places rose five or six feet in the 1800s. The islands at Salmon Hole, and much of the Winooski Nature Trail property, may be composed largely of sediment derived from the deforested hillsides. In the 1870s, during the height of deforestation, the Winooski delta at Delta Park extended a few hundred feet into the lake, but the river and lake have since eroded it back to its prior size.

Though much of Vermont’s forest has regrown, today’s forest communities are in many ways different from those that the first European settlers saw. American chestnut may have once been a common tree in oak forests such as at Colchester Pond Natural Area, but because of an introduced disease only a half dozen known mature trees now exist in Vermont. While animals such as beaver and fisher have been successfully reintroduced, the top predators, wolves and mountain lions, are still missing, and elk and caribou are likely gone forever. Meanwhile, the absence of wolves has allowed coyotes to appear and become prominent in Vermont’s forests. Numerous accidentally or intentionally introduced Eurasian plants such as buckthorns, barberries, and honeysuckles are now abundant, especially in fragmented forests such as those in the Champlain Valley. Despite these differences, the vast majority of native plants and animals are still accounted for, and the diversity and complexity of today’s natural areas is impressive considering what they have gone through in the past 200 years.

CURRENT COVER TYPE DESCRIPTIONS

Forty-one categories of vegetative cover types have been created for the purposes of this inventory. These differ from the *Wetland*, *Woodland*, *Wildland* natural community classification (see next section) in two important ways. First, they reflect what exists on the land right now,

rather than what can potentially exist given topography, soils, disturbance regime, and other such factors. Second, they are based primarily on the dominant canopy species, rather than on the full suite of species and natural processes that comprise a natural community.

The current cover type maps provide information about wildlife habitat that is not evident in the natural community maps. For instance, the Silver Maple-Ostrich Fern Riverine Floodplain Forest community provides breeding habitat for blue-gray gnatcatchers and warbling vireos, but not if the land is currently being maintained as a field. Similarly, many species of birds and mammals require early successional habitat, which can occur in virtually any natural community, but this does not show up on the natural community maps because the *Wetland*, *Woodland*, *Wildland* classification is based on what is present when a community is more mature.

The current cover classification presented here also gives information about wildlife habitat value of relatively mature forest stands that may not be evident in the natural community categories. For instance, an abundance of canopy oaks strongly influences herbivore abundance, and consequently predator abundance, in a forest. Some stands of Sugar Maple-Ostrich Fern Riverine Floodplain Forest are dominated by red oak, while Dry Oak-Hickory-Hophornbeam Forest can be dominated by sugar maple. White pine and hemlock provide important winter cover for wildlife, and can occur in varying amounts in many natural communities. The presence of these species' names in a cover type indicates that they are fairly abundant.

Below are brief explanations of the cover types, presented alphabetically for easy reference. For more detail on a specific stand, refer to the tables at the end of this document.

Alder – Tall shrub thickets dominated by alder occur at the edges of ponds and in other wetlands at several parks. They are generally not extensive. These stands are placed in the Alder Swamp natural community.

Bare – This cover type is assigned to roads and parking areas within park boundaries. While included on the maps, they generally do not have stand names or descriptive tables associated with them.

Beaver Meadow – Abandoned beaver ponds drain when the dams fail, and become vegetated with a wide array of plants, many of which are rarely found in other cover types. These open

areas provide habitat for birds such as song sparrows and common yellowthroats that would be absent in a forest undisturbed by beavers. The snags of trees flooded by beavers are home to nesting tree swallows and other animals.

Black Locust – This cover type is found only at Essex Overlook Park, and is clearly anthropogenic, as black locust is not native to Vermont.

Boxelder-Cottonwood-Willow – These are early successional stands in sandy soils, usually transitioning to one of the two silver maple-dominated floodplain forest communities. Not all three of these species are necessarily present in the canopy of a given stand. American elm may also be abundant.

Buttonbush – Dense, nearly pure thickets of buttonbush in standing water occur at Ethan Allen Homestead, Derway Island, and Delta Park. These are placed in the Buttonbush Swamp community.

Cattail Marsh – Found at many of the parks, these provide nesting areas for red-winged blackbirds, swamp sparrows, and other birds. An American bittern was heard calling from a marsh at Colchester Pond, and a least bittern was seen in the large marsh at Delta Park.

Cliff – The extensive cliffs at Colchester Pond provide an important refuge to the resident bobcats. Riverside dolostone cliffs at Winooski Gorge and Winooski Nature Trail provide habitat for the uncommon fern, smooth cliffbrake.

Cultivated – This cover type applies to the cornfield at Muddy Brook and the gardens at Ethan Allen Homestead.

Early Successional – This refers to an array of habitats dominated by herbaceous plants, shrubs, and saplings. They are generally power line corridors or abandoned fields, but also include the sandbars at Salmon Hole and the beach pea area at Delta Park. The presence of power line

corridors at most parks ensures the persistence of early successional habitat, needed by birds such as eastern towhee, indigo bunting, and field sparrow.

Early Successional Hardwoods – These are young forest stands dominated by some combination of poplars, birches, cherries, red maple, American elm, and white ash. With the exception of the cherries, these are all trees with wind-dispersed seeds and have relatively low wildlife value. Slower growing, hard mast producing oaks and hickories are rare or absent from the canopy. These stands can be the product of either succession of old fields or heavy logging of forest stands.

Early Successional Hardwoods-Cedar – This is the primary cover type at Winooski Gorge. The canopy is composed of various deciduous trees, with a dense subcanopy of northern white cedar. It is an early successional Limestone Bluff Cedar-Pine Forest.

Early Successional Hardwoods-White Pine – This is similar to the Early Successional Hardwoods cover type, but white pine is a significant part of the canopy.

Field – This refers to actively maintained fields, which are generally dominated by grasses and weeds of European origin. These include hayfields as well as other areas that are mown infrequently enough that wildflowers such as red clover, cow vetch, and tall buttercup can bloom. Generally the only woody vegetation in fields is in spots that are too wet or rocky to mow. Fields support a diversity of butterflies and other pollinating insects, are frequently visited by grazing deer, and provide nesting or foraging habitat for birds such as song sparrow, eastern kingbird, eastern phoebe, tree swallow, and bobolink. Lawns, which have substantially lower habitat value, are placed in their own category, as are unmaintained ‘fields’ that are in a state of arrested development because they are dominated by reed canary grass.

Floodplain Forest – This cover type includes forests in the active floodplain of the Winooski. Common canopy species include silver maple, cottonwood, and green ash. The herb layer is generally tall, very dense, and dominated by a few species, including ostrich fern, sensitive fern, and wood nettle. In the current cover type maps, no distinction is made between the Silver

Maple-Ostrich Fern Riverine Floodplain Forest and Silver Maple-Sensitive Fern Riverine Floodplain Forest natural communities.

Grassy Shore – These are dense, grassy strips along the river, often dominated by reed canary grass. There is little or no woody vegetation, and this cover type generally corresponds with the Rivershore Grassland natural community.

Gravel Shore – This cover type is found only at the edges of islands at Salmon Hole, and may provide habitat for the rare cobblestone tiger beetle.

Hardwood Swamp – This refers to wetlands dominated by deciduous trees, including red and silver maple, willow, and black and green ash.

Hemlock-Northern Hardwoods-White Pine – These stands at Old Mill Park and Macrae Farm have a similar assemblage of canopy species to that of Northern Hardwoods stands (see below), but hemlock is dominant or at least prominent. The hemlocks create shade that results in a sparse shrub and herb layer, and in the absence of major disturbance these stands will probably become nearly pure hemlock forests.

Lawn – Lawns have very low floristic diversity, being composed of grass, white clover, common plantain, dandelion, and usually very little else. Areas mapped as lawn, such as at Ethan Allen Homestead, Essex Overlook, and Mayes Landing, may include trees and can even have a closed canopy; this dramatically increases their habitat value.

Marsh – This is a general category for wetlands dominated by herbaceous plants other than cattail or reed canary grass. The natural community may be Shallow Emergent Marsh, Cattail Marsh, or, at Delta Park, Deep Bulrush Marsh.

Mixed Oak – This cover type is represented by one stand, on the ridge at Colchester Pond. It is a dry forest with a canopy composed almost exclusively of red, white, and chestnut oak. Lowbush blueberries and huckleberry are abundant in the shrub layer.

Muddy Shore – Many areas along the river have narrow strips that are submerged for too much of the year to have much vegetation. At Ethan Allen Homestead and Winooski Gorge, there were areas of muddy shore that were big enough to include on the maps. These are excellent places to find tracks of raccoon, beaver, muskrat, otter, and many other animals that travel in and along the river. The wetter, north-facing portions of the lakeshore at Delta Park are also included in this cover type.

Northern Hardwoods – These are forest stands dominated by deciduous trees such as sugar maple and beech. Hickories and oaks, known as ‘central hardwoods’, are rare or absent from these stands, although there may be occasional red oaks. The natural communities associated with this cover type include Northern Hardwood Forest, Rich Northern Hardwood Forest, Sugar Maple-Ostrich Fern Riverine Floodplain Forest, and the Sugar Maple-Hophornbeam variant of the Dry Oak-Hickory-Hophornbeam Forest community.

Oak-Hardwoods – These are forest stands at Colchester Pond, Macrae Farm, and a few other parks that are often dominated by red oak, but also include white oak, hickories, and often a diverse array of other deciduous trees. They generally correspond with the Mesic Maple-Ash-Hickory-Oak Forest community.

Oak-Hardwoods-Hemlock – These stands have a similar composition to the previous type, but with hemlock prominent in the understory or occasionally the canopy. In the absence of major disturbance, they will in time likely become dominated by hemlock with a sparse understory.

Phragmites – This invasive plant forms dense patches that were big enough to map at Valley Ridge, Winooski Nature Trail, Woodside Park, and Ethan Allen Homestead.

Pitch Pine-Oak – This refers to a single stand at Essex Overlook Park, which has been called a degraded example of the Pine-Oak-Heath Sandplain Forest community.

Pond – This category is used for beaver ponds, Colchester Pond, an oxbow at Macrae Farm, and several smaller depressions that are filled with water for most of the year.

Red Oak-Northern Hardwoods – These stands are similar in canopy species to the Northern Hardwoods stands, except that red oak is a canopy dominant. At Colchester Pond these are relatively bland in understory species composition, and fit best in the Mesic Red Oak-Northern Hardwood Forest community. At Muddy Brook, however, this cover type represents the Sugar Maple-Ostrich Fern Riverine Floodplain Forest community and is very diverse.

Red Pine – There are two small red pine plantations at Macrae Farm. Red pine does not replace itself in the absence of fire or other major disturbance, and these stands are reverting to Mesic Maple-Ash-Hickory-Oak Forest.

Reed Canary Grass – Reed canary grass is native to the western United States, but it is an introduced European strain that grows in New England, forming dense, nearly monocultural stands, and inhibiting growth of other species. There are several such stands at Winooski Nature Trail, occurring in areas of past human disturbance. Some reed canary grass patches at other parks may be considered Shallow Emergent Marsh, while others may eventually succeed to floodplain forest.

Rock Outcrop – This category is used for the Riverside Outcrops at Salmon Hole, as well as the Temperate Acidic Outcrops on the ridge at Colchester Pond. There are patches of woody and herbaceous vegetation, but bare (or lichen-covered) rock dominates.

Sandy Shore – This category applies to the beach at Delta Park, and to the shores of islands at Salmon Hole. Vegetation is sparse in these sandy areas because of frequent disturbance by the river and the lake.

Shrub and Sapling Thicket – These are dense early successional stands with continuous woody vegetation, but not enough full-grown trees to be considered forest. The hedgerows at

Colchester Pond are in this category. Often dominated by berry-producing shrubs, these thickets are important food sources for birds in addition to providing good nest sites.

Talus Woodland – The one talus woodland extensive enough to map is just below the cliffs at Colchester Pond.

White Pine – These are nearly pure stands of white pine at Old Mill Park and Colchester Pond, growing on the sites of fields or pastures that were abandoned in the early to mid-1900s. There are hardwoods in the understory but substantially below the canopy.

White Pine-Hemlock-Hardwoods – This cover type applies to one stand at Winooski Gorge and several at Colchester Pond. The canopy is a mixture of oaks, other hardwoods, and white pine; hemlock may or may not be present in the canopy but is abundant in the understory. As with Oak-Hardwoods-Hemlock and Hemlock-Northern Hardwoods-White Pine, these are mid-successional stands that will likely be more completely dominated by hemlock in the future.

White Pine-Northern Hardwoods – This category applies to a stand at Colchester Pond in which white pine co-dominates the canopy with species of the Northern Hardwoods type. It also refers to a portion of the Old Mill Park forest in which the canopy is composed of scattered white pines, with a dense subcanopy of maples, beech, and yellow birch.

White Pine-Oak – These are ledgey areas at Colchester Pond that are dominated by white pine and red and white oak. The canopy is often open and somewhat stunted. Red pine is often present, and occasionally chestnut oak. These stands correspond with the Dry Oak Forest natural community.

White Pine-Oak-Hardwoods – These stands have similar canopy species to the Oak-Hardwoods stands, but with a significant amount of white pine. They are early successional Mesic Maple-Ash-Hickory-Oak Forest, or in some cases Dry Oak-Hickory-Hophornbeam Forest.

NATURAL COMMUNITIES

Thirty-three of the 80 natural communities described in *Wetland, Woodland, Wildland* occur on the properties managed by WVPD. The natural community maps include two additional categories, 'Pond' and 'Beaver Wetland,' addressed below. Seeps and vernal pools are included in separate GIS layers from the other communities, and are superimposed on both the current vegetation maps and the natural community maps.

Of the 47 communities not represented on WVPD properties, 23 are only known outside of the region served by WVPD, and Hemlock-Northern Hardwood Forest is lumped with Hemlock Forest in this document. The other 23 natural communities are: Red Pine Forest or Woodland, Red Cedar Woodland, White Pine-Red Oak-Black Oak Forest, Transition Hardwood Talus Woodland, Erosional River Bluff, Lake Shale or Cobble Beach, Sand Dune, Open Talus, Calcareous Red Maple-Tamarack Swamp, Red Maple-Northern White Cedar Swamp, Northern White Cedar Swamp, Hemlock Swamp, Dwarf Shrub Bog, Poor Fen, Intermediate Fen, Sedge Meadow, Deep Broadleaf Marsh, Wild Rice Marsh, River Cobble Shore, Calcareous Riverside Seep, Lakeshore Grassland, Alluvial Shrub Swamp, and Sweet Gale Shoreline Swamp. Many of these communities may not actually exist within WVPD's member communities, even though the range maps in *Wetland, Woodland, Wildland* include this area.

The relative rarity of WVPD's natural communities on the state level, as determined by the Vermont Nongame and Natural Heritage Program, is as follows:

- One S1 community (extremely rare in the state, generally with fewer than five high quality occurrences): Pine-Oak-Heath Sandplain Forest.
- Five S2 communities (very rare in the state, occurring at a small number of sites or occupying a small total area in the state): Buttonbush Swamp, Lake Sand Beach, Limestone Bluff Cedar-Pine Forest, Red or Silver Maple-Green Ash Swamp, and Sugar Maple-Ostrich Fern Riverine Floodplain Forest.
- Thirteen S3 communities (high quality examples are uncommon in the state, but not rare; the community is restricted in distribution for reasons of climate, geology, soils, or other physical factors, or many examples have been severely altered): Dry Oak Forest, Dry Oak-Hickory-Hophornbeam Forest, Lakeside Floodplain Forest, Mesic Maple-Ash-Hickory-Oak Forest, Northern Hardwood Talus Woodland, River Mud Shore, River Sand

or Gravel Shore, Rivershore Grassland, Silver Maple-Ostrich Fern Riverine Floodplain Forest, Silver Maple-Sensitive Fern Riverine Floodplain Forest, Temperate Calcareous Cliff, Temperate Calcareous Outcrop, and Vernal Pool.

- Twelve S4 communities (widespread in the state, but the number of high quality examples is low or the total acreage occupied by the community is relatively small): Cattail Marsh, Deep Bulrush Marsh, Hemlock Forest, Mesic Red Oak-Northern Hardwood Forest, Red Maple-Black Ash Swamp, Rich Northern Hardwood Forest, Riverside Outcrop, Seep, Shallow Emergent Marsh, Temperate Acidic Cliff, and Temperate Acidic Outcrop.
- Two S5 communities (common and widespread in the state, with high quality examples easily found): Alder Swamp and Northern Hardwood Forest.

Detailed information on each of the natural communities can be found in *Wetland, Woodland, Wildland*. The following section discusses the distribution of these communities across WVPD parks and identifies the best examples. It also explains differences of interpretation for communities such as Seep and Hemlock Forest; deviations from the descriptions in *Wetland, Woodland, Wildland*; and the 'Pond' and 'Beaver Wetland' categories.

Alder Swamp (S5) – Small examples occur at Colchester Pond, Heineburg Wetlands, and Woodside Park.

Beaver Wetland – This is not one of the natural communities described in *Wetland, Woodland, Wildland*, but beaver wetlands are distinct natural systems that deserve their own category. They can include, either simultaneously or at different successional stages, open water, Sedge Meadow, Shallow Emergent Marsh, Cattail Marsh, and Alder Swamp, as well as highly diverse early successional patches with nutrient-rich soils. These beaver created habitats not only serve their creators, but are also frequented by muskrats, minks, otters, bobcats, moose, raccoons, green frogs, bullfrogs, spring peepers, newts, painted turtles, mallards, wood ducks, and many other animals. Snags (standing dead trees) are a common feature of beaver wetlands, and provide nest sites for tree swallows, wood ducks, and great blue herons, as well as foraging sites for woodpeckers and perches for raptors. Beaver wetlands are songbird hotspots, and many

species that are not present in the surrounding forest turn up at beaver wetlands, including white-throated sparrows, common yellowthroats, and northern waterthrushes. Ethan Allen Homestead, Macrae Farm, Old Mill Park, Valley Ridge, Winooski Nature Trail, and Woodside Park all have beaver wetlands, but the most impressive and extensive ones are at Colchester Pond.

Buttonbush Swamp (S2) – There are small Buttonbush Swamps at Derway Island and Ethan Allen Homestead. They are dense thickets, composed almost exclusively of buttonbush, within large wetland complexes. The Buttonbush Swamp at Heineburg Wetlands has a diverse array of shrub and herb species. Purple loosestrife is abundant there but has been hit hard by *Galerucella* leaf-eating beetles.

Cattail Marsh (S4) – Cattail Marshes occur at ten parks. The most easily accessible ones are adjacent to the south parking area at Ethan Allen Homestead and along the Winooski Nature Trail. These marshes can be nearly pure cattail patches, but there are marshes at Macrae Farm and Ethan Allen Homestead that have few cattails but are best placed in this community because they are deep and have characteristic species such as water horsetail, bulb-bearing water hemlock, and water parsnip.

Deep Bulrush Marsh (S4) – The only Deep Bulrush Marsh is at the north end of Delta Park. It is quite inaccessible to humans and is a haven for birds such as great egret, American coot, and Caspian tern.

Dry Oak Forest (S3) – There is an extensive and excellent example of this community on the ridge at Colchester Pond, and several small examples exist on other ledge areas east of the pond. There is also a very small example at Winooski Gorge, curiously juxtaposed with Limestone Bluff Cedar-Pine Forest.

Dry Oak-Hickory-Hophornbeam Forest (S3) – This community is restricted to Colchester Pond. The best example is at the northeastern corner, but there are several small patches on ledges scattered across the eastern half of the property.

Hemlock Forest (S4) – In this inventory, no distinction was made between Hemlock Forest, Hemlock-Northern Hardwood Forest, and hemlock-dominated variants of other communities. The reasoning was that in the absence of major disturbance, sites where hemlock grows well will become nearly pure stands of hemlock, and will be functionally similar regardless of what might have grown there before. This community was mapped at Old Mill Park, Macrae Farm, Colchester Pond, Valley Ridge, and Winooski Gorge. Stands at Old Mill Park and the southeastern portion of Colchester Pond have the greatest abundance of herbaceous species associated with the cool microclimate of hemlock forests, such as goldthread, painted trillium, common wood sorrel, and bluebead lily.

Lake Sand Beach (S2) – This community is found only at Delta Park. It is a good example, where several rare grasses and sedges have been documented, as well as the threatened beach dune tiger beetle (*Cicindela hirticollis*).

Lakeside Floodplain Forest (S3) – A small example of Lakeside Floodplain Forest exists at Delta Park. At adjacent Derway Island, which is influenced by flooding from both the river and the lake, portions have characteristics of this community and have been mapped as such. The area at Delta Park that supports a population of the threatened beach pea, because it is no longer maintained as a sand dune by natural processes, will probably succeed to Lakeside Floodplain Forest if not actively maintained by park staff.

Limestone Bluff Cedar-Pine Forest (S2) – This is the dominant community at Winooski Gorge. It is an extensive example, but is all fairly young, with a canopy of early successional hardwoods. The herb layer is much more diverse than is suggested for this community by *Wetland*, *Woodland*, *Wildland*, and is similar to that of Transition Hardwoods Limestone Forest. Common buckthorn is abundant at Winooski Gorge, and may impact the native vegetation if not addressed. There is also a small fragment of this community at the east end of the Winooski Nature Trail.

Mesic Maple-Ash-Hickory-Oak Forest (S3) – This is the dominant community at Colchester Pond. Because of past logging, early successional species such as bigtooth aspen are abundant in

the canopy. In some of the abandoned fields and pine stands that are reverting to this community, invasive shrubs such as common buckthorn and Oriental honeysuckle are abundant. Macrae Farm has a highly diverse stand of Mesic Maple-Ash-Hickory-Oak Forest, an example of the Transition Hardwoods Limestone Forest variant. Although this community grows on glacial tills according to *Wetland, Woodland, Wildland*, it is “a poorly understood community in Vermont.” The assemblage of species growing on marine sand at Woodside Park, Essex Overlook Park, and elsewhere seems to match this community better than any other option. This includes the plateau at Essex Overlook that would be Pine-Oak-Heath Sandplain Forest if fires had not been suppressed there.

Mesic Red Oak-Northern Hardwood Forest (S4) – Extensive areas on the east side of Colchester Pond closely match *Wetland, Woodland, Wildland*'s description of this community. As with Mesic Maple-Ash-Hickory-Oak Forest, past logging has resulted in bigtooth aspen and other early successional trees being prominent in the canopy. The small forest fragments associated with the largely deforested areas of Ethan Allen Homestead and Muddy Brook are suggestive of this community as well.

Northern Hardwood Forest (S5) – Although this is the most common natural community in Vermont, it is less typical in the warmer climate of the Champlain Valley, and as a result is scarce at WVPD parks. The clearest example is at Old Mill Park, but it is a young forest dominated by white pine. A few portions of Colchester Pond's forest are reasonable matches for Northern Hardwood Forest.

Northern Hardwood Talus Woodland (S3) – The sole representative of this community is just below the cliffs at Colchester Pond. It is an interesting example, with an abundance of basswood and butternut, and quite a few herbs indicative of nutrient-rich rock.

Pine-Oak-Heath Sandplain Forest (S1) – A Natural Heritage file calls the forest at Essex Overlook a ‘degraded example’ of Pine-Oak-Heath Sandplain Forest. While pitch pines are abundant, and the parent material is sand, there is a complete lack of heath shrubs and most other species that typify this community. There are also several herbaceous species present that

indicate enrichment and are not associated with the poor soils of sandplain forests: bloodroot, red and white baneberries, dalibarda, sweet cicely, and pale touch-me-not. This forest bears little resemblance to the Pine-Oak-Heath Sandplain Forest at nearby Camp Johnson. The hilltops at Valley Ridge are in some ways a better match. There are still a few curious hints of enrichment, but also some characteristic species like huckleberry, late low blueberry, bracken fern, and bastard toadflax.

Pond – Areas that would have standing water in the absence of beaver activity are shown as ponds on the natural community maps. Many parks have small ponds, but of course the finest example is Colchester Pond, a mile long and complete with fish, frogs, ducks, geese, kingfishers, and numerous other animals.

Red Maple-Black Ash Swamp (S4) – Both Colchester Pond and Macrae Farm have good, diverse examples of this community.

Red or Silver Maple-Green Ash Swamp (S2) – Ethan Allen Homestead and Macrae Farm each have an example of this rare community. Both are quite difficult to access, but they are excellent examples and are a treat to explore.

Rich Northern Hardwood Forest (S4) – There are several examples of this community at Colchester Pond, the best being just north and east of the long string of beaver impoundments—a product of minerals washing down and accumulating from the adjacent steep slope and cliffs. Characteristic species like maidenhair fern, blue cohosh, and wild ginger are abundant here and in other lower-slope coves at Colchester Pond that were too small to map.

River Mud Shore (S3) – The examples of this community that were large enough to map are at Ethan Allen Homestead and Winooski Gorge.

River Sand or Gravel Shore (S3) – This community is well represented at the edges of the islands at Salmon Hole.

Rivershore Grassland (S3) – Small examples of this community are found at most parks along the Winooski. Most are dominated by reed canary grass; the most diverse example is at Winooski Gorge.

Riverside Outcrop (S4) – This community is only found at Salmon Hole. Nonnative species are abundant, but characteristic native herbs such as bluebell, downy goldenrod, and balsam ragwort are present.

Seep (S4) – The description of seeps in *Wetland, Woodland, Wildland* is suggestive of mucky areas in forests that are more or less free of woody vegetation. The areas mapped as seeps in this inventory include these, but also other areas within forests (and occasionally fields) where the ground is moist enough to support an abundance of wetland vegetation not present in the surrounding natural community. Sensitive fern and jewelweed are often dominant species in these seeps, and there is often also muscledwood, poison ivy, dwarf raspberry, and a wide assortment of other species. Invasive shrubs such as common buckthorn and Oriental honeysuckle are often more abundant in seeps than in the surrounding forest. Even very small seeps often have green frogs or other amphibians. There are seeps at many parks, but they are especially abundant at Colchester Pond, on or immediately adjacent to ledges.

Shallow Emergent Marsh (S4) – This broadly defined natural community occurs at many parks. The boardwalk at Ethan Allen Homestead’s Wetlands Walk North takes visitors through a good example of a Shallow Emergent Marsh.

Silver Maple-Ostrich Fern Riverine Floodplain Forest (S3) – While there are small examples of this community at several other parks, the best examples are at Ethan Allen Homestead, Woodside Park, and Winooski Nature Trail (in particular on Catlin Island). The islands at Salmon Hole have some interesting examples of early successional stages of this community, more diverse because they have not yet been taken over by ostrich fern and the other usual dominant herbaceous species.

Silver Maple-Sensitive Fern Riverine Floodplain Forest (S3) – This community is much less common on WVPD properties than is the preceding community, but there are excellent examples at Derway Island and Macrae Farm. Much of the trail-less southern portion of Ethan Allen Homestead is an early successional stage of Silver Maple-Sensitive Fern Riverine Floodplain Forest. This community appears to be less susceptible to invasion by exotic shrubs than is Silver Maple-Ostrich Fern Riverine Floodplain Forest, perhaps because it experiences longer periods of flooding.

Sugar Maple-Ostrich Fern Riverine Floodplain Forest (S2) – This community is found at Woodside Park and Muddy Brook. Both examples are fairly small but have an impressive array of tree and herb species. Both are easily accessed, with trails passing through them.

Temperate Acidic Cliff (S4) – This community is found only at Colchester Pond, where it is an important refuge for the resident bobcats. Rusty woodsia is found on the cliffs, a fern that is not particularly rare but was not found anywhere else during this inventory.

Temperate Acidic Outcrop (S4) – A few of these occur at Colchester Pond. They are evidently along the travel corridors of the park's resident carnivores, judging from the fisher and coyote scats found on them. One Temperate Acidic Outcrop offers a stunning view of the pond, the Adirondacks, and everything in between.

Temperate Calcareous Cliff (S3) – Winooski Gorge and Winooski Nature Trail include the north and south ends of an extensive set of Temperate Calcareous Cliffs. An uncommon and characteristic fern, smooth cliffbrake, is found there.

Temperate Calcareous Outcrop (S3) – Calcareous outcrops were found at Macrae Farm and Winooski Gorge. They were too small to include on the natural community maps, but had an impressive diversity of plants associated with them, including uncommon species such as walking fern, wall rue, smooth cliffbrake, four-leaved milkweed, and chinquapin oak.

Vernal Pool (S3) – The biggest and most abundant vernal pools are at Colchester Pond, and because of the lack of habitat fragmentation there these are the most promising in terms of potential breeding amphibians. This inventory was conducted too late in the year to document actual use by breeding amphibians, although spotted salamander eggs were found in one small, dried-up pool at Colchester Pond. Macrae Farm and Essex Overlook also have vernal pools. Wood frogs, considered an obligate vernal pool species, were found at Winooski Nature Trail, and more puzzlingly, at Winooski Gorge. Some depressions in floodplain forests at Ethan Allen Homestead and Macrae Farm have been mapped as vernal pools because they hold water for much, but not all, of the year. These may or may not be used by obligate vernal pool species, but provide habitat for green frogs, are likely breeding sites for American toads and northern leopard frogs, and are certainly productive breeding sites for mosquitoes. GPS coordinates of vernal pools found outside of floodplains are listed in an appendix to this document, and these pools are included in the GIS data as a point file in addition to the polygon file represented on the printed maps that are included with this document.

SUMMARY OF RARE AND UNCOMMON SPECIES

The rare and uncommon species documented during this inventory are listed below, with the name of the park(s) where they were found. (Previous sightings of rare and uncommon species are reported in Natural Heritage files and in WVPD’s Flora/Fauna database.) For more information, refer to the section on the appropriate park. Note that occurrences of several of the bird species are only considered rare if they are nesting. In the chart below, “possibly nesting” indicates that the bird was observed in an area that included the habitat features typically associated with nest sites for this species. “Probably nesting” indicates that mated pairs were observed, and “not nesting” indicates a species seen in an area without suitable nest sites.

SPECIES	LOCATION	VT rank	VT status
Cobblestone tiger beetle	Salmon Hole (identification not confirmed)	S1	T
American bittern	Colchester Pond; possibly nesting	S3B, S3N	
Least bittern	Delta Park; possibly nesting	S2B, S2N	SC
Great blue heron	At several parks; nesting near Colchester Pond	S2S3B, S5N	

SPECIES	LOCATION	VT rank	VT status
Turkey vulture	Suitable nest sites may exist at Colchester Pond; also seen at Macrae Farm and Muddy Brook	S3B, S4N	
Osprey	Salmon Hole; not nesting	S2B, S4N	
Northern harrier	Delta Park and Ethan Allen Homestead; possibly nesting	S2B, S3S4N	SC
Cooper's hawk	Muddy Brook; possibly nesting	S2S3B, SZN	SC
Sora	Derway Island; possibly nesting	S2S3B, S3N	SC
Common moorhen	Derway Island; possibly nesting nearby	S2B, S2N	
American coot	Delta Park; possibly nesting, but likely a migrant	SAB, S2N	
Common nighthawk	Colchester Pond; saw during migration	S2S3B, SZN	SC
Blue-gray gnatcatcher	Derway Island, Ethan Allen Homestead, Winooski Nature Trail, Woodside Park; probably nesting	S3B, SZN	
Pine warbler	Colchester Pond, Old Mill Park; possibly nesting	S3B, SZN	
Cerulean warbler	Colchester Pond; possibly nesting	S1B, SZN	SC
Black maple	Woodside Park	S3	
Climbing fumitory	Winooski Gorge	S3	
Poke milkweed	Colchester Pond, Macrae Farm	S3	
Four-leaved milkweed	Colchester Pond, Macrae Farm	S3S4	
Wall rue	Winooski Gorge	S3S4	
Low bindweed	Winooski Nature Trail	S2	T
Stout wood reed-grass	Derway Island	S3	
Squawroot	Colchester Pond	S2S3	
Rough avens	Delta Park, Donohue Sea Caves	S2	
Beach pea	Delta Park	S2	T
Lance-leaved loosestrife	Delta Park	S1	
Smooth cliffbrake	Macrae Farm, Winooski Gorge, Winooski Nature Trail	S3	
Pinedrops	Macrae Farm	S1	E
Chinquapin oak	Macrae Farm	S3	
Yellow water crowfoot	Derway Island	S3	
Bristly crowfoot	Macrae Farm	S2	
Sessile-fruited arrowhead	Delta Park	S3	
Carpenter's square	Donohue Sea Caves, Salmon Hole	S3	

SPECIES	LOCATION	VT rank	VT status
Buffaloberry	Winooski Gorge	S3	
Snowberry	Salmon Hole	S3S4	
Broad beech fern	Colchester Pond	S2	

Explanation of rarity codes (state rank):

S1 – Very rare, generally 1 to 5 occurrences believed to be extant and/or some factor(s) making it especially vulnerable to extirpation from the state

S2 – Rare, generally 6 to 20 occurrences believed to be extant and/or some factor(s) making it vulnerable to extirpation in the state

S3 – Uncommon, believed to be more than 20 occurrences and/or there is some threat to it in the state

S4 – Apparently secure in state, often with more than 100 occurrences

S5 – Demonstrably secure in state

SA – Accidental in state

SZ – Not of practical conservation concern because there are no definable occurrences

B indicates breeding status for birds; N indicates nonbreeding status

Explanation of state status:

E – Endangered (in immediate danger of becoming extirpated in the state)

T – Threatened (with high possibility of becoming endangered in the near future)

SC – Special Concern (rare; status should be watched)

SUMMARY OF INVASIVE SPECIES

Thirty-two of the species listed on IPANE's (The Invasive Plant Atlas of New England) website were found in WVPD's parks. Below is a table summarizing which species were found in which parks, followed by information on the relative degree of threat posed by each species, and about native species with which they might be confused. In this table and the species lists at the end of this document, initials for the names of parks are used as follows: CP = Colchester Pond; DP = Delta Park; DI = Derway Island; DSC = Donohue Sea Caves; EO = Essex Overlook; EAH = Ethan Allen Homestead; HW = Heineburg Wetlands; MF = Macrae Farm; ML = Mayes Landing; MCA = Millyard Canoe Access; MB = Muddy Brook; OMP = Old Mill Park; RW =

Riverwalk; SH = Salmon Hole; VR = Valley Ridge; WG = Winooski Gorge; WNT = Winooski Nature Trail; and WP = Woodside Park.

Species	CP	DP	DI	DSC	EO	EAH	HW	MF	ML	MCA	MB	OMP	RW	SH	VR	WG	WNT	WP
Asiatic bittersweet	x					x	x					x			x		x	x
Autumn olive	x	x									x					x		
Bittersweet nightshade	x	x	x	x	x	x	x	x		x	x			x	x	x	x	x
Black locust		x			x	x							x	x			x	x
Canada thistle	x			x	x	x		x							x	x		
Celandine					x	x					x		x	x		x	x	x
Coltsfoot	x											x				x	x	
Common barberry	x							x			x			x	x	x	x	
Common buckthorn	x	x		x	x	x	x	x	x		x	x	x	x	x	x	x	x
Creeping buttercup						x							x				x	
Dame's rocket					x	x		x			x		x	x	x	x	x	x
Eurasian watermilfoil			x														x	
European frogbit		x	x															
Flowering rush			x			x												
Forget-me- not			x			x		x			x				x		x	x
Garlic mustard						x							x	x		x	x	
Glossy buckthorn	x	x		x	x	x	x	x						x	x	x	x	
Goutweed						x		x			x	x	x	x		x	x	x
Ground ivy		x	x	x		x		x	x		x		x				x	x
Japanese barberry						x	x	x				x	x	x	x	x	x	x
Japanese knotweed						x				x		x	x	x		x	x	
Moneywort	x	x	x	x		x	x	x			x	x	x	x	x	x	x	x
Multiflora rose	x	x		x		x	x	x					x	x	x	x	x	
Norway maple					x	x							x	x	x		x	
Oriental honeysuckle	x	x	x		x	x	x	x	x		x	x	x	x	x	x	x	x
Phragmites	x			x		x		x			x			x	x		x	x
Purple loosestrife	x	x	x	x		x	x	x	x		x		x	x	x	x	x	x
Reed canary grass	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x
Sheep sorrel	x																	
Spotted knapweed	x	x				x												
Watercress	x																	
Yellow iris			x			?	x				x						x	

Asiatic bittersweet – This climbing species can form dense tangles, smothering native vegetation. It is not yet a problem on any WVPD properties. If control is attempted, be sure to

distinguish is from the native American bittersweet, which is present at Colchester Pond, Essex Overlook Park, and elsewhere. The exotic has numerous axillary clusters of flowers or fruit, while the native only has terminal clusters. The leaves are supposed to be rounder on the exotic and narrower on the native plant, but I have found this not to be entirely reliable.

Autumn olive – This shrub can become quite abundant in open, early successional areas, but is not currently a problem at any WVPD parks. If control is attempted, be sure not to confuse it with the S3 native buffaloberry, which grows at Winooski Gorge. The two shrubs have similarly silvery leaves, but autumn olive has alternate leaves while buffaloberry has opposite leaves.

Bittersweet nightshade – This herbaceous vine is quite common on WVPD parks, but nowhere does it appear to be interfering with native vegetation. There is at least one native insect that commonly feeds on it, the clavate tortoise beetle (*Plagiometriona clavata*), which may help to keep it under control.

Black locust – This tree, which is native to the southern U.S., has been widely planted in New England and can be quite invasive. It can drastically alter natural communities by nitrifying the soil. There is a whole black locust-dominated stand at Essex Overlook Park; it also occurs at Woodside Park, Ethan Allen Homestead, and Riverwalk. This tree vigorously root-sprouts when cut.

Canada thistle – This species is a weed of pastures, and is not an issue in undisturbed habitats.

Celandine – This aggressive garden weed is found in the floodplain forests of some parks. At Essex Overlook Park, it has spread over large areas to the exclusion of virtually all other herbaceous vegetation. This species appears to be among the most worthy of control measures among the herbaceous exotics. Celandine produces explosive seedpods beginning by early summer, so attempts to eradicate it should take place in the spring. Gloves should be worn when weeding, since the yellow juice can be a skin irritant.

Coltsfoot – Largely a weed of roadsides, coltsfoot can also form dense patches along otherwise sparsely vegetated riverbanks. This valuable medicinal herb is currently rare at WVPD parks.

Common barberry – This shrub is found in some floodplain forests, as well as at Colchester Pond and in the eastern portion of Winooski Nature Trail. It is not particularly abundant at this point.

Common buckthorn – This is probably the most problematic exotic shrub on WVPD properties. It is shade tolerant, and is the dominant shrub in some places. It is especially abundant at Winooski Gorge and in the early successional area on the west side of Colchester Pond. This species has the potential to reduce diversity in rare natural communities, and attention should be focused on controlling it in these areas (such as Winooski Gorge).

Creeping buttercup – This species was found in the lawn at Riverwalk, in floodplain forest fragments at Ethan Allen Homestead, and on Catlin Island (Winooski Nature Trail property).

Dame's rocket – The showy purple, pink, and white flowers of this member of the mustard family make it easy to spot in early summer. It is quite abundant in some floodplain forests, although never forming dense monocultural thickets as the native floodplain species do.

Eurasian watermilfoil – Submerged vegetation was not inventoried for the most part, but a large patch of this species was found north of the large beaver pond at Winooski Nature Trail. Be aware that the native common watermilfoil also occurs at WVPD parks; it has fewer divisions in its leaves. Coontail, another native aquatic plant, is superficially similar to the watermilfoils, but its leaves do not have the characteristic featherlike appearance seen in watermilfoil leaves.

European frogbit – Before this inventory, there was only one record of European frogbit in New England, which was in southern Vermont. This species is very abundant in the Cattail Marsh at Delta Park and in the wetter areas in southern Derway Island, in some cases completely covering ponds. At Derway Island it threatens to displace the uncommon yellow water crowfoot.

Frogbit should be considered a priority in invasive species control. This new finding has been reported to IPANE, and a state biologist was sent to collect a voucher specimen.

Flowering rush – This unique species occurs in small numbers along the river at a few parks. I have yet to see it become abundant, on WVPD parks or elsewhere. When not in flower, this species could easily be mistaken for a bur-reed.

Forget-me-not – This wetland wildflower occurs in small patches in streambeds, especially at Woodside Park. Although it was not found during this inventory, there is a very similar S2 native species that also grows in wet places. The exotic species (*Myosotis scorpioides*) is often creeping at the base and its flowers are 5-10 mm wide, while the native species (*Myosotis laxa*) is not creeping at the base and its flowers are 2-5 mm wide.

Garlic mustard – There are some good-sized populations of this herb in the seepy upland forest at Winooski Nature Trail and in one of the northern floodplain forest fragments at Ethan Allen Homestead. This species is shade tolerant and should be eradicated if possible.

Glossy buckthorn – Currently uncommon on WVPD properties, this shrub is extremely invasive elsewhere in New England, and is probably as worthy of removal as is common buckthorn.

Goutweed – This escaped garden herb can rival the native floodplain species in its ability to dominate patches of this habitat. Eradication of this species is desirable, if at all feasible.

Ground ivy – This common weed of lawns is sometimes abundant in floodplain forests. A very low-growing plant, it is not clear to what extent it inhibits the growth of native species.

Japanese barberry – This thorny shrub can form continuous thickets in forests with the help of selective browsing by overabundant deer. It is not currently abundant at any parks.

Japanese knotweed – This bamboo-like weed forms extensive, dense monocultures on disturbed riverbanks. Not yet abundant at any parks (except for a large stand under power lines at the Millyard Canoe Access), removing this species before it takes hold would be wise.

Moneywort – This is another species that forms dense, low groundcover in floodplain forests, and is abundant at many parks.

Multiflora rose – Capable of forming dense, tangled thickets in open areas, this shrub also does well in floodplain forests. The frilly stipules distinguish this species from the native roses.

Norway maple – Widely planted as a street tree, this species has escaped into a few parks. It is highly shade tolerant and has formed pure stands in other parts of New England. Any individuals found should be removed, being careful to distinguish them from native sugar maples.

Oriental honeysuckle – Two similar Asian species of honeysuckle are invasive in this region, and were not distinguished in this inventory. Among WVPD parks, the greatest abundance of Oriental honeysuckle is in early successional areas and seeps on the west side of Colchester Pond. This species can also be a problem in floodplain forests. If removal is planned, it is important to be familiar with the native relatives of the exotic honeysuckles, in particular American fly honeysuckle and buffaloberry (an S3 species found at Winooski Gorge).

Phragmites – Phragmites usually grows in well-defined, dense patches, excluding virtually all other vegetation. Most of these were large enough to be mapped as their own stands. This species is one of the lowest in wildlife value among invasive species, and should be eradicated if possible. Note that this species is native to New England, but it appears to be a European strain that invades freshwater wetlands.

Purple loosestrife – A common invader of wetlands, this species has been targeted for biological control by the state of Vermont. Most parks with purple loosestrife showed damage to at least some plants by the introduced leaf beetles (*Galerucella* spp.); in some cases, such as at

Heineburg Wetlands, large patches have been killed off. Heavy beetle damage was also recorded at Delta Park, Ethan Allen Homestead, Macrae Farm, and Winooski Gorge. Mating adult beetles were found on purple loosestrife at Winooski Nature Trail.

Reed canary grass – This grass is probably the single greatest threat to biodiversity among invasive plants found on WVPD properties. It forms extensive, dense patches, inhibiting the germination of other plants, in Rivershore Grasslands and Shallow Emergent Marshes, as well as in early successional areas that would succeed to floodplain forest if reed canary grass were not present.

Sheep sorrel – This common weed was found only in two locations at Colchester Pond, and does not pose a threat.

Spotted knapweed – This species is notoriously invasive in other parts of the country, but is rare on WVPD properties. It was found in two maintained fields at Colchester Pond, and just outside the beach pea enclosure at Delta Park.

Watercress – A few rosettes of this edible plant were found at Colchester Pond. It is unlikely to become a problem there.

Yellow iris – This species is present in small numbers in wetlands at several parks.

OTHER GENERAL MANAGEMENT ISSUES

Deer overabundance is a subjective issue. There are not areas at WVPD's parks that I would say show clear signs of overabundant deer. In many floodplain forest stands low woody vegetation is sparse, but this is characteristic of floodplain forests and does not necessarily indicate overbrowsing. Browse on herbaceous floodplain plants was frequently found, but there was not obvious damage to the woody plants. In some areas of Colchester Pond (noted in the stand-by-stand tables), understory hemlocks show distinct browse lines. This is a result of winter feeding by deer, and may be more a function of relative scarcity of hemlocks than of high deer numbers. At the same time, tracks and sign of deer are virtually ubiquitous at WVPD's parks,

and by no means can it be said that there are ‘too few.’ Continuing to prohibit hunting at this point would be justified more for human safety concerns than for ecological reasons. It should be noted that at least at Colchester Pond, the presence of predators (coyotes, bobcats, domestic dogs) combined with hunting on surrounding land has the potential to keep the deer population in check. The remains of two deer, likely killed by coyotes, were found at Colchester Pond during this inventory.

While timber harvesting can certainly benefit certain wildlife species and enhance biodiversity if done properly, there is currently no ecological justification for logging WVPD parks and natural areas. The early successional habitat that can be created by patch cuts and clearcuts is currently in ample supply, and will persist as long as beavers and power line corridors are present. Forestry techniques can enhance structural features, but there is generally not a shortage of snags or coarse woody debris on WVPD properties. Mature forest with large trees is rare in this area—in fact, forest cover in general accounts for only 61% of Chittenden County, making it Vermont’s least forested county. Most of this forest is quite young, and it is becoming increasingly fragmented. Even at Colchester Pond, which has perhaps the oldest forest of any WVPD property, past logging has resulted in an abundance of early successional species such as bigtooth aspen and red maple. The best plan for WVPD’s forests is simply to leave them alone.

Power line corridors provide nesting habitat for many native bird species that are not found in mature forests. These shrubby areas can also be important hunting sites for bobcats. To maximize the potential of power line corridors to provide valuable early successional habitat, it would be best to work with the utility companies and encourage them to minimize disturbance to nesting birds. This would entail maintaining the corridors mechanically rather than chemically, and waiting until the fall (when birds are done nesting) to perform maintenance.

Macrae Farm and Ethan Allen Homestead both have large areas of floodplain that are currently maintained as fields, with little or no riparian buffer. The Army Corps of Engineers has recommended buffer widths of 30 meters or more for adequate protection of water quality. If buffers of this size are not feasible given the size of the fields, any amount of additional floodplain forest would increase bank stability, bird nesting habitat, and viability of travel corridors for mammals. The restoration effort at the Homestead (EAH-15) is promising; besides

one dead elm and a few dead or sickly silver maples, all of the planted trees are in good condition.

When planning the locations of any additional trails, be sure to avoid seeps (or plan to install foot bridges) and sites where rare plants are found. Seeps are indicated on the maps included with this report. The property descriptions in the next section note the approximate locations of rare species sightings, and the GIS data provided with this document include a layer with the exact locations.

Introduced insects and pathogens present a threat to WVPD's forests. Larvae of the viburnum leaf beetle (*Pyrrhalta virburni*), a close relative of the intentionally introduced purple loosestrife-eating beetles, were seen defoliating arrowwood and highbush cranberry at Winooski Nature Trail, Macrae Farm, and Heineburg Wetlands, with some mortality of highbush cranberry at Heineburg Wetlands. Butternut canker is fatal to butternut trees, and was observed in many cases across WVPD properties. Beech, another valuable nut-producing tree, is susceptible to beech bark disease. Although less evident during this inventory than butternut canker, the disease is common in this region and is a major threat to this species. There is little that can be done to deal with these introduced pests and pathogens. Avoiding timber harvesting at least provides a chance for more disease-resistant individuals to survive and reproduce.

Although many wildlife species were documented during this inventory, this documentation does not adequately inform WVPD's desire to protect corridors for movement of wildlife. A simple snow tracking survey would provide a better understanding of which areas are most used by mammals, and at what points animals are coming and going from the properties. For example, an early winter exploration of Colchester Pond during the preparation of this document confirmed that, as expected, the ledges and beaver ponds on the property are heavily used by bobcats, but also revealed that the large expanse of early successional habitat northwest of the property (including the power line corridor and an overgrown Christmas tree farm) is a prime hunting area for these animals.

PROPERTY DESCRIPTIONS AND SPECIFIC MANAGEMENT ISSUES

This section describes each property and highlights the most noteworthy natural features, including sightings of rare plants and animals. In considering what species and features may have been missed, note the dates that the properties were visited (indicated at the beginning of

each property's description). Stand names used (e.g. CP-4) correspond with those on the current vegetation maps and in the tables at the end of this document.

COLCHESTER POND NATURAL AREA (*visited 18 times between 5/25 and 11/12/05*)

The 693-acre Colchester Pond property contains an impressive array of habitats and natural communities. The dominant natural community is Mesic Maple-Ash-Hickory-Oak Forest, although much of this is currently maintained as field or is in various stages of succession. There is also an extensive area of Mesic Red Oak-Northern Hardwood Forest, and there are several large patches of forest that are progressing towards a hemlock-dominated community.

Colchester Pond itself, a natural pond that was enlarged by a manmade dam in the mid-1900s, is a mile long and covers more than a quarter of the property. In addition to anglers and canoeists, the pond and its margins are visited by many water birds, including Canada goose, mallard, double-crested cormorant, great blue heron, Virginia rail, and the uncommon American bittern. Beavers also frequent the pond, and as this inventory was winding down they were busy working to extend its margin to the south.

Barbed wire fences and stone walls scattered throughout the forest indicate that much of the property was pasture at one time. The adjacent stands CP-4, CP-7, CP-11, and CP-14 nicely illustrate the progression over time from field to pine forest to deciduous forest. Other artifacts of past human land use include an overgrown apple orchard at the northwest corner, and an abundance of early successional trees such as bigtooth aspen throughout the property due to timber harvesting.

In addition to the habitat diversity created by past and present land uses, there is substantial diversity related to the site's topography, which is marked by north-south oriented ridges, ledges, and valleys. Colchester Pond itself owes its existence to one such valley, and two chains of beaver-created wetlands lie in valleys to the east. Just east of these valleys is a very steep slope, which towards the north end includes a series of cliffs with a talus woodland at the base. The lower portion of this steep slope is a highly diverse Rich Northern Hardwood Forest. Immediately above the cliff is an excellent example of Dry Oak Forest, an uncommon community in Vermont, with several Temperate Acidic Outcrops within it. Beyond this lies a good example of another uncommon community, Dry Oak-Hickory-Hophornbeam Forest.

Scattered throughout the portion of the property east of the pond are north-south oriented ledges supporting Dry Oak Forest, Dry Oak-Hickory-Hophornbeam Forest, and Mesic Maple-Ash-Hickory-Oak Forest within other natural communities. These ledges often have seeps or vernal pools associated with them. Depressions in the southeastern portion of the property hold two more large beaver-created wetlands and a fine example of a Red Maple-Black Ash Swamp.

An aspect of Colchester Pond that sets it apart from other WVPD parks is its situation within a large tract of contiguous forest, extending from Indian Brook Reservoir to the Milton Town Forest. It is the only property where definite sign was found of bobcat and moose, two wide-ranging mammals. Cerulean warblers were heard singing in the forest east of the pond. This is a species of special concern that is said to require extensive, mature, deciduous forests with closed canopies. (According to Ted Murin, a local participant in the Vermont Breeding Bird Atlas, Colchester Pond is one of only three known breeding sites for cerulean warblers in the state.) Black-throated blue warblers, often cited as forest interior birds, were also only detected here. In all, 111 vertebrate wildlife species were documented at Colchester Pond during this inventory.

Nesting locations for great blue herons are considered uncommon to rare in Vermont. While there are no herons nesting on the property itself, there were four active nests in a large beaver pond to the north of the property, and a single active nest in a beaver pond just to the south. Pine warblers, considered uncommon breeders, were heard singing, and likely nested on the property given the abundance of pine forest. Common nighthawk and turkey vulture, two other uncommon breeders, were seen here, but evidence of nesting was not found.

Several rare and uncommon plants were documented at Colchester Pond. In the oak-hardwoods stand near the northwestern corner of the pond (CP-14) is a mature American chestnut tree, one of only six known in Vermont according to Ed Toth of the American Chestnut Foundation. (No chestnuts were found in the understory anywhere on the property. It is likely that this tree's isolation from others of its species is responsible for its having escaped the blight so far.) A patch of poke milkweed was found in a seep within a small white pine-hemlock-hardwoods stand (the northernmost section of CP-40), and more was found in Mesic Maple-Ash-Hickory-Oak Forest in the southeastern portion of the property (CP-61). Four-leaved milkweed was found in a patch of Dry Oak-Hickory-Hophornbeam Forest (CP-74). Squawroot, a parasite

of oak roots, was found in the large stand of Dry Oak Forest above the cliffs (CP-71). Broad beech fern was fairly abundant in a Rich Northern Hardwood Forest cove (CP-58).

Common buckthorn and Oriental honeysuckle are the dominant invasive species at Colchester Pond. They do not appear to pose a major threat in the more mature forest here, but are quite abundant in early successional stands such as CP-7, CP-11, and CP-17. Any efforts to control these species should focus on these areas.

None of the rare plant species were found near trails, and they are unlikely to be impacted by visitors. They are in discrete locations that have been mapped, so any new trails can easily avoid them. The presence of resident bobcats (not a state-listed species, but of sufficient concern that Vermont Fish & Wildlife recently began a study to better understand their habitat requirements) may be an issue if new trails are created. The proximity of a breathtaking overlook (CP-66) to the cliffs that are likely a central area of activity for the bobcats is unfortunate. The habitat use of bobcats at Colchester Pond, and the degree to which their movements are currently affected by humans, should be studied before new trails are made.

The demonstrated suitability of Colchester Pond to American chestnut provides an opportunity for planting disease-resistant saplings bred by the American Chestnut Foundation. All areas mapped as Mesic Maple-Ash-Hickory-Oak Forest or Dry Oak Forest are likely good sites for chestnut. The early successional stand CP-7 may be the most promising location for plantings, since it lacks a closed canopy. American chestnuts can flower at a very small size when growing in open areas.

The use of Colchester Pond's fields by bobolinks presents another management consideration. On June 20, a male bobolink was seen carrying food on the east side of the pond, indicating the presence of nestlings. However, mowing began on the 27th, starting with the fields on the west side. It is quite possible that the nest(s) were lost. Since bobolinks are the only vertebrate species found exclusively in these fields, it is worth considering whether the mowing schedule could be adjusted to accommodate them. Bobolinks were primarily seen in the fields to the southeast of the pond, so perhaps mowing could be delayed in just these fields. It may be that the bobolinks use these fields because they are routinely mowed last; if so, continuing to mow in the same order would help the chances of nest success. According to Noah Perlut, a UVM doctoral student who studies bobolinks, a fair number of the Champlain Valley's bobolinks have fledged by July 1, and 80% have fledged by the end of the first week in July.

Fledglings need twelve days after leaving the nest to become self-sufficient foragers, but they can fly reasonably well after six days. It is difficult to say for sure when the earliest safe mowing date would be, but July 15 or as close as possible to August 1 have been suggested. Since the existence of these fields in the first place requires that they be economically worthwhile for the farmer who mows them, this kind of delay may not be feasible. But there is no harm in at least letting the farmer know what the situation is, and any decision that would delay mowing of the southeastern fields another day would improve the bobolinks' chances.

There are several areas of interest adjacent to this property, should opportunities for expansion arise. There are large beaver wetlands to the north, east, and south, some of which (as previously mentioned) provide nest habitat for great blue herons. The patch of the Sugar Maple-Hophornbeam variant of Dry Oak-Hickory-Hophornbeam Forest at the northeast corner extends beyond the park's boundary. A study of bobcat movements in and out of the property may suggest other important areas to protect. Ultimately any acquisitions or easements that keep Colchester Pond part of a large, fairly unfragmented forest tract will help to keep it the wildlife haven that it is.

DELTA PARK (*visited 3 times between 8/4 and 8/24/05*)

Fifty-five acre Delta Park has a number of unusual habitats and species due to its unique location where the Winooski River enters Lake Champlain. It has WVPD's only example of a Lake Sand Beach (rare in Vermont), as well as the only Deep Bulrush Marsh. The bulk of the park is Cattail Marsh and Shallow Emergent Marsh, with a narrow band of Lakeside Floodplain Forest along the east and south edge.

The beach has several rare species associated with it. The threatened beach dune tiger beetle has been known at this site for some time, and was still present this year. Two rare species of lovegrass (*Eragrostis*), two rare species of *Cyperus*, and a rare spikerush (*Eleocharis ovata*) have been documented on the beach previously. (*Eragrostis hypnoides*, *C. diandrus*, and *C. aristatus* were found during Brian Carlson's 2002 inventory of the park; according to his management plan, *Eragrostis frankii* was last seen in 1983 and *Eleocharis ovata* was found previously at an unspecified date.) Several species of these genera were found there during this inventory, but definitive identifications were not made. The *Eragrostis* and *Cyperus* species were found on the dry, south-facing sand beach (DP-7), while the *Eleocharis* was in the wet

north-facing portion (DP-8). The threatened beach pea is still abundant in the fenced-off area by the entrance to the park, and there is still a healthy population of the rare rough avens all along the forest edge.

Two rare marsh birds, least bittern and American coot, were seen at Delta Park. A northern harrier (special concern) was seen above the marsh. Marsh wren and Caspian tern are two other species found here during this inventory and not at any other parks. Of these species, only Caspian tern is not listed in the 2003 Management Plan for Delta Park as having been previously reported here.

Given the existing recent Management Plan, this park will not be treated in more detail here. However, there are a few noteworthy floristic additions to the list presented in the 2003 document. A few individuals of the very rare lance-leaved loosestrife, not observed here in over 20 years, were found growing in the muddy margin between the forest and marsh. Two uncommon species, sessile-fruited arrowhead and grass-leaved arrowhead, were found along the north edge of the Deep Bulrush Marsh; these apparently had not been reported previously. Finally, the invasive European frogbit is abundant in the Cattail Marsh, and has not been previously reported in northern Vermont.

DERWAY ISLAND (*visited on 8/6 and 8/8/05*)

The bulk of 148-acre Derway Island (actually a peninsula) is floodplain forest. Much of the forest closely matches the *Wetland, Woodland, Wildland* description of Silver Maple-Sensitive Fern Riverine Floodplain Forest. Because the site is so close to the Winooski Delta, it is also influenced by the lake, resulting in a complex pattern of areas that experience longer flooding and more closely resemble Lakeside Floodplain Forest. There is evidence of logging scattered throughout the natural area, including some open, herbaceous-dominated patches of various sizes. Some rusting old farm equipment was found in the northwestern portion, and there are some linear features suggestive of drainage ditches and a roadbed.

There are two large ponds at Derway Island, where beavers are active. One of these has a good-sized Buttonbush Swamp associated with it. A sora rail (a species of special concern in Vermont) was heard calling from this pond. A common moorhen, rare in Vermont, was seen in the small pond at the southern tip of the property (DI-3).

Two uncommon plant species were found during this inventory. Stout wood reed was found in two locations: a small patch on the west side of the island at the northeast end of the peninsula, and several small patches in a strip of Rivershore Grassland on the west side (DI-20). In the wet areas on either side of the road that crosses the property's southern tip, there were many individuals of yellow water crowfoot (S3).

The primary management concern here is the presence of the invasive exotic European frogbit, which forms continuous cover in some areas, including the area where yellow water crowfoot was found. It is conceivable that the frogbit could cause a decline and eventual disappearance of the crowfoot. The stout wood reed likewise may be in danger of being outcompeted by reed canary grass, which dominates the grassy areas where it was found. If control of the aggressive species were to be attempted, it would seem that there is more likely to be success with the frogbit, given the relative ease of recognizing and uprooting it.

The trail at Derway Island peters out in an early successional area (DI-8), potentially leaving visitors confused. It would be useful to install a sign indicating the end of the trail.

DONOHUE SEA CAVES (*visited on 8/10/05*)

The 15-acre Donohue Sea Caves property is mostly covered by part of a pond, surrounded by a narrow band of marsh. The natural community or communities of the land beyond the marsh that is within the property's boundaries are unclear. The main attraction here, the dolostone cave, appears to be outside the property.

Despite the property's small size, it was found to have one uncommon (S3) plant species, carpenter's square, and one rare (S2) species, rough avens. Both species were found along the trail on the south side of the pond; rough avens was also found on the north side. Trail maintenance is likely part of the reason these species are present, but the trail crew should be familiar with their identification to avoid cutting them.

ESSEX OVERLOOK PARK (*visited on 7/7 and 8/21/05*)

This small (5 acre) park is the subject of a Natural Heritage file, which calls it a degraded example of Pine-Oak-Heath Sandplain Forest supporting a population of the threatened wild garlic. The wild garlic was looked for but not located during this inventory. Degraded the site certainly is; it bears little resemblance to the Pine-Oak-Heath Sandplain Forest at nearby Camp

Johnson. Besides a few pitch pines growing in the lawn along Route 15, and a small stand (EO-5) where pitch pine is a canopy co-dominant, there is a complete lack of the plant species that characterize this natural community. Despite the fine, sandy parent material, which would be expected to support this forest type, there are many herbs present that indicate rich soil, including bloodroot, dalibarda, pale touch-me-not, baneberries, and sweet cicely.

The western half of the park is dominated by nonnative black locust trees, with a dense herb layer (except in the picnic areas) dominated by celandine, another exotic species. There does not appear to be black locust regeneration in the understory, except at the edges of the forest. With a dedicated group of volunteers, eradication of the celandine may be feasible, allowing this area to have at least an understory of native vegetation. Cutting of the black locusts would almost certainly lead to vigorous root sprouting (not to mention erosion of the sandy soil), so this is not recommended.

If determined to be safe so close to a major road, controlled burns could return this park to the Pine-Oak-Heath Sandplain Forest community that once covered much of the area that includes Essex Overlook Park, Camp Johnson, and Saint Michael's College. While restoring only a small fragment of this forest type, fire management here would provide an excellent educational opportunity. On the other hand, the species in the understory suggest that this forest has the potential to become very diverse if left undisturbed.

Surprisingly, the narrow valley at the east end of the park, between Route 15 and the railroad, contains a vernal pool. Only green frogs were found there during the summer inventory, but it would be interesting to visit this pool in the spring and see if any obligate vernal pool species are present.

ETHAN ALLEN HOMESTEAD PARK (*visited 9 times between 6/22 and 8/3/05*)

The northern half of 284-acre Ethan Allen Homestead includes some nice fragments of Silver Maple-Ostrich Fern Riverine Floodplain Forest, but most of the land that could support this natural community is currently maintained as hayfields. The two Wetlands Walk boardwalks give visitors an opportunity to observe the diverse flora and fauna of a Shallow Emergent Marsh and a small swamp without impacting the vegetation.

Perhaps the most ecologically interesting part of the property is the trail-less southern half. In addition to a large tract of mostly early successional Silver Maple-Sensitive Fern

Riverine Floodplain Forest, there is a large wetland complex including ponds, Cattail Marshes, Shallow Emergent Marshes, a Buttonbush Swamp (S2), and an excellent example of Red or Silver Maple-Green Ash Swamp (also S2).

The Ethan Allen Homestead property is quite rich in wildlife species. A single patch of mud along the river had tracks of raccoon, deer, gray squirrel, beaver, muskrat, red fox, and river otter. Among many more common species, two uncommon bird species were found here. Blue-gray gnatcatchers (S3) were heard or seen in several different stands. This species nests in floodplain forest and hardwood swamps, and it is likely that it nests at the Homestead. A northern harrier (special concern) was seen hunting over the marsh at the south end of the property.

This property was inventoried too late to determine whether bobolinks were nesting in the fields. EAH-10 was mowed on June 22, and EAH-1 (where a bobolink was seen during the survey) had been mowed by July 3. See the Colchester Pond section for a discussion of this issue.

Ethan Allen Homestead has at least 24 of the 32 invasive exotic plant species identified during this inventory. These plants are abundant in both the floodplain forest and in the narrow band of early successional forest (EAH-17) surrounding the central area of buildings, lawns, and fields. Refer to the stand-by-stand descriptions for details on which species are found where.

On July 4, a plant that may have been the very rare wild garlic was noted on the west side of EAH-12. It was described as having a cluster of about 12 plump bulblets, and 1-3 clasping, basal leaves. A sketch made of the cluster of bulblets shows a single flower. The common nonnative field garlic has alternate leaves and numerous flowers, while the rare native species has basal leaves and few, if any, flowers. The field notes were taken with the knowledge that there were two possible species, but without realizing the rarity of the native—the possibility that this was a threatened species was not discovered until the preparation of this document in November.

HEINEBURG WETLANDS (*visited on 8/5/05*)

The twelve-acre Heineburg Wetlands property has a diverse assortment of wetland types, adjacent to a band of Silver Maple-Ostrich Fern Riverine Floodplain Forest along the river. In addition to a portion of the forest that beavers are converting to wetland, there is a Cattail Marsh,

two patches of Alder Swamp, and a large patch of Buttonbush Swamp. This last portion is most significant, because it is not only a sizable example of an S2 natural community; it is also far more diverse than the buttonbush monoculture that is typically found in these swamps. There are large patches of purple loosestrife here, but they are mostly dead—a result of the leaf-eating beetle introduced to control this species. The native swamp loosestrife in HW-14 appears unaffected at this point, but it might be monitored for beetle damage.

Oriental honeysuckle is abundant along Route 127, just outside the property boundary. Suitable habitat for this invasive species may be fairly limited on the property, but the situation is worth monitoring.

This property was only visited on one day in August, and it is likely that it is used by many more wildlife species than were observed.

MACRAE FARM PARK (*visited 5 times between 7/13 and 7/26/05*)

288-acre Macrae Farm includes a considerable diversity of habitats and natural communities. The lower (southern) portion includes an excellent example of Silver Maple-Sensitive Fern Riverine Floodplain Forest (MF-21) and some patches that grade between this community and Silver Maple-Ostrich Fern Riverine Floodplain Forest. As with Ethan Allen Homestead, the areas that are currently maintained as hayfields would support floodplain forest if abandoned. There is also an excellent example of the S2 Red or Silver Maple-Green Ash Swamp community at the eastern corner of the property; it extends outside the park's boundary.

There are also several highlights in the northern half of the park. MF-29 is a highly diverse example of the Transition Hardwoods Limestone Forest variant of the Mesic Maple-Ash-Hickory-Oak Forest community. Here and elsewhere in Macrae Farm's forest stands, two uncommon herbs were found, poke milkweed and four-leaved milkweed. At the northern tip of the property is a dolostone outcrop where three uncommon plants can be found: smooth cliffbrake, walking fern, and saplings of chinquapin oak. The northeastern corner of the park is hemlock-dominated forest with vernal pools, two diverse Red Maple-Black Ash Swamps, and a portion of a beaver-created wetland.

Just beyond the northern boundary of the park is an area of Limestone Bluff Cedar-Pine Forest, a very rare natural community. The dolostone bedrock in this area has more individuals of the uncommon plant species found just inside the park boundary, and could support other rare

and uncommon species associated with Transition Hardwoods Limestone Forest and Temperate Calcareous Outcrops. Pinedrops, an endangered plant species in Vermont, was found just outside the Macrae Farm property boundary in this area. This private property was not explored during this inventory, but it clearly has high conservation value, and should be considered if an opportunity to preserve it arises.

Heavy use of ATVs in the northern portion of the park is the primary management concern at Macrae Farm. There are numerous trails through the forest, some of which cut through wetlands. Most problematic is the open, early successional area where large areas of the marine sand parent material are exposed. Abuse of this area by vehicles is preventing vegetation of any kind from growing in these areas. For this reason, thinning of the red pine stands is not recommended, as these small areas of low habitat value are preferable to the opportunity for further degradation of the site that thinning would create. ATV users clearly do not respect the park's boundaries, and have torn down many signs. There is a chain where one trail crosses the boundary, and it is possible that chains at other crossings could deter ATVs somewhat.

The Hilltop Trail at Macrae Farm becomes lost in the network of ATV trails, and should be more clearly marked.

MAYES LANDING (*visited 8/17/05*)

Mayes Landing, at less than one acre, is mostly lawn. It contains fragments of Silver Maple-Sensitive Fern Riverine Floodplain Forest, and offers visitors the best opportunity to see swamp white oaks (they occur at Derway Island as well, but not along the trail). There is also a small cattail marsh at the edge.

MILLYARD CANOE ACCESS (*visited 8/19 and 8/21/05*)

This one-acre property includes a fragment of Silver Maple-Ostrich Fern Riverine Floodplain Forest. There is a large, dense patch of Japanese knotweed, which could be removed to make way for more native vegetation.

MUDDY BROOK PARK (*visited 4 times between 5/21 and 7/15/05*)

A large portion of Muddy Brook Park's 28 acres is currently used as a cornfield. Muddy Brook's main highlight is its fragments of Sugar Maple-Ostrich Fern Riverine Floodplain Forest,

an S2 natural community. There is an impressive diversity of canopy trees here, and an herb layer with abundant large-flowered trillium right along the trail. The grassy, gentle slopes north of the cornfield appear to be succeeding to this forest type, while if the cornfield itself were allowed to become reforested, it might be expected to look more like the Mesic Red Oak-Northern Hardwood Forest in the southwestern portion of the property.

A Cooper's hawk (special concern) was seen here, but there was no evidence that it was nesting in the area.

When the trail is extended to complete a loop around the property, the long seepy area in stands 15 and 16 should be avoided, or footbridges should be installed.

The potential effects of herbicide treatment of the cornfield at Muddy Brook are worth considering. The herbicide currently used there, Prowl, contains the chemical pendimethalin. According to the Extension Toxicology Network, pendimethalin is not toxic to birds, bees, or mammals when used according to label instructions. However, a summary page on the Network's website includes the following statement: "Pendimethalin is highly toxic to fish and aquatic invertebrates. Runoff from treated areas may be hazardous to aquatic organisms in neighboring bodies of water. Pendimethalin should be kept out of lakes, streams and ponds." Given that a 150-foot wide, largely unforested slope is all that separates much of the cornfield from the Winooski River, it would be best to find an alternative herbicide that is nontoxic to aquatic organisms, or abandon herbicide use entirely.

Evidence of an irresponsible, 'clearcut' harvest of ostrich fern fiddleheads was observed along the river. Prominent signage reminding visitors of WVPD's no-pick policy could be useful here.

OLD MILL PARK (*visited 5/21 and 6/17/05*)

Situated outside the Champlain Valley, the 12-acre Old Mill Park is most representative of the average Vermont forest out of all WVPD's parks. The dominant natural community here is Northern Hardwood Forest, with Hemlock Forest growing on the west, north, and east slopes. Like most of Vermont, this land was once pastured, and its canopy is dominated by the white pines that first invaded the pasture when it was abandoned. The southern tip of the property is a beaver meadow, which long ago appears to have been part of the millpond. The uncommon pine warbler was found here, and the pine forest provides suitable nesting habitat for this species.

Old Mill Park is largely free of invasive exotics. There is Japanese barberry in the southern portion of the park, including OMP-2, OMP-4, and OMP-5. Oriental honeysuckle is abundant in OMP-5, and Japanese knotweed is abundant along the river adjacent to this stand.

RIVERWALK (*visited 8/12 and 8/19/05*)

This natural community of the entirety of this small property is Silver Maple-Ostrich Fern Riverine Floodplain Forest, although some of it is currently early successional or field. Invasive exotic plants are abundant here, especially along the trail and in the early successional (western) portion.

SALMON HOLE PARK (*visited 3 times between 7/6 and 8/22/05*)

Salmon Hole Park includes WVPD's only Riverside Outcrop. Although many exotic species are present, there are also characteristic native plants such as bluebell, downy goldenrod, and balsam ragwort. The islands in the river to the west of Salmon Hole have WVPD's only examples of the River Sand or Gravel Shore community. The rest of the area of these islands exhibits various stages of development of Silver Maple-Ostrich Fern Riverine Floodplain Forest. These range from cocklebur-dominated sandbars to forested patches that are more diverse than mature floodplain forest because they have not yet been taken over by ostrich fern and wood nettle.

An osprey (S2 when nesting) was seen on the easternmost island, but this species clearly is not nesting here. An uncommon herbaceous species, carpenter's square, was found in SH-22, the power line corridor cutting through one of the islands. An uncommon shrub, snowberry, was found near the northern tip of the westernmost island. This may not be an ecologically significant occurrence, since according to *Newcomb's Wildflower Guide*, the species is "native to limy ledges, but a cultivated variety has spread to roadsides and borders." On August 21, tiger beetles that were seen on the sandy shores appeared to be the threatened (and globally rare) cobblestone tiger beetle (*Cicindela marginipennis*). When I returned with a net several days later (the water level was too high for several days after the initial sightings), the common shore tiger beetle (*C. repanda*) was found in abundance, but the rare species was not in evidence. This deserves further investigation, as the River Sand or Gravel Shore community is the expected

habitat for this beetle, which is even more rare than *C. hirticollis* (the threatened tiger beetle that has a population at Delta Park).

VALLEY RIDGE (*visited 8/9 and 8/24/05*)

The valleys and ridges of Valley Ridge are a result of small streams cutting through the twenty feet or so of Champlain Sea sand to the Lake Vermont clay beneath. The ridges are vegetated with forest that, although pitch pines are less abundant, is more characteristic of Pine-Oak-Heath Sandplain Forest than is the forest at Essex Overlook Park. The understory includes expected species such as huckleberry, lowbush blueberry, bracken fern, and bastard toadflax.

The northern portion of this 18-acre property is mostly a dense thicket that will eventually become Silver Maple-Ostrich Fern Riverine Floodplain Forest, although succession may be slowed by the abundant invasive exotic shrubs. There is also a small beaver-created wetland and a small red maple-black ash swamp. Two dense phragmites patches, one of them an acre in size, flank the open portion of the beaver wetland.

This property may serve as an important wildlife corridor between Winooski Nature Trail and the University of Vermont's Centennial Woods natural area.

Although this site offers a fascinating opportunity to study the surficial geology associated with Lake Vermont and the Champlain Sea, construction of a trail is not recommended. The combination of very steep slopes and loose, sandy soil makes this site subject to severe erosion, as evidenced by the deep stream-cut valleys. The inherent instability of this soil has already been exacerbated by past logging.

WINOOSKI GORGE (*visited 3 times between 8/3 and 8/28/05*)

The Winooski Gorge has been a favorite site of botanists for over 100 years. Limestone bedrock is prominent here, and Limestone Bluff Cedar-Pine Forest is the dominant natural community, with several Temperate Calcareous Cliffs as well. A number of uncommon plants have been reported for the Gorge, of which buffaloberry, smooth cliffbrake, and wall rue were found during this inventory. Two plants not mentioned in the 1991 Natural Heritage description of the site, walking fern and the spectacular climbing fumitory, were also found. There is an abundance of other calciphilic plants, such as bulblet fern, ebony sedge, and wild ginger.

The cedar-pine forest is early successional, with a deciduous canopy and a dense subcanopy of northern white cedar. Common buckthorn is abundant, and control measures should be taken if the site's high diversity is to be preserved. If an attempt to eradicate all exotic shrubs is undertaken, it should be noted that the uncommon native buffaloberry looks like a cross between autumn olive and Oriental honeysuckle, both of which are growing in the same area and could be confused with it.

WINOOSKI NATURE TRAIL (*visited 5 times between 6/7 and 6/30/05*)

Crisscrossed by power lines; bordered by Interstate 89, Route 15, a railroad, and the ongoing construction in downtown Winooski; and with passenger planes and fighter jets periodically screaming overhead, the Winooski Nature Trail is an unlikely wildlife refuge. Yet 67 wildlife species were encountered here during this inventory, including otter, beaver, muskrat, red fox, green heron, scarlet tanager, and wood frog. The uncommon blue-gray gnatcatcher was also observed, and likely nests here.

The east end of the property is a Temperate Calcareous Cliff, the south end of the Winooski Gorge. The uncommon smooth cliffbrake is fairly abundant here. Low bindweed, a threatened species in Vermont, was found growing in the power line corridor above the cliff. This species grows in dry, open areas, so the maintenance of the power line corridor may allow it to persist in a site where it otherwise might not. It was blooming on June 9, so early summer may be the best time to monitor the site.

The Winooski Nature Trail property has a fascinating and mysterious history. Occupying a broad valley just downriver from the narrow gorge, it is an area where the river slows down during floods. If the river is carrying a large amount of sediment, much of it is deposited here. It is possible that much of the property is composed of sediments deposited behind the original dam above Salmon Hole. Examination of old aerial photographs and topographic maps suggests that the 1927 flood connected one island to the rest of the property by filling the channel with sediment (WNT-33 corresponds with the former gap separating the island), while creating another island that migrated downriver over several years until becoming stabilized by vegetation and coming to rest at its present location (part of WNT-9).

Examination of a 1963 aerial photograph shows that much of the center of the property, now made up of young floodplain forest, shrubby thickets, cattail marsh, and reed canary grass,

was a field at that time. A cluster of radio towers stood in the southern part of WNT-13. There was a road through the middle of this field. North of the field was a band of forest and a wide, apparently manmade channel of unknown function, both of which are now primarily cattail marsh, with a large patch of phragmites (WNT-28) at the east end. The water table has likely been raised by a combination of beaver activity, increased stormwater runoff from drains along East Allen Street, and the 1992 rebuilding of the dam just downriver that was destroyed in the 1927 flood.

The current trail system allows animals a good-sized central refuge from human activity. The privacy needed by wildlife should be considered if any expansion of the trail system is proposed. Hardening of trails or construction of footbridges in areas that flood would help to encourage visitors to stay on existing trails, benefiting not only the wildlife but also the easily disturbed vegetation and highly erodible soils of this property. These recommendations apply to Woodside Park as well.

WOODSIDE PARK (*visited 4 times between 6/14 and 6/26/05*)

55-acre Woodside Park has a diverse assortment of habitats and natural communities. In the middle is a large beaver-impacted wetland, which includes a pond, a cattail marsh, beaver meadow, and small patches of sedge meadow, alder swamp, and red maple swamp. This area is a hotspot of bird activity, with species including Baltimore oriole, black-billed cuckoo, warbling vireo, rose-breasted grosbeak, and the uncommon blue-gray gnatcatcher, which likely nests here.

Along the river is a fairly extensive patch of Silver Maple-Ostrich Fern Riverine Floodplain Forest. At the east end of the park is a good, diverse example of the rare Sugar Maple-Ostrich Fern Riverine Floodplain Forest community, with black maple, an uncommon species, growing right along the trail.

The northern part of the property is a slope with an interesting forest community that is difficult to classify. The soil is very sandy, but much of it is seepy and covered with ostrich fern, with a species composition similar to Sugar Maple-Ostrich Fern Riverine Floodplain Forest—but this forest is well above even the level of a 100-year flood. The drier portions are suggestive of Mesic Maple-Ash-Hickory-Oak Forest.

Three large patches of phragmites have been mapped. A plant growing in such dense, discrete patches seems a good target for invasive species removal. The Silver Maple-Ostrich

Fern Riverine Floodplain Forest, like most such forests, has an abundance of goutweed, moneywort, ground ivy, and other exotics, which would be quite difficult to control.

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COLCHESTER POND NATURAL AREA

Visited 5/25/05, 6/10/05, 6/16/05, 6/20/05, 6/24/05, 6/27/05, 7/12/05, 7/14/05, 7/30/05, 8/1/05, 8/11/05, 8/18/05, 8/23/05, 8/25/05, 8/26/05, 9/9/05, 9/30/05, 11/12/05.

CP-1

Current cover	Field
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	A few American elms and red maples in thicket along road.
Shrub layer	Thicket along road with abundant staghorn sumac; also red cedar, chokecherry, Oriental honeysuckle, common buckthorn; paper birch and cottonwood saplings next to parking area.
Herb layer	Grasses and wild madder abundant; also wild carrot, common plantain, dandelion, red clover, English plantain, tall buttercup, curled dock, cow vetch.
Birds	Bobolink, eastern kingbird, turkey vulture, eastern phoebe, American crow, tree swallow.
Mammals	Coyote scat in parking lot.

CP-2

Current cover	Early Successional
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Several butternuts at south end.
Shrub layer	Scattered/patchy gray-stemmed dogwood, red osier dogwood, grape, common buckthorn, nannyberry, white ash, chokecherry, butternut, American elm, green ash, apple, boxelder, hawthorn.
Herb layer	Dense; dominated by reed canary grass. Also smooth brome, timothy, other grasses, common milkweed, sensitive fern, jewelweed, dark green bulrush, foxtail sedge, other sedges, white clover, knotweed, blue vervain, swamp candles, red clover, common plantain, cow vetch, wild madder, birdsfoot trefoil, rough-fruited cinquefoil, common St. Johnswort, bull thistle, agrimony, goldenrods, daisy fleabane, swamp milkweed, oxeye daisy, tall buttercup, curled dock, fringed loosestrife, yellow goatsbeard.
Birds	Song sparrow; gray catbirds with fledgling; American crow.
Mammals	Red squirrel in trees at southern tip.
Herps	Green frog.

CP-3

Current cover	Shrub and Sapling Thicket
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy and high shrubs	Dense, uneven. Common buckthorn abundant (some treelike; dominates eastern portion); also black cherry, American elm, staghorn sumac, white ash, basswood, sugar maple, nannyberry, red maple, shagbark hickory, musclewood, white oak, butternut.
Shrub layer (low)	Moderately dense. Oriental honeysuckle, grape, red raspberry, plum, staghorn sumac, white ash, nannyberry, Virginia creeper, gray-stemmed

	dogwood, poison ivy, common buckthorn, sugar maple, hawthorn, shagbark hickory.
Herb layer	Sparse to moderately dense. False Solomon's seal and herb Robert abundant; also goldenrod, smooth brome and other grasses, jewelweed, white avens, enchanter's nightshade, dandelion, asters, sedge, common speedwell, early meadow rue, burdock, marginal woodfern, wild basil, motherwort, wild oats, helleborine, jack-in-the-pulpit, red baneberry.
Birds	American redstart, great crested flycatcher, yellow warbler, white-breasted nuthatch, black-capped chickadee, common yellowthroat, song sparrow, American goldfinch, American crow, gray catbird.
Mammals	Chipmunk, red squirrel, deer, cottontail.
Habitat features	Abundant coarse woody debris; rock outcrop; rocky; power lines cut across skinny eastern part.

CP-4

Current cover	Field
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Shrub layer	Smooth rose, poison ivy, Virginia creeper, apple. Shrub islands (where ledge, rock piles, or power line poles prevent mowing) with staghorn sumac, slippery elm, common buckthorn, Oriental honeysuckle, riverbank grape, chokecherry, hawthorn, gray-stemmed dogwood, red raspberry, American elm, smooth rose, apple.
Herb layer	Timothy, reed canary grass and other grasses, cow vetch, rough-fruited cinquefoil, common milkweed, rough-stemmed goldenrod, lesser stitchwort, tall buttercup, field horsetail, dandelion, wild madder, smartweed, red clover, white clover, common plantain, wild carrot, foxtail sedge, hedge bindweed. Wet spot with dark green bulrush, joe-pye weed, stipitate sedge, other sedges, sensitive fern, knotweed. In shrub islands: hoary alyssum, spotted knapweed, fringed loosestrife.
Birds	Yellow warbler, tree swallow, eastern kingbird, willow flycatcher, American crow, song sparrow, common yellowthroat, common raven.
Mammals	Cottontail.

CP-5

Current cover	Shrub and Sapling Thicket
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Scattered, uneven. Shagbark hickory, basswood, American elm, black cherry.
Shrub layer	Dense, dominated by gray-stemmed dogwood and staghorn sumac. Also riverbank grape, Virginia creeper, Oriental honeysuckle, black raspberry, hawthorn, red raspberry, common elderberry, blackberry, apple, basswood, smooth rose, nannyberry, shagbark hickory.
Herb layer	Dense patches, otherwise sparse. Dominated by goldenrods; also fringed loosestrife, false Solomon's seal, cow vetch, white avens.
Birds	Cedar waxwing, yellow warbler, red-winged blackbird, gray catbird, chestnut-sided warbler.

Mammals	Deer.
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CP-6

Current cover	Shrub and Sapling Thicket
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Scattered and uneven; denser and taller at west end. Shagbark hickory, white pine and sugar maple abundant; also black cherry, American elm, apple, red maple, shadbush, white ash.
Shrub layer	Dense. Gray-stemmed dogwood abundant; also staghorn sumac, Virginia creeper, apple, riverbank grape, chokecherry, hawthorn, Oriental honeysuckle, shagbark hickory, common buckthorn, poison ivy, blackberry, black raspberry, red raspberry, white ash, red oak, sugar maple (dense regeneration in northern part), nannyberry, common barberry.
Herb layer	Sparse. False Solomon's seal, fringed loosestrife, yarrow, white avens, common speedwell, enchanter's nightshade, marginal woodfern, early meadow rue.
Birds	Black-capped chickadee, veery, song sparrow, American goldfinch, yellow warbler, common yellowthroat, Baltimore oriole, mourning dove, American robin, cedar waxwing, American crow, eastern kingbird.
Mammals	Red squirrel, chipmunk.
Habitat features	Rock outcrop and piled rocks. Barbed wire along west edge.

CP-7

Current cover	Early Successional (includes power line corridor)
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Many white pine saplings, especially at west edge of old field (seed source). Also American elm, apple, sugar maple. Very dense at north end.
Subcanopy	Patches of dense saplings: white pine, apple, red oak, gray birch, boxelder.
Shrub layer	Scattered to moderately dense, with dense patches; dominated by white pine; gray-stemmed dogwood and Oriental honeysuckle also abundant. Also common buckthorn, blackberry, chokecherry, sweetfern, red maple, bitternut hickory, red oak, juniper, hawthorn, quaking aspen, staghorn sumac, nannyberry, gray birch, red raspberry, American elm, silky dogwood, riverbank grape, apple, meadowsweet, white ash, nannyberry, basswood, shagbark hickory, black raspberry, black cherry.
Herb layer	Very dense (but sparse under dense pines). Grasses, sedges, and common milkweed dominate; also red clover, cow vetch, blue flag, tall buttercup, common cinquefoil, wild strawberry, wood strawberry, rough-stemmed goldenrod, other goldenrods, lesser stitchwort, common St. Johnswort, Canada thistle, rough-fruited cinquefoil, yarrow, fringed loosestrife, reindeer lichen, thimbleweed, large-leaved aster, bastard toadflax, mosses, oxeye daisy, common speedwell, daisy fleabane, whorled loosestrife, hop clover, butter-and-eggs, yellow goatsbeard, wild carrot, early saxifrage, ragweed, joe-pye weed, curled dock, grass-leaved goldenrod, foxtail sedge, other sedges, lesser stitchwort, mullein, boneset, swamp milkweed,

	dark green bulrush, New England aster, yellow wood sorrel, elecampane, sensitive fern, rush, self-heal, thyme-leaved speedwell, bull thistle, field horsetail, white avens, bittersweet nightshade, viper's bugloss, bugleweed, wild madder, Deptford pink, timothy, aster, agrimony, virgin's bower, black-eyed susan, white beardtongue. Seep at north end: sensitive fern, joe-pye weed, swamp candles, various wetland sedges.
Birds	Gray catbird, cedar waxwing, brown-headed cowbird, common yellowthroat, song sparrow, black-capped chickadee, blue jay, American crow, American goldfinch, yellow warbler, red-breasted nuthatch, Baltimore oriole, American robin, tufted titmouse, veery, field sparrow.
Mammals	Chipmunk, red squirrel, deer with fawns, red squirrel drey.
Herps	Garter snake, pickerel frog.
Habitat features	Some rock outcrops in power line corridor; barbed wire fence.

CP-8

Current cover	White Pine-Hemlock-Hardwoods
Natural community	Hemlock Forest
Canopy and subcanopy	Dense. White pine abundant (many above canopy); also beech, red maple, black birch, sugar maple, hophornbeam, hemlock, basswood, red oak, white oak, white ash, paper birch.
Shrub layer (high)	Moderately dense. Hemlock, sugar maple, red maple, hophornbeam.
Shrub layer (low)	Sparse to very sparse. Sugar maple, hophornbeam, white ash, red oak, beech, quaking aspen, bitternut hickory, musclewood, Virginia creeper, chokecherry, basswood. Oriental honeysuckle in seep at north end. Late low blueberry in opening.
Herb layer	Sparse to very sparse. Intermediate woodfern, beechdrops, lady fern, Christmas fern, Solomon's seal, polypody, marginal woodfern, common speedwell, self-heal, Canada mayflower, false Solomon's seal, early meadow rue, wild sarsaparilla, fringed polygala, partridgeberry, wild oats, starflower, plantain-leaved sedge, Indian pipe. Openings with pussytoes, yellow wood sorrel, hog peanut, lady fern, grasses, sensitive fern, herb Robert, large-flowered trillium, round-lobed hepatica, Pennsylvania sedge, blue-stemmed goldenrod. Seep: ostrich fern, jack-in-the-pulpit, jewelweed, grasses, dwarf raspberry, small-flowered crowfoot, mosses, helleborine, sweet-scented bedstraw, hog peanut.
Birds	Blue-headed vireo, ovenbird, black-capped chickadee, blue jay, Baltimore oriole, American goldfinch, red-eyed vireo, hermit thrush, black-throated green warbler, red-breasted nuthatch, scarlet tanager.
Mammals	Deer (browse line on hemlocks), gray squirrel, raccoon, red squirrel, chipmunk. Off property: porcupine.
Habitat features	Rock outcrops, some snags, abundant coarse woody debris, intermittent stream.

CP-9

Current cover	White Pine-Oak-Hardwoods
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Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Fairly dense. White pine (exclusively, in the middle), sugar maple, basswood, shagbark hickory, bitternut hickory, red oak.
Subcanopy and high shrubs	Fairly dense. Sugar maple, red maple, basswood, common buckthorn, white pine, hemlock, bitternut hickory, hophornbeam, shagbark hickory, American elm.
Shrub layer (low)	Sparse to moderately dense. Alternate-leaved dogwood, apple, hophornbeam, white ash, Virginia creeper, common buckthorn, Oriental honeysuckle, black cherry, sugar maple, prickly gooseberry, bitternut hickory, raspberry, red oak, shadbush.
Herb layer	Sparse. Enchanter's nightshade, sedges, wild strawberry, helleborine, white avens, herb Robert, yellow wood sorrel, common speedwell, large-leaved aster, blue-stemmed goldenrod, false Solomon's seal, large-flowered trillium, field horsetail, intermediate woodfern.
Birds	Pileated woodpecker and yellow-bellied sapsucker feeding sign.
Mammals	Deer—browse line on hemlock saplings.
Habitat features	Abundant coarse woody debris; snags with cavities.

CP-10

Current cover	Early Successional Hardwoods-White Pine
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Dense saplings/pole-sized trees. Dominated by white pine and red maple; also gray birch, common buckthorn, American elm.
Shrub layer	Patchy. Red oak, Oriental honeysuckle (especially abundant in seep), white ash, gray-stemmed dogwood, common buckthorn, riverbank grape, hawthorn, quaking aspen, white oak. In seep: nannyberry.
Herb layer	Fairly sparse to fairly dense. Field horsetail abundant; also goldenrods, asters, yellow wood sorrel, common cinquefoil, mosses, elecampane, self-heal, black-eyed susan, cow vetch, helleborine, tall buttercup, daisy fleabane, and (in openings) other species found in CP-7. In seep: sensitive fern, dark green bulrush, tearthumb, marsh bedstraw, bugleweed, bittersweet nightshade, lady fern, ostrich fern, joe-pye weed, grasses, sedges.
Birds	Ovenbird, black-capped chickadee, downy woodpecker, cedar waxwing.

CP-11

Current cover	White Pine
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Dense white pines, approximately 40 years old.
Subcanopy and high shrubs	Scattered hophornbeam, alternate-leaved dogwood, white ash, paper birch, Asiatic bittersweet.
Shrub layer	Dense common buckthorn. Also maple-leaved viburnum, hawthorn, beaked hazelnut, white ash, chokecherry, poison ivy, black cherry, American elm, shadbush, red oak, Oriental honeysuckle, hophornbeam, alternate-leaved dogwood, blackberry, beech, red maple, sugar maple, Asiatic bittersweet, grape.

Herb layer	False Solomon's seal, partridgeberry, dandelion, common speedwell, tall buttercup, starflower, sweet-scented bedstraw, grasses, Canada mayflower, intermediate woodfern.
Birds	Eastern towhee, American goldfinch; dark-eyed juncos, red-breasted nuthatches and white-throated sparrows in fall.
Mammals	Coyote scat, red squirrel.
Herps	Gray treefrog.

CP-12

Current cover	White Pine
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Tall, old field white pines; a few bitternut hickory and black cherry. Somewhat open canopy. About 50 years old.
Subcanopy and high shrubs	Moderately dense to dense deciduous understory: hophornbeam, red maple, American elm, paper birch, basswood, black cherry, bitternut hickory, apple, common buckthorn, shadbush, sugar maple, white ash; dense sugar maples in northwest corner.
Shrub layer	Sparse to moderate; mostly tree species. White ash, Oriental honeysuckle, Virginia creeper, chokecherry, black cherry, bitternut hickory, red oak, sugar maple, maple-leaved viburnum, common buckthorn, beech, arrowwood, red elderberry, raspberry, alternate-leaved dogwood, round-leaved dogwood, prickly gooseberry, common barberry, blackberry, poison ivy, riverbank grape, sugar maple, white oak, bittersweet. Dense sugar maple regeneration towards power lines; some hemlock. Meadowsweet by vernal pool.
Herb layer	Patchy. Intermediate woodfern, herb Robert, enchanter's nightshade, Indian pipe, helleborine, false Solomon's seal, partridgeberry, tall buttercup, white baneberry, wild sarsaparilla, jack-in-the-pulpit, spinulose woodfern, early meadow rue, bulblet fern, Solomon's seal, field hawkweed, starflower, Canada mayflower, bittersweet nightshade, yellow wood sorrel, ostrich fern, beech fern, wood strawberry, lady fern, sensitive fern. Mossy patches on southwest slope. Seep/vernal pool: sensitive fern abundant; also sedges, jewelweed, monkey flower, duckweed, bur-reed, bittersweet nightshade, bugleweed, mad-dog skullcap, fringed loosestrife, joe-pye weed, rice cutgrass and other grasses.
Birds	Great crested flycatcher, cedar waxwing, yellow-bellied sapsucker, pine warbler, blackburnian warbler, eastern wood-pewee, ovenbird, red-eyed vireo, red-breasted nuthatch, brown-headed cowbird, yellow-rumped warbler, black-capped chickadee, blue jay, white-breasted nuthatch, veery, scarlet tanager, eastern kingbird. Indigo bunting and common yellowthroat under power lines.
Mammals	Chipmunk, gray squirrel, deer; raccoon scat.
Habitat features	Some coarse woody debris, some snags with cavities; rock outcrop at top of hill (middle of stand); vernal pool at north end.

CP-13

Current cover	Early Successional (abandoned orchard)
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Scattered/patchy white pine.
Subcanopy and high shrubs	Patchy. Apple abundant; also black cherry, shadbush, common buckthorn, red cedar, red oak, American elm.
Shrub layer (low)	Patchy. Oriental honeysuckle abundant; also black raspberry, common buckthorn, red raspberry, blackberry, American elm, prickly gooseberry, bitternut hickory, chokecherry, Virginia creeper, poison ivy.
Herb layer	Fairly dense. Grasses abundant; also red clover, jumpseed, rough-fruited cinquefoil, yellow wood sorrel, daisy fleabane, common milkweed, herb Robert, wild basil, hop clover, yarrow, white avens, self-heal, aster, goldenrod, timothy, enchanter's nightshade, wild strawberry, helleborine, sensitive fern, thyme-leaved speedwell, common cinquefoil, ebony spleenwort, intermediate woodfern.
Birds	Black-capped chickadee, cedar waxwing.

CP-14

Current cover	Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Dense canopy, dominated by red oak and bigtooth aspen. Also paper birch, basswood, white ash, white pine, sugar maple, white oak, butternut, bitternut hickory, American chestnut.
Subcanopy	Fairly dense. Hophornbeam, beech, shadbush, red maple, white pine.
Shrub layer	Patchy; dense in places. Shadbush, maple-leaved viburnum, prickly gooseberry, hophornbeam, raspberry, common buckthorn, red oak, beaked hazelnut, purple-flowering raspberry, Oriental honeysuckle, Virginia creeper, striped maple, white oak, sugar maple, basswood, red elderberry, round-leaved dogwood.
Herb layer	Fairly sparse. Marginal woodfern, sedges, helleborine, false Solomon's seal, partridgeberry, common speedwell, lady fern, sweet-scented bedstraw, common cinquefoil, jack-in-the-pulpit, shinleaf, enchanter's nightshade, polypody, goldenrod, wood strawberry, New York fern, columbine, herb Robert, pinesap, fragile fern, jumpseed, white avens.
Birds	Black-capped chickadee, red-eyed vireo, blackburnian warbler, ovenbird, yellow-bellied sapsucker, eastern wood-pewee, scarlet tanager, veery, least flycatcher, eastern phoebe, yellow warbler, rose-breasted grosbeak, downy woodpecker, yellow-rumped warbler, great crested flycatcher, black-throated green warbler, pine warbler, brown creeper, white-breasted nuthatch, American goldfinch; pileated woodpecker feeding sign.
Mammals	Deer, raccoon, mouse, chipmunk, red squirrel, mole tunnels.
Herps	Red eft, gray treefrog, American toad.
Habitat features	Abundant snags and coarse woody debris.

CP-15

Current cover	Early Successional Hardwoods-White Pine
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Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	High, somewhat open canopy. White pine, white ash, black cherry, paper birch, basswood, red maple, bitternut hickory. Seep: scattered white pine, red maple, American elm.
Subcanopy and high shrubs	Fairly dense; sugar maple dominant in places. Also beech, hophornbeam, paper birch, slippery elm, American elm, butternut, bitternut hickory, basswood, white oak, common buckthorn, white ash, beech, staghorn sumac. Seep: alder abundant; also American elm, paper birch, red maple, white pine.
Shrub layer (low)	Sparse to moderately dense. White ash abundant; also poison ivy, sugar maple, common buckthorn, maple-leaved viburnum, beech, red maple, chokecherry, alternate-leaved dogwood, Oriental honeysuckle, hawthorn, red oak, raspberry, bitternut hickory, basswood, Virginia creeper, prickly gooseberry, blackberry, summer grape, shagbark hickory, white oak, common barberry, shadbush, striped maple, beech, black cherry. Seep: moderately dense to dense. Oriental honeysuckle abundant; also alder, white pine, meadowsweet, raspberry, highbush blueberry, poison ivy.
Herb layer	Fairly sparse to dense, dominated by ferns. Spinulose woodfern, lady fern, intermediate woodfern, false Solomon's seal, jack-in-the-pulpit, partridgeberry, wild oats, red baneberry, agrimony, Indian pipe, Christmas fern, shinleaf, yellow wood sorrel, strawberry, common speedwell, white avens, ostrich fern, sensitive fern. On lower rocky slope: bloodroot, wild ginger, fragile fern, herb Robert, early meadow rue, hog peanut, sweet-scented bedstraw, blue-stemmed goldenrod. Clearweed and jewelweed along intermittent stream. Rock outcrop on boundary: herb Robert, plantain-leaved sedge, ebony spleenwort, marginal woodfern, bulblet fern. Seep: dense sensitive fern, jewelweed, rice cutgrass, and moss; also intermediate woodfern, bittersweet nightshade, tearthumb, willow herb, sedges, purple-stemmed aster, joe-pye weed, boneset, marsh bedstraw, fringed loosestrife, clearweed, bur-reed, false nettle, dwarf raspberry.
Birds	Veery, black-capped chickadee, red-eyed vireo, blackburnian warbler, eastern wood-pewee, yellow-rumped warbler, ovenbird, cedar waxwing, ruffed grouse, red-breasted nuthatch, American robin, brown creeper, northern flicker; pileated woodpecker feeding sign.
Mammals	Chipmunk.
Herps	Pickerel frog, American toad, spring peeper.
Habitat features	Streams; snags with cavities; seepy; coarse woody debris; rock outcrop; lower part rocky.

CP-16

Current cover	White Pine
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Fairly dense; mostly white pine. Northern portion also has American elm, sugar maple, butternut, paper birch.
Subcanopy and high shrubs	Dense, deciduous. Sugar maple, beech, white oak, shadbush, black cherry, red maple, American elm, white ash, paper birch, basswood, common

	buckthorn, staghorn sumac, hemlock, red oak, hophornbeam, bitternut hickory, striped maple. Alders and musclewood along stream at eastern border.
Shrub layer (low)	Sparse/patchy. Sugar maple, poison ivy, bush honeysuckle, red elderberry, red maple, alternate-leaved dogwood, striped maple, white ash, red oak, black cherry, prickly gooseberry, bitternut hickory, Oriental honeysuckle, white pine, common buckthorn, hophornbeam, glossy buckthorn, white oak, Virginia creeper, hemlock, basswood, beech, maple-leaved viburnum. Seep: common elderberry, Oriental honeysuckle, alder, raspberry, blackberry, riverbank grape, common buckthorn, chokecherry, nannyberry, poison ivy, meadowsweet.
Herb layer	Scattered/patchy. Intermediate woodfern, partridgeberry, starflower, Canada mayflower, goldenrod, interrupted fern, false Solomon's seal, herb Robert, dandelion, wild sarsaparilla, common speedwell, helleborine, jack-in-the-pulpit, yellow wood sorrel, enchanter's nightshade, lady fern, hawkweed, Indian pipe, heal-all, sensitive fern, ostrich fern, red trillium, Christmas fern. Along stream: toothwort, small-flowered crowfoot, marsh marigold, drooping sedge, jewelweed, mosses. Seep: jewelweed and grasses abundant; also enchanter's nightshade, bittersweet nightshade, sensitive fern, mosses, sedges, jack-in-the-pulpit, virgin's bower, white avens, herb Robert, dwarf raspberry, field horsetail, tearthumb, willow herb, yellow wood sorrel, agrimony, clearweed, thyme-leaved speedwell, common cinquefoil, rough-stemmed goldenrod, late goldenrod, dark green bulrush, milkweed, marsh fern, clearweed.
Birds	Cedar waxwing, eastern wood-pewee, red-eyed vireo, scarlet tanager, eastern kingbird, black-capped chickadee, American robin, American goldfinch, red-breasted nuthatch, northern flicker; wild turkey tracks.
Mammals	Raccoon, red squirrel, deer.
Herps	Red eft, wood frog, spring peeper, pickerel frog.
Habitat features	A few snags; coarse woody debris; stream along east border.

CP-17

Current cover	Early Successional
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Scattered to moderately dense; saplings and pole-sized trees. Red cedar, paper birch, and quaking aspen abundant; also white pine, apple, American elm, butternut, black cherry.
Shrub layer	Dense patches; dominated by Oriental honeysuckle; juniper also abundant. Also red oak, Virginia creeper, white pine, red maple, red cedar, gray-stemmed dogwood, summer grape, paper birch, sugar maple, common buckthorn, bitternut hickory, blackberry, red raspberry, white ash, pin cherry, apple, bush honeysuckle, rose, chokecherry, Asiatic bittersweet.
Herb layer	Moderately dense to dense. Heal-all, ebony spleenwort, low hop clover, yellow wood sorrel, thimbleweed, yarrow, timothy and other grasses,

	haircap moss, daisy fleabane, reindeer lichen, mullein, bladder campion, common St. Johnswort, red clover, columbine, common cinquefoil, strawberry, common speedwell, herb Robert, marginal woodfern, common milkweed, rough-stemmed goldenrod, cow vetch, birdsfoot trefoil, wild carrot, viper's bugloss, Canada thistle, butter-and-eggs, early meadow rue, flat-topped aster.
Birds	Eastern towhee, American robin, common yellowthroat, gray catbird, field sparrow, blue jay, black-capped chickadee, American goldfinch, great crested flycatcher, white-breasted nuthatch.
Mammals	Red squirrel, chipmunk.
Habitat features	Rocky/ledgey.

CP-18

Current cover	Early Successional Hardwoods-White Pine
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Open. Butternut, sugar maple, basswood, red oak, bitternut hickory, paper birch, white pine, hophornbeam, red maple, quaking aspen, white ash.
Subcanopy and high shrubs	Dense. White ash, bitternut hickory, red cedar, white pine, American elm, basswood, hophornbeam, black cherry, hemlock.
Shrub layer (low)	Moderately dense. Oriental honeysuckle abundant; also common buckthorn, basswood, summer grape, bitternut hickory, sugar maple, alternate-leaved dogwood, beech, white pine, prickly gooseberry, Virginia creeper, red oak, red maple.
Herb layer	Sparse. Lady fern, goldenrods, white avens, ebony spleenwort, intermediate woodfern, herb Robert, wood strawberry, polypody, mosses, marginal woodfern, thimbleweed, enchanter's nightshade, hawkweed, yellow wood sorrel, partridgeberry, starflower, common speedwell, heal-all.
Birds	American robin, blue jay, black-capped chickadee, white-breasted nuthatch, American goldfinch.
Mammals	Chipmunk, red squirrel.
Habitat features	Stonewall; rocky/ledgey.

CP-19

Current cover	White Pine-Hemlock-Hardwoods
Natural community	Hemlock Forest
Canopy	Open to dense. Hemlock, white pine, paper birch, red maple, white oak, red oak.
Subcanopy and high shrubs	Sparse to dense. Hemlock dominant; also striped maple, beech, red maple, hophornbeam.
Shrub layer (low)	Very sparse. Red maple seedlings, bitternut hickory, striped maple, bush honeysuckle, beech, hophornbeam, red oak.
Herb layer	Sparse to very sparse. Intermediate woodfern abundant; also Indian pipe, early meadow rue, plantain-leaved sedge, Christmas fern, blue-stemmed goldenrod, marginal woodfern, wild sarsaparilla, partridgeberry, panicked hawkweed, wild oats, helleborine.

Birds	Red-breasted nuthatch, pileated woodpecker, black-capped chickadee.
Mammals	Browse line; hemlock saplings killed by winter deer debarking.
Herps	Spring peeper.
Habitat features	Rock outcrop at west edge; snags; coarse woody debris.

CP-20

Current cover	White Pine-Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Open. White pine, red oak, red maple, black cherry.
Subcanopy and high shrubs	Fairly dense. Hophornbeam abundant; also hemlock, sugar maple, white ash.
Shrub layer (low)	Fairly sparse. White oak, red oak, sugar maple, hophornbeam, shadbush, hemlock, bitternut hickory, maple-leaved viburnum, white pine.
Herb layer	Sparse. Wild sarsaparilla, partridgeberry, marginal woodfern, Canada mayflower, sedges, hairgrass, ebony spleenwort, polypody, blue-stemmed goldenrod, Indian pipe, round-lobed hepatica.
Birds	White-breasted nuthatch, black-capped chickadee, red-breasted nuthatch.
Herps	Spring peeper.
Habitat features	Big cavity snag; some coarse woody debris; stonewall; barbed wire; rocky.

CP-21

Current cover	Oak-Hardwoods
Natural community	Dry Oak-Hickory-Hophornbeam Forest
Canopy	Open; somewhat stunted trees. White pine, red oak, bitternut hickory, red maple, shadbush.
Subcanopy and high shrubs	Moderately dense. Red maple, hophornbeam, hemlock, shagbark hickory, common buckthorn, shadbush.
Shrub layer (low)	Sparse. Hawthorn, hophornbeam, Virginia creeper, red oak, shagbark hickory, raspberry, shadbush, white oak, black cherry, red maple.
Herb layer	Fairly dense. Hairgrass abundant. Also marginal woodfern, Canada mayflower, yarrow, blue-stemmed goldenrod, wild oats, intermediate woodfern, ebony spleenwort, columbine, yellow wood sorrel, herb Robert.
Birds	American robin, American goldfinch.
Mammals	Deer browse.
Habitat features	Rocky (shallow soil); stonewall.

CP-22

Current cover	White Pine-Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Somewhat open. White pine abundant; also white oak, red oak, red maple, paper birch.
Subcanopy and high shrubs	Fairly dense. Hophornbeam, sugar maple, white pine, American elm, common buckthorn, red maple.
Shrub layer (low)	Fairly sparse to moderately dense. Shadbush, alternate-leaved dogwood, white ash, hophornbeam, black cherry, late low blueberry, bitternut

	hickory, prickly gooseberry, Oriental honeysuckle, sugar maple, common buckthorn.
Herb layer	Sparse. Blue-stemmed goldenrod, sedges, false Solomon's seal, marginal woodfern, early meadow rue, common speedwell, helleborine, jack-in-the-pulpit.
Birds	Sharp-shinned hawk, black-capped chickadee, white-breasted nuthatch, red-eyed vireo, cedar waxwing.
Herps	Spring peeper.
Habitat features	Some coarse woody debris; barbed wire.

CP-23

Current cover	Marsh
Natural community	Shallow Emergent Marsh
Herb layer	Dense. Bur-reed and rice cutgrass abundant; also reed canary grass, boneset, water smartweed, jewelweed, sedges, bittersweet nightshade, arrowhead, soft-stem bulrush, water plantain, marsh St. Johnswort, mad-dog skullcap, wild mint, clearweed, false nettle.

CP-24

Current cover	Alder
Natural community	Alder Swamp
Shrub layer	Moderately dense alder. Low shrubs include common elderberry and alder.
Herb layer	Sensitive fern, purple-stemmed aster, avens, sedges, water carpet, watercress, turtlehead, small-flowered crowfoot.
Mammals	Raccoon tracks.

CP-25

Current cover	Oak-Hardwoods-Hemlock
Natural community	Hemlock Forest
Canopy	Somewhat open to dense. Hemlock, red oak, beech, red maple, white oak, white pine, basswood, quaking aspen, bigtooth aspen, white ash.
Subcanopy and high shrubs	Moderately dense; dominated by hemlock. Also striped maple, basswood, beech, red oak, hophornbeam, sugar maple, witch hazel, white oak, shagbark hickory. Muscledwood and American elm in northern seep.
Shrub layer (low)	Sparse. Striped maple, beech, hemlock, basswood, red oak, hophornbeam, sugar maple, maple-leaved viburnum, shadbush, witch hazel, American fly honeysuckle, red maple, white pine, hemlock, low sweet blueberry, bitternut hickory, white oak, beaked hazelnut. Muscledwood and Oriental honeysuckle in northern seep.
Herb layer	Very sparse to fairly sparse. Beechdrops, intermediate woodfern, wild sarsaparilla, polypody, false Solomon's seal, wild oats, marginal woodfern, blue-stemmed goldenrod, sweet-scented bedstraw, sharp-lobed hepatica, zigzag goldenrod, Virginia waterleaf, red trillium, Canada mayflower, wintergreen, partridgeberry, bracken fern, downy yellow violet, large-flowered bellwort, plantain-leaved sedge, Christmas fern, large-leaved

	aster, tall rattlesnake root, white wood aster, blue cohosh, white lettuce, large-flowered trillium, white baneberry, helleborine. Southern seep: water pennywort. Northern seep: dwarf raspberry, enchanter's nightshade, sedge, foamflower, sensitive fern.
Birds	Eastern wood-pewee, veery, red-eyed vireo, wood thrush, blue-headed vireo, yellow-bellied sapsucker, American redstart, black-and-white warbler, ovenbird, black-capped chickadee, red-breasted nuthatch, barred owl feather.
Mammals	Red squirrel, chipmunk; deer kill site (likely coyote); browse line on hemlocks (and winter debarking); raccoon scat.
Herps	Spring peeper; green frogs in stream; red eft.
Habitat features	Rocky/bouldery slope with shallow soil; coarse woody debris; snags with cavities; rock outcrops.

CP-26

Current cover	Red Oak-Northern Hardwoods
Natural community	Mesic Red Oak-Northern Hardwood Forest; Hemlock forest
Canopy	Somewhat open. Red oak, beech, bigtooth aspen, white ash, sugar maple, basswood; occasional white oak and shagbark hickory.
Subcanopy and high shrubs	Fairly dense. Black birch, sugar maple, beech, red oak; red maple in seep.
Shrub layer (low)	Moderately dense. Beech, witch hazel, sugar maple, beaked hazelnut, striped maple, hemlock, red oak, hophornbeam, basswood, hobblebush. Seep: bitternut hickory, poison ivy, musclewood.
Herb layer	Sparse. Wild sarsaparilla, partridgeberry, Christmas fern, marginal woodfern, early meadow rue, plantain-leaved sedge, tall rattlesnake root, Indian cucumber, white baneberry, beechdrops, Canada mayflower, marginal woodfern, polypody. Along intermittent stream: blue cohosh, jack-in-the-pulpit, hooked crowfoot. Seep/vernal pool: miterwort, jewelweed, jack-in-the-pulpit, ostrich fern, small-flowered crowfoot, lady fern, sensitive fern, enchanter's nightshade, blue flag, royal fern, dwarf raspberry.
Birds	Ruby-throated hummingbird, veery, red-eyed vireo, ovenbird, pileated woodpecker, black-capped chickadee.
Mammals	Chipmunk; deer tracks.
Herps	Green frog in vernal pool; wood frog.
Habitat features	Intermittent stream, seep, vernal pool; some rocky areas; outcrop at edge; some coarse woody debris.

CP-27

Current cover	Oak-Hardwoods-Hemlock
Natural community	Hemlock Forest
Canopy	Open to fairly dense. White oak, red oak, white pine, red maple, hemlock.
Subcanopy and high shrubs	Fairly dense; dominated by hemlock. Also red maple, red oak, shadbush, hophornbeam, sugar maple, black birch, staghorn sumac, white pine, basswood, beech, striped maple, yellow birch, white ash, black cherry,

	hophornbeam, paper birch.
Shrub layer (low)	Sparse to moderately dense. Virginia creeper, raspberry, basswood, striped maple, hophornbeam, bitternut hickory, red oak, huckleberry, beech, late low blueberry, low sweet blueberry, white oak, witch hazel, sugar maple, maple-leaved viburnum, beaked hazelnut, prickly gooseberry, bush honeysuckle, shadbush, red maple, American fly honeysuckle, shagbark hickory, black cherry.
Herb layer	Sparse to moderately dense. Wild sarsaparilla abundant; also polypody, large-leaved aster, early meadow rue, plantain-leaved sedge, large-flowered trillium, partridgeberry, Christmas fern, cowwheat, bastard toadflax, bracken fern, wintergreen, round-lobed hepatica, fringed bindweed, marginal woodfern, Canada mayflower, red trillium, blue-stemmed goldenrod, herb Robert, sedges, black-seeded ricegrass, hair grass, other grasses, wild oats, strawberry, false Solomon's seal, mosses, columbine, starflower, lady's slipper, tall rattlesnake root, Solomon's seal, fringed polygala, panicked hawkweed. Seeps/vernal pools: sphagnum, blue flag, sedges, sensitive fern, marsh fern, royal fern.
Birds	Veery, black-capped chickadee, hermit thrush, American redstart, blue jay, cedar waxwing, northern flicker, blue-headed vireo, white-breasted nuthatch, yellow-bellied sapsucker, downy woodpecker, red-eyed vireo, blackburnian warbler, barred owl feather, black-and-white warbler, brown creeper, red-breasted nuthatch.
Mammals	Red squirrel; old porcupine sign on hemlocks; raccoon scats, deer scat, coyote scat, chipmunk.
Herps	Red efts, spring peeper.
Habitat features	Vernal pool (visible from trail; 10 x 30 feet); rock outcrops/ledgey/rocky; boulders—good porcupine habitat; snag with cavities.

CP-28

Current cover	Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Sugar maple, white oak.
Subcanopy and high shrubs	Sugar maple, basswood, shagbark hickory.
Shrub layer	Sugar maple
Herb layer	Round-lobed hepatica. Seep: sedges, jewelweed, sensitive fern, dwarf raspberry, grasses, hog peanut.
Mammals	Porcupine skeleton found off property, just to the north.

CP-29

Current cover	Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Subcanopy	Hophornbeam.
Shrub layer	Prickly gooseberry.
Herb layer	Sweet-scented bedstraw, round-lobed hepatica, plantain-leaved sedge, small-flowered crowfoot, lance-leaved wild licorice.

CP-30

Current cover	Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Somewhat open. Dominated by red oak; also white oak, white pine, shagbark hickory.
Subcanopy and high shrubs	Fairly dense. Hophornbeam abundant; also shadbush, red maple, white ash; occasional hemlock.
Shrub layer (low)	Sparse to moderately dense. Striped maple, maple-leaved viburnum, basswood, raspberry, white oak, sugar maple, late low blueberry.
Herb layer	Moderately dense. Marginal woodfern, wild sarsaparilla, Canada mayflower, round-lobed hepatica, large-flowered trillium, blue-stemmed goldenrod, wild oats, Solomon's seal, false Solomon's seal, large-leaved aster, polypody, partridgeberry, grasses, sedges, Indian pipe, bracken fern, spikenard.
Birds	Downy woodpecker.
Mammals	Chipmunk.
Herps	Spring peeper.
Habitat features	Cavity snags; some coarse woody debris.

CP-31

Current cover	White Pine-Oak-Hardwoods
Natural community	Dry Oak-Hickory-Hophornbeam Forest
Canopy	Open; dominated by red oak. Also white pine, white ash, bigtooth aspen.
Subcanopy and high shrubs	Shagbark hickory, chokecherry, hophornbeam, red maple.
Shrub layer (low)	Hophornbeam, white oak, hawthorn, red oak, maple-leaved viburnum, shagbark hickory, basswood, black cherry, glaucous honeysuckle.
Herb layer	Pennsylvania sedge, blue-stemmed goldenrod, round-lobed hepatica, large-leaved aster, Canada mayflower, polypody, marginal woodfern, wild sarsaparilla, whorled wood aster, black-seeded ricegrass.
Herps	Red eft.

CP-32

Current cover	White Pine-Oak
Natural community	Dry Oak Forest
Canopy	Open to moderately dense. Red oak and white pine abundant; also white oak.
Subcanopy and high shrubs	Moderately dense. Red oak, white pine, hophornbeam, white oak, red maple, hemlock, shadbush.
Shrub layer (low)	Moderately dense. Huckleberry, hophornbeam, shadbush, late low blueberry, striped maple, low sweet blueberry, beech, white pine, black cherry, red maple, white oak, red oak, chokeberry, bush honeysuckle.
Herb layer	Moderately dense. Hairgrass abundant; also wintergreen, wild sarsaparilla, whorled loosestrife, large-leaved aster, blue-stemmed goldenrod, wild oats, bastard toadflax, paniced hawkweed, partridgeberry,

	Canada mayflower, starflower, Pennsylvania sedge, bracken fern, marginal woodfern, polypody, mosses, dandelion, reindeer lichen, rock tripe.
Birds	Eastern wood-pewee.
Mammals	Red squirrel, deer scat.
Herps	Garter snake.

CP-33

Current cover	Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Red oak, sugar maple, shagbark hickory, white ash, white pine, red maple, white oak.
Subcanopy and high shrubs	Witch hazel, beech, shagbark hickory, sugar maple, striped maple, basswood; occasional hemlock.
Shrub layer (low)	Striped maple, basswood, maple-leaved viburnum, sugar maple, hophornbeam, Virginia creeper, bitternut hickory, blackberry.
Herb layer	Indian cucumber, wild oats, large-flowered bellwort, Canada mayflower, round-lobed hepatica, partridgeberry, marginal woodfern, blue-stemmed goldenrod, grasses, Christmas fern, early meadow rue, pointed-leaved tick trefoil, maidenhair fern, foamflower, white baneberry, downy yellow violet, hog peanut.
Mammals	Deer scat.

CP-34

Current cover	Oak-Hardwoods-Hemlock
Natural community	Hemlock Forest
Canopy	Dense. Red maple, shagbark hickory, red oak, white ash, white oak.
Subcanopy and high shrubs	Dense. Hemlock, hophornbeam, beech, striped maple.
Shrub layer (low)	Fairly sparse. Striped maple, hemlock, Virginia creeper, beech, sugar maple, witch hazel, black cherry, shadbush.
Herb layer	Fairly sparse. Indian cucumber, wild oats, partridgeberry, Canada mayflower, wild sarsaparilla, Christmas fern, Indian pipe, large-flowered trillium, hepatica.
Habitat features	Occasional tip-ups due to shallowness/wetness.

CP-35

Current cover	Oak-Hardwoods-Hemlock
Natural community	Hemlock Forest
Canopy	Somewhat open. Red oak abundant; also red maple, white pine, quaking aspen, white oak.
Subcanopy and high shrubs	Moderately dense to dense. Dominated by hemlock; also white ash, shagbark hickory, black birch.
Shrub layer (low)	Sparse. Striped maple, low sweet blueberry, red maple.
Herb layer	Sparse. Wild sarsaparilla, marginal woodfern, false Solomon's seal, early

	meadow rue, bastard toadflax.
Birds	Pileated woodpecker holes; ovenbird, veery, black-capped chickadee, eastern wood-pewee, black-throated green warbler, cerulean warbler, yellow-rumped warbler, hairy woodpecker, red-eyed vireo, northern flicker.

CP-36

Current cover	Red Oak-Northern Hardwoods
Natural community	Mesic Red Oak-Northern Hardwood Forest
Canopy	High, dense. Dominated by red oak; also beech.
Subcanopy and high shrubs	Moderate to fairly dense – sugar maple, beech, witch hazel, red maple.
Shrub layer (low)	Moderately dense. Striped maple, maple-leaved viburnum, beaked hazelnut, hophornbeam, late low blueberry, witch hazel, sugar maple, beech, black cherry, white pine, bigtooth aspen, huckleberry.
Herb layer	Dominated by wild sarsaparilla; also false Solomon's seal, intermediate woodfern, bracken fern, wild oats.
Birds	Black-and-white warbler, great crested flycatcher, yellow-throated vireo.
Mammals	Chipmunk.
Habitat features	Some coarse woody debris; abundant snags.

CP-37

Current cover	Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Dense to open. Red oak dominant; also white pine, sugar maple, bitternut hickory, basswood, shagbark hickory, white oak, beech, red pine, paper birch, red maple, bigtooth aspen, butternut, black birch.
Subcanopy and high shrubs	Fairly dense to dense. Hophornbeam abundant; also red oak, basswood, shagbark hickory, witch hazel, shadbush, red pine, sugar maple, hemlock, musclewood, bitternut hickory, yellow birch, red maple, white ash, black birch, white pine, common buckthorn, striped maple, beech. Along vernal pool: yellow birch, black ash.
Shrub layer (low)	Fairly sparse to fairly dense. Sugar maple, bush honeysuckle, red oak, striped maple, white pine, maple-leaved viburnum, hophornbeam, Oriental honeysuckle, poison ivy, beaked hazelnut, prickly gooseberry, Virginia creeper, mountain maple, Asiatic bittersweet, musclewood, bitternut hickory, basswood, witch hazel, shadbush, huckleberry, white oak, late low blueberry, shagbark hickory, white ash, chokecherry, raspberry, red elderberry, common elderberry, beech, purple-flowering raspberry, American fly honeysuckle, hawthorn, black cherry, hemlock, low sweet blueberry, common buckthorn. Seep east of CP-38: multiflora rose, common buckthorn, highbush blueberry, musclewood, poison ivy, swamp dewberry. Vernal pool: dense winterberry; American elm saplings.
Herb layer	Fairly sparse to moderately dense. Wild sarsaparilla, early meadow rue, polypody, false Solomon's seal, marginal woodfern, plantain-leaved sedge,

	<p>round-lobed hepatica, Solomon's seal, large-leaved aster, blue-stemmed goldenrod, columbine, early saxifrage, heart-leaved aster, pussytoes (two species), sedge, sweet-scented bedstraw, white wood aster, large-flowered trillium, maidenhair fern, herb Robert, white lettuce, zigzag goldenrod, foamflower, pale touch-me-not, fragile fern, wild ginger, sharp-lobed hepatica, helleborine, miterwort, jack-in-the-pulpit, wild oats, white snakeroot, Canada mayflower, whorled loosestrife, fringed polygala, starflower, bracken fern, maidenhair spleenwort, tall rattlesnake root, hog peanut, wood strawberry, partridgeberry, wild oats, enchanter's nightshade, pinesap, sanicle, pointed-leaved tick trefoil, Pennsylvania sedge, large-flowered bellwort, trailing arbutus, wintergreen, dogbane, jewelweed, milkweed, beechdrops, hog peanut, ground cedar, lance-leaved wild licorice, small-flowered crowfoot, white avens, bittersweet nightshade, wild mint. High diversity at north end.</p> <p>Seep east of CP-38: wetland sedges, small-flowered crowfoot, haircap moss, other mosses, jewelweed, fringed loosestrife, marsh bedstraw, mad-dog skullcap, tall buttercup, Pennsylvania bitter cress, blue flag, white avens, bittersweet nightshade.</p> <p>Seep along east edge: miterwort, sensitive fern, foamflower, pinesap, Indian cucumber.</p> <p>Vernal pool: cinnamon fern, royal fern, sensitive fern, sedges, wood horsetail, goldthread.</p>
Birds	Ovenbird, black-and-white warbler, veery, hermit thrush nest, turkey vulture, ruffed grouse, eastern phoebe, white-breasted nuthatch, downy woodpecker, yellow-throated vireo, ruby-throated hummingbird, black-throated green warbler, American robin, red-eyed vireo, black-capped chickadee, blue jay, tufted titmouse, brown creeper; yellow-bellied sapsucker feeding sign.
Mammals	Coyote scat, chipmunk, deer, raccoon tracks and scats (containing crayfish), porcupine-stunted hemlocks, red squirrel.
Herps	Red efts, spring peeper, garter snakes, gray treefrog; green frog in vernal pools.
Habitat features	Steep; extensive and abundant rock outcrops; rocky/talus; snags with cavities; coarse woody debris; overhanging ledges—good bobcat habitat; muddy seepy area east of CP-38; vernal pools.

CP 38

Current cover	White Pine-Oak-Hardwoods
Natural community	Dry Oak-Hickory-Hophornbeam Forest
Canopy	Open and uneven; small trees. White ash and shagbark hickory dominant. Also black cherry, white pine, red oak, hophornbeam, white oak.
Subcanopy and high shrubs	Hophornbeam abundant; also butternut.
Shrub layer (low)	Sparse. Pasture rose, chokecherry, striped maple, raspberry, shadbush, Virginia creeper, basswood, sugar maple, shagbark hickory, red oak, white oak, prickly gooseberry.

Herb layer	Dense; hairgrass, other grasses, and large-leaved aster abundant. Also orange hawkweed, sheep sorrel, whorled loosestrife, columbine, herb Robert, ebony spleenwort, intermediate woodfern, marginal woodfern, blue-stemmed goldenrod, wild basil, mouse-ear chickweed, enchanter's nightshade, wild strawberry, wood strawberry, dogbane, polypody, sedges, thimbleweed, round-lobed hepatica, violet, Pennsylvania sedge, paniced hawkweed, Canada mayflower, plantain-leaved sedge.
Birds	Ruffed grouse.
Mammals	Raccoon scat.
Herps	Gray treefrog.
Habitat features	Barbed wire.

CP-39

Current cover	White Pine-Oak
Natural community	Dry Oak Forest
Canopy	Open. Dominated by white pine; also red pine, red maple, white oak, red oak.
Subcanopy and high shrubs	Dense red oak, white pine, red maple, black birch, hophornbeam, shadbush, witch hazel; occasional hemlock.
Shrub layer (low)	Sparse to moderately dense. White oak, striped maple, white pine, shadbush, red oak, huckleberry, late low blueberry, maple-leaved viburnum, witch hazel, beech, hemlock, hophornbeam, low sweet blueberry.
Herb layer	Sparse – Canada mayflower, wild oats, Indian cucumber, starflower, bracken fern, trailing arbutus, lady's slipper, wintergreen, partridgeberry, marginal woodfern, wild sarsaparilla, pussytoes, cowwheat, Pennsylvania sedge, polypody, reindeer lichen, paniced hawkweed, Indian pipe, whorled loosestrife, silverrod; a little large-leaved aster and hepatica.
Birds	Black-capped chickadee, yellow-rumped warbler, yellow-bellied sapsucker.
Mammals	Chipmunk, deer scat, raccoon scat, red squirrel.
Habitat features	Rocks; fairly abundant coarse woody debris; snags with cavities.

CP-40

Current cover	White Pine-Hemlock-Hardwoods
Natural community	Hemlock Forest
Canopy	Somewhat open. Bigtooth aspen, white pine, hemlock, sugar maple, basswood.
Subcanopy and high shrubs	Dense; dominated by hemlock. Also musclewood, beech, black birch, white ash.
Shrub layer (low)	Sparse. Beech, basswood, hophornbeam. Seep: musclewood and hemlock abundant; common buckthorn, Oriental honeysuckle, poison ivy.
Herb layer	Sparse. White baneberry, wild oats, lady fern, Christmas fern, small-flowered crowfoot, false Solomon's seal, marginal woodfern, white lettuce, blue-stemmed goldenrod.

	Seep: sensitive fern abundant; also common speedwell, enchanter's nightshade, interrupted fern, common cinquefoil, jewelweed, fringed loosestrife, devil's beggar-ticks, white avens, hooked crowfoot, poke milkweed.
Birds	Ovenbird, yellow-bellied sapsucker, pileated woodpecker, brown creeper, black-capped chickadee.
Mammals	Red squirrel, chipmunk.
Herps	Spring peeper.
Habitat features	Very rocky.

CP-41

Current cover	Northern Hardwoods
Natural community	Northern Hardwood Forest
Canopy	Somewhat open. Beech abundant; also red maple, paper birch, black birch, sugar maple, bigtooth aspen.
Subcanopy and high shrubs	Beech and scattered hemlock.
Shrub layer (low)	Basswood, white ash, hophornbeam, beech, striped maple.
Herb layer	New York fern, hog peanut, wild sarsaparilla, paniced hawkweed, false Solomon's seal, white wood aster, blue-stemmed goldenrod, intermediate woodfern.
Birds	Red-breasted nuthatch.
Mammals	Red squirrel, coyote scat.
Herps	Spring peeper.

CP-42

Current cover	Oak-Hardwoods-Hemlock
Natural community	Hemlock Forest
Canopy	Red oak abundant; also white oak, sugar maple, shagbark hickory, chestnut oak, white pine, red maple, black birch.
Subcanopy and high shrubs	Dense hemlock; also white pine, hophornbeam, witch hazel, chestnut oak, beech, black birch, red maple, sugar maple, white ash, shadbush.
Shrub layer (low)	Sparse. Basswood, sugar maple, white ash, musclewood, red oak, black cherry, chestnut oak, shadbush, maple-leaved viburnum, red maple, witch hazel, late low blueberry, striped maple, hophornbeam, beech, white oak.
Herb layer	Sparse to fairly sparse. Wild sarsaparilla, early meadow rue, large-flowered trillium, plantain-leaved sedge, blue-stemmed goldenrod, round-lobed hepatica, wild oats, paniced hawkweed, wintergreen, partridgeberry, haircap moss, fringed polygala, polypody, bracken fern, Indian pipe, large-leaved aster, Solomon's seal, Canada mayflower, starflower.
Birds	Blackburnian warbler, hermit thrush, black-throated green warbler, red-eyed vireo, veery, wood thrush, eastern wood-pewee, cedar waxwing, black-capped chickadee, American goldfinch, hairy woodpecker, red-shouldered hawk, blue jay, northern flicker, brown creeper.
Mammals	Deer scat; red squirrel middens; chipmunk.

Herps	Red eft, spring peeper, garter snake.
Habitat features	Rocky; rock outcrops; possible vernal pool; cavity snag.

CP-43

Current cover	White Pine-Oak-Hardwoods
Natural community	Dry Oak-Hickory-Hophornbeam Forest
Canopy	Low, open. Red oak, white ash, shagbark hickory, basswood.
Subcanopy and high shrubs	Basswood, red maple, striped maple, hophornbeam.
Herb layer	Marginal woodfern abundant; also tall nettle, pale corydalis, poison ivy, blue-stemmed goldenrod, jewelweed, false nettle, black-seeded ricegrass.
Birds	Hermit thrush, ovenbird.
Habitat features	Rock outcrop.

CP-44

Current cover	Beaver Meadow
Natural community	Beaver Wetland
Canopy	Scattered red maple, black ash, white pine, hemlock, yellow birch.
Shrub layer	Scattered/patchy. Blackberry abundant; also red maple, red raspberry, black birch, paper birch, Oriental honeysuckle, willow, gray birch, steplebush, shagbark hickory.
Herb layer	Dense. Sedges, rice cutgrass, and jewelweed abundant; also boneset, marsh bedstraw, stipitate sedge, sensitive fern, common cattail, wood horsetail, goldenrod, lady fern, bur-reed, mad-dog skullcap, water pennywort, coltsfoot, narrow-leaved cattail, asters, Indian tobacco, field horsetail, ostrich fern, daisy fleabane, clearweed, yellow wood sorrel, woolly bulrush, cinnamon fern, tearthumb, self-heal, monkey flower, marsh speedwell, common milkweed, maidenhair fern, willow herb, false nettle, water carpet.
Birds	Downy woodpecker, veery, American robin, black-capped chickadee, rose-breasted grosbeak, gray catbird, hermit thrush, ruby-throated hummingbird, song sparrow; winter wrens in fall.
Mammals	Horse tracks along edge.
Herps	Green frog, gray treefrog, garter snake, pickerel frog.
Habitat features	Snags; abundant coarse woody debris; intermittent stream.

CP-45

Current cover	Pond
Natural community	Beaver Wetland
Herb layer	Scattered pondweed; ringed with bur-reed.
Herps	Green frog.

CP-46

Current cover	Pond
Natural community	Beaver Wetland

Herb layer	Bur-reed and pondweed.
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CP-47

Current cover	Pond
Natural community	Beaver Wetland
Herb layer	Patchy bur-reed.
Birds	Downy woodpecker.
Herps	Green frogs.
Habitat features	Snags.

CP-48

Current cover	Pond
Natural community	Beaver Wetland
Herb layer	Bur-reed, pondweed.
Herps	Green frog.
Habitat features	Small fish.

CP-49

Current cover	Pond
Natural community	Beaver Wetland
Herps	Newt, green frogs.

CP-50

Current cover	Northern Hardwoods
Natural community	Rich Northern Hardwood Forest
Canopy	Fairly dense; dominated by sugar maple.
Subcanopy and high shrubs	Dense. Beech, hemlock, hophornbeam, musclewood.
Shrub layer (low)	Fairly sparse. Beech, basswood, sugar maple, red oak, hophornbeam, shagbark hickory, white pine, white ash, black cherry, leatherwood, maple-leaved viburnum.
Herb layer	Fairly sparse to moderately dense. Sharp-lobed hepatica, round-lobed hepatica, Christmas fern, blue-stemmed goldenrod, early meadow rue, blue cohosh, maidenhair fern, marginal woodfern, partridgeberry, lady fern, pointed-leaved tick trefoil, large-flowered bellwort, foamflower, baneberry, large-leaved aster, wild sarsaparilla, fringed polygala.
Birds	American woodcock (mother with two chicks).
Mammals	Moose and horse tracks.
Herps	Spring peeper.
Habitat features	Muddy trail along beaver wetland.

CP-51

Current cover	Beaver Meadow
Natural community	Beaver Wetland
Shrub layer	Virginia creeper, Oriental honeysuckle.

Herb layer	Stipitate sedge and other sedges, sensitive fern, ostrich fern, common milkweed, boneset, jewelweed, bur-reed, willow herb, marsh St. Johnswort, wood nettle, fringed loosestrife.
Mammals	Muskrat scat.

CP-52

Current cover	Pond
Natural community	Beaver Wetland
Shrub layer	Shrubby spots at north end.
Herb layer	North end of pond is meadow, with big ostrich fern patches.
Birds	Female wood duck with 6 ducklings; blue jay, northern waterthrush, red-eyed vireo, eastern wood-pewee, eastern phoebe, Baltimore oriole, veery, yellow-throated vireo, American redstart, black-and-white warbler, song sparrow, least flycatcher, common yellowthroat, American robin.
Herps	Painted turtle, pickerel frog, green frog.
Mammals	Chipmunk; coyote, moose, deer, and raccoon tracks.
Habitat features	Snags.

CP-53

Current cover	Beaver Meadow
Natural community	Beaver Wetland
Shrub layer	Along margin: scattered Oriental honeysuckle, common buckthorn, raspberry.
Herb layer	Dense. Rice cutgrass and ostrich fern abundant; also sensitive fern, narrow-leaved cattail, woolly bulrush, rush, fringed loosestrife, tearthumb, smartweed, sedges, bur-reed, monkey flower, boneset. Upland margin: bottlebrush grass, maidenhair fern, early meadow rue, blue cohosh, marsh St. Johnswort, sharp-lobed hepatica, zigzag goldenrod, thin-leaved sunflower, large-flowered trillium.
Birds	Red-tailed hawk, song sparrow.

CP 54

Current cover	Pond
Natural community	Beaver Wetland
Shrub layer	Well-developed shrub patches. A little oriental honeysuckle. Round-leaved dogwood along margin.
Herb layer	Pondweed in pond. Marsh fern, crested woodfern, marsh St. Johnswort, bluebead lily. Along east edge: early meadow rue, maidenhair fern, blue cohosh, large-flowered bellwort, zigzag goldenrod, plantain-leaved sedge, sharp-lobed hepatica, silvery glade fern, large-leaved aster, wild ginger, foamflower, pale corydalis, fringed bindweed, twisted stalk, fragile fern, wood strawberry, wild strawberry, milkweed, red baneberry, maidenhair spleenwort, herb Robert, royal fern.
Birds	Common yellowthroat, song sparrow, veery, Baltimore oriole, yellow-throated vireo, red-eyed vireo, rose-breasted grosbeak, hermit thrush, Louisiana waterthrush, winter wren, northern flicker, cedar waxwing,

	yellow-bellied sapsucker, winter wren; pine warbler to the east.
Herps	Many green frogs; gray treefrog.
Mammals	Bobcat and raccoon scats; red squirrel; two beaver lodges—beavers active.
Habitat features	Abundant snags and coarse woody debris all along this long series of beaver wetlands; abundant talus on east side—excellent porcupine habitat; fish at north end of pond.

CP-55

Current cover	White Pine-Oak
Natural community	Dry Oak Forest
Canopy	Moderately dense. White pine, red oak, white oak, red pine
Subcanopy and high shrubs	Fairly dense. Red oak, shadbush, hophornbeam, white pine; occasional hemlock.
Shrub layer (low)	Fairly sparse to moderately dense. Huckleberry abundant; also shadbush, white oak, striped maple, white pine, red maple, red oak, maple-leaved viburnum, chokeberry, bush honeysuckle, late low blueberry.
Herb layer	Fairly sparse to moderately dense. Wild sarsaparilla abundant; also polypody, marginal woodfern, helleborine, Canada mayflower, wild oats, hairgrass, large-leaved aster, starflower, lady's slipper, panicked hawkweed, whorled loosestrife, columbine, bastard toadflax, pinesap, partridgeberry, reindeer lichen.
Birds	Black-capped chickadee.
Mammals	Deer scat, chipmunk.
Herps	Red eft.
Habitat features	Snags, coarse woody debris; ledgey.

CP-56

Current cover	White Pine-Oak
Natural community	Dry Oak Forest
Birds	Northern flicker; barred owl pellet.
Habitat features	Small cliff and talus at southwest edge—good porcupine habitat.

CP-57

Current cover	Beaver Meadow
Natural community	Beaver Wetland
Shrub layer	A little raspberry; common elderberry.
Herb layer	Dense. Woolly bulrush and other sedges abundant; also sensitive fern, jewelweed, narrow-leaved cattail, marsh bedstraw, rice cutgrass, clearweed, royal fern, marsh fern, false nettle, bristly sedge, bittersweet nightshade, marsh speedwell.
Birds	Blackburnian warbler.
Mammals	Raccoon tracks; old beaver sign.
Herps	Spring peeper, pickerel frog, gray treefrog, many red efts.
Habitat features	Small remnant of pond at one end.

CP-58

Current cover	Northern Hardwoods
Natural community	Rich Northern Hardwood Forest
Canopy	Dense beech, sugar maple, white ash, basswood, bitternut hickory, shagbark hickory.
Subcanopy	Sparse. Mountain maple, yellow birch, white ash, basswood.
Shrub layer	Beech, basswood, poison ivy, leatherwood, musclewood, riverbank grape.
Herb layer	Large-flowered bellwort, foamflower, pointed-leaved tick trefoil, maidenhair fern, Christmas fern, wild oats, Indian cucumber, intermediate woodfern, downy yellow violet, broad beech fern, blue cohosh, hog peanut, interrupted fern, sensitive fern, dwarf raspberry, jewelweed, false nettle, jack-in-the-pulpit, enchanter's nightshade, miterwort, lady fern, sweet cicely, baneberry, sharp-lobed hepatica.
Birds	Red-eyed vireo, ovenbird, American redstart, veery, great crested flycatcher, black-throated blue warbler, yellow-bellied sapsucker, black-capped chickadee.
Herps	Red eft.
Mammals	Chipmunk.

CP-59

Current cover	Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Somewhat open to dense. Red oak, shagbark hickory, white ash, red maple, white oak, beech, sugar maple, basswood, white pine, chestnut oak.
Subcanopy and high shrubs	Moderately dense to dense. Dominated by red maple; also hophornbeam, beech, yellow birch, shadbush, white ash, basswood, white pine.
Shrub layer (low)	Moderately dense. Black cherry, hophornbeam, sugar maple, striped maple, red oak, basswood, red maple, maple-leaved viburnum, hemlock, musclewood, white oak, prickly gooseberry, beech, yellow birch, Virginia creeper, shadbush, witch hazel, low sweet blueberry, white pine, chestnut oak, red elderberry.
Herb layer	Fairly sparse to moderately dense; dominated by wild sarsaparilla. Also polypody, partridgeberry, marginal woodfern, Canada mayflower, white lettuce, starflower, wild oats, wild licorice, zigzag goldenrod, plantain-leaved sedge, early meadow rue, large-flowered bellwort, large-flowered trillium, Virginia waterleaf, sharp-lobed hepatica, wild ginger, Indian cucumber, hairgrass, blue-stemmed goldenrod, Solomon's seal, paniced hawkweed, bracken fern, whorled wood aster, Indian pipe, large-leaved aster, round-lobed hepatica, bottlebrush grass, white wood aster. Vernal pool/seep: blue flag, marsh fern, bugleweed, sphagnum, sedges, cinnamon fern.
Birds	Veery, white-breasted nuthatch, red-eyed vireo, hermit thrush, eastern wood-pewee, ovenbird, pileated woodpecker, American redstart, yellow-bellied sapsucker, hairy woodpecker feather.
Herps	Spotted salamander (eggs in drying-up vernal pool), spring peeper.
Mammals	Chipmunk, red squirrel, deer scat.

Habitat features	Moist, rocky; snags; vernal pools; browse line on the few small hemlocks; ledgy/outcrops.
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CP-60

Current cover	Northern Hardwoods
Natural community	Rich Northern Hardwood Forest
Canopy/subcanopy	High and dense. Sugar maple abundant; also white ash, bitternut hickory, red oak, basswood, red maple, paper birch, yellow birch, beech, hophornbeam. Red oak abundant at south end.
Shrub layer	Sparse to moderately dense. Sugar maple, Virginia creeper, bitternut hickory, red oak, mountain maple, slippery elm, witch hazel, beech, basswood, striped maple, white ash, hophornbeam, beaked hazelnut, maple-leaved viburnum, alternate-leaved dogwood, leatherwood, chokecherry, American fly honeysuckle, shadbush, hobblebush, purple-flowering raspberry.
Herb layer	Fairly sparse to moderately dense. Christmas fern, wild ginger, sharp-lobed hepatica, Solomon's seal, plantain-leaved sedge, Canada mayflower, false Solomon's seal, marginal woodfern, shining clubmoss, foamflower, large-flowered trillium, maidenhair fern, blue cohosh, downy yellow violet, early meadow rue, intermediate woodfern, red trillium, white baneberry, large-flowered bellwort, rock tripe, interrupted fern, round-lobed hepatica, Virginia waterleaf, jack-in-the-pulpit, sedges, zigzag goldenrod, silvery glade fern, hog peanut, lady fern, large-leaved aster, white wood aster, enchanter's nightshade, bedstraw, toothwort, wild oats, sweet cicely, miterwort, polypody, early saxifrage, sanicle, blue-stemmed goldenrod, partridgeberry, wild sarsaparilla, tall rattlesnake root, whorled wood aster, bluebead lily, dwarf raspberry, herb Robert, small-flowered crowfoot. Water carpet in stream.
Birds	Red-eyed vireo, veery, yellow-bellied sapsucker, black-throated blue warbler, American robin, northern flicker, blue jay, American goldfinch, black-capped chickadee, hermit thrush.
Mammals	Chipmunk; beaver-cut trees; beaver and bobcat tracks north of CP-54.
Herps	Spring peeper, green frog, red eft, pickerel frog.
Habitat features	Steep, rocky slope; some cliffs; beaver-cleared margin along ponds; intermittent stream; abundant and extensive rock outcrops/talus.

CP-61

Current cover	Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Moderately dense to dense; dominated by red oak. Also white oak, shagbark hickory, white pine, white ash, chestnut oak, sugar maple, paper birch, quaking aspen, red maple.
Subcanopy and high shrubs	Moderately dense. Sugar maple, red maple, shadbush, white pine, hophornbeam, basswood, shagbark hickory, hemlock, white ash, striped maple, beech, white oak; musclewood in seep.
Shrub layer (low)	Sparse to fairly dense – basswood, red maple, late low blueberry, striped

	maple, maple-leaved viburnum, shadbush, red oak, white oak, white ash, black cherry, hemlock, Virginia creeper, sugar maple, shagbark hickory, common buckthorn, round-leaved dogwood, chokecherry, leatherwood, hophornbeam, witch hazel, white pine, poison ivy, hemlock, rose, prickly gooseberry, bush honeysuckle, beech. Musclewood in seep.
Herb layer	Fairly sparse to sparse. Large-leaved aster, polypody, wild sarsaparilla, Canada mayflower, wild oats, marginal woodfern, false Solomon's seal, whorled loosestrife, reindeer lichen, early meadow rue, plantain-leaved sedge, large-flowered trillium, pointed-leaved tick trefoil, hog peanut, strawberry, sharp-lobed hepatica, round-lobed hepatica, hawkweed, dogbane, goldenrods, heart-leaved aster, thimbleweed, Christmas fern, tall rattlesnake root, helleborine, white wood aster, Indian cucumber, whorled wood aster, starflower, partridgeberry, poke milkweed, white lettuce, hairgrass, other grasses, sedges, blue cohosh, maidenhair fern, wild licorice, field horsetail, wintergreen, Indian pipe, fringed polygala, common speedwell, bracken fern, lady fern, blue-stemmed goldenrod, tree clubmoss, New York fern, ground cedar. Seep near southeast end: interrupted fern, jack-in-the-pulpit, enchanter's nightshade, sensitive fern, wood horsetail, virgin's bower, dwarf raspberry.
Birds	Eastern wood-pewee, broad-winged hawk, black-throated blue warbler, red-eyed vireo, cedar waxwing, hermit thrush, ovenbird, veery, ruffed grouse, scarlet tanager, white-breasted nuthatch, black-throated green warbler, Baltimore oriole, pileated woodpecker, blue jay, great crested flycatcher, downy woodpecker, wood thrush, American robin.
Mammals	Deer; browse line on the occasional hemlocks; chipmunk, red squirrel, gray squirrel.
Herps	American toad, gray treefrog, garter snake.
Habitat features	Very rocky, good coarse woody debris & snags; some outcrops/porcupine habitat; intermittent streams; vernal pool.

CP-62

Current cover	Talus Woodland
Natural community	Northern Hardwood Talus Woodland
Canopy	Scattered and uneven. Butternut and basswood abundant; also sugar maple, red oak, white pine.
Shrub layer	Dense. Prickly gooseberry, purple-flowering raspberry, mountain maple, and red elderberry abundant. Also American fly honeysuckle, raspberry, alternate-leaved dogwood, sugar maple, round-leaved dogwood, bush honeysuckle, chokecherry.
Herb layer	Dense/patchy. Polypody, marginal woodfern, red baneberry, zigzag goldenrod, wild ginger, miterwort, sweet cicely, wild sarsaparilla, Solomon's seal, sedge, blue-stemmed goldenrod, fragile fern, small-flowered crowfoot, jack-in-the-pulpit, maidenhair fern, maidenhair spleenwort, enchanter's nightshade, sweet-scented bedstraw, whorled wood aster, columbine, wood strawberry, round-lobed hepatica.
Birds	Black-throated blue warbler, hermit thrush, ovenbird, scarlet tanager,

	black-and-white warbler, blue jay, red-eyed vireo, black-capped chickadee, red-shouldered hawk, turkey vulture, veery, winter wren, white-breasted nuthatch.
Mammals	Red squirrel; raccoon scat.
Herps	Gray treefrog.
Habitat features	Snags abundant; talus = excellent porcupine habitat.

CP-63

Current cover	Cliff
Natural community	Temperate Acidic Cliff
Canopy	On ledges, patchy/uneven/stunted hophornbeam (abundant), red oak, white pine, white ash, red maple.
Subcanopy	Hophornbeam abundant on ledges; shadbush.
Shrub layer	Sparse mountain maple, striped maple, purple-flowering raspberry. On ledges: sugar maple, striped maple, late low blueberry, shadbush, red oak, white pine, hophornbeam, hawthorn, poison ivy, red cedar, prickly gooseberry, basswood, purple-flowering raspberry, raspberry, bush honeysuckle, round-leaved dogwood, glaucous honeysuckle, chokecherry.
Herb layer	Sparse. Rock tripe, rusty woodsia, marginal woodfern, jack-in-the-pulpit, columbine, polypody, blue-stemmed goldenrod, silverrod. Sparse/patchy on ledges: polypody, marginal woodfern, wild sarsaparilla, large-leaved aster, plantain-leaved sedge, Solomon's seal, hairgrass, blue-stemmed goldenrod, false Solomon's seal, large-flowered trillium, round-lobed hepatica, dogbane, thin-leaved sunflower, strawberry.
Birds	Turkey vulture, ovenbird.
Mammals	Raccoon scat.
Habitat features	Excellent bobcat habitat (ledges); charcoal and burnt stumps.

CP-64

Current cover	White Pine-Oak
Natural community	Dry Oak Forest
Canopy	Somewhat open. White pine, red pine, red oak, white oak.
Subcanopy and high shrubs	Shadbush, hophornbeam, red maple.
Shrub layer (low)	Fairly sparse. Shadbush, maple-leaved viburnum, huckleberry, bush honeysuckle, hophornbeam, low sweet blueberry, striped maple, red oak; occasional sugar maple. Purple-flowering raspberry and poison ivy on rock outcrops.
Herb layer	Fairly sparse. Large-leaved aster, hairgrass, Canada mayflower, wild sarsaparilla, polypody, bracken fern, partridgeberry.
Birds	Red-breasted nuthatch.
Habitat features	Rock outcrops.

CP-65

Current cover	Rock Outcrop
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Natural community	Acidic Rock Outcrop
Canopy	White pines at edge; shagbark hickory.
Shrub layer	Huckleberry dominant; also paper birch, late low blueberry, low sweet blueberry, sweetfern.
Herb layer	Hairgrass, dogbane, Solomon's seal, bastard toadflax, false Solomon's seal, pussytoes, bluebell.
Birds	Cedar waxwing, Baltimore oriole, eastern wood-pewee, red-eyed vireo, hermit thrush, eastern phoebe, common nighthawk (Aug. 26).
Mammals	Chipmunk; fisher scat; porcupine quill.
Habitat features	Amazing view!

CP-66

Current cover	Rock Outcrop
Natural community	Acidic Rock Outcrop
Shrub layer	Late low blueberry abundant; also shadbush, bush honeysuckle.
Herb layer	Dense hairgrass; reindeer lichen, whorled loosestrife, columbine, marginal woodfern.
Mammals	Coyote scat containing squirrel teeth.

CP-67

Current cover	Rock Outcrop
Natural community	Acidic Rock Outcrop
Canopy	Scattered red oak, shadbush, red maple, white oak, white pine.
Shrub layer	Patchy. Chokeberry abundant; also blackberry, low sweet blueberry, late low blueberry, bush honeysuckle, white oak, striped maple.
Herb layer	Hairgrass abundant; polypody, Solomon's seal, whorled loosestrife, pale corydalis, reindeer lichen, other lichens and mosses, marginal woodfern.
Birds	Hermit thrush.
Mammals	Chipmunk.

CP-68

Current cover	Rock Outcrop
Natural community	Acidic Rock Outcrop
Canopy	Scattered small red oaks; white oak.
Shrub layer	Patches of low sweet blueberry, blackberry, bush honeysuckle.
Herb layer	Dense hairgrass patches; sheep sorrel, fringed bindweed, lichens and mosses.

CP-69

Current cover	Northern Hardwoods
Natural community	Dry Oak-Hickory-Hophornbeam Forest
Canopy	Dense. Dominated by sugar maple; also red maple, beech, bigtooth aspen, white pine, white ash, bitternut hickory, paper birch, red oak.
Subcanopy	Hophornbeam and sugar maple abundant; also beech, bitternut hickory, and shadbush.

Shrub layer	Fairly sparse. Prickly gooseberry, Virginia creeper, beech, sugar maple, striped maple, bigtooth aspen, black cherry, basswood, maple-leaved viburnum, common buckthorn, white ash, hophornbeam, shagbark hickory, raspberry, purple-flowering raspberry, beech, leatherwood.
Herb layer	Dense lawn of Pennsylvania sedge; early meadow rue and large-leaved aster also abundant. Also wild ginger, white wood aster, plantain-leaved sedge, sharp-lobed hepatica, sweet cicely, false Solomon's seal, Virginia waterleaf, large-flowered trillium, lance-leaved wild licorice, marginal woodfern, grass, blue-stemmed goldenrod, rough-stemmed goldenrod, jack-in-the-pulpit, pale touch-me-not, Christmas fern, large-flowered bellwort, white lettuce, wild oats, hog peanut, herb Robert, thimbleweed, small-flowered crowfoot, yarrow, lady fern, sanicle, columbine, maidenhair fern.
Birds	Black-throated blue warbler, eastern wood-pewee, red-eyed vireo, black-capped chickadee, hermit thrush.
Mammals	Gray squirrel; many chipmunks.
Habitat features	Abundant coarse woody debris; snags with cavities; parklike.

CP-70

Current cover	Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Fairly dense. Dominated by red oak; also white oak, white pine, white ash, shagbark hickory, basswood, sugar maple, paper birch, bigtooth aspen. Red maple and yellow birch around vernal pool.
Subcanopy	Moderately dense. Hophornbeam abundant; also sugar maple, shagbark hickory, beech, shadbush; a few hemlocks.
Shrub layer	Moderately dense. Striped maple, shadbush, white ash, maple-leaved viburnum, witch hazel, red maple, white pine, hophornbeam, raspberry, red oak, beech, sugar maple, basswood. Winterberry and chokeberry by southwestern vernal pool; hobblebush by northern vernal pool.
Herb layer	Sparse. Blue-stemmed goldenrod, marginal woodfern, Canada mayflower, large-leaved aster, partridgeberry, white wood aster, starflower, false Solomon's seal, plantain-leaved sedge, wild oats, Solomon's seal, early meadow rue, large-flowered trillium, white baneberry, large-flowered bellwort, hog peanut, Pennsylvania sedge. Vernal pool: royal fern abundant; also cinnamon fern, drooping sedge, sphagnum, goldthread, bugleweed, blue flag. Seep: iris and wetland sedges.
Birds	Least flycatcher, wood thrush, veery, ruffed grouse, pileated woodpecker, ovenbird, eastern wood-pewee, hermit thrush, red-eyed vireo, American redstart, American robin, Baltimore oriole (apparently nesting), scarlet tanager, black-capped chickadee.
Mammals	Moose scat and raccoon and deer tracks in seep; raccoon tracks by northern vernal pool.
Herps	Many green frogs in vernal pool.
Habitat features	Nice vernal pool at southwest corner; another at north end; barbed wire.

CP-71

Current cover	Mixed Oak
Natural community	Dry Oak Forest
Canopy	Stunted; somewhat open; dominated by red oak. Also chestnut oak, white oak.
Subcanopy	Red maple, white oak, shadbush, hophornbeam, chestnut oak, red pine; richer area in southern portion has white ash, shagbark hickory, sugar maple.
Shrub layer	Fairly sparse to dense. Huckleberry and late low blueberry abundant; also low sweet blueberry, red oak, red maple, shadbush, hophornbeam, white pine, white oak, striped maple, maple-leaved viburnum, chestnut oak, Virginia rose; richer area in southern portion has sugar maple, witch hazel, American fly honeysuckle, chokecherry.
Herb layer	Hairgrass throughout; otherwise sparse. Bastard toadflax abundant; also wild sarsaparilla, Canada mayflower, paniced hawkweed, wild oats, starflower, false Solomon's seal, bracken fern, whorled loosestrife, polypody, lady's slipper, cowwheat, dogbane, squawroot; richer area in southern portion has lance-leaved wild licorice, blue-stemmed goldenrod, large-leaved aster, plantain-leaved sedge, round-lobed hepatica, partridgeberry, Solomon's seal, marginal woodfern, tall rattlesnake root, field chickweed.
Birds	Hermit thrush, ovenbird, American robin, veery, downy woodpecker, eastern wood-pewee, rose-breasted grosbeak, red-eyed vireo, least flycatcher, American goldfinch, American redstart, yellow-bellied sapsucker, black-capped chickadee, ruffed grouse.
Mammals	Coyote, deer and moose scat, chipmunk.
Herps	Gray treefrog.
Habitat features	Some snags and coarse woody debris. Near south end of CP-67, many trees wrapped with burlap around breast height, and tags (e.g. K-1#3).

CP-72

Current cover	Northern Hardwoods
Natural community	Rich Northern Hardwood Forest; Northern Hardwood Forest
Canopy/subcanopy	High and dense. Dominated by sugar maple; also white ash, paper birch, butternut, shagbark hickory, black cherry, bigtooth aspen, beech, red maple.
Shrub layer (high)	Moderately dense. Sugar maple, bitternut hickory, beech, hophornbeam, musclewood, witch hazel.
Shrub layer (low)	Sparse, but abundant sugar maple regeneration. Bitternut hickory, white ash, black cherry, hophornbeam, witch hazel, leatherwood, basswood, hobblebush, beech, maple-leaved viburnum, beaked hazelnut, striped maple, raspberry, white pine.
Herb layer	Fairly dense; hog peanut and early meadow rue abundant; also rattlesnake fern, wild ginger, blue-stemmed goldenrod, blue cohosh, white lettuce, jack-in-the-pulpit, large-flowered bellwort, maidenhair fern, Christmas fern, aster, large-flowered trillium, wild oats, zigzag goldenrod, toothwort,

	downy yellow violet, sanicle, white snakeroot, interrupted fern, partridgeberry, wild sarsaparilla, New York fern.
Birds	Red-eyed vireo, ruby-throated hummingbird, veery, ovenbird.
Herps	Red eft.
Habitat features	Small streams, some snags, cavities, coarse woody debris.

CP-73

Current cover	Red Oak-Northern Hardwoods
Natural community	Mesic Red Oak-Northern Hardwood Forest
Canopy	High, dense. Red oak dominant; also bigtooth aspen, sugar maple, white ash, beech.
Subcanopy and high shrubs	Dense, dominated by sugar maple; also striped maple, hemlock, beech, red maple, red oak, basswood, hophornbeam, witch hazel, white ash.
Shrub layer (low)	Moderately dense. Striped maple, sugar maple, maple-leaved viburnum, hophornbeam, red oak, shagbark hickory, Virginia creeper.
Herb layer	Fairly sparse. Wild sarsaparilla and wild oats abundant; also partridgeberry, Indian cucumber, marginal woodfern, whorled wood aster, plantain-leaved sedge, Christmas fern, large-leaved aster, early meadow rue, miterwort (on outcrop), large-flowered bellwort, white lettuce, large-flowered trillium.
Birds	Hermit thrush, veery, red-eyed vireo.
Mammals	Chipmunk.
Herps	Gray treefrog.
Habitat features	Logging road; coarse woody debris; mossy rock outcrops; snags with cavities (bigtooth aspens).

CP-74

Current cover	White Pine-Oak-Hardwoods
Natural community	Dry Oak-Hickory-Hophornbeam Forest
Canopy	Low; somewhat open and parklike. Shagbark hickory, white pine, red oak, white ash, chestnut oak.
Shrub layer (high)	Dominated by hophornbeam; also shagbark hickory, common buckthorn, shadbush, chestnut oak, staghorn sumac, hemlock, gray birch.
Shrub layer (low)	Hophornbeam, prickly gooseberry, hawthorn, red oak, shadbush, white oak, chokecherry, maple-leaved viburnum, low sweet blueberry, late low blueberry, bush honeysuckle, staghorn sumac, huckleberry, beech, white pine, striped maple, raspberry, chestnut oak, blackberry.
Herb layer	Dense, grassy. Large-leaved aster and hairgrass abundant; also herb Robert, ebony spleenwort, poison ivy, four-leaved milkweed, early meadow rue, common cinquefoil, Solomon's seal, marginal woodfern, false Solomon's seal, blue-stemmed goldenrod, violet, thimbleweed, wild oats, orange hawkweed, lesser stitchwort, wild sarsaparilla, polypody, wild licorice, whorled loosestrife, Canada mayflower, reindeer lichen, fringed bindweed.
Birds	Ruffed grouse scat; hermit thrush, ovenbird.
Habitat features	Very rocky; treeless (rock outcrop) openings; 30-foot cliff at north end of

	western edge; intermittent stream.
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CP-75

Current cover	White Pine-Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Open; dominated by white pine.
Subcanopy and high shrubs	Fairly dense. Hophornbeam, white ash, shagbark hickory, red oak, beech, white pine.
Shrub layer (low)	Striped maple, red oak, beech.
Herb layer	Pennsylvania sedge and other sedges, marginal woodfern, round-lobed hepatica, goldenrod, violets.
Habitat features	Ledgey; barbed wire.

CP-76

Current cover	Early Successional Hardwoods
Natural community	Mesic Red Oak-Northern Hardwood Forest
Canopy	Dense. Bigtooth aspen and red maple abundant; also paper birch, white ash, sugar maple, hemlock, red oak, beech.
Subcanopy and high shrubs	Dense. Beech, hemlock, striped maple, hophornbeam, witch hazel, sugar maple, bigtooth aspen, white ash.
Shrub layer (low)	Sparse. Maple-leaved viburnum, beech, striped maple, white pine, red oak, witch hazel, hophornbeam.
Herb layer	Sparse. Partridgeberry, wild oats, beechdrops, wild sarsaparilla, large-leaved aster, Christmas fern.
Birds	Hermit thrush, black-throated green warbler, rose-breasted grosbeak, red-eyed vireo (nest), Blackburnian warbler, ovenbird, yellow-bellied sapsucker nestlings.
Mammals	Chipmunk, deer.
Habitat features	Logging trail; big rock outcrop; rocky spots; abundant coarse woody debris from logging; abundant snags; large stumps from logged oaks, pines, and other trees.

CP-77

Current cover	Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Dense. Dominated by red oak; also red pine, white ash, bigtooth aspen, white ash, hophornbeam, beech, musclewood, sugar maple, bitternut hickory, paper birch, basswood, shagbark hickory.
Subcanopy and high shrubs	Moderate to dense. White pine saplings abundant; also white ash, hemlock, witch hazel, shagbark hickory, striped maple, beech, hophornbeam, red maple, shadbush, sugar maple, basswood, musclewood, alternate-leaved dogwood.
Shrub layer (low)	Fairly sparse. Red oak, shadbush, beech, witch hazel, hophornbeam, late low blueberry, hemlock, hawthorn, basswood, shagbark hickory, huckleberry, red spruce, sugar maple, white pine, striped maple, musclewood, white ash, chokecherry, prickly gooseberry, common

	buckthorn, Oriental honeysuckle, maple-leaved viburnum; leatherwood and purple-flowering raspberry in seep.
Herb layer	Sparse. Hairgrass, haircap moss, bracken fern, Canada mayflower, tree clubmoss, wild oats, partridgeberry, wintergreen, polypody, trailing arbutus, blue cohosh, Christmas fern, goldenrod, white lettuce, heart-leaved aster, large-flowered trillium, enchanter's nightshade, common speedwell, early meadow rue, white avens, agrimony, blue-stemmed goldenrod; sensitive fern in seep.
Birds	Black-capped chickadee, yellow-bellied sapsucker, red-eyed vireo, ovenbird (carrying food to nestlings), veery, hermit thrush, pileated woodpecker, barred owl.
Mammals	Deer scat; browse line on hemlocks; chipmunk.
Habitat features	Snags, coarse woody debris, seep, rocky.

CP-78

Current cover	White Pine-Hemlock-Hardwoods
Natural community	Hemlock Forest
Canopy	Open. Dominated by white pine; also red pine, red oak.
Subcanopy	Fairly dense hemlock understory.
Herb layer	Seep: sensitive fern abundant; also New York fern, lady fern, Christmas fern.
Birds	Red-breasted nuthatch, black-capped chickadee, brown creeper, yellow-rumped warbler, black-throated green warbler.
Mammals	Deer scat.
Habitat features	Dry oak rock outcrop along east boundary; barbed wire

CP-79

Current cover	White Pine
Natural community	Hemlock forest
Canopy	Open; white pine.
Subcanopy and high shrubs	Red oak, white ash, hemlock.
Herb layer	Polypody, marginal woodfern, Canada mayflower, bracken fern.
Mammals	Deer and moose scat.

CP-80

Current cover	Oak-Hardwoods-Hemlock
Natural community	Hemlock Forest
Canopy	Open to dense. Red maple, paper birch, white pine, red oak, hemlock, white oak, bigtooth aspen, beech, yellow birch, sugar maple. In east seep: black ash, yellow birch, red maple, American elm.
Subcanopy and high shrubs	Sparse to fairly dense. Hemlock dominant; also red oak, witch hazel, red maple.
Shrub layer (low)	Sparse. Hemlock abundant; also beech, huckleberry, shadbush, maple-leaved viburnum, witch hazel, red oak, late low blueberry, bush

	honeysuckle, blackberry, musclewood, striped maple, red maple, beech, alternate-leaved dogwood, hobblebush, American fly honeysuckle. East seep: poison ivy, meadowsweet, American elm.
Herb layer	Sparse. Wintergreen, Canada mayflower, tree clubmoss, starflower, fringed polygala, partridgeberry, painted trillium, bracken fern, bunchberry, Indian pipe, hay-scented fern, Christmas fern, bristly clubmoss, goldthread, wild sarsaparilla, intermediate woodfern, bluebead lily, common speedwell, Indian cucumber, trailing arbutus, Solomon's seal, dogbane, whorled wood aster, tall rattlesnake root. Southern seep at west edge: jewelweed, yellow wood sorrel, heal-all, sensitive fern, enchanter's nightshade, small-flowered crowfoot. Northern seep at west edge: New York fern, interrupted fern, sensitive fern, jewelweed, jack-in-the-pulpit, hog peanut, ditch stonecrop. East seeps: cinnamon fern, sensitive fern, and mosses abundant; also dwarf raspberry, royal fern, flat-topped aster, foamflower, jack-in-the-pulpit, water pennywort, dwarf enchanter's nightshade, marsh bedstraw, hog peanut, water carpet, interrupted fern, New York fern, marsh marigold, jewelweed, ostrich fern, enchanter's nightshade, hog peanut, bulblet fern, violets, asters, lady fern, bugleweed.
Birds	Hermit thrush, blue jay, American robin, red-eyed vireo, black-capped chickadee, ruffed grouse, white-breasted nuthatch, brown creeper, veery, red-breasted nuthatch, wood thrush.
Mammals	Chipmunk, raccoon scat.
Herps	Green frogs, spring peeper, and gray treefrog in seeps; American toad, red eft.
Habitat features	Ledgey; snags; seeps; intermittent stream; coarse woody debris.

CP-81

Current cover	Beaver Meadow
Natural community	Beaver Wetland
Canopy	Scattered white pine, paper birch, and red maple at north end.
Subcanopy	Scattered hemlock and red maple at north end.
Shrub layer	Patchy blackberry, Oriental honeysuckle, nannyberry, witch hazel, meadowsweet, poison ivy, steeplebush.
Herb layer	Dense. Sensitive fern, wood horsetail, marsh fern, jewelweed, woolly bulrush, drooping sedge and other sedges, goldenrod, blue vervain, boneset, grass-leaved goldenrod, swamp dewberry, bristly sedge, tearthumb, marsh bedstraw, bur-reed.
Birds	Cedar waxwing, song sparrow, American robin, hermit thrush, eastern kingbird, common yellowthroat, wood thrush, Baltimore oriole.
Herps	Green frog.
Habitat features	Snags with cavities; abundant coarse woody debris.

CP-82

Current cover	Pond
Natural community	Beaver Wetland

Herb layer	Open water with patches of bur-reed and water shield.
Birds	Eastern kingbird.
Mammals	Beaver lodge—active.
Herps	Green frogs.

CP-83

Current cover	White Pine
Natural community	Hemlock Forest
Canopy	White pine. Butternut in seep.
Subcanopy	Occasional beech, red maple, red oak, hemlock. Seep: red maple, shagbark hickory.
Shrub layer	Seep: poison ivy, shagbark hickory.
Herb layer	Seep: ostrich fern, avens, heal-all, clearweed, jack-in-the-pulpit, sensitive fern, mosses.
Birds	Wood thrush, black-capped chickadee, blue jay, red-breasted nuthatch.
Habitat features	Barbed wire.

CP-84

Current cover	Beaver Meadow
Natural community	Beaver Wetland
Herb layer	Dense. Woolly bulrush, tearthumb, sedges, jewelweed, sensitive fern, clearweed, ostrich fern, interrupted fern, bur-reed, grasses, beggar-ticks, turtlehead.
Mammals	Old beaver sign.
Herps	Green frogs, red eft.
Habitat features	Small (10 by 20 feet) silty pond.

CP-85

Current cover	Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Tall; moderately dense. Bigtooth aspen abundant; also red oak, shagbark hickory, white ash, white pine, bitternut hickory.
Subcanopy	Fairly dense. Sugar maple, white ash, hophornbeam, red maple, white pine.
Shrub layer	Moderately dense. Hophornbeam, beech, witch hazel, shagbark hickory, white oak, white pine, basswood, white ash, leatherwood, red oak, Virginia creeper, maple-leaved viburnum, round-leaved dogwood.
Herb layer	Sparse. Plantain-leaved sedge, marginal woodfern, hog peanut, Christmas fern, blue-stemmed goldenrod, Pennsylvania sedge, white lettuce, partridgeberry, false Solomon's seal, wild oats, pinesap, bracken fern.
Birds	Black-capped chickadee, eastern wood-pewee, American goldfinch, American crow, white-breasted nuthatch.
Habitat features	Rocky/ledgey; some snags and coarse woody debris.

CP-86

Current cover	White Pine-Oak
Natural community	Dry Oak Forest
Canopy	Open, dominated by white pine and red oak; also white oak.
Subcanopy	Moderately dense; dominated by red oak. Also hophornbeam, white oak, red maple.
Shrub layer	Patchy. Striped maple, blackberry, shadbush, red maple, raspberry, black birch, huckleberry, maple-leaved viburnum, white oak; a few sugar maple and white ash saplings.
Herb layer	Abundant moss; polypody, large-leaved aster, Canada mayflower, whorled wood aster, marginal woodfern, hairgrass, other grasses, sedges, wild sarsaparilla, wild oats, wild licorice, partridgeberry, whorled loosestrife.
Birds	Old pileated woodpecker holes; yellow-bellied sapsucker.
Mammals	Chipmunk, deer.
Herps	Gray treefrog.
Habitat features	Rocky; rock outcrops; some snags with cavities; stonewall.

CP-87

Current cover	Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	High, dense; bigtooth aspen, red oak, sugar maple, red maple, beech, white oak, white ash, basswood, bitternut hickory, white pine, shagbark hickory.
Subcanopy/high shrubs	Fairly dense. Sugar maple, beech, hophornbeam, hemlock (scattered), striped maple, white ash, witch hazel, basswood, black birch, bitternut hickory, red oak, musclewood.
Shrub layer (low)	Sparse to moderately dense. White ash, sugar maple, hemlock, alternate-leaved dogwood, musclewood, basswood, hophornbeam, beech, white pine, witch hazel, red oak, striped maple, maple-leaved viburnum, white oak, leatherwood, black cherry.
Herb layer	Fairly sparse. Blue-stemmed goldenrod, white lettuce, wild oats, partridgeberry, downy yellow violet, Christmas fern, large-flowered trillium, early meadow rue, large-flowered bellwort, wild sarsaparilla, New York fern, fringed polygala, lady fern, sharp-lobed hepatica, marginal woodfern, false Solomon's seal, white wood aster, hog peanut, miterwort, plantain-leaved sedge, pointed-leaved tick trefoil, maidenhair fern, paniced hawkweed, white baneberry.
Birds	Red-eyed vireo, wood thrush, black-and-white warbler, veery, yellow-bellied sapsucker, hairy woodpecker, ruby-throated hummingbird.
Mammals	Chipmunk.
Herps	Spring peepers.
Habitat features	Abundant coarse woody debris—old logging; snags; rock outcrop; very rocky.

CP-88

Current cover	Oak-Hardwoods-Hemlock
Natural community	Hemlock Forest
Canopy	Somewhat open. White oak, red oak, sugar maple, beech, hemlock, red

	maple.
Subcanopy/high shrubs	Dense, dominated by hemlock. Also white ash, sugar maple, hophornbeam.
Shrub layer	Very sparse, except for hemlock saplings. Hemlock, red maple, maple-leaved viburnum, shadbush, striped maple, red oak.
Herb layer	Sparse. Partridgeberry, Canada mayflower, marginal woodfern, wild oats, polypody.
Birds	Black-throated green warbler, ovenbird, wood thrush, black-capped chickadee, brown creeper.
Herps	Red efts.
Habitat features	Rocky/ledgy; rock outcrops—good porcupine habitat; stream; old logging road; coarse woody debris.

CP-89

Current cover	White Pine-Oak
Natural community	Dry Oak Forest
Canopy	Open; dominated by white pine. Also red oak.
Subcanopy and high shrubs	Red oak, white pine, white oak, hemlock, striped maple, black birch, shadbush.
Shrub layer (low)	Moderately dense. Late low blueberry dominates; also red oak, red maple, shadbush, low sweet blueberry, black cherry, hemlock.
Herb layer	Sparse to moderately dense. Abundant pin-cushion moss; also wild sarsaparilla, hairgrass, polypody, partridgeberry, large-leaved aster, Canada mayflower, reindeer lichen, marginal woodfern, lady's slipper, wintergreen.
Birds	Broad-winged hawk, black-throated green warbler, hermit thrush, yellow-bellied sapsucker, red-eyed vireo, scarlet tanager, brown creeper.
Mammals	Deer.
Habitat features	Ledgy.

CP-90

Current cover	Hardwood Swamp
Natural community	Red Maple-Black Ash Swamp
Canopy	Dense. Dominated by red maple; also hemlock.
Subcanopy	Hemlock, yellow birch, black ash.
Shrub layer	Sparse. Hemlock, highbush blueberry, chokeberry, winterberry. Hobblebush along edge.
Herb layer	Patchy. Cinnamon fern throughout; sphagnum, goldthread, three-seeded sedge, royal fern. Around edge: Indian cucumber, painted trillium, tree clubmoss, interrupted fern, bluebead lily, wood horsetail.
Birds	Hermit thrush, scarlet tanager, black-throated green warbler, veery, black-capped chickadee, red-eyed vireo, red-breasted nuthatch, American robin, rose-breasted grosbeak, brown creeper, blackburnian warbler, hairy woodpecker, ovenbird.
Mammals	Red squirrel; moose and deer scat; chipmunk.

Herps	Gray treefrog.
Habitat features	Hummocky; coarse woody debris.

CP-91

Current cover	Beaver Meadow
Natural community	Beaver Wetland
Canopy	Patches of small hemlock and red maple trees.
Shrub layer	Patchy; dominated by hemlock. Also blackberry, shadbush, meadowsweet, steplebush, raspberry.
Herb layer	Dense; dominated by a variety of sedges. Also marsh fern, royal fern, sensitive fern, sphagnum, rough-stemmed & other goldenrods, mad-dog skullcap, marsh bedstraw, crested woodfern, jewelweed, common cattail.
Birds	Cedar waxwing, song sparrow, great crested flycatcher, ruby-throated hummingbird, eastern kingbird, red-eyed vireo, eastern wood-pewee, yellow-bellied sapsucker, tree swallow.
Mammals	Deer, chipmunk.
Herps	American toad, green frog, gray treefrog.
Habitat features	Snags and coarse woody debris abundant; hummocky; patches of open water.

CP-92

Current cover	Pond
Natural community	Beaver Wetland
Shrub layer	Winterberry at stream outlet.
Herb layer	Pond about half covered with water shield; dense bur-reed around edge; some ostrich fern at stream outlet.
Birds	Eastern kingbird, common grackle; nesting tree swallows; great crested flycatcher.
Mammals	Chipmunk in forest; raccoon scats at edge.
Herps	Green frog, gray treefrog.
Habitat features	Abundant snags with cavities.

CP-93

Current cover	White Pine-Hemlock-Hardwoods
Natural community	Hemlock Forest
Canopy	Open. White pine, red oak, white oak.
Subcanopy and high shrubs	Moderately dense. Hemlock abundant; also white pine, red maple, shadbush, shagbark hickory, hophornbeam, red oak.
Shrub layer (low)	Shagbark hickory, white pine, maple-leaved viburnum, striped maple.
Herb layer	Marginal woodfern, polypody, goldenrod.
Mammals	Deer browse line evident on some small hemlocks.
Habitat features	Rocky/ledgey slope.

CP-94

Current cover	White Pine-Oak
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Natural community	Mesic Maple-Ash-Hickory-Oak Forest; Dry Oak Forest
Canopy	Somewhat open. White pine, white oak, red oak, black oak.
Subcanopy and high shrubs	Moderately dense. Hophornbeam, striped maple, shadbush, red maple, basswood, red pine, chestnut oak, sugar maple, shagbark hickory.
Shrub layer (low)	Sparse. Late low blueberry, white pine, shadbush, striped maple, hophornbeam, red oak, hemlock. Mountain maple, red elderberry, and currant in talus.
Herb layer	Sparse. Marginal woodfern, polypody, round-lobed hepatica, partridgeberry, sedge, strawberry.
Birds	White-breasted nuthatch.
Habitat features	Ledgey; rock outcrops; rocky—some boulders/talus (good porcupine habitat); coarse woody debris.

CP-95

Current cover	Red Oak-Northern Hardwoods
Natural community	Mesic Red Oak-Northern Hardwood Forest; pocket of Mesic Maple-Ash-Hickory-Oak Forest between beaver ponds
Canopy	Fairly dense; some parts thinned by beavers. Dominated by red oak and bigtooth aspen; also beech, sugar maple, white pine, white ash, red maple, paper birch, basswood, black birch, black cherry; occasional white oak. Seep: red maple, butternut, black birch, shagbark hickory, black ash, yellow birch.
Subcanopy and high shrubs	Moderately dense. Witch hazel, striped maple, hophornbeam, beech, white ash, hemlock, white pine, sugar maple, red maple, hophornbeam, basswood, black birch, paper birch, red oak. Seep: black ash, winterberry. Seep at north end: winterberry, yellow birch, musclewood, gray-stemmed dogwood. Seep north of CP-44: musclewood, shagbark hickory, American elm. Seep SW of CP-55: musclewood.
Shrub layer (low)	Fairly sparse; dense where canopy thinned by beavers. Sugar maple, striped maple, shadbush, maple-leaved viburnum, white oak, beech, witch hazel, alternate-leaved dogwood, white ash, hemlock, red oak, low sweet blueberry, red maple, late low blueberry, American fly honeysuckle, huckleberry, black cherry, beaked hazelnut, hophornbeam, bigtooth aspen, basswood, musclewood. Seep northwest of CP-43: chokeberry, wild raisin, swamp white oak. Northeast seep: musclewood, winterberry, poison ivy. Seep along south end of CP-33: musclewood, poison ivy, chokecherry.
Herb layer	Fairly sparse to moderately dense. Wild sarsaparilla, partridgeberry, Indian cucumber, Canada mayflower, fringed polygala, large-leaved aster, bracken fern, wild oats, false Solomon's seal, downy yellow violet, wintergreen, beechdrops, trailing arbutus, spikenard, bastard toadflax, tree clubmoss, Solomon's seal, marginal woodfern, Indian cucumber, starflower, whorled wood aster, polypody, blue-stemmed goldenrod, fringed bindweed, New York fern, herb Robert, small-flowered crowfoot, Indian pipe, ground cedar, large-leaved aster, white wood-aster, drooping woodreed, paniced hawkweed, intermediate woodfern, shining clubmoss.

	<p>Southwest section has jack-in-the-pulpit, hay-scented fern, Christmas fern, bottlebrush grass, fringed polygala.</p> <p>Seep west of CP-43: blue flag and cinnamon fern abundant; also sensitive fern, dwarf raspberry, jack-in-the-pulpit, blue flag, drooping sedge, stipitate sedge, swollen sedge, other wetland sedges, Clinton's woodfern, marsh bedstraw, bugleweed, field horsetail, interrupted fern, Indian cucumber, royal fern, sphagnum, mad-dog skullcap, bluebead lily, goldthread, Indian cucumber, devil's beggar-ticks, duckweed, jewelweed.</p> <p>Seep at north end: sedges, blue flag, sensitive fern, interrupted fern, poison ivy, whorled wood aster.</p> <p>Small seep between CP-47 and CP-52: sensitive fern, New York fern, marsh speedwell, dwarf raspberry.</p> <p>NE seep: sensitive fern abundant; also marsh fern, blue flag, sedges.</p> <p>Seep north of CP-44: sensitive fern, dwarf raspberry, jewelweed, clearweed, avens, marsh bedstraw, blue cohosh, foamflower.</p> <p>Seep SW of CP-55: lady fern, jewelweed, enchanter's nightshade, jack-in-the-pulpit, hog peanut, sedges, bedstraw, yellow wood sorrel, white wood aster, avens, foamflower, dwarf raspberry, pointed-leaved tick trefoil, small-flowered crowfoot, interrupted fern, sweet-scented bedstraw, thin-leaved sunflower.</p> <p>Seep along south end of CP-33: sensitive fern abundant; also foamflower, sweet-scented bedstraw, dwarf raspberry, hog peanut, lady fern, interrupted fern.</p>
Birds	Yellow-throated vireo, cerulean warbler, ovenbird, red-eyed vireo, blue jay, American redstart, veery, hermit thrush, eastern wood-pewee, black-throated green warbler, least flycatcher, white-breasted nuthatch, black-capped chickadee, American goldfinch; yellow-bellied sapsucker sign, ruby-throated hummingbird, hairy woodpecker.
Mammals	Deer, chipmunk, red squirrel; moose tracks in seep.
Herps	Gray treefrog, spring peeper, red eft, wood frog; many little red efts in seep; green frog in small seep between CP-47 and CP-52; garter snake.
Habitat features	Two small vernal pools and seep just below (west of) CP-43; ledgy areas; small outcrops; some coarse woody debris, cavity snag.

CP-96

Current cover	White Pine-Oak-Hardwoods
Natural community	Dry Oak-Hickory-Hophornbeam Forest
Canopy	Somewhat open/stunted. Red oak, shagbark hickory, white pine, white ash, white oak.
Subcanopy and high shrubs	Fairly dense. Hophornbeam abundant; also sugar maple, shadbush, white ash, white oak, hemlock, black cherry, red maple, common buckthorn, shagbark hickory.
Shrub layer (low)	Sparse. Virginia creeper, poison ivy, late low blueberry, maple-leaved viburnum, multiflora rose, hawthorn, Oriental honeysuckle, white oak, shagbark hickory, chokecherry, raspberry.
Herb layer	Moderately dense. Blue-stemmed goldenrod abundant; also marginal

	woodfern, round-lobed hepatica, polpody, Canada mayflower, strawberry, small-flowered crowfoot, Pennsylvania sedge, other sedges, early meadow rue, sweet cicely, partridgeberry, wild sarsaparilla, reindeer lichen, violet, large-leaved aster, tall rattlesnake root, milkweed, thimbleweed, columbine, yellow wood sorrel, wild basil.
Mammals	Deer and raccoon scat.
Habitat features	Very rocky/ledgey; cavity snag.

CP-97

Current cover	White Pine-Northern Hardwoods
Natural community	Northern Hardwood Forest
Canopy	Fairly dense. White pine, beech, red maple, sugar maple, white ash, bitternut hickory.
Subcanopy and high shrubs	Fairly dense. Beech abundant; also musclewood, sugar maple, black birch, hemlock, white pine.
Shrub layer (low)	Fairly sparse. Lady fern, hooked crowfoot, blue-stemmed goldenrod, small-flowered crowfoot, beechdrops, partridgeberry, Canada mayflower, Christmas fern, jack-in-the-pulpit, wild oats, tall rattlesnake root, wild sarsaparilla, early meadow rue, marginal woodfern.
Birds	Red-breasted nuthatch, American goldfinch, red-eyed vireo, downy woodpecker, black-capped chickadee.
Mammals	Chipmunk, red squirrel.
Herps	Spring peeper, gray treefrog, red eft.
Habitat features	Somewhat rocky; cavity snag.

CP-98

Current cover	Early Successional Hardwoods-White Pine
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Somewhat open; ~50-year-old white pines. Also red oak, red maple, beech, sugar maple, shagbark hickory, bigtooth aspen, quaking aspen, white ash, white oak.
Subcanopy and high shrubs	Dense, deciduous. Hophornbeam and common buckthorn abundant; also sugar maple, witch hazel, basswood, hemlock, black birch, beech, red oak, bitternut hickory, paper birch, shagbark hickory, white pine, white ash.
Shrub layer (low)	Sparse to fairly dense—chokecherry, musclewood, sugar maple, poison ivy, quaking aspen, black cherry, white ash, beech, witch hazel, European mountain-ash, nannyberry, basswood, bush honeysuckle, purple-flowering raspberry, maple-leaved viburnum, prickly gooseberry, hawthorn, Oriental honeysuckle, white oak, shagbark hickory, Virginia creeper, apple, alternate-leaved dogwood, beech, common buckthorn, red oak. Multiflora rose in seep.
Herb layer	Sparse. False Solomon's seal, early meadow rue, bloodroot, Christmas fern, helleborine, carrion flower, round-lobed hepatica, plantain-leaved sedge, Solomon's seal, marginal woodfern, columbine, blue-stemmed goldenrod, large-flowered trillium, polypody, sweet-scented bedstraw, fragile fern, wild ginger, lady fern, mullein, hog peanut, enchanter's

	nightshade, early saxifrage, sweet-scented bedstraw, common speedwell, wild sarsaparilla, large-leaved aster, bottlebrush grass, yellow wood sorrel, late goldenrod, small-flowered crowfoot. Seep: self-heal, stipitate sedge, other sedges, field horsetail, dwarf raspberry, shinleaf, beech fern, white baneberry, jack-in-the-pulpit, New York fern, bittersweet nightshade, mad-dog skullcap, hooked crowfoot.
Birds	Least flycatcher, cedar waxwing, ovenbird, eastern wood-pewee, red-eyed vireo, American goldfinch, yellow-rumped warbler, pileated woodpecker, American redstart, veery nest, black-capped chickadee, white-breasted nuthatch, red-breasted nuthatch.
Mammals	Chipmunk, deer, masked shrew; old beaver sign at pond edge; red squirrel; raccoon latrines.
Herps	Green frog, red eft.
Habitat features	Snags with cavities; fairly rocky; some rock outcrops; hummocky seep.

CP-99

Current cover	Field
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Herb layer	Dense; dominated by grasses. Timothy, smooth brome, reed canary grass, dandelion, red clover, asters, wild carrot, yarrow, goldenrod, cow vetch, common plantain, blue-eyed grass. Seep: dark green bulrush, foxtail sedge, other sedges.
Birds	Yellow warbler, common grackle, American crow.

CP-100

Current cover	Shrub and Sapling Thicket
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Uneven. White ash, American elm, apple, white pine.
Shrub layer	Chokecherry, nannyberry, common buckthorn, alder.
Herb layer	Goldenrod, grasses, a little purple loosestrife.
Habitat features	Stonewall.

CP-101

Current cover	Alder
Natural community	Alder Swamp
Shrub layer	Dense/patchy; dominated by alder. Also gray birch, red raspberry, steeplebush, meadowsweet, Oriental honeysuckle, silky dogwood.
Herb layer	Dense. Goldenrod abundant; also wild cucumber, some phragmites, joe-pye weed, woolly bulrush, drooping sedge, grasses, jewelweed, sensitive fern, false nettle.

CP-102

Current cover	White Pine
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Open to moderately dense. White pine dominant; also basswood,

	American elm, white ash.
Subcanopy and high shrubs	Dense. Common buckthorn, black cherry, musclewood.
Shrub layer (low)	Dense. White ash, Oriental honeysuckle, beech, basswood, red raspberry, shadbush, shagbark hickory, sugar maple, Virginia creeper, maple-leaved viburnum, common buckthorn, hawthorn, chokecherry, black cherry, poison ivy, American elm, riverbank grape.
Herb layer	Sparse to moderately dense. White avens, tall buttercup, goldenrods, false Solomon's seal, enchanter's nightshade, thyme-leaved speedwell, intermediate woodfern, partridgeberry.
Birds	Veery, black-capped chickadee, black-and-white warbler.
Mammals	Deer.
Habitat features	Several small boulders; snag with cavities; stream.

CP-103

Current cover	Cattail Marsh
Natural community	Cattail Marsh
Herb layer	Dense; dominated by narrow-leaved cattail. Also pickerelweed, bur-reed, soft-stem bulrush.
Birds	American bittern.
Herps	Bullfrog, green frog.

CP-104

Current cover	Early Successional
Natural community	Mesic Maple-Ash-Hickory-Oak Forest.
Canopy	Scattered saplings. White ash abundant; also red oak, basswood, white pine.
Shrub layer	Scattered, with dense patches. Gray-stemmed dogwood abundant; also staghorn sumac, common buckthorn, poison ivy, white pine, Oriental honeysuckle, quaking aspen, apple, nannyberry, basswood, hawthorn, blackberry, alder.
Herb layer	Dense. Grasses and goldenrods abundant; also Canada St. Johnswort, strawberry, cow vetch, common milkweed, knotweed, Canada thistle, grass-leaved goldenrod, foxtail sedge, timothy, wild carrot, spreading dogbane, joe-pye weed, elecampane, swamp milkweed, false nettle, sensitive fern, spikerush. Right along pond: dense lakeshore sedge with scattered narrow-leaved cattail and jewelweed.
Birds	Cedar waxwing, gray catbird, common yellowthroat, red-winged blackbird, eastern kingbird, American goldfinch, song sparrow, Virginia rail (Aug. 26).
Mammals	Deer beds; remains of a fawn—probably killed by coyotes.
Herps	Gray treefrog.

CP-105

Current cover	Field
Natural community	Mesic Maple-Ash-Hickory-Oak Forest

Herb layer	Dense. Dominated by grasses; red clover also abundant. Also common plantain, cow vetch, asters, wild carrot, goldenrod.
Birds	Bobolink pair—male carrying food to nestlings; American crow, red-winged blackbird, warbling vireo, yellow warbler. Eastern bluebird passed through, 11/12/05.
Mammals	3 deer grazing near sunset.

CP-106

Current cover	Shrub and Sapling Thicket
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Scattered small apples and white pines.
Shrub layer	Dense. Nannyberry abundant; also blackberry, Oriental honeysuckle, gray-stemmed dogwood, arrowwood.
Herb layer	Goldenrod.
Birds	Ruffed grouse.

CP-107

Current cover	Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Fairly dense; dominated by red oak. Also shagbark hickory, white pine, white ash, white oak, sugar maple, red maple, butternut, paper birch, bigtooth aspen.
Subcanopy and high shrubs	Fairly dense. Hophornbeam, beech, basswood, shadbush, black birch, common buckthorn, black cherry, white pine, sugar maple, musclewood, shagbark hickory, hemlock.
Shrub layer (low)	Fairly sparse to moderately dense. Striped maple, sugar maple, hophornbeam, maple-leaved viburnum, shagbark hickory, raspberry, Oriental honeysuckle, beech, poison ivy, common buckthorn, white ash, grape, red oak, nannyberry, chokecherry, Virginia creeper, musclewood, prickly gooseberry, witch hazel.
Herb layer	Sparse. Wild sarsaparilla, lady fern, Canada mayflower, helleborine, dandelion, common speedwell, marginal woodfern, blue-stemmed goldenrod, partridgeberry, grass, false Solomon's seal, enchanter's nightshade, bracken fern, early meadow rue, pale touch-me-not, Christmas fern, large-leaved aster. Seep: dense grasses; jewelweed, interrupted fern, wood horsetail, sensitive fern, dwarf raspberry, carrion flower, beech fern, devil's beggar-ticks, bottlebrush grass, maidenhair fern, blue cohosh, field horsetail, clearweed, jack-in-the-pulpit, hog peanut, fringed loosestrife, self-heal.
Birds	Cedar waxwing, downy woodpecker, black-capped chickadee, American goldfinch; old pileated woodpecker holes.
Herps	Spring peeper.
Mammals	Gray squirrel, deer, chipmunk.
Habitat features	Fairly abundant coarse woody debris; snag; cavities—old pileated woodpecker holes.

CP-108

Current cover	Early Successional Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Fairly dense, pole-sized trees; almost entirely white ash. Also American elm, quaking aspen, paper birch.
Subcanopy and high shrubs	Moderately dense. White ash, shagbark hickory, nannyberry, hophornbeam, common buckthorn, American elm, gray-stemmed dogwood, shagbark hickory, sugar maple, basswood.
Shrub layer (low)	Moderately dense. Common buckthorn abundant; also chokecherry, white pine, sugar maple, raspberry, red oak, bitternut hickory, hophornbeam, gray-stemmed dogwood, shagbark hickory, blackberry, Virginia creeper, musclewood, Oriental honeysuckle, riverbank grape, poison ivy.
Herb layer	Moderately dense to dense. Sedges abundant; also goldenrods, common cinquefoil, mosses, strawberry, field horsetail, white avens, moneywort, dandelion, yellow wood sorrel, thyme-leaved speedwell, sensitive fern, enchanter's nightshade, Christmas fern, golden alexanders, jack-in-the-pulpit, lady fern. Seep at east edge: abundant poison ivy, sensitive fern, dwarf raspberry, wood horsetail; also interrupted fern, jack-in-the-pulpit, sweet-scented bedstraw, marsh speedwell, mosses, marsh fern.
Birds	American goldfinch, black-capped chickadee.
Mammals	Deer.

CP-109

Current cover	Field
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Herb layer	Dominated by grasses; also blue-eyed grass, red clover, white clover, orange hawkweed, oxeye daisy, tall buttercup, cow vetch, lesser stitchwort.
Birds	Bobolinks, tree swallow, Canada geese.
Mammals	Woodchuck hole next to path; deer.

CP-110

Current cover	Shrub and Sapling Thicket
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Scattered saplings/young trees. American elm abundant; also white ash, basswood, shagbark hickory.
Shrub layer	Dense gray-stemmed dogwood; also Autumn olive, common buckthorn, black cherry.

CP-111

Current cover	Early Successional
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Habitat features	Similar to CP-104

CP-112

Current cover	Pond
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Natural community	Beaver Wetland
Birds	Alder flycatcher.
Mammals	Beavers (actively expanding pond as of October 2005).
Habitat features	(off property)

CP-113

Current cover	Alder
Natural community	Alder Swamp
Shrub layer	Alder, gray-stemmed dogwood.
Birds	Red-winged blackbird, veery, cedar waxwing, yellow-bellied sapsucker, song sparrow, eastern phoebe, warbling vireo, yellow warbler, American goldfinch, willow flycatcher (some of these associated with CP-112), American woodcock.
Mammals	Raccoon.
Herps	Many gray treefrogs, garter snake, spring peeper.
Habitat features	Stream.

CP-114

Current cover	Early Successional; White Pine
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	White pines at property boundary; black walnuts by dam.
Shrub layer	Purple-flowering raspberry.
Herb layer	Orange hawkweed.
Birds	Eastern kingbird, red-winged blackbird, American crow.
Mammals	Skunk smell by dam; red squirrel.
Herps	American toad, garter snake.

CP-115

Current cover	Cattail Marsh
Natural community	Cattail Marsh
Herb layer	Dense; dominated by cattails. Pickerelweed at edge.

CP-116

Current cover	Pond
Natural community	Pond
Shrub layer	Scattered willow along CP-5.
Herb layer	Along margin, patches of cattail and pickerelweed. Along west edge, narrow band/scattered clumps of emergent vegetation: pickerelweed, duckweed, soft-stem bulrush, narrow-leaved cattail, waterweed, drooping sedge, bur-reed.
Birds	Double-crested cormorant, red-winged blackbirds (nesting), eastern kingbird, tree swallow, ring-billed gull, American crow, common grackle, Canada geese and goslings, great blue heron, Baltimore oriole, song sparrow, mallard, wood duck with ducklings, common yellowthroat, belted kingfisher.

Mammals	Beaver.
Herps	Bullfrogs, green frogs.
Habitat features	Fish.

DELTA PARK

Visited 8/4/05, 8/17/05, 8/24/05.

DP-1

Current cover	Lawn
Natural community	Lakeside Floodplain Forest
Herb layer	Patchy. Grass, crabgrass, dwarf cinquefoil, yellow wood sorrel, common plantain, white clover, doorweed.

DP-2

Current cover	Early Successional
Natural community	Lakeside Floodplain Forest
Shrub layer (high)	Scattered green ash, silver maple, paper birch, boxelder, willow.
Shrub layer (low)	Patchy; staghorn sumac abundant. Also riverbank grape, poison ivy, green ash, raspberry, unidentified elm-like shrub, silky dogwood, Virginia creeper, unidentified shadbush-like shrub.
Herb layer	Fairly dense. Dominated by grasses; beach pea and butter-and-eggs abundant. Also bouncing bet, evening primrose, hoary alyssum, hedge nettle, grass-leaved goldenrod, ragweed, rough avens, common milkweed, yellow wood sorrel, wild ryes, dogbane, wild carrot, groundnut, wild lettuce, mullein, freshwater cordgrass, sweet everlasting, climbing false buckwheat; spotted knapweed outside of fenced area.
Birds	Mourning dove, cedar waxwing, American goldfinch.
Habitat features	Abundant coarse woody debris.

DP-3

Current cover	Muddy Shore (mulchy)
Natural community	Lake Sand Beach
Shrub layer (high)	Scattered silver maple, willow, green ash.
Shrub layer (low)	Sparse/patchy; willow abundant. Also silky dogwood, glossy buckthorn, green ash.
Herb layer	Fairly dense; patchy. Jewelweed abundant; also marsh skullcap, marsh St. Johnswort, evening primrose, groundnut, devil's beggar-ticks, climbing false buckwheat, blue flag, bugleweed, wild carrot, boneset, hedge bindweed, purple loosestrife, rough avens, joe-pye weed, bitter dock, cocklebur, ragweed, water smartweed, barnyard grass. On mulchy part: cocklebur and smartweed abundant; purple loosestrife abundant but heavily beetle-damaged. Also water purslane, spikerush, smartweed, a little narrow-leaved cattail, bur-reed, pickerelweed, milk purslane, horseweed, bugleweed, cyperus, barnyard grass, dwarf St. Johnswort, mad-dog skullcap, ditch stonecrop.

Birds	Song sparrow.
Mammals	Chipmunk.
Herps	Garter snake, northern leopard frog.
Habitat features	Abundant coarse woody debris; mulchy material towards south.

DP-4

Current cover	Floodplain Forest
Natural community	Lakeside Floodplain Forest
Canopy/subcanopy	Fairly dense (more open at southern end); dominated by cottonwood and silver maple. Also American elm, green ash, boxelder, Virginia creeper, riverbank grape, black oak. Willows in southern portion. Wet depression near south tip: dense silver maple poles/saplings.
Shrub layer	Fairly sparse, with patches of silver maple seedlings; poison ivy abundant. Also nannyberry, boxelder, riverbank grape, green ash, raspberry, autumn olive (just before bridge), common buckthorn, American elm, red oak, silky dogwood, buttonbush, multiflora rose, Virginia creeper, highbush cranberry; glossy buckthorn and Oriental honeysuckle along trail to beach; a little common elderberry, multiflora rose, glossy buckthorn, and Oriental honeysuckle along bike path; some black locust near parking area.
Herb layer	Patchy. Wood nettle abundant; rough avens abundant along bike path. Also sensitive fern, tall nettle, hog peanut, tall blue lettuce, ostrich fern, groundnut, wild carrot, late goldenrod, white sweet clover, mullein, red clover, tall meadow rue, virgin's bower, grasses, false nettle, moneywort, blue flag, fringed loosestrife, hedge nettle, mad-dog skullcap, lance-leaved loosestrife, marsh St. Johnswort, bugleweed, bittersweet nightshade, yellow wood sorrel, field horsetail, jewelweed, wild cucumber. Along bike trail: rough avens, evening primrose, tall nettle, jewelweed, yellow wood sorrel, groundnut, devil's beggar-ticks, common milkweed, blue flag, Virginia stickseed, tall meadow rue, cow vetch, wood nettle, mad-dog skullcap, common plantain, tall blue lettuce, marsh fern. Along trail to beach: common plantain, clearweed, white clover, tall nettle, ground ivy, wild rye, devil's beggar-ticks, silverweed, reed canary grass, common milkweed, evening primrose, red clover, dogbane, Canada anemone, hedge nettle, late goldenrod, rough avens, sedge (leaves like lakeshore sedge), moneywort. Wet depression near south tip: drooping sedge, water parsnip, purple loosestrife, swamp candles, turtlehead, groundnut, large water plantain, marsh fern.
Birds	Black-capped chickadee, song sparrow; eastern screech-owl feather.
Mammals	Old beaver sign (including lodge at edge of marsh).
Herps	Northern leopard frogs very abundant.
Habitat features	Some cavity snags; abundant coarse woody debris.

DP-5

Current cover	Buttonbush
Natural community	Buttonbush Swamp

Shrub layer	Dense buttonbush.
Herb layer	Some European frogbit.
Mammals	Active muskrat lodge.
Herps	Northern leopard frog.

DP-6

Current cover	Marsh
Natural community	Shallow Emergent Marsh
Shrub layer	Scattered buttonbush.
Herb layer	Dense; dominated by an unidentified bulrush. Also soft-stem bulrush, water plantain, scattered purple loosestrife, arrowhead, narrow-leaved cattail, European frogbit, pickerelweed, three-way sedge.
Birds	Northern harrier.
Mammals	Muskrat lodge.
Herps	Northern leopard frog.

DP-7

Current cover	Sandy Shore
Natural community	Lake Sand Beach
Canopy/subcanopy	Scattered silver maple, green ash, cottonwood, willow.
Shrub layer	Willow abundant; also silver maple, cottonwood, and green ash seedlings; silky dogwood, glossy buckthorn, buttonbush.
Herb layer	Several cyperus species; devil's beggar-ticks, evening primrose, groundnut, purple loosestrife, white sweet clover, hedge bindweed, reed canary grass, wormwood, bugleweed, grasses, cocklebur, carpetweed, smartweed, marsh yellow cress, boneset, moneywort, lovegrass, bouncing bet, wild rice, nodding smartweed, common sunflower.
Birds	American crow and Canada goose tracks, black-capped chickadee, mourning dove, ring-billed gull.
Mammals	Muskrat tracks, scat, and skeletons; domestic dog tracks; beaver sign.
Habitat features	Mostly bare sand; coarse woody debris abundant.

DP-8

Current cover	Muddy Shore
Natural community	Lake Sand Beach
Shrub layer	Willow; dense towards west end.
Herb layer	A small spikerush abundant; also chairmaker's rush, monkey flower, wild rice, and some beetle-damaged purple loosestrife.
Birds	Canada geese, mallards, Caspian tern, American coot.
Mammals	Skunk and domestic dog tracks.

DP-9

Current cover	Marsh
Natural community	Deep Bulrush Marsh
Herb layer	Chairmaker's rush, pickerelweed, yellow pond lily, white pond lily, soft-

	stem bulrush, freshwater cordgrass, bladderwort, grass-leaved arrowhead, unidentified 2-3 foot tall spikerush-like bulrush, sessile-fruited arrowhead.
Birds	Great egrets, ring-billed gull, tree swallow, American coot.
Herps	Northern leopard frog.

DP-10

Current cover	Cattail Marsh
Natural community	Cattail Marsh
Shrub layer	Scattered; abundant along forest edge. Buttonbush and willow.
Herb layer	Dominated by narrow-leaved cattail; European frogbit abundant. A little purple loosestrife (beetle-damaged), bulb-bearing water hemlock, knotweed, willow herb, cyperus, devil's beggar-ticks, pickerelweed, water smartweed, bur-reed, arrowhead, marsh St. Johnswort, marsh fern, water horsetail, yellow pond lily, white pond lily.
Birds	Marsh wren, least bittern, song sparrow.
Herps	Northern leopard frog; garter snake at forest edge.
Habitat features	Abundant coarse woody debris; some open water.

DP-11

Current cover	Pond
Natural community	Pond/Cattail Marsh
Herb layer	European frogbit, white pond lily, yellow pond lily, arrowhead, wild rice; ringed with bur-reed.

DERWAY ISLAND

Visited 8/6/05, 8/8/05.

DI-1

Current cover	Floodplain Forest
Natural community	Silver Maple-Sensitive Fern Riverine Floodplain Forest; narrow bands of Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Tall, fairly dense; dominated by silver maple. Also cottonwood, willow, green ash, swamp white oak, red maple. A few shagbark hickories and butternuts on NE island.
Subcanopy and high shrubs	Fairly sparse. American elm, green ash, riverbank grape, nannyberry. Apple along river trail.
Shrub layer (low)	Sparse. Green ash, Virginia creeper, poison ivy, alder, winterberry, silky dogwood. Trail along river: Oriental honeysuckle, common elderberry.
Herb layer	Fairly dense to dense, dominated by sensitive fern. Also false nettle, wood nettle, jewelweed, jack-in-the-pulpit, tall meadow rue, fringed loosestrife, moneywort, Indian tobacco, drooping woodreed, swollen sedge, bugleweed, mad-dog skullcap, field horsetail, clearweed. Sparse to moderately dense ostrich fern along southeast edge, and dense ostrich fern in places along river trail—occurs mostly in narrow strips along river. Trail along river: forget-me-not, ground ivy, water hemlock, evening

	<p>primrose, dogbane, daisy fleabane, tall blue lettuce, white avens, yellow wood sorrel, purple loosestrife, tall nettle, common plantain, burdock, late goldenrod, aster, jumpseed, hog peanut, common milkweed, joe-pye weed, violet, rough-stemmed goldenrod, virgin's bower, moss, wild cucumber, wormwood. A little purple loosestrife just east of DI-21.</p> <p>In 'canal' along NE island: arrowhead, bur-reed, reed canary grass, forget-me-not, yellow iris, white pond lily, waterweed, Eurasian watermilfoil, pondweed, stout woodreed, dwarf St. Johnswort, false nettle, swamp milkweed, bittersweet nightshade, joe-pye weed, fringed loosestrife.</p>
Birds	Downy woodpecker, American robin, white-breasted nuthatch, red-eyed vireo, northern cardinal, song sparrow, gray catbird, blue-gray gnatcatcher, American crow, hairy woodpecker, eastern wood-pewee, northern flicker, veery, tufted titmouse, black-capped chickadee, cedar waxwing, American goldfinch; old yellow-bellied sapsucker holes; belted kingfisher and great egret along river. In 'canal' by island: green heron, wood duck.
Mammals	Gray squirrel drey and 'graffiti'; deer; woodchuck hole; skunk smell in culvert under North Avenue extension; old beaver chews along river; raccoon tracks along 'canal.'
Herps	Northern leopard frog, American toad; green frogs in 'canal.'
Habitat features	Abundant coarse woody debris; 'canal' in northeastern part, somewhat dammed by a log jam. Campfire ring with garbage just east of DI-21.

DI-2

Current cover	Pond
Natural community	Lakeside Floodplain Forest
Shrub layer	Ringed with scattered buttonbush, meadowsweet.
Herb layer	Covered with European frogbit. Also arrowhead, marsh bedstraw, water parsnip, mad-dog skullcap, marsh fern, forget-me-not, yellow iris.
Birds	Old pileated woodpecker holes.
Herps	Green frog, northern leopard frog.
Habitat features	A few snags with cavities; coarse woody debris.

DI-3

Current cover	Pond
Natural community	Pond
Canopy	A few white pines by southwest corner.
Shrub layer	Buttonbush along edge.
Herb layer	Patchy European frogbit. Also yellow pond lily, arrowhead.
Birds	Common moorhen.
Herps	Green frogs.
Habitat features	Some coarse woody debris.

DI-4

Current cover	Hardwood Swamp
Natural community	Lakeside Floodplain Forest; some Red or Silver Maple-Green Ash Swamp

Canopy	Open to dense. Dominated by silver maple; also American elm, green ash, swamp white oak.
Subcanopy	American elm, green ash, silver maple, swamp white oak.
Shrub layer	Fairly sparse; dense patches in some areas. Winterberry abundant; also green ash, swamp white oak, alder, red maple, nannyberry, buttonbush, meadowsweet, silver maple seedlings.
Herb layer	Fairly dense to dense (but with bare muddy spots); dominated by sensitive fern; moneywort abundant. Also drooping sedge and other sedges, grass, marsh fern, groundnut, blue flag, arrowhead, bittersweet nightshade, duckweed, false nettle, devil's beggar-ticks, carrion flower, jack-in-the-pulpit, field horsetail, marsh St. Johnswort, royal fern, swamp dock, yellow water crowfoot, marsh speedwell, European frogbit, water parsnip, large water plantain, fringed loosestrife, tall meadow rue, swamp candles, a little purple loosestrife.
Birds	Brown creeper, eastern phoebe, black-capped chickadee, white-breasted nuthatch, downy woodpecker, many mallards, American goldfinch, eastern wood-pewee, common grackle, song sparrow, hairy woodpecker, pileated woodpecker, American robin, red-eyed vireo, great crested flycatcher.
Mammals	Deer, raccoon, beaver-felled trees; possible old moose debarking on a silver maple.
Herps	Green frogs, American toad, northern leopard frog.
Habitat features	Abundant coarse woody debris; abundant standing water/bare mud.

DI-5

Current cover	Pond
Natural community	Pond
Herb layer	White pond lily, yellow pond lily.
Habitat features	Boats.

DI-6

Current cover	Pond
Natural community	Pond
Shrub layer	Dense buttonbush along margins.
Herb layer	Covered with duckweed; European frogbit; yellow water crowfoot at north end.
Birds	Song sparrow.
Mammals	Well-worn trail connects north tip to river—muskrat and raccoon tracks.

DI-7

Current cover	Grassy Shore
Natural community	Rivershore Grassland
Herb layer	Dense reed canary grass; also bur-reed, monkey flower, flowering rush, arrowhead, water stargrass, false nettle, clearweed, dodder, wild cucumber, jewelweed, hedge bindweed.
Birds	Song sparrow.

Mammals	Northern leopard frog.
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DI-8

Current cover	Early Successional
Natural community	Silver Maple-Sensitive Fern Riverine Floodplain Forest
Canopy	Scattered green ash, butternut, cottonwood, riverbank grape, boxelder, silver maple, willow.
Shrub layer	Virginia creeper, poison ivy, riverbank grape.
Herb layer	Dense; dominated by an unidentified sedge. Also ostrich fern, groundnut, tall nettle, virgin's bower, tearthumb, bittersweet nightshade, wood nettle, jewelweed, late goldenrod, jumpseed, purple loosestrife, reed canary grass, cow vetch, sensitive fern, joe-pye weed.
Birds	Song sparrow, ruby-throated hummingbird, black-capped chickadee, cedar waxwing, great crested flycatcher.
Mammals	Deer scat.

DI-9

Current cover	Early Successional
Natural community	Silver Maple-Sensitive Fern Riverine Floodplain Forest
Subcanopy	Scattered American elm, butternut, riverbank grape.
Shrub layer	Scattered riverbank grape, butternut, alder, willow.
Herb layer	Dense; very viney. Sensitive fern dominant; also common milkweed, hog peanut, cow vetch, false nettle, reed canary grass, tall nettle, late goldenrod, rough-stemmed goldenrod, hedge bindweed, lady fern, climbing false buckwheat, jewelweed, wood nettle, bittersweet nightshade, wild cucumber, groundnut, dogbane, ostrich fern.
Birds	Song sparrow, blue jay.
Mammals	Woodchuck hole; deer browse.
Habitat features	Snag with cavities; some coarse woody debris.

DI-10

Current cover	Grassy Shore
Natural community	Rivershore Grassland
Shrub layer	Riverbank grape; dense line of boxelder at NE end.
Herb layer	Dense reed canary grass; also virgin's bower, groundnut, wild cucumber, hedge bindweed, bur-reed, false nettle, nodding smartweed, woolly bulrush, bittersweet nightshade, purple loosestrife, knotweed, mad-dog skullcap, hedge nettle, dogbane, tall nettle, common milkweed.
Birds	Song sparrow, great blue heron, American goldfinch, gray catbird.
Mammals	Deer.
Herps	Northern leopard frog.

DI-11

Current cover	Marsh
Natural community	Shallow Emergent Marsh

Herb layer	Dense bur-reed; also arrowhead, bulb-bearing water hemlock, swamp milkweed, flowering rush, rice cutgrass, narrow-leaved cattail, grass.
Birds	Green heron and belted kingfisher on river.

DI-12

Current cover	Grassy Shore
Natural community	Rivershore Grassland
Herb layer	Similar to DI-10.

DI-13

Current cover	Early Successional
Natural community	Silver Maple-Sensitive Fern Riverine Floodplain Forest
Canopy	Scattered/patchy cottonwood.
Herb layer	Dense sensitive fern; also wood nettle, tall nettle, groundnut, mad-dog skullcap, ostrich fern, yellow wood sorrel, wild rye, false nettle, dodder, wormseed mustard, goldenrod, hog peanut.

DI-14

Current cover	Grassy Shore
Natural community	Rivershore Grassland
Herb layer	Dense reed canary grass; bur-reed margin along river; also purple loosestrife, arrowhead, knotweed, bittersweet nightshade, false nettle, narrow-leaved cattail, soft-stem bulrush.
Mammals	Beaver and muskrat tracks.

DI-15

Current cover	Pond
Natural community	Pond
Shrub layer	Buttonbush along edge.
Herb layer	White pond lily abundant; also pondweed, three-way sedge, bladderwort.
Birds	Sora, mallards, belted kingfisher, wood duck, red-winged blackbird.
Mammals	Beaver.
Herps	Green frogs.

DI-16

Current cover	Buttonbush
Natural community	Buttonbush Swamp
Canopy	Open; silver maple.
Shrub layer	Dense buttonbush.
Birds	Mallards.
Mammals	Beaver.
Habitat features	Standing water.

DI-17

Current cover	Pond
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Natural community	Pond
Shrub layer	Buttonbush along edge; a few willows.
Herb layer	Scattered white pond lily, bur-reed, arrowhead, duckweed, narrow-leaved cattail, yellow iris (?), devil's beggar-ticks, swamp dock, large water plantain; a little European frogbit at southern and northern tips.
Birds	Belted kingfisher, American goldfinch, great blue heron, wood duck, mallard, American robin, common grackle.
Mammals	Deer; actively maintained beaver dam along DI-19; raccoon tracks.
Herps	Northern leopard frog.

DI-18

Current cover	Grassy Shore
Natural community	Rivershore Grassland
Herb layer	Dense reed canary grass; chairmaker's rush, groundnut, narrow-leaved cattail, jewelweed, knotweeds, hedge bindweed, swamp milkweed, false nettle, purple loosestrife, bittersweet nightshade.
Birds	Song sparrow.

DI-19

Current cover	Cattail Marsh
Natural community	Cattail Marsh
Herb layer	Dense narrow-leaved cattail; also arrowhead, water horsetail, reed canary grass, purple loosestrife, bur-reed, coontail.
Birds	Song sparrow.
Mammals	Muskrat scat.

DI-20

Current cover	Grassy Shore
Natural community	Rivershore Grassland
Herb layer	Dense reed canary grass; also common milkweed, false nettle, groundnut, jewelweed, tall nettle, hog peanut, jack-in-the-pulpit, ostrich fern, wood nettle, sensitive fern, royal fern, bull thistle, mad-dog skullcap, stout woodreed, stout woodreed, wild rye, blue flag.
Birds	Song sparrow; great blue heron on river.

DI-21

Current cover	Pond
Natural community	Pond
Herps	Northern leopard frogs and green frogs.
Habitat features	No vegetation; abundant coarse woody debris.

DONOHUE SEA CAVES

Visited 8/10/05.

DSC-1

Current cover	Lawn
Natural community	Mesic Red Oak-Northern Hardwood Forest
Shrub layer	Some northern white cedar at edge.
Herb layer	Grasses, sedges, ground ivy, white clover, yellow wood sorrel, three-seeded mercury, common plantain.

DSC-2

Current cover	Early Successional
Natural community	Mesic Red Oak-Northern Hardwood Forest
Canopy/high shrubs	Scattered young boxelder; alder, staghorn sumac.
Shrub layer (low)	Scattered boxelder, butternut, riverbank grape, black raspberry, mountain maple.
Herb layer	Very dense. Ostrich fern abundant; also carpenter's square, willow herb, joe-pye weed, tall meadow rue, wormseed mustard, bittersweet nightshade, tall nettle, ground ivy, enchanter's nightshade, clearweed, burdock, false nettle, sensitive fern, jewelweed, rough avens on path, white avens (far more abundant), late goldenrod, moneywort, skunk cabbage, agrimony, lady fern, purple loosestrife, rough-stemmed goldenrod, dark green bulrush.
Birds	Common yellowthroat, American goldfinch, black-capped chickadee, chimney swift, gray catbird.
Mammals	Raccoon scat.
Herps	Northern leopard frog.

DSC-3

Current cover	Cattail Marsh
Natural community	Cattail Marsh
Herb layer	Dense; dominated by narrow-leaved cattail. Also arrowhead, wild calla, bulb-bearing water hemlock. Phragmites, beginning near southern property boundary.

DSC-4

Current cover	Marsh
Natural community	Shallow Emergent Marsh
Shrub layer	Scattered alder.
Herb layer	Dense; sedge (probably lakeshore sedge) abundant; also purple loosestrife, wild calla, halberd-leaved tearthumb, marsh fern, bur-reed, bulb-bearing water hemlock, narrow-leaved cattail, jewelweed, tearthumb, reed canary grass, woolly bulrush, arrowhead, bristly sedge, duckweed.
Birds	American goldfinch.
Herps	Green frog.

DSC-5

Current cover	Pond
Natural community	Pond
Herb layer	Scattered bur-reed, soft-stem bulrush, arrowhead, sedge.
Birds	Mallards; wood duck with ducklings; belted kingfisher.

DSC-6

Current cover	Boxelder-Cottonwood-Willow
Natural community	Red Maple-Black Ash Swamp
Canopy	Somewhat open; cottonwood.
Subcanopy and high shrubs	Moderately dense. Red maple, boxelder, alder, cottonwood.
Shrub layer (low)	Raspberry, green ash.
Herb layer	Fairly dense. Jewelweed and ostrich fern dominant; also skunk cabbage, jack-in-the-pulpit, bittersweet nightshade, enchanter's nightshade, rough-stemmed goldenrod. Phragmites abundant on other side of fence.
Birds	American goldfinch, gray catbird.

DSC-7

Current cover	Early Successional
Natural community	Silver Maple-Sensitive Fern Riverine Floodplain Forest
Canopy	Scattered green ash, boxelder, red maple, willow.
Shrub layer	Patchy multiflora rose, Virginia creeper, riverbank grape, boxelder, common buckthorn, glossy buckthorn, meadowsweet, common elderberry, green ash, currant.
Herb layer	Dense. Rough-stemmed goldenrod, jewelweed, and reed canary grass abundant; also sensitive fern, tearthumb, joe-pye weed, ostrich fern, white avens, lady fern, royal fern, purple loosestrife, evening primrose, grass, bull thistle, enchanter's nightshade, clearweed, rough avens, common milkweed, cow vetch, Canada thistle, knotweed.
Birds	American goldfinch, gray catbird, downy woodpecker, song sparrow, common yellowthroat.
Mammals	Deer.
Herps	Northern leopard frog.

DSC-8

Current cover	Marsh
Natural community	Shallow Emergent Marsh
Shrub layer	Scattered alder, buttonbush, red maple.
Herb layer	Dense. Bur-reed abundant; also halberd-leaved tearthumb, narrow-leaved cattail, purple loosestrife, arrowhead, reed canary grass, woolly bulrush, soft-stem bulrush, wild calla, marsh bedstraw, sedge (probably lakeshore sedge), bulb-bearing water hemlock, rice cutgrass, beggar-ticks, cyperus, swamp milkweed, duckweed.

Mammals	Old beaver sign.
Herps	Green frog.

ESSEX OVERLOOK PARK

Visited 7/7/05, 8/21/05.

EO-1

Current cover	Black Locust
Natural community	Pine-Oak-Heath Sandplain Forest; Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Somewhat open; dominated by black locust. Also white pine, cottonwood, bitternut hickory, red oak, pitch pine, boxelder, black cherry (one nearly 1 m wide).
Subcanopy and high shrubs	Fairly dense. Black locust, boxelder, black cherry, red oak, American elm, common buckthorn, red maple, hophornbeam, hackberry, black cherry, bitternut hickory; staghorn sumac abundant at lawn edge.
Shrub layer (low)	Very sparse. Black raspberry, black locust, grape, Virginia creeper, blackberry, common buckthorn, (American) bittersweet, white ash, prickly gooseberry, chokecherry, alternate-leaved dogwood, American elm, Oriental honeysuckle, hackberry, red maple, boxelder, bitternut hickory; Norway maple at northeast edge.
Herb layer	Dense, with extensive, almost pure celandine patches. Also crown vetch, goldenrod, mullein, daisy fleabane, false Solomon's seal, enchanter's nightshade, red trillium, sedges, pale touch-me-not (some big patches), small-flowered crowfoot, white avens, Canada mayflower, red baneberry, sweet cicely, spinulose woodfern, yellow wood sorrel, violets, lady fern, wild sarsaparilla.
Birds	Downy woodpecker, black-capped chickadee, white-breasted nuthatch, gray catbird, American robin, eastern wood-pewee, warbling vireo, house wren, tufted titmouse; old pileated woodpecker and yellow-bellied sapsucker holes.
Mammals	Skunk smell; chipmunk; woodchuck holes; deer browse.
Habitat features	Very few snags (one with pileated woodpecker holes), and sparse coarse woody debris.

EO-2

Current cover	Early Successional (power lines)
Natural community	Pine-Oak-Heath Sandplain Forest
Shrub layer	Black locust, boxelder, American elm, lilac, Oriental honeysuckle, black raspberry, common buckthorn.
Birds	American robin.

EO-3

Current cover	Lawn (picnic area)
Natural community	Pine-Oak-Heath Sandplain Forest
Canopy	Open; dominated by large black locusts. Also white pine and hackberry.

Subcanopy	Fairly dense. Boxelder, black cherry, butternut, black locust, common buckthorn.
Shrub layer	Boxelder, black locust, common buckthorn, grape, hackberry, Virginia creeper, red elderberry.
Herb layer	Grass, celandine, dandelion, common plantain, yellow wood sorrel, bittersweet nightshade, ostrich fern, oxeye daisy, smooth brome; small garden with day lilies.
Birds	American robin, black-capped chickadee, tufted titmouse, chimney swift.
Mammals	Mole tunnels.

EO-4

Current cover	Lawn
Natural community	Pine-Oak-Heath Sandplain Forest
Canopy	Two pitch pines.
Shrub layer	Red raspberry at edge.
Herb layer	Grass, dandelion, common plantain, mouse-ear chickweed, white clover, bittersweet nightshade. At edge: strawberry, common St. Johnswort, yarrow, tall buttercup, self-heal, butter-and-eggs.

EO-5

Current cover	Pitch Pine-Oak
Natural community	Pine-Oak-Heath Sandplain Forest
Canopy	Somewhat open; a mix of pitch pine and red oak; also black cherry.
Subcanopy	Dense; dominated by red maple. Also striped maple.
Shrub layer	Patchy. Beaked hazelnut, red maple, raspberry, American bittersweet, prickly gooseberry, chokecherry, striped maple, bitternut hickory, white pine, Virginia creeper, sugar maple, alternate-leaved dogwood, red elderberry, musclewood; a little common buckthorn and glossy buckthorn.
Herb layer	Sparse, with a dense wild sarsaparilla patch at west end. Bloodroot abundant at west end. Also Canada mayflower, yellow wood sorrel, enchanter's nightshade, false Solomon's seal, white baneberry, red baneberry, celandine, jumpseed, sedges, drooping woodreed, intermediate woodfern, hog peanut, dalibarda.
Birds	Pileated woodpecker holes.
Mammals	Chipmunk.
Habitat features	A little coarse woody debris; occasional snags with pileated woodpecker holes.

EO-6

Current cover	Lawn
Natural community	Pine-Oak-Heath Sandplain Forest
Canopy	Pitch pine
Shrub layer	American bittersweet, staghorn sumac and bush honeysuckle at edge.
Herb layer	Groundnut and butter-and-eggs at edge.

EO-7

Current cover	Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Dominated by red oak. Also basswood, white oak, white pine, and a few pitch pines. Cottonwoods in seep.
Subcanopy and high shrubs	Red maple, green ash, white ash, witch hazel, white oak, paper birch, American elm, boxelder, common buckthorn. Boxelders in seep.
Shrub layer (low)	Green ash, prickly gooseberry, Oriental honeysuckle, bittersweet (Asiatic?), Virginia creeper, common buckthorn, poison ivy, beaked hazelnut, red oak, white ash, grape. Seep: poison ivy, black raspberry, and dense green ash.
Herb layer	False Solomon's seal, early meadow rue, white avens, enchanter's nightshade, celandine, blue-stemmed goldenrod, yellow wood sorrel, sedges, grasses, marginal woodfern, columbine, wild sarsaparilla, winter cress, motherwort, enchanter's nightshade. Seep has dense ostrich fern; also jewelweed, sensitive fern, interrupted fern, Canada thistle, bugleweed, common scouring rush, celandine, wild sarsaparilla, motherwort, white avens, jack-in-the-pulpit, Virginia stickseed, dame's rocket, sedges, groundnut, white snakeroot.
Birds	Red-eyed vireo, hairy woodpecker, American robin, American goldfinch, great crested flycatcher, white-breasted nuthatch, black-capped chickadee, wood thrush, warbling vireo, brown-headed cowbird, veery, northern cardinal; pileated woodpecker holes.
Mammals	Chipmunk; deer browse; woodchuck den.
Herps	Green frogs in vernal pool.
Habitat features	Seepy ravine with vernal pool; cavities (pileated woodpecker holes).

ETHAN ALLEN HOMESTEAD PARK

Visited 6/22/05, 7/1/05, 7/3/05, 7/4/05, 7/5/05, 7/28/05, 7/29/05, 7/31/05, 8/3/05.

EAH-1

Current cover	Field
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Herb layer	Dense; dominated by grasses. Also red clover, common plantain, dandelion, wild madder, wild carrot, common milkweed.
Birds	Tree swallow, bobolink.
Herps	Northern leopard frog.

EAH-2

Current cover	Early Successional
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Herb layer	Similar to EAH-7

EAH-3

Current cover	Floodplain Forest
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Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Similar to EAH-6. Willow abundant; also silver maple. Boxelder and cottonwood dominant in western portion.
Subcanopy	Boxelder.
Shrub layer	Sparse. Common buckthorn, a thornless currant, green ash, common elderberry, Oriental honeysuckle, Virginia creeper, raspberry, hackberry.
Herb layer	Wood nettle, jewelweed, ostrich fern, yellow wood sorrel, dame's rocket, white avens, goutweed, and garlic mustard abundant. Also wild cucumber, celandine, starry false Solomon's seal, fringed loosestrife, devil's beggar-ticks, a little Japanese knotweed, violet, tall blue lettuce, hog peanut, bittersweet nightshade, fringed bindweed, sensitive fern.
Birds	American robin, least flycatcher, Baltimore oriole, cedar waxwing, American redstart, great crested flycatcher, northern cardinal, yellow warbler, eastern kingbird, house wren, gray catbird, warbling vireo, eastern wood-pewee, song sparrow, red-tailed hawk, black-capped chickadee, spotted sandpiper, hairy woodpecker, American goldfinch, veery, tufted titmouse, white-breasted nuthatch, red-eyed vireo; pileated woodpecker holes. Bobolink across river from western portion.
Mammals	Gray squirrel; old beaver sign; deer browse; woodchuck holes.
Habitat features	Abundant coarse woody debris; tree cavities.

EAH-4

Current cover	Muddy Shore
Natural community	River Mud Shore
Shrub layer	Sparse. Silver maple seedlings, willow.
Herb layer	Sparse/patchy; dominated by cocklebur. Also groundnut, hedge bindweed, nodding smartweed, field horsetail, white campion, wormwood, white sweet clover, curled dock, jewelweed, wild cucumber, mustard, fringed loosestrife.

EAH-5

Current cover	Early Successional; Muddy Shore
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest; River Mud Shore
Canopy	Patchy young trees, dominated by boxelder. Also silver maple and American elm.
Shrub layer	Similar to EAH-7; also includes Oriental honeysuckle, common buckthorn, silky dogwood, nannyberry, Virginia creeper, riverbank grape. Muddy shore: seedlings of silver maple, cottonwood, willow, American elm.
Herb layer	Dense; goldenrod and thin-leaved sunflower abundant. Also sensitive fern, black-eyed susan, bouncing bet. Muddy shore strip has patchy herbs: field horsetail and reed canary grass abundant; also cocklebur, devil's beggar-ticks, hedge bindweed, alsike clover, jewelweed, lesser stitchwort, curled dock, a narrow-leaved pondweed, white campion.
Mammals	Mink scat, deer tracks, muskrat tracks.
Herps	Northern leopard frog.

EAH-6

Current cover	Floodplain Forest
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Dense young trees. Dominated by silver maple and boxelder; also cottonwood and American elm.
Shrub layer	Moderately dense. Hackberry abundant; also boxelder, riverbank grape, raspberry, common buckthorn, black cherry, Virginia creeper, silky dogwood, green ash, American elm, glossy buckthorn, basswood, chokecherry, nannyberry.
Herb layer	Fairly dense. Wood nettle, jewelweed, violet, and moneywort abundant; good-sized patches of dame's rocket and goutweed. Also tall nettle, groundnut, enchanter's nightshade, yellow wood sorrel, tall blue lettuce, mustard, devil's beggar-ticks, motherwort, wormwood, grass, burdock, bloodroot, cocklebur, hedge bindweed, bittersweet nightshade, field horsetail, sensitive fern, tall meadow rue, white avens, Virginia stickseed, wild cucumber, hedge nettle, ostrich fern, false Solomon's seal, hog peanut.
Birds	Downy woodpecker, song sparrow, American robin, black-capped chickadee, hairy woodpecker, yellow warbler, mourning dove.
Mammals	Woodchuck hole; possibly skunk holes; old beaver bank lodge.
Herps	Northern leopard frog.
Habitat features	Abundant snags and coarse woody debris.

EAH-7

Current cover	Early Successional
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Scattered young boxelder.
Shrub layer	A dense patch. Staghorn sumac abundant; also riverbank grape, boxelder, raspberry.
Herb layer	Dense. Thin-leaved sunflower abundant; also tall meadow rue, reed canary grass, smooth brome, timothy, other grasses, groundnut, bittersweet nightshade, cow vetch, goldenrod, field horsetail, common milkweed, wild madder, daisy fleabane, wild carrot, red clover, common St. Johnswort, white campion, common plantain.
Birds	Song sparrow, common yellowthroat, yellow warbler, warbling vireo, mourning dove, American goldfinch.
Herps	Northern leopard frog.

EAH-8

Current cover	Floodplain Forest
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Open; dominated by cottonwood.
Subcanopy	Fairly dense; dominated by boxelder. Also silver maple, American elm.
Shrub layer	Japanese barberry, common buckthorn, American elm, Oriental honeysuckle.

Herb layer	Dense; dominated by wood nettle; goutweed, reed canary grass, thin-leaved sunflower, jewelweed, and dame's rocket also abundant. Also ostrich fern, moneywort, ground ivy, sensitive fern, fringed loosestrife, tall nettle, agrimony, Canada lily; Japanese knotweed along trail. Extensive garlic mustard along west edge (at north end of EAH-10). Many canopy openings, similar to nearby early successional areas.
Birds	Northern cardinal, yellow warbler, song sparrow, warbling vireo, house wren, great crested flycatcher, common yellowthroat, American goldfinch, American robin.

EAH-9

Current cover	Pond
Natural community	Pond
Herb layer	Arrowhead; a little purple loosestrife.
Mammals	Deer and raccoon tracks.
Herps	Green frogs.

EAH-10

Current cover	Field
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	2 cottonwood trees at south end.
Herb layer	Dense. Grass, common milkweed, wild madder, red clover, white clover, tall buttercup, wild carrot, dandelion, common plantain, ground ivy, English plantain.
Birds	Northern rough-winged swallow.

EAH-11

Current cover	Early Successional
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Shrub layer	Scattered. Riverbank grape, boxelder, staghorn sumac.
Herb layer	Dense; dominated by rough-stemmed goldenrod and other goldenrods; reed canary grass and common milkweed also abundant. Also hedge bindweed, groundnut, tall meadow rue, wild carrot, yellow wood sorrel, sensitive fern, daisy fleabane, smooth brome and other grasses, common St. Johnswort, water hemlock, moneywort, wild madder, joe-pye weed, wormwood.
Birds	Nesting red-winged blackbirds.

EAH-12

Current cover	Pond
Natural community	Beaver Wetland
Shrub layer	Silver maple seedlings. Along edge: round-leaved dogwood, silky dogwood, common buckthorn, riverbank grape, black raspberry.
Herb layer	White pond lily, water plantain, pondweed, arrowhead, blue flag, waterweed, bladderwort, common watermilfoil. Along edge: reed canary grass, lady fern, tall meadow rue, hedge

	bindweed, jumpseed, groundnut, ostrich fern, wormseed mustard, forget-me-not, bittersweet nightshade, field horsetail, cocklebur, dame's rocket, hedge bindweed, jewelweed, tall nettle, devil's beggar-ticks, common cattail, joe-pye weed; one beetle-damaged purple loosestrife plant. Wild garlic, dodder; phragmites and probable yellow iris at south end of pond.
Birds	Belted kingfisher, yellow warbler, song sparrow, American goldfinch.
Mammals	Beaver dam and feeding sign; gray squirrel; deer, muskrat, and raccoon tracks.
Herps	Bullfrog, green frog; large tadpoles.

EAH-13

Current cover	Floodplain Forest
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Dense. Boxelder, butternut, silver maple, hackberry, willow, cottonwood.
Subcanopy	Dense. American elm; many large riverbank grape vines.
Shrub layer	Sparse. Green ash, highbush cranberry, chokecherry, boxelder, riverbank grape, hackberry.
Herb layer	Dense. Jewelweed and moneywort abundant; also jack-in-the-pulpit, sensitive fern, dame's rocket, white avens, aster, wood nettle, ostrich fern. South of beaver pond, abundant forget-me-not and creeping buttercup, and a patch of phragmites.
Birds	Song sparrow, American goldfinch, mourning dove, downy woodpecker, American robin.
Mammals	Deer browse, gray squirrel.

EAH-14

Current cover	Early Successional
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	A few cottonwoods and willows.
Herb layer	Similar to EAH-11. Also Canada thistle, lesser stitchwort, ground ivy; wet portion has an extensive patch of narrow-leaved cattail, with abundant purple loosestrife; also common cattail, joe-pye weed, jewelweed, dodder, winter cress, dark green bulrush, common rush, bulb-bearing water hemlock, beggar-ticks; foxtail sedge, lakeshore sedge, and other sedges.
Birds	Common yellowthroat, red-winged blackbird, common grackle.

EAH-15

Current cover	Early Successional
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Evenly spaced, planted saplings; moderately dense. Silver maple, red maple, basswood, green ash, American elm, boxelder. A denser, natural strip of young trees along the river's edge is dominated by boxelder, with some butternut and green ash.
Shrub layer	Sparse to moderately dense; riverbank grape abundant. Also cottonwood, green ash, chokeberry, silky dogwood, Asiatic bittersweet on one of the southernmost silver maples, staghorn sumac, Virginia creeper, boxelder,

	Oriental honeysuckle, common buckthorn, black raspberry, willow, silver maple.
Herb layer	Dense; dominated by rough-stemmed goldenrod and other goldenrods. Also reed canary grass, great angelica, jewelweed, dame's rocket, wild madder, smooth brome, groundnut, daisy fleabane, timothy, wild carrot, cow vetch, common plantain, ground ivy, yellow wood sorrel, field horsetail, common St. Johnswort, yellow goatsbeard, common milkweed, ostrich fern, blue vervain, black-eyed susan, showy tick trefoil, wormwood, curled dock, joe-pye weed, wild parsnip, yarrow, virgin's bower, red clover, white clover, crown vetch, grasses, rough-fruited cinquefoil, mullein, day lily, purple loosestrife at north end, hedge bindweed, lesser stitchwort, grass-leaved goldenrod.
Birds	American goldfinch, belted kingfisher, song sparrow, yellow warbler, warbling vireo, black-capped chickadee.
Mammals	Deer browse

EAH-16

Current cover	Lawn
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Herb layer	Dominated by grass; also white clover, common plantain, dandelion, ground ivy.

EAH-17

Current cover	Early Successional Hardwoods
Natural community	Mesic Red Oak-Northern Hardwood Forest
Canopy	Patchy; scattered to fairly dense; uneven; fairly low at top of hill. In northern portion, cottonwood abundant at bottom of hill; butternut and boxelder abundant at top. In southern portion, American elm dominant. Also black cherry, boxelder, black locust, hackberry, red oak, Norway maple, paper birch, black birch, white ash, butternut, cottonwood, bigtooth aspen.
Subcanopy and high shrubs	Patchy; dense in southern portion. Boxelder, common buckthorn, and Oriental honeysuckle abundant; also staghorn sumac, silver maple, alternate-leaved dogwood, black cherry, butternut, hackberry, riverbank grape, black locust, Virginia creeper, American elm, blackberry, alder, glossy buckthorn, gray birch, Asiatic bittersweet, silky dogwood, red maple, chokecherry, red oak, basswood, purple-flowering raspberry, hawthorn, raspberry, white pine, poison ivy, mountain maple, quaking aspen, Norway maple.
Shrub layer (low)	Moderate to dense. Common buckthorn abundant; also red osier dogwood, silky dogwood, riverbank grape, raspberry, Oriental honeysuckle, purple-flowering raspberry, green ash, hackberry, common elderberry, staghorn sumac, black raspberry, Virginia creeper, boxelder, multiflora rose, chokecherry, bigtooth aspen, quaking aspen, hawthorn, Asiatic bittersweet, American elm, white pine, black cherry, white ash, silver maple, currant, blackberry, round-leaved dogwood, butternut.

Herb layer	Sparse to dense. Jewelweed and false Solomon's seal abundant; also sensitive fern, reed canary grass and other grasses, wood nettle, intermediate woodfern, white avens, false hellebore, fringed loosestrife, lady fern, Canada lily, daisy fleabane, red clover, dame's rocket, tall nettle, ground ivy, motherwort, sweet-scented bedstraw, tall blue lettuce, jumpseed, hog peanut, moneywort, wild sarsaparilla, field horsetail, enchanter's nightshade, red baneberry, red trillium, asters, hoary alyssum, ragweed, goldenrod, timothy, bergamot, crown vetch, thin-leaved sunflower, fringed bindweed, wild carrot, yellow wood sorrel, great angelica, climbing false buckwheat, Virginia stickseed. In muddy seep: sensitive fern, purple loosestrife, common rush, water plantain, drooping sedge, moneywort, blue flag, sweetflag, lakeshore sedge, devil's beggar-ticks, bittersweet nightshade, ground ivy, bedstraw, skunk cabbage.
Birds	Red-winged blackbird, song sparrow, northern cardinal, American woodcock, chimney swift, blue-gray gnatcatcher, American robin, warbling vireo, American goldfinch, black-capped chickadee, great crested flycatcher, white-breasted nuthatch, gray catbird, cedar waxwing, northern flicker, song sparrow, American redstart, downy woodpecker, tufted titmouse, house wren; old pileated woodpecker holes.
Mammals	Chipmunk, raccoon, gray squirrel, red squirrel, deer, woodchuck holes, old beaver chew.
Herps	Garter snake, gray treefrog; green frogs in 'vernal pool'.
Habitat features	Abundant coarse woody debris; several snags; some talus in eastern portion; 15' x 15' vernal pool near eastern edge.

EAH-18

Current cover	Early Successional
Natural community	Mesic Red Oak-Northern Hardwood Forest
Shrub layer	Patchy. Boxelder, raspberry, common buckthorn.
Herb layer	Dense; dominated by jewelweed. Also motherwort, hoary alyssum, common blue violet, yellow wood sorrel, celandine, ground ivy, tall nettle, wild cucumber, dame's rocket, mullein, yarrow, crown vetch, hedge bindweed, reed canary grass, burdock.

EAH-19

Current cover	Lawn
Natural community	Mesic Red Oak-Northern Hardwood Forest
Canopy	Many black locusts; gray birch, hackberry, white pine, sugar maple.
Subcanopy	Apples, lilacs.
Birds	Red-eyed vireo, American goldfinch.
Mammals	Red squirrel middens; gray squirrel dreys.

EAH-20

Current cover	Field
Natural community	Mesic Red Oak-Northern Hardwood Forest
Shrub layer	Patch of boxelder, with riverbank grape.

Herb layer	Dense; dominated by grasses. Also common milkweed, cow vetch; garden in northeast corner.
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EAH-21

Current cover	White Pine
Natural community	Mesic Red Oak-Northern Hardwood Forest
Canopy	Dense white pine.
Shrub layer	Sparse, except along edge. Common buckthorn, raspberry, common elderberry.
Herb layer	Very sparse.

EAH-22

Current cover	Lawn
Natural community	Mesic Red Oak-Northern Hardwood Forest
Canopy	Boxelders by picnic shelter; patchy planted trees: northern white cedar, white spruce, red maple, sugar maple, white pine. Hackberry in Secret Garden; staghorn sumac patch by Children's Discovery Garden.
Shrub layer	In Secret Garden: Oriental honeysuckle, common buckthorn, riverbank grape, hackberry, staghorn sumac, Virginia creeper.
Herb layer	Dense; dominated by grass; also ground ivy, common plantain, dandelion, white clover, common cinquefoil, doorweed. Secret Garden has false Solomon's seal, day lilies, and irises.
Birds	American robin, northern cardinal, mourning dove, black-capped chickadee, song sparrow. American goldfinches and house wren (using nest box?) in Children's Discovery Garden. Song sparrow, black-capped chickadees and American goldfinches in community garden.
Mammals	Gray squirrel.
Habitat features	Nest box in Children's Discovery Garden.

EAH-23

Current cover	Field
Natural community	Mesic Red Oak-Northern Hardwood Forest
Shrub layer	Patchy saplings, dominated by white spruce; also northern white cedar, red maple, sugar maple, silver maple, butternut, white pine, staghorn sumac.
Herb layer	Dense; dominated by grass and crown vetch; also tall nettle, milkweed, daisy fleabane, hoary alyssum, smooth brome, goldenrod, spotted knapweed.
Birds	Northern cardinal nest in spruce; song sparrow.

EAH-24

Current cover	Field
Natural community	Mesic Red Oak-Northern Hardwood Forest
Canopy	South end has a boxelder, a few American elms, a large staghorn sumac patch, and a line of northern white cedars. Portion west of driveway has a few red maples, a boxelder, and a small silver maple.

Shrub layer	Raspberry, common buckthorn, and riverbank grape under staghorn sumac clump; poison ivy, Virginia creeper, butternut, and chokecherry under northern white cedars.
Herb layer	Dense; dominated by timothy and other grasses. Also common milkweed, cow vetch, wild madder, rough-fruited cinquefoil, hedge bindweed, goldenrod, white campion, hoary alyssum, wild carrot, red clover, chicory, dandelion, daisy fleabane, birdsfoot trefoil, crown vetch, mullein, bitter dock, evening primrose, lesser stitchwort.
Birds	Song sparrow, American goldfinch.

EAH-25

Current cover	Pond
Natural community	Pond
Herb layer	Patchy narrow-leaved cattail; duckweed abundant; purple loosestrife by road.
Herps	Green frogs.

EAH-26

Current cover	Red Oak-Northern Hardwoods
Natural community	Mesic Red Oak-Northern Hardwood Forest
Canopy	Dense; dominated by red oak. Also cottonwood.
Subcanopy and shrubs	Gray birch, staghorn sumac, red oak, green ash, raspberry, common buckthorn, Virginia creeper, chokecherry, maple-leaved viburnum, basswood, nannyberry, black cherry, witch hazel, white pine, red maple, paper birch, yellow birch, riverbank grape, beech, striped maple, hemlock, mountain maple, white ash, Oriental honeysuckle, pin cherry.
Herb layer	Sparse to moderately dense. Blue-stemmed goldenrod, wild sarsaparilla, false Solomon's seal, large-flowered trillium, New York fern, whorled loosestrife, starflower.
Mammals	Gray squirrel.
Habitat features	A few snags; some coarse woody debris.

EAH-27

Current cover	Hardwood Swamp
Natural community	Red Maple-Black Ash Swamp
Canopy	Scattered red maples. Also American elm, and willow at marsh edge.
Subcanopy and high shrubs	Moderately dense/patchy; dominated by alder.
Shrub layer (low)	Sparse. Silky dogwood, common buckthorn, Virginia creeper, common elderberry.
Herb layer	Fairly dense. Skunk cabbage and jewelweed abundant; also water parsnip, arrowhead, bittersweet nightshade, dodder, water hemlock, cinnamon fern, asters, bulb-bearing water hemlock, clearweed, tall meadow rue, common cattail, purple loosestrife, sensitive fern, royal fern, Canada mayflower, interrupted fern, halberd-leaved tearthumb, iris, phragmites.
Birds	American goldfinch, song sparrow, downy woodpecker.

Herps	Green frogs.
Habitat features	Standing water.

EAH-28

Current cover	Marsh
Natural community	Cattail Marsh and Shallow Emergent Marsh
Canopy	Scattered silver maples.
Shrub layer	Patchy. Alder, silky dogwood.
Herb layer	Common cattail, water horsetail, reed canary grass, lakeshore sedge, bulb-bearing water hemlock, arrowhead, purple loosestrife, bittersweet nightshade, wild calla, duckweed, bladderwort, devil's beggar-ticks, tufted loosestrife, sensitive fern, water parsnip, water plantain, halberd-leaved tearthumb, great water dock, reed canary grass, monkey flower; phragmites by road.
Birds	Fledgling red-winged blackbirds; American robin, warbling vireo, yellow warbler, American goldfinch, swamp sparrow, black-capped chickadee.
Mammals	Muskrat lodge by boardwalk; mink tracks (saw in winter).
Herps	Northern leopard frog, green frog. When I was standing in the parking area, a woman pulled up and handed me a painted turtle she had found on Route 127, which I delivered to the marsh.

EAH-29

Current cover	Reed Canary Grass
Natural community	Shallow Emergent Marsh; Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Scattered small trees; silver maple, boxelder, hawthorn, American elm. East of parking area, a few young cottonwood, boxelder, silver maple.
Shrub layer	Patchy. Meadowsweet, American elm, boxelder, hawthorn, American elm, silver maple, riverbank grape, Virginia creeper, alder, glossy buckthorn, silky dogwood.
Herb layer	Dominated by reed canary grass. Patches of lakeshore sedge in wetter spots. Also cow vetch, jewelweed, joe-pye weed, common cattail, crown vetch, dodder, Canada thistle, common milkweed, lesser stitchwort, winter cress, sensitive fern, goldenrod, hedge bindweed, tall nettle, great angelica, white avens, water hemlock, field horsetail, Canada lily, tall meadow rue, common cattail, tearthumb, swamp candles, swamp dock, swamp milkweed, drooping sedge, bristly sedge, marsh bedstraw, blue flag. East of parking area: some ostrich fern, wild parsnip, groundnut, tall nettle, sow thistle, great angelica, joe-pye weed, water hemlock.
Birds	Eastern phoebe, cedar waxwing, common yellowthroat, song sparrow, great crested flycatcher, warbling vireo, red-winged blackbird, black-capped chickadee, swamp sparrow, American goldfinch.
Mammals	Mink tracks in winter.
Habitat features	A few snags.

EAH-30

Current cover	Floodplain Forest.
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Open. Silver maple, cottonwood, willow, boxelder, butternut.
Subcanopy and high shrubs	Dense. Green ash, silver maple, boxelder, American elm, butternut, riverbank grape, common buckthorn, black cherry, glossy buckthorn, multiflora rose, staghorn sumac, paper birch, willow.
Shrub layer (low)	Sparse to moderately dense. Common buckthorn abundant; also hackberry, chokeberry, boxelder, Japanese barberry, nannyberry, Virginia creeper, Asiatic bittersweet, highbush cranberry, riverbank grape, glossy buckthorn, multiflora rose, black raspberry, red raspberry, common elderberry.
Herb layer	Dense/patchy. Moneywort, wood nettle, and jewelweed abundant, with some ostrich fern patches. Also hog peanut, white avens, common plantain, tall blue lettuce, sensitive fern, clearweed, dame's rocket, tall meadow rue, enchanter's nightshade, ground ivy, yellow wood sorrel, burdock, creeping buttercup, goldenrod, violets, false Solomon's seal, field horsetail, lady fern, virgin's bower, tall nettle, dandelion, goutweed, jumpseed, forget-me-not, fringed loosestrife, marsh bedstraw, hedge bindweed, wild cucumber, joe-pye weed. On muddy shore: scattered arrowhead, silver maple seedlings, devil's beggar-ticks, sedge, willow, purple loosestrife, and water horehound. Dense vegetation between shore and forest includes joe-pye weed, bittersweet nightshade, curled dock, arrowhead, hedge bindweed, purple loosestrife, cocklebur, reed canary grass, wild cucumber, water hemlock, devil's beggar-ticks, silver maple seedlings and saplings, willow, water horehound, bulrush, monkey flower, swamp dock, forget-me-not, drooping sedge, jewelweed, flowering rush.
Birds	Blue-gray gnatcatcher, song sparrow, warbling vireo, white-breasted nuthatch, great crested flycatcher, veery, black-capped chickadee, American robin, gray catbird, American goldfinch, house wren, American redstart, American crow, hairy woodpecker.
Mammals	Red fox scat, gray squirrel, chipmunk, deer. On muddy shore, tracks of raccoon, deer, beaver, muskrat, gray squirrel, otter, and red fox.
Habitat features	Abundant coarse woody debris; some snags; stream; 'vernal pool' near south end.

EAH-31

Current cover	Early Successional
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Scattered boxelder, quaking aspen, cottonwood, willow, black oak.
Shrub layer	Dense; patchy towards south end. Dominated by staghorn sumac; also quaking aspen, riverbank grape, common buckthorn, boxelder, meadowsweet, hackberry, black raspberry, black oak, chokecherry, Virginia creeper, red cedar, bittersweet, green ash, raspberry, Oriental honeysuckle, American elm, silky dogwood, multiflora rose.
Herb layer	Fairly dense. Common plantain, common St. Johnswort, tall blue lettuce,

	daisy fleabane, white clover, yarrow, goldenrod, cow vetch, hedge bindweed, wild carrot, jewelweed, yellow wood sorrel, wormwood, grasses, Deptford pink, dame's rocket, red clover, evening primrose, mullein, winter cress, black-eyed susan, birdsfoot trefoil, Canada lily, white avens, ostrich fern, virgin's bower, blue vervain, sensitive fern.
Birds	Indigo bunting, American goldfinch, veery, gray catbird, common yellowthroat, great crested flycatcher, song sparrow, American robin, cedar waxwing, house wren, downy woodpecker.

EAH-32

Current cover	Cultivated (cornfield)
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Herb layer	Rows of corn.
Herps	Northern leopard frog.

EAH-33

Current cover	Floodplain Forest
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest; Silver Maple-Sensitive Fern Riverine Floodplain Forest
Canopy	Fairly dense; even-aged. Silver maple, green ash, willow, butternut, cottonwood. Green ash 'wolf' tree near east end.
Subcanopy	Moderately dense. Silver maple, basswood, American elm, riverbank grape.
Shrub layer	Very sparse. American elm.
Herb layer	Dense; dominated by ostrich fern, wood nettle, jewelweed, and sensitive fern. Also hog peanut, moneywort, false nettle, jumpseed, bittersweet nightshade, jack-in-the-pulpit, tall meadow rue. Bur-reed and royal fern in vernal pools.
Birds	American goldfinch, American robin, great crested flycatcher, white-breasted nuthatch.
Mammals	Gray squirrel drey; deer tracks.
Herps	Green frogs in vernal pool.
Habitat features	Stream; Vernal pool at west end; others at north (east) end.

EAH-34

Current cover	Field
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Shrub layer	A clump of common elderberry.
Herb layer	Dense; dominated by grass. Also burdock, ground ivy, cow vetch, hedge bindweed, sensitive fern, joe-pye weed.

EAH-35

Current cover	Early Successional (power lines)
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Shrub layer	Fairly dense. Riverbank grape, green ash, silver maple, multiflora rose.

Herb layer	Fairly dense. Groundnut, hedge bindweed, sensitive fern, hog peanut, wood nettle, joe-pye weed, great angelica, goldenrod, ostrich fern, sunflower.
Birds	American goldfinch.

EAH-36

Current cover	Early Successional
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest; Silver Maple-Sensitive Fern Riverine Floodplain Forest (southern/eastern portion)
Canopy	Scattered/patchy cottonwood, willow, silver maple, quaking aspen, green ash, American elm, alder, red maple.
Shrub layer	Moderately dense/patchy. Willow, alder, Oriental honeysuckle, boxelder, multiflora rose, riverbank grape, raspberry, Virginia creeper, glossy buckthorn, common buckthorn, winterberry, white pine, green ash, red maple.
Herb layer	Dense. Reed canary grass, jewelweed, and false nettle abundant. Also joe-pye weed, goldenrods, wormwood, burdock, white vervain, jumpseed, tall nettle, bittersweet nightshade, dogbane, common milkweed, groundnut, sensitive fern, cow vetch, purple loosestrife, dodder, Canada thistle, hedge bindweed, lady fern, mad-dog skullcap, ostrich fern; crown vetch along bike path.
Birds	Ruffed grouse, American goldfinch, American robin, song sparrow, common yellowthroat, northern cardinal, hairy woodpecker, great crested flycatcher, gray catbird, cedar waxwing, American crow.
Mammals	Some beaver-felled trees; deer (fawns).
Herps	Northern leopard frog, gray treefrog, spring peeper.
Habitat features	Stagnant stream at west end.

EAH-37

Current cover	Cattail Marsh
Natural community	Cattail Marsh
Canopy	Scattered young trees. Silver maple and green ash.
Herb layer	Dense narrow-leaved cattail. Purple loosestrife along bike path.
Birds	Song sparrow, American goldfinch.

EAH-38

Current cover	Cattail Marsh
Natural community	Cattail Marsh

EAH-39

Current cover	Hardwood Swamp
Natural community	Red or Silver Maple-Green Ash Swamp
Canopy	Somewhat open. Silver maple, American elm, green ash; many beaver cut/girdled cottonwoods.
Shrub layer	Sparse. Riverbank grape, nannyberry, Virginia creeper, glossy buckthorn,

	silky dogwood, black ash, common buckthorn, alder.
Herb layer	Fairly dense, between pools. Sensitive fern and drooping sedge abundant; also false nettle, groundnut, reed canary grass, halberd-leaved tearthumb, blue flag, duckweed, moneywort, yellow wood sorrel, hedge bindweed, water horehound, jewelweed, joe-pye weed, grass, hog peanut, dodder, devil's beggar-ticks, great water dock, swamp milkweed, marsh speedwell, bulb-bearing water hemlock, bittersweet nightshade, water plantain.
Birds	American goldfinch, warbling vireo, song sparrow, cedar waxwing, American crow, blue-gray gnatcatcher, black-capped chickadee, white-breasted nuthatch, red-tailed hawk.
Mammals	Beaver-chewed trees at edges; deer; raccoon scats.
Herps	Northern leopard frog, gray treefrog.
Habitat features	Abundant standing water; several snags.

EAH-40

Current cover	Floodplain Forest
Natural community	Silver Maple-Sensitive Fern Riverine Floodplain Forest
Canopy	Somewhat open; dominated by cottonwood and green ash. Also silver maple, basswood, American elm, red maple.
Subcanopy	Sparse. Green ash and common buckthorn.
Shrub layer	Sparse. Winterberry, basswood, common buckthorn, riverbank grape, wild raisin, multiflora rose, glossy buckthorn.
Herb layer	Dense; dominated by sensitive fern and false nettle. Also jewelweed, hog peanut, jack-in-the-pulpit, dodder, wood nettle, tall meadow rue, water horehound, moneywort, bugleweed, lady fern, clearweed, wild cucumber.
Birds	Northern cardinal, American crow, blue-gray gnatcatcher.
Mammals	Deer browse.

EAH-41

Current cover	Pond
Natural community	Shallow Emergent Marsh

EAH-42

Current cover	Pond (or stagnant stream)
Natural community	Shallow Emergent Marsh
Herps	Green frogs

EAH-43

Current cover	Pond
Natural community	Shallow Emergent Marsh
Herps	Green frogs.

EAH-44

Current cover	Floodplain Forest
Natural community	Silver Maple-Sensitive Fern Riverine Floodplain Forest

Canopy	Somewhat open; dominated by green ash; also American elm, willow.
Shrub layer	Fairly sparse. Green ash, arrowwood, riverbank grape, nannyberry, American elm, silver maple.
Herb layer	Dense. Sensitive fern, false nettle, joe-pye weed, tall meadow rue, jewelweed, bittersweet nightshade, turtlehead, reed canary grass, dodder, ditch stonecrop.
Birds	American goldfinch, black-capped chickadee.
Mammals	Deer browse; old beaver-felled trees.
Herps	Many Northern leopard frogs.
Habitat features	Standing water at edge.

EAH-45

Current cover	Reed Canary Grass
Natural community	Silver Maple-Sensitive Fern Riverine Floodplain Forest
Canopy	Row of trees along boundary: green ash, American elm.
Shrub layer	Scattered. Glossy buckthorn, nannyberry, Virginia creeper, silky dogwood.
Herb layer	Dense reed canary grass; also sensitive fern, hedge bindweed, cow vetch, common milkweed, tearthumb, tall meadow rue.
Birds	Song sparrow, gray catbird.

EAH-46

Current cover	Marsh
Natural community	Shallow Emergent Marsh
Canopy	Scattered willow, silver maple, green ash, alder.
Shrub layer	Abundant buttonbush patches; big clump of willows. Also alder and meadowsweet.
Herb layer	Bur-reed and reed canary grass dominant; also arrowhead, lakeshore sedge, narrow-leaved cattail, water plantain, blue flag, bittersweet nightshade, woolly bulrush.
Birds	Red-winged blackbirds; white-breasted nuthatch.
Mammals	Green frogs.
Habitat features	Standing water.

EAH-47

Current cover	Cattail Marsh
Natural community	Cattail Marsh
Shrub layer	Some buttonbush.
Herb layer	Mostly narrow-leaved cattail; reed canary grass fairly abundant. Also common cattail, arrowhead, bulb-bearing water hemlock, bur-reed.
Birds	Red-winged blackbird.

EAH-48

Current cover	Pond
Natural community	Shallow Emergent Marsh

Herb layer	Covered with duckweed; otherwise scattered/patchy. Bur-reed abundant; also arrowhead, bladderwort, turtlehead, false nettle.
Birds	American goldfinch, song sparrow.
Mammals	Deer scat, raccoon tracks; beaver dam—recent activity.
Herps	Northern leopard frogs.

EAH-49

Current cover	Buttonbush
Natural community	Buttonbush Swamp
Canopy	Scattered willows.
Shrub layer	Dense buttonbush.
Herb layer	Scattered reed canary grass; edge between this stand and EAH-39 has water plantain, water parsnip, bulb-bearing water hemlock, arrowhead, devil's beggar-ticks, bladderwort.
Birds	Green heron.
Habitat features	Standing water.

EAH-50

Current cover	Cattail Marsh
Natural community	Cattail Marsh
Canopy	One small willow.
Shrub layer	Buttonbush in pond.
Herb layer	Dense; dominated by narrow-leaved cattail. Also arrowhead, water horsetail, bulb-bearing water hemlock. Large phragmites patch on road; purple loosestrife all along road. Pond has duckweed and bur-reed.
Birds	Swamp sparrow, song sparrow. Wood ducks in pond.
Mammals	Raccoon scat on road.
Herps	Many Northern leopard frogs on road.
Habitat features	Small pond—continuation of large pond on other side of old road bed that marks boundary.

EAH-51

Current cover	Pond
Natural community	Shallow Emergent Marsh
Birds	Eastern kingbird.

EAH-52

Current cover	Pond
Natural community	Shallow Emergent Marsh
Herps	Green frog.

EAH-53

Current cover	Reed Canary Grass
Natural community	Shallow Emergent Marsh
Canopy	Small clump of trees at west corner: willow, silver maple, boxelder.

	North/east margin has several willows, cottonwoods, silver maples.
Shrub layer	A little Oriental honeysuckle; a few saplings along west edge: silver maple, American elm, willow, glossy buckthorn. In small clump of trees: boxelder, glossy buckthorn, common buckthorn, hackberry, Virginia creeper, meadowsweet. Alder and glossy buckthorn along forest edge.
Herb layer	Dense; dominated by reed canary grass. Also marsh fern, sensitive fern, false nettle, blue vervain, mad-dog skullcap, arrowhead, blue flag, bulb-bearing water hemlock, jewelweed, lakeshore sedge; a little purple loosestrife and phragmites. In small clump of trees: sensitive fern, white avens, field horsetail.
Birds	Northern harrier, red-winged blackbirds, American goldfinch, wood duck, song sparrow, common yellowthroat, swamp sparrow, American robin, belted kingfisher.
Herps	Northern leopard frog and garter snake on bike path.
Habitat features	Some open, standing water. Several snags along northeast margin.

HEINEBURG WETLANDS

Visited 8/5/05.

HW-1

Current cover	Early Successional
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Shrub layer	Raspberry, alder.
Herb layer	Dense; dominated by goldenrod. Also tall nettle, jewelweed, devil's beggar-ticks, jack-in-the-pulpit.

HW-2

Current cover	Floodplain Forest
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Tall, dense silver maple.
Subcanopy	Fairly dense. Boxelder, riverbank grape, silver maple.
Shrub layer	Moderately dense. Green ash abundant; also American elm, multiflora rose, highbush cranberry, silver maple, Virginia creeper, riverbank grape, nannyberry, blackberry, alder, winterberry.
Herb layer	Moderately dense; dominated by ostrich fern, jewelweed, and sensitive fern. Also enchanter's nightshade, grass, yellow wood sorrel, lady fern, bittersweet nightshade, white avens, hog peanut, moneywort (very little; near end of pond); reed canary grass abundant in eastern portion.
Birds	American goldfinch, American woodcock, black-capped chickadee.
Mammals	Deer browse.
Herps	Northern leopard frog.
Habitat features	Snags; abundant coarse woody debris.

HW-3

Current cover	Pond
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Natural community	Beaver Wetland
Canopy	Fairly closed canopy of silver maple.
Herb layer	Along edge: blue flag, false nettle, great water dock.
Mammals	Many stumps from beaver-cut trees; beaver canals; fresh-cut (and eaten) silver maples.
Herps	Green frog.
Habitat features	Snags.

HW-4

Current cover	Grassy Shore
Natural community	Rivershore Grassland
Shrub layer	A clump of common elderberry and multiflora rose; some riverbank grape.
Herb layer	Dense reed canary grass; also groundnut, jewelweed, purple loosestrife, swamp milkweed, ostrich fern, tall nettle, hedge bindweed, false nettle, sensitive fern, bittersweet nightshade, wild cucumber, dogbane, bitter dock.
Birds	Song sparrow.

HW-5

Current cover	Hardwood Swamp
Natural community	Alder Swamp and Beaver Wetland
Canopy	Scattered/patchy silver maple and willow saplings.
Shrub layer	Patchy. Alder abundant; also winterberry, green ash, riverbank grape, meadowsweet, silver maple, willow.
Herb layer	Dense. Reed canary grass abundant; also royal fern, purple loosestrife, marsh fern, sedge (probably lakeshore sedge), narrow-leaved cattail.
Birds	Song sparrow, American goldfinch, cedar waxwing, American crow, red-winged blackbird.
Herps	Green frogs, northern leopard frog.
Habitat features	Standing water.

HW-6

Current cover	Early Successional
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Patchy small willow, boxelder, and silver maple.
Shrub layer	Scattered alder.
Herb layer	Dense reed canary grass; also purple loosestrife, hedge bindweed, bittersweet nightshade, goldenrod.

HW-7

Current cover	Floodplain Forest
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Dense silver maple.
Shrub layer	Sparse. Silver maple and green ash.
Herb layer	Fairly dense. Jewelweed and reed canary grass abundant; also other

	grasses, ostrich fern, tall meadow rue, wood nettle, sensitive fern, tall nettle.
Birds	Gray catbird, American redstart, blue jay, yellow warbler.
Mammals	Deer.

HW-8

Current cover	Alder
Natural community	Alder Swamp
Shrub layer	Dense alder; also common elderberry, winterberry, meadowsweet.
Herb layer	Fairly dense. Reed canary grass abundant; also sensitive fern, bittersweet nightshade, jewelweed, water horsetail, arrowhead, bur-reed, swamp dock. Tall nettle, monkey flower and common cattail at forest edge.
Birds	American redstart.
Habitat features	Standing water.

HW-9

Current cover	Buttonbush
Natural community	Buttonbush Swamp
Canopy	Scattered willows.
Shrub layer	Patchy. Buttonbush dominant; also alder, red maple, red osier dogwood, common elderberry, winterberry, meadowsweet, arrowwood.
Herb layer	Dense. Narrow-leaved cattail (throughout, but mostly at edges) and purple loosestrife abundant (with extensive beetle damage—big dead patches with almost no new growth); also reed canary grass, great water dock, sensitive fern, arrowhead, bur-reed, marsh fern, bittersweet nightshade, wild calla, water horsetail, duckweed, bulb-bearing water hemlock, yellow iris, bugleweed, devil's beggar-ticks, bladderwort, rice cutgrass, bristly sedge, marsh bedstraw, swamp milkweed.
Birds	American goldfinch, red-winged blackbird, gray catbird, cedar waxwing, swamp sparrow, American robin.
Herps	Green frogs.
Habitat features	Standing water.

HW-10

Current cover	Cattail Marsh
Natural community	Cattail Marsh
Herb layer	Dense; dominated by narrow-leaved cattail. Also yellow pond lily, purple loosestrife.
Mammals	Cut cattails—probably muskrat sign.
Habitat features	A snag.

HW-11

Current cover	Early Successional Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Open to fairly dense. Red maple dominant; also silver maple, black

	cherry, American elm.
Subcanopy and shrubs	Moderate to fairly dense. Red oak abundant; also shagbark hickory, gray birch, paper birch, green ash, Oriental honeysuckle, Japanese barberry, common buckthorn, highbush cranberry (some killed by beetle damage), winterberry, multiflora rose, raspberry, meadowsweet, black cherry, Virginia creeper, chokecherry, red maple, beaked hazelnut, black birch, white oak, European mountain-ash, riverbank grape, blackberry, swamp dewberry, alternate-leaved dogwood, glossy buckthorn, beech, American elm, staghorn sumac, poison ivy, nannyberry, yew, Asiatic bittersweet. Invasives abundant, especially Oriental honeysuckle.
Herb layer	Moderately dense. Goldenrod abundant; also lady fern, sensitive fern, grasses, common speedwell, intermediate woodfern, whorled loosestrife, starflower, Canada mayflower, cinnamon fern, groundnut, jack-in-the-pulpit, aster, fringed loosestrife, enchanter's nightshade, white avens, ostrich fern, crown vetch, climbing false buckwheat, wild sarsaparilla.
Birds	Black-capped chickadee, gray catbird, American goldfinch, northern flicker feather.
Mammals	Woodchuck holes; possible old moose debarking.

HW-12

Current cover	Hardwood Swamp
Natural community	Red Maple-Black Ash Swamp
Canopy	Dense red maple.
Shrub layer	Moderately dense winterberry, Japanese barberry, silky dogwood, red maple.
Herb layer	Dense; dominated by sensitive fern. Also cinnamon fern, royal fern, tall meadow rue.
Mammals	Old beaver-cut stumps at edge with HW-13.

HW-13

Current cover	Pond
Natural community	Alder Swamp
Herb layer	Bur-reed, wild calla, bittersweet nightshade, yellow iris.
Herps	Green frogs.

HW-14

Current cover	Pond
Natural community	Buttonbush Swamp
Herb layer	Scattered narrow-leaved cattail, white pond lily, purple loosestrife, bladderwort, swamp loosestrife.
Herps	Green frogs.

MACRAE FARM PARK

Visited 7/13/05, 7/18/05, 7/19/05, 7/24/05, 7/26/05.

MF-1

Current cover	Early Successional
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest; Silver Maple-Sensitive Fern Riverine Floodplain Forest
Canopy and subcanopy	Scattered to patchy; very open; few tall trees. Cottonwood, willow, green ash, American elm, butternut, boxelder, silver maple, riverbank grape.
Shrub layer	Scattered shrubs and saplings. American elm abundant; also green ash, swamp rose, silky dogwood, riverbank grape, boxelder, butternut, Virginia creeper, glossy buckthorn at north end, willow, silver maple.
Herb layer	Very dense and tall; reed canary grass, hedge bindweed, rough-stemmed goldenrod, other goldenrods, and jewelweed abundant; some areas with extremely dense, tall wood nettle; patches of ostrich fern. Also false nettle, swamp milkweed, common milkweed, sensitive fern, groundnut, cow vetch, dodder, marsh fern, devil's beggar-ticks, winter cress, blue flag, knotweed, purple loosestrife (heavy beetle damage), boneset, wild cucumber, tall meadow rue, bull thistle, agrimony, wormwood, dogbane, burdock, bittersweet nightshade, tall nettle, wormseed mustard, Canada thistle, yellow wood sorrel, lady fern, white avens, false hellebore, dame's rocket, hog peanut, cocklebur, hedge nettle, water smartweed, moneywort, daisy fleabane, water horehound, Canada lily; bur-reed along shore; goutweed abundant at south end.
Birds	Common yellowthroat, gray catbird, tufted titmouse, song sparrow, great crested flycatcher, warbling vireo, cedar waxwing, blue jay, American robin, northern cardinal, veery, black-capped chickadee, red-eyed vireo.
Mammals	Raccoon tracks; woodchuck.
Habitat features	Snags; coarse woody debris abundant in places.

MF-2

Current cover	Marsh
Natural community	Shallow Emergent Marsh
Herb layer	Dense bur-reed; also water horsetail, cattail, arrowhead.
Mammals	Tracks of raccoon, deer, and muskrat.
Herps	Tiny American toads; small Northern leopard frogs.

MF-3

Current cover	Floodplain Forest
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Dense. Willow, boxelder, American elm, cottonwood, silver maple.
Shrub layer	Sparse. Oriental honeysuckle, boxelder, green ash.
Herb layer	Dense. Dominated by wood nettle and ostrich fern; also jewelweed, dame's rocket, wild cucumber, sensitive fern, moneywort.
Birds	White-breasted nuthatch, blue jay, cedar waxwing, great crested

	flycatcher, common yellowthroat, black-capped chickadee, veery.
Mammals	Woodchuck den, deer tracks.
Herps	Many tiny American toads.
Habitat features	Abundant coarse woody debris; some cavity snags.

MF-4

Current cover	Pond
Natural community	Pond
Herb layer	Bur-reed abundant; duckweed (<i>Spirodela</i>), arrowhead, pondweed, purple loosestrife.
Birds	Great blue heron.
Mammals	Fresh beaver and deer tracks.
Herps	Green frog, bullfrog; tiny American toads.

MF-5

Current cover	Marsh
Natural community	Shallow Emergent Marsh
Herb layer	Dominated by bur-reed; also reed canary grass (in higher spots), arrowhead, purple loosestrife.
Birds	Great blue heron, belted kingfisher.
Herps	Green frog.

MF-6

Current cover	Floodplain Forest
Natural community	Silver Maple-Sensitive Fern Riverine Floodplain Forest
Canopy	Dense silver maple.
Herb layer	Patchy false nettle, sensitive fern; scattered bur-reed, drooping sedge, and purple loosestrife in 'vernal pool.'
Birds	American robin, white-breasted nuthatch, black-capped chickadee, hairy woodpecker, American crow, downy woodpecker, red-tailed hawk.
Mammals	Deer; raccoon den under root ball.
Herps	Green frog in 'vernal pool.'
Habitat features	Several 'vernal pools' ...likely source of the clouds of mosquitoes!

MF-7

Current cover	Pond
Natural community	Pond
Herb layer	Bur-reed, arrowhead, swamp dock, water horehound, blue flag, false nettle, swamp milkweed.
Herps	Green frog.

MF-8

Current cover	Pond
Natural community	Pond
Herb layer	Bur-reed abundant; also swamp dock, marsh fern, coontail, water parsnip,

	arrowhead, forget-me-not, dodder.
Mammals	Old beaver sign, raccoon scat.
Herps	Green frog, bullfrog.
Habitat features	Connected to MF-7 by a beaver-dug canal.

MF-9

Current cover	Pond
Natural community	Pond
Herb layer	Bur-reed along margins; also sensitive fern, moneywort, bittersweet nightshade, false nettle, purple loosestrife, lakeshore sedge.
Mammals	Old beaver sign.
Herps	Green frogs, northern leopard frog, bullfrog.

MF-10

Current cover	Floodplain Forest
Natural community	Silver Maple-Sensitive Fern Riverine Floodplain Forest
Canopy	Fairly dense, with some large openings. Silver maple, green ash, and American elm abundant; also butternut.
Shrub layer	Very sparse; dominated by green ash. Also common buckthorn, Oriental honeysuckle, boxelder, blackberry.
Herb layer	Dense; dominated by sensitive fern and jewelweed; wood nettle abundant west of MF-7; moneywort also abundant. Also field horsetail, dodder, devil's beggar-ticks, white avens, goldenrod, wild cucumber, dame's rocket, a little ostrich fern, tall meadow rue, lady fern, tall blue lettuce, agrimony, enchanter's nightshade, fringed loosestrife, burdock, false nettle, bittersweet nightshade, jack-in-the-pulpit, yellow wood sorrel, Canada lily.
Birds	Veery, American robin, common yellowthroat, black-capped chickadee, American goldfinch, song sparrow, gray catbird, hairy woodpecker, American crow, tufted titmouse, northern flicker, white-breasted nuthatch.
Mammals	Deer browse; old beaver sign.
Habitat features	A few snags; some coarse woody debris; 'vernal pool' at north end.

MF-11

Current cover	Field
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Scattered trees/patches of trees (in wet, unmowed spots): willow, green ash, silver maple.
Shrub layer	Scattered green ash, boxelder, American elm, common buckthorn, silky dogwood.
Herb layer	Dense, dominated by reed canary grass. Also water hemlock, jewelweed, cow vetch, common milkweed, groundnut, joe-pye weed, smooth brome, white clover, hedge bindweed, hog peanut, dandelion, sensitive fern, Canada lily, tall meadow rue, wild cucumber, devil's beggar-ticks, nodding smartweed, wood nettle, common plantain, burdock, tall nettle, hedge nettle. Oxbow along north edge has bur-reed, one badly damaged purple

	loosestrife plant, white pond lily, arrowhead.
Birds	Brown-headed cowbird, great crested flycatcher, song sparrow, American robin, American goldfinch, hairy woodpecker, yellow warbler, northern flicker, belted kingfisher.
Herps	Northern leopard frog; green frog in oxbow.

MF-12

Current cover	Floodplain Forest
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Scattered/patchy taller trees. Green ash, cottonwood, boxelder, silver maple.
Subcanopy	Fairly dense; dominated by boxelder. Also butternut, green ash, riverbank grape, American elm, willow, cottonwood.
Shrub layer	Sparse. Boxelder, riverbank grape, American elm, green ash, Virginia creeper, raspberry, common buckthorn.
Herb layer	Dense. Dominated by wood nettle; jewelweed, ostrich fern, and dame's rocket also abundant. Also tall meadow rue, ground ivy, white avens, burdock, clearweed, tall nettle, asters, hog peanut, wild cucumber, honewort, grasses, dandelion, violet, daisy fleabane, agrimony, common milkweed, fringed bindweed, thin-leaved sunflower, goldenrods, jumpseed, sensitive fern, reed canary grass, purple loosestrife, moneywort, lady fern; around 'vernal pool': cocklebur, bur-reed, dodder.
Birds	Indigo bunting, black-capped chickadee, white-breasted nuthatch, song sparrow, tufted titmouse, American goldfinch, American robin, veery, red-tailed hawk.
Mammals	Deer tracks.
Herps	Northern leopard frog.
Habitat features	A little coarse woody debris; 'vernal pool' near north end.

MF-13

Current cover	Floodplain Forest
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Somewhat open. Silver maple dominant; also cottonwood.
Subcanopy	Moderately dense; silver maple and American elm.
Shrub layer	Sparse. Riverbank grape, boxelder, butternut.
Herb layer	Dense; dominated by ostrich fern and wood nettle. Also jewelweed, agrimony, wild cucumber.
Birds	Red-eyed vireo, red-winged blackbird, song sparrow.

MF-14

Current cover	Field
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Hedgerow of boxelder saplings at south edge.
Herb layer	Dense; dominated by timothy, reed canary grass, and other grasses. Also cow vetch, common milkweed, red clover, daisy fleabane, tall meadow

	rue, foxtail sedge, tall buttercup, sensitive fern, dogbane, black-eyed susan, white clover, dandelion, burdock, common plantain.
Birds	Red-winged blackbird.
Herps	Northern leopard frog.

MF-15

Current cover	Pond (oxbow)
Natural community	Pond
Shrub layer	Silver maple seedlings along edge.
Herb layer	Duckweed; false nettle abundant along edge; also marsh fern, smartweed, arrowhead, wild cucumber, devil's beggar-ticks, grasses.
Birds	Wood ducks, song sparrow, American robin, belted kingfisher.
Mammals	Deer and raccoon tracks.
Herps	Green frogs.

MF-16

Current cover	Floodplain Forest
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Dense, with some openings. Green ash abundant; also silver maple and boxelder.
Subcanopy and high shrubs	Moderately dense. Alder, silver maple, American elm, butternut, boxelder, staghorn sumac, willow.
Shrub layer	Moderately dense at edge. Riverbank grape, common elderberry, nannyberry, chokecherry, black raspberry, common buckthorn, Virginia creeper.
Herb layer	Dense. Ostrich fern, wood nettle, jewelweed, and sensitive fern abundant; also tall meadow rue, Canada lily, white avens, fringed loosestrife, bittersweet nightshade, false hellebore, false nettle, bloodroot, lady fern, burdock, ground ivy, groundnut, dogbane, jumpseed, wild cucumber, devil's beggar-ticks, sedges, reed canary grass, goldenrods, great angelica, groundnut, tall meadow rue, wild madder, thin-leaved sunflower.
Birds	Hairy woodpecker, black-capped chickadee, belted kingfisher, red-winged blackbird, American goldfinch, common yellowthroat, song sparrow.
Mammals	Red squirrel; muskrat in drainage ditch.
Herps	Green frogs in drainage ditch.
Habitat features	Drainage ditches at edge.

MF-17

Current cover	Field
Natural community	Silver Maple-Sensitive Fern Riverine Floodplain Forest
Herb layer	Dense. Sedges, grasses, sensitive fern, red clover, white clover, common plantain, purple loosestrife, common milkweed, tall buttercup, burdock, tall buttercup, ground ivy; wild parsnip at edge.

MF-18

Current cover	Floodplain Forest
Natural community	Silver Maple-Sensitive Fern Riverine Floodplain Forest
Canopy/subcanopy	Fairly dense. Green ash abundant; also American elm, boxelder, silver maple, butternut.
Shrub layer	Nannyberry, silky dogwood, riverbank grape, silver maple, apple, common buckthorn, American elm.
Herb layer	Dense. Dominated by wood nettle; ostrich fern fairly abundant. Also fringed loosestrife, reed canary grass, water hemlock, groundnut, sensitive fern, grasses, jewelweed, common plantain, moneywort, tall meadow rue, white avens, jumpseed.
Birds	Veery, gray catbird, rose-breasted grosbeak.
Herps	Green frog in ditch; gray treefrog.
Habitat features	Ditch with standing water.

MF-19

Current cover	Early Successional
Natural community	Silver Maple-Sensitive Fern Riverine Floodplain Forest (silty clay)
Canopy	Scattered young trees in southeastern half; some dense patches. Silver maple, quaking aspen, willow, green ash, alder.
Shrub layer	Dense patches; fairly dense throughout eastern half. Willow, riverbank grape, silky dogwood, alder, quaking aspen, silver maple, green ash.
Herb layer	Dense. Sedges, reed canary grass, jewelweed, and sensitive fern abundant. Also goldenrods, ostrich fern, joe-pye weed, Canada thistle, hedge bindweed, water hemlock, false nettle, three-seeded mercury, devil's beggar-ticks, groundnut, fringed loosestrife; in drainage ditch: purple loosestrife (heavily beetle-damaged), nodding smartweed, sweetflag, bulrush, drooping sedge, cocklebur, dodder, bristly crowfoot; rough bedstraw, swamp milkweed, hedge nettle, wood nettle, tall meadow rue, water plantain, duckweed.
Birds	Common yellowthroat, blue jay, rose-breasted grosbeak, northern cardinal, red-winged blackbird, song sparrow, willow flycatcher, American robin, veery; ruffed grouse tracks.
Mammals	Muskrat; red fox and deer tracks.
Herps	Northern leopard frog; green frogs in drainage ditch.
Habitat features	Drainage ditch along MF-20.

MF-20

Current cover	Field
Natural community	Silver Maple-Sensitive Fern Riverine Floodplain Forest
Herb layer	Dense; dominated by reed canary grass and timothy. Also other grasses, foxtail sedge and other sedges, sensitive fern, cow vetch, curled dock, swamp milkweed, joe-pye weed, knotweed, purple loosestrife (beetle-damaged), water hemlock, forget-me-not, showy tick trefoil.

MF-21

Current cover	Floodplain Forest
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Natural community	Silver Maple-Sensitive Fern Riverine Floodplain Forest
Canopy/subcanopy	Dense, with some large openings; dominated by silver maple. Also American elm, green ash, red maple.
Shrub layer	Dense along edge and in canopy gaps; otherwise very sparse. Meadowsweet, silky dogwood, round-leaved dogwood, green ash, riverbank grape, alder, common elderberry, Virginia creeper, buttonbush, arrowwood (beetle damage), winterberry.
Herb layer	Dense; dominated by sensitive fern. Also reed canary grass and other grasses, false nettle, groundnut, tall meadow rue, jewelweed, fringed loosestrife, wood nettle, swamp milkweed, purple loosestrife, dodder, bittersweet nightshade, sedges, wild cucumber, forget-me-not, white avens, hog peanut, halberd-leaved tearthumb, water horehound, drooping sedge, moneywort; small patch of ostrich fern.
Birds	American goldfinch, black-capped chickadee, tufted titmouse, song sparrow, belted kingfisher, red-winged blackbird, common yellowthroat, downy woodpecker.
Mammals	Deer, beaver (saw two; bank burrow and maintained dam)
Herps	Northern leopard frog; green frogs in stream.

MF-22

Current cover	Reed Canary Grass
Natural community	Shallow Emergent Marsh
Canopy	Patchy young trees, dominated by silver maple; also willow, American elm, green ash.
Shrub layer	Scattered/patchy meadowsweet, alder, silver maple, riverbank grape, green ash, winterberry, red maple, buttonbush.
Herb layer	Dense; dominated by reed canary grass. Also purple loosestrife (beetle-damaged), bur-reed, false nettle, drooping sedge, tearthumb, marsh fern. At property boundary, drainage ditch with arrowhead, bur-reed, swamp milkweed, water plantain, bulb-bearing water hemlock. North of stream: joe-pye weed, marsh fern, bugleweed, narrow-leaved cattail, false nettle, royal fern, arrowhead, sedges.
Birds	American robin, common yellowthroat, song sparrow, red-winged blackbird, tree swallow, swamp sparrow.
Mammals	Old beaver sign.
Habitat features	Numerous snags.

MF-23

Current cover	Hardwood Swamp
Natural community	Red or Silver Maple-Green Ash Swamp
Canopy	Uneven; somewhat open. Dominated by silver maple; also willow and green ash.
Subcanopy and high shrubs	Fairly dense. Dominated by alder; also green ash.
Shrub layer (low)	Moderate to dense. Meadowsweet abundant; also alder, silky dogwood, swamp rose, winterberry, silver maple, green ash.

Herb layer	Dense, with open muddy patches. Sensitive fern and false nettle abundant; also drooping sedge and other sedges, moneywort, marsh fern, bugleweed, bittersweet nightshade, arrowhead, bur-reed, grasses, water horehound, bulb-bearing water hemlock, swamp candles, marsh bedstraw.
Birds	Black-capped chickadee, song sparrow, cedar waxwing, American goldfinch, American robin, downy woodpecker, common yellowthroat.
Habitat features	Hummocky; abundant coarse woody debris.

MF-24

Current cover	Marsh
Natural community	Cattail Marsh
Shrub layer	Scattered willow.
Herb layer	Dense. Water horsetail, common cattail, arrowhead, bur-reed, bulb-bearing water hemlock, drooping sedge, swamp candles.
Birds	Red-winged blackbird, swamp sparrow, song sparrow, common yellowthroat.
Habitat features	Standing water.

MF-25

Current cover	Reed Canary Grass
Natural community	Silver Maple-Sensitive Fern Riverine Floodplain Forest
Canopy	One willow.
Shrub layer	Occasional shrubs/saplings: mostly green ash; also silver maple, riverbank grape, common elderberry, boxelder.
Herb layer	Dense reed canary grass. Also cow vetch, sensitive fern, false nettle, jewelweed, knotweed, tall meadow rue, hog peanut, lady fern, common milkweed, joe-pye weed, goldenrods, purple loosestrife, fringed loosestrife, wild cucumber, burdock, groundnut, tall nettle, wood nettle, hedge bindweed, arrowhead, mad-dog skullcap, hedge bindweed, swamp loosestrife, bur-reed, swamp milkweed.
Birds	Belted kingfisher, tree swallow, turkey vulture, red-tailed hawk, American goldfinch, song sparrow, American robin, great blue heron, swamp sparrow, red-winged blackbird, black-capped chickadee.
Mammals	Deer, raccoon and red fox tracks; old beaver dam towards north end.
Herps	Northern leopard frog, green frog.
Habitat features	No riparian buffer—open field right up to water; stagnant brook.

MF-26

Current cover	Marsh
Natural community	Shallow Emergent Marsh
Shrub layer	Scattered willow and silver maple; patch of buttonbush; meadowsweet. Along forest edge: silver maple, American elm, nannyberry, red osier dogwood, alder, willow.
Herb layer	Dense; bur-reed, water horsetail, and arrowhead abundant. Also false pimpernel, water plantain, soft-stem bulrush, woolly bulrush, sedge (probably lakeshore sedge), rush, bulb-bearing water hemlock,

	bladderwort, three-way sedge, wild rice, a few cattails; a little reed canary grass and purple loosestrife.
Birds	Common yellowthroat, gray catbird, mourning dove.
Habitat features	Some open water.

MF-27

Current cover	Early Successional
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Patchy young trees: cottonwood and staghorn sumac abundant; also butternut, bitternut hickory, American elm, common buckthorn, hackberry, white pine, boxelder. Southwestern portion: dense canopy of American elm Southeastern portion: scattered/patchy young trees—American elm, green ash, silver maple, staghorn sumac, red maple, sugar maple.
Subcanopy	Cottonwood abundant; quaking aspen, American elm, black oak. Southwestern portion: moderately dense subcanopy/high shrubs, dominated by American elm. Also staghorn sumac, bitternut hickory, red oak.
Shrub layer	Patchy. Staghorn sumac, purple-flowering raspberry, common buckthorn. Southwestern portion: sparse low shrubs. American elm, bitternut hickory, common buckthorn, multiflora rose, staghorn sumac, riverbank grape, Virginia creeper, hackberry. Southeastern portion: scattered/patchy shrubs; some dense thickets—alder, riverbank grape, blackberry, silky dogwood, common buckthorn, staghorn sumac dominant, multiflora rose, green ash, American elm, poison ivy, raspberry, red osier dogwood, boxelder.
Herb layer	Dense; smooth brome abundant. Also hoary alyssum, white campion, cow vetch, mullein, tall nettle, ostrich fern, lamb's quarters, rough-fruited cinquefoil, ragweed, doorweed, bouncing bet, purple loosestrife, common milkweed, moneywort, Deptford pink. Southwestern portion: moderately dense. Sedges, white avens, goldenrods, asters, mullein, grasses. Southeastern portion: Dense reed canary grass and goldenrods; also purple loosestrife, cow vetch, dark green bulrush, boneset, water plantain, wild carrot, common cattail, common plantain, sensitive fern, red clover, goldenrod, common milkweed, water hemlock, chicory, timothy, smooth brome, common St. Johnswort, joe-pye weed, Canada thistle, grass-leaved goldenrod, ragweed, Indian tobacco, timothy, curled dock, white clover, lady fern, enchanter's nightshade, ground ivy, jack-in-the-pulpit, foxtail sedge, white vervain, daisy fleabane, tall nettle, mullein.
Birds	Common yellowthroat, song sparrow, tree swallow, American goldfinch, gray catbird, indigo bunting, turkey vulture, eastern kingbird, American robin, cedar waxwing, red-eyed vireo, northern cardinal, black-capped chickadee, tufted titmouse, great crested flycatcher, mourning dove tracks, eastern phoebe.
Mammals	Chipmunk, raccoon; deer, woodchuck, and house cat tracks.

Herps	American toad, garter snake, northern leopard frog.
Habitat features	Heavy ATV disturbance; a lot of bare sand; abandoned cars at NW corner.

MF-28

Current cover	Early Successional (power lines)
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Shrub layer (high)	Dense patches. Staghorn sumac, red oak, quaking aspen, white oak, American elm.
Shrub layer (low)	Fairly dense. Blackberry, red oak, white pine, red maple, bitternut hickory, riverbank grape, basswood, white oak, white ash, round-leaved dogwood, Oriental honeysuckle, staghorn sumac.
Herb layer	Moderately dense. Common St. Johnswort, timothy and other grasses, asters, mullein, dogbane, common cinquefoil, hoary alyssum, daisy fleabane, New Jersey tea, sunflower, red clover, evening primrose, wild carrot, goldenrods, common plantain, yellow goatsbeard.
Birds	Northern cardinal, gray catbird, indigo bunting, blue jay, scarlet tanager.
Mammals	Chipmunk, deer.
Habitat features	ATVs.

MF-29

Current cover	White Pine-Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Somewhat open. Red oak abundant; also shagbark hickory, white ash, bitternut hickory, red maple, sugar maple, bigtooth aspen, white oak, basswood, beech; white pine abundant in middle/plateau.
Subcanopy and high shrubs	Fairly dense. Hackberry, common buckthorn, shagbark hickory, shadbush, white oak, red maple, basswood, red oak, white pine, sugar maple, bigtooth aspen, alternate-leaved dogwood, paper birch, beech, hophornbeam, American elm, hemlock.
Shrub layer (low)	Moderately dense. Maple-leaved viburnum abundant; also prickly gooseberry, hackberry, common buckthorn, chokecherry, shagbark hickory, poison ivy, common barberry, red maple, shadbush, Japanese barberry, sugar maple, quaking aspen, alternate-leaved dogwood, bitternut hickory, red oak, Virginia creeper, black cherry, purple-flowering raspberry, staghorn sumac, beaked hazelnut, northern white cedar, round-leaved dogwood, striped maple, late low blueberry, witch hazel, shadbush, bush honeysuckle, black raspberry, Oriental honeysuckle, glaucous honeysuckle, mountain maple.
Herb layer	Moderate to fairly dense. Pointed-leaved tick trefoil and wild sarsaparilla abundant; also false Solomon's seal, tall blue lettuce, enchanter's nightshade, motherwort, wild licorice, red baneberry, sweet-scented bedstraw, Pennsylvania sedge and other sedges, carrion flower, Canada mayflower, starflower, agrimony, early meadow rue, hog peanut, bracken fern, dogbane, fringed polygala, round-lobed hepatica, Solomon's seal, columbine, small-flowered crowfoot, blue-stemmed goldenrod, miterwort, lance-leaved wild licorice, large-flowered bellwort, shinleaf, common

	fleabane, polypody, large-leaved aster, sunflower, spikenard, partridgeberry, wild lettuce, lopseed, Indian pipe, red baneberry, whorled loosestrife, golden alexanders, jack-in-the-pulpit, white baneberry.
Birds	Red-eyed vireo, black-capped chickadee, indigo bunting, great crested flycatcher, scarlet tanager, downy woodpecker, white-breasted nuthatch, American goldfinch.
Mammals	Chipmunk, deer.
Habitat features	Occasional snags; moderately abundant coarse woody debris; some outcrops and rocky/shallow-to-bedrock areas.

MF-30

Current cover	Red Pine
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy/subcanopy	Dense red pine.
Shrub layer	Pin cherry abundant; also common buckthorn, white pine, red maple, red oak, alternate-leaved dogwood, prickly gooseberry, poison ivy, bitternut hickory, basswood, shagbark hickory, Virginia creeper, staghorn sumac, white ash, riverbank grape, common barberry, glossy buckthorn, American bittersweet, American elm, red cedar, hackberry, red elderberry, black cherry.
Herb layer	Sparse. Blue-stemmed goldenrod, yarrow, bedstraw, Canada mayflower, bittersweet nightshade, grass, false Solomon's seal, wild lettuce, common speedwell, mullein, ragweed, common milkweed, whorled loosestrife, white campion.
Birds	Cedar waxwing, black-capped chickadee.
Mammals	Chipmunk, raccoon.
Habitat features	A few snags; a little coarse woody debris.

MF-31

Current cover	Red Pine
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Dense but somewhat open red pine.
Subcanopy and high shrubs	Dense. Sugar maple, common buckthorn, American elm.
Shrub layer (low)	Sparse. Prickly gooseberry, bitternut hickory, sugar maple, hackberry, red oak, white ash, blackberry, red elderberry, red maple, American elm, common barberry, poison ivy, shadbush.
Herb layer	Very sparse. Jack-in-the-pulpit, false Solomon's seal, Canada mayflower, intermediate woodfern, starflower, zigzag goldenrod, wild basil.
Birds	Red-tailed hawk, turkey vulture, cedar waxwing, red-eyed vireo, black-capped chickadee, tufted titmouse.
Habitat features	Abundant coarse woody debris; barbed wire on north and west borders.

MF-32

Current cover	Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest

Canopy	Dense, mostly young trees. Sugar maple, paper birch, red oak, white oak, black cherry, shagbark hickory, hackberry, bitternut hickory, basswood.
Subcanopy and high shrubs	Sugar maple, hophornbeam, hemlock, common buckthorn, hackberry, shagbark hickory, bitternut hickory, basswood, witch hazel, bigtooth aspen, beech. In seep: black ash, willow and musclewood.
Shrub layer	Sparse. Hackberry, prickly gooseberry, sugar maple, paper birch, hemlock, white ash, witch hazel, black cherry, poison ivy, hophornbeam, bitternut hickory, common buckthorn, beech, basswood, summer grape, red oak, red elderberry, Virginia creeper, maple-leaved viburnum, striped maple. Silky dogwood in seep.
Herb layer	Very sparse to moderately dense. Canada mayflower, intermediate woodfern, zigzag goldenrod, false Solomon's seal, jack-in-the-pulpit, common speedwell, Solomon's seal, fragile fern, plantain-leaved sedge, helleborine, field horsetail, early meadow rue, wild licorice, small-flowered crowfoot, New York fern, marginal woodfern, enchanter's nightshade, thimbleweed, sweet-scented bedstraw, Pennsylvania sedge, white baneberry, lady fern, white avens. Seep: dominated by sensitive fern; also tall meadow rue, bittersweet nightshade, jewelweed, arrowhead, water horsetail, water parsnip, knotweed, devil's beggar-ticks, moneywort, forget-me-not, grasses, groundnut, self-heal, joe-pye weed, interrupted fern, jumpseed, agrimony, partridgeberry, pointed-leaved tick trefoil, Christmas fern.
Birds	American goldfinch, cedar waxwing, black-capped chickadee, red-eyed vireo, American robin, tufted titmouse.
Mammals	Chipmunk; woodchuck holes; possible fox den; raccoon scats.
Herps	Garter snake.
Habitat features	Steep east-facing slope; substantial rock outcrop; sandy soil; seep at bottom of hill.

MF-33

Current cover	Hardwood Swamp
Natural community	Red Maple-Black Ash Swamp
Canopy	Very sparse except at edges. Hemlock, yellow birch, American elm, red maple, white pine.
Subcanopy and high shrubs	Patchy. Yellow birch and black ash abundant; also musclewood, hemlock, mountain maple, basswood, red maple.
Shrub layer (low)	Fairly sparse. Hemlock, Virginia creeper, mountain maple, black ash, common elderberry, dwarf raspberry, common buckthorn, glossy buckthorn, poison ivy.
Herb layer	Dense. Jewelweed, cinnamon fern, royal fern, sedges, and skunk cabbage abundant. Also wood horsetail, plantain-leaved sedge, goldthread, jack-in-the-pulpit, naked miterwort, wild sarsaparilla, ostrich fern, water pennywort, mosses, starflower, bittersweet nightshade, sensitive fern, tall rattlesnake root, field horsetail, bugleweed, false nettle, beggar ticks, mad-dog skullcap, water plantain, bulb-bearing water hemlock, clearweed.
Birds	American robin, American goldfinch, black-capped chickadee, great

	crested flycatcher, ruby-throated hummingbird, cedar waxwing.
Herps	Wood frogs, green frogs, spring peeper.
Habitat features	Abundant standing water (portions likely function as vernal pools); kept open by tip-ups; abundant coarse woody debris; many snags; ATV trails in west edge.

MF-34

Current cover	Hemlock-Northern Hardwoods-White Pine
Natural community	Hemlock Forest
Canopy	Moderately dense to dense. Hemlock abundant; also red maple, beech, sugar maple, bigtooth aspen, white ash, red oak, white pine, striped maple, yellow birch.
Subcanopy and high shrubs	Fairly dense. Hemlock, striped maple, red maple, beech, black birch, yellow birch.
Shrub layer (low)	Sparse to very sparse; hemlock, striped maple, beech, maple-leaved viburnum, sugar maple, hobblebush, red maple, witch hazel, bush honeysuckle, glossy buckthorn.
Herb layer	Very sparse. Intermediate woodfern, marginal woodfern, interrupted fern, blue-stemmed goldenrod, Christmas fern, beechdrops, Canada mayflower, New York fern, haircap moss, large-leaved aster, wintergreen, lopseed, white baneberry, hog peanut, Christmas fern, common speedwell, Indian pipe, false Solomon's seal, jack-in-the-pulpit, large-flowered trillium, painted trillium, Indian cucumber, partridgeberry. Along intermittent streams: ostrich fern, shinleaf, whorled wood aster, small-flowered crowfoot, wild oats, jack-in-the-pulpit, sensitive fern, cinnamon fern. In vernal pool: bittersweet nightshade, sensitive fern, royal fern.
Birds	Northern cardinal, scarlet tanager, great crested flycatcher, American goldfinch, black-throated green warbler, black-capped chickadee, white-breasted nuthatch, downy woodpecker, American crow, northern flicker, red-eyed vireo, barred owl feather.
Mammals	Chipmunk.
Herps	American toad; green frogs in vernal pool.
Habitat features	Torn-up ATV trails; intermittent streams; abundant coarse woody debris; vernal pools.

MF-35

Current cover	Hardwood Swamp
Natural community	Red Maple-Black Ash Swamp
Canopy	Open; dominated by black ash and red maple. Also hemlock and yellow birch.
Subcanopy and high shrubs	Moderately dense. Black ash, yellow birch, hemlock.
Shrub layer (low)	Sparse. Hobblebush, yellow birch, silky dogwood; leatherwood at edge.
Herb layer	Moderately dense to dense. Cinnamon fern and jewelweed abundant; also royal fern, sensitive fern, bittersweet nightshade, goldthread, jack-in-the-pulpit, sedges, grasses, sweet-scented bedstraw, devil's beggar-ticks,

	marsh marigold, water carpet, ostrich fern, common cattail, bulrush; bluebead lily and maidenhair fern at edge.
Birds	American goldfinch, great crested flycatcher, white-breasted nuthatch, hairy woodpecker, song sparrow, black-capped chickadee, American robin; ruffed grouse scat.
Herps	Tiny American toad; green frog.
Habitat features	Many snags; abundant coarse woody debris.

MF-36

Current cover	Pond (beaver pond)
Natural community	Beaver Wetland
Herb layer	Patchy; common cattail and duckweed abundant; also pondweed, jewelweed, purple loosestrife, boneset, water plantain, bittersweet nightshade, monkey flower, water purslane, reed canary grass.
Birds	Song sparrow, tree swallow; pileated woodpecker and eastern wood-pewee nearby.
Mammals	Old beaver chews around edge.
Herps	Green frogs.
Habitat features	Abundant coarse woody debris.

MF-37

Current cover	Beaver Meadow
Natural community	Beaver Wetland
Canopy	Scattered red maple and hemlock.
Shrub layer	Moderate to dense. Blackberry abundant; also silky dogwood, willow, paper birch, summer grape, common buckthorn, black raspberry, winterberry, riverbank grape, glossy buckthorn.
Herb layer	Dense. Grasses, sedges, self-heal, jewelweed, false nettle, enchanter's nightshade, sweet-scented bedstraw, joe-pye weed, bull thistle, common milkweed, lady's slipper, Virginia stickseed, reed canary grass, cattails, water purslane, rough cinquefoil, clearweed, monkey flower, water plantain, boneset, sensitive fern, bittersweet nightshade, marsh bedstraw, marsh fern, marsh St. Johnswort, Indian tobacco, purple loosestrife, water parsnip, phragmites (not dense).
Birds	Eastern wood-pewee, pileated woodpecker, blue-headed vireo, tufted titmouse, American robin, American goldfinch, song sparrow, great crested flycatcher.
Mammals	Old beaver sign.
Herps	Green frogs.
Habitat features	Many snags; abundant coarse woody debris; some open water.

MF-38

Current cover	Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Fairly dense. Red oak, sugar maple, red maple, paper birch, white pine,

	beech, quaking aspen, white ash, shagbark hickory, bigtooth aspen, white oak, red pine. Swamp white oak and red maple in seep on northern boundary.
Subcanopy	Moderately dense. Hophornbeam, hemlock, basswood, sugar maple, white oak, white pine, shagbark hickory, red pine, red oak, red maple. Black ash abundant in southern seep. Black ash, American elm, and musclewood in seep on northern boundary.
Shrub layer (high)	Moderately dense. Sugar maple, striped maple, hemlock, shadbush, witch hazel, beech, shagbark hickory, red oak, red maple. In southern seep: musclewood, black ash, American elm. Black ash, northern white cedar, and nannyberry in seep on northern boundary.
Shrub layer (low)	Moderately dense. Sugar maple, maple-leaved viburnum, hemlock, common buckthorn, striped maple, white oak, red oak, late low blueberry, shadbush, witch hazel, beech, white pine, hophornbeam, summer grape, Virginia creeper, beaked hazelnut, chokecherry, black cherry, shagbark hickory, leatherwood, huckleberry, round-leaved dogwood, bitternut hickory, alternate-leaved dogwood, bush honeysuckle, northern white cedar, white ash, American bittersweet, witch hazel.
Herb layer	Sparse. Wild sarsaparilla, partridgeberry, Canada mayflower, hog peanut, starflower, wild oats, fringed polygala, bracken fern, sedges, early meadow rue, marginal woodfern, Indian pipe, false Solomon's seal, large-flowered bellwort, Solomon's seal, lance-leaved wild licorice, large-flowered trillium, ebony spleenwort, baneberry, round-lobed hepatica, wild licorice, white lettuce, sanicle, walking fern, intermediate woodfern, pointed-leaved tick trefoil, dogbane, New Jersey tea, wintergreen, polypody, maidenhair fern, beechdrops, miterwort, thimbleweed, large-leaved aster, wild basil, woodland sunflower, poke milkweed, pinedrops, four-leaved milkweed. Southern seep: sensitive fern, small-flowered crowfoot, interrupted fern. Seep on northern boundary: sensitive fern, marsh fern, field horsetail, blue flag, sedges. Dolostone outcrop near NW corner: bulblet fern and walking fern abundant; also Virginia stickseed, fragile fern, columbine, smooth cliffbrake, spikenard, early meadow rue, sweet cicely, four-leaved milkweed, bluebells, maidenhair spleenwort.
Birds	White-breasted nuthatch, eastern phoebe, great crested flycatcher, eastern wood-pewee, black-throated green warbler, red-eyed vireo, American goldfinch, northern flicker, tufted titmouse, black-capped chickadee, downy woodpecker, ruby-throated hummingbird, pileated woodpecker feather, ovenbird, barred owl.
Mammals	Gray squirrel, chipmunk.
Herps	Garter snake, wood frog, gray treefrog, American toad.
Habitat features	Many rock outcrops; abundant coarse woody debris; some snags; ATVs; dirt roads.

MAYES LANDING

Visited 8/17/05.

ML-1

Current cover	Lawn
Natural community	Silver Maple-Sensitive Fern Riverine Floodplain Forest
Canopy/subcanopy	Patchy; silver maple abundant. Also American elm, swamp white oak, green ash, and a small northern white cedar
Shrub layer	Patchy. American elm, green ash, riverbank grape, swamp white oak, common buckthorn, highbush cranberry, silky dogwood, poison ivy, boxelder, Oriental honeysuckle along bike trail, cottonwood, staghorn sumac, raspberry, Virginia creeper, shagbark hickory, bigtooth aspen.
Herb layer	Dense. Lawn: grass, common plantain, white clover, ground ivy, dandelion. Edges of lawn: sensitive fern, wood nettle, groundnut, dogbane, showy tick trefoil, common milkweed, late goldenrod, blue flag, hedge nettle, a little purple loosestrife, aster, rough-stemmed goldenrod, wild carrot, wild rye, tall blue lettuce, wormwood, boneset, bugleweed, smooth brome, fringed loosestrife, pale touch-me-not, yellow wood sorrel, white avens, enchanter's nightshade, three-seeded mercury, red clover, hog peanut, cow vetch, lily-of-the-valley, ostrich fern, reed canary grass, ground ivy, hedge bindweed, day lily, wild madder, evening primrose, grasses, tall meadow rue, yellow sweet clover, ragweed, burdock, red baneberry.
Birds	Cedar waxwing, American goldfinch.
Mammals	Gray squirrel.
Herps	Many Northern leopard frogs.

ML-2

Current cover	Cattail Marsh
Natural community	Cattail Marsh
Herb layer	Dense narrow-leaved cattail; arrowhead.

MILLYARD CANOE ACCESS

Visited 8/19/05, 8/21/05.

MCA

Current cover	Shrub and Sapling Thicket (power line corridor)
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Scattered boxelder, American elm, silver maple, and cottonwood.
Subcanopy and high shrubs	Dense. Dominated by boxelder; also staghorn sumac, riverbank grape, silver maple, highbush cranberry.
Shrub layer (low)	American elm, raspberry, boxelder, riverbank grape.
Herb layer	Large, dense Japanese knotweed patch; otherwise fairly sparse. Jumpseed, wild rye, reed canary grass, field horsetail, yellow wood sorrel, aster,

	cocklebur, hedge nettle, lamb's quarters, wormwood, knotweeds, bittersweet nightshade, devil's beggar-ticks, wild cucumber, one-seeded bur cucumber, hedge bindweed, late goldenrod, thin-leaved sunflower, burdock, white avens, smooth brome, other grasses, ragweed, dandelion, common plantain, white clover.
Birds	Blue jay, chimney swift, American robin, gray catbird.
Herps	Garter snake.
Mammals	Gray squirrel.
Habitat features	Rocky stream.

MUDDY BROOK PARK

Visited 5/21/05, 6/8/05, 6/21/05, 7/15/05.

MB-1

Current cover	Boxelder-Cottonwood-Willow
Natural community	Sugar Maple-Ostrich Fern Riverine Floodplain Forest and Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Very open. Mostly boxelder; willow.
Subcanopy	Dense staghorn sumac.
Shrub layer	Dense. Oriental honeysuckle, riverbank grape, blackberry, prickly gooseberry, currant, staghorn sumac, chokecherry, Virginia creeper, common buckthorn, nannyberry.
Herb layer	Dense. Ostrich fern, burdock, celandine, wild parsnip, moneywort, fringed loosestrife, winter cress, dandelion, ground ivy, sensitive fern, wild cucumber, tall nettle, sedges, common blue violet, small-flowered crowfoot, enchanter's nightshade, tall meadow rue, forget-me-not, goutweed, goldenrod, dame's rocket, red baneberry, field horsetail, motherwort, thin-leaved sunflower, zigzag goldenrod.
Birds	House wren, yellow warbler, American redstart, American goldfinch, warbling vireo, American robin, brown-headed cowbird, gray catbird, song sparrow.
Mammals	Chipmunk

MB-2

Current cover	Lawn
Natural community	Sugar Maple-Ostrich Fern Riverine Floodplain Forest
Herb layer	Dense, low. Grass, ground ivy, white clover, dandelion, common plantain, black medick.
Birds	Turkey vulture.

MB-3

Current cover	Grassy Shore
Natural community	Rivershore Grassland
Herb layer	Reed canary grass and other grasses dominate; also goutweed, groundnut, bittersweet nightshade, joe-pye weed, purple loosestrife (quite a bit),

	boneset, moneywort, blue vervain, forget-me-not, cow vetch, sedges, common plantain, daisy fleabane, curled dock, white sweet clover, sensitive fern, dame's rocket, field horsetail, hog peanut, Indian hemp, yellow iris, marsh fern, butter-and-eggs, common cattail, cocklebur, hedge bindweed. Slope up to lawn has dense ostrich fern; also reed canary grass, wild parsnip, tall nettle, groundnut, hedge bindweed, wormwood, goldenrod, thin-leaved sunflower.
Birds	Song sparrow; northern rough-winged swallows foraging over river.
Herps	Green frog, American toad.
Mammals	Deer, raccoon.
Habitat features	Coarse woody debris; cobbly at northern end.

MB-4

Current cover	Early Successional (power lines)
Natural community	Sugar Maple-Ostrich Fern Riverine Floodplain Forest
Shrub layer	Dense patches of shrubs and young trees. Abundant staghorn sumac; also boxelder, Oriental honeysuckle, riverbank grape, alder, willow, American elm, nannyberry, highbush cranberry, common buckthorn, prickly gooseberry, Virginia creeper, raspberry, purple-flowering raspberry, chokecherry, basswood, blackberry.
Herb layer	Dense; dominated by goldenrod, sensitive fern, and ostrich fern. Also wild parsnip, dame's rocket, cow vetch, lady fern, dandelion, common plantain, tall buttercup, horsetail, hog peanut, jewelweed, burdock, cinnamon fern, bitter dock, common fleabane, hooked crowfoot, bedstraw.
Birds	Song sparrow, house wren, yellow warbler, warbling vireo, gray catbird, common yellowthroat, northern cardinal, American redstart, eastern wood-pewee, veery, great crested flycatcher, brown-headed cowbird, Cooper's hawk.
Mammals	Woodchuck hole.

MB-5

Current cover	Early Successional Hardwoods
Natural community	Sugar Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Dense; mostly small trees, but a few larger red oaks. Other species include red maple, paper birch, bigtooth aspen, quaking aspen, black cherry, white ash, beech, cottonwood, and white pine.
Subcanopy	Saplings, dominated by American elm. Also red maple, black birch, yellow birch.
Shrub layer	Moderate; low shrubs sparse. White ash, Virginia creeper, nannyberry, hemlock, red maple, chokecherry, black cherry, common buckthorn (abundant along field edge), Oriental honeysuckle, American elm, green ash, alternate-leaved dogwood, beaked hazelnut, raspberry, purple-flowering raspberry, prickly gooseberry, elderberry, boxelder.
Herb layer	Dense ferns; dominated by sensitive fern. Also lady fern, royal fern, cinnamon fern, interrupted fern, ostrich fern, jack-in-the-pulpit, white avens, tall blue lettuce, tall meadow rue, jewelweed, wild sarsaparilla,

	bedstraw, sedges, red baneberry, small-flowered crowfoot, false Solomon's seal, zigzag goldenrod, wild cucumber, jewelweed, Christmas fern, hooked crowfoot, grasses, common fleabane, dame's rocket.
Birds	Song sparrow, veery, red-eyed vireo, American redstart, house wren.
Habitat features	Seepy; coarse woody debris; a few snags.

MB-6

Current cover	Floodplain Forest
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Silver maple is dominant; also willow, cottonwood, green ash, and butternut.
Subcanopy	American elm, boxelder, green ash.
Shrub layer	Scattered Virginia creeper, riverbank grape, poison ivy, chokecherry, alternate-leaved dogwood, nannyberry, boxelder, green ash, musclewood, basswood, common buckthorn.
Herb layer	Dense; dominated by ostrich fern; goutweed and dame's rocket also abundant. Zigzag goldenrod, golden alexanders, starry false Solomon's seal, bedstraw, sensitive fern, common blue violet, small-flowered crowfoot, dandelion, jack-in-the-pulpit, wood nettle, virgin's bower, great angelica, moneywort, jewelweed, yellow wood sorrel, red clover, sedges, common plantain, hooked crowfoot, tall meadow rue, burdock, ground ivy.
Birds	American redstart, white-breasted nuthatch, American goldfinch, eastern kingbird, yellow warbler, warbling vireo, house wren.
Mammals	Gray squirrel.

MB-7

Current cover	Grassy Shore
Natural community	Rivershore Grassland
Herb layer	Dominated by grasses. Also groundnut, bittersweet nightshade, joe-pye weed, purple loosestrife (quite a bit), boneset, moneywort, blue vervain, forget-me-not, cow vetch, field horsetail, hog peanut, dogbane, yellow iris, marsh fern, butter-and-eggs, showy tick trefoil, common plantain, daisy fleabane, curled dock, goutweed, white sweet clover, sensitive fern, dame's rocket.
Birds	Song sparrow.
Mammals	Deer and raccoon tracks.
Herps	Green frog.
Habitat features	Cobbly.

MB-8

Current cover	Red Oak-Northern Hardwoods
Natural community	Sugar Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Dense, fairly mature canopy of red oak, basswood, butternut, shadbush, red maple, sugar maple, hackberry, yellow birch, and black cherry.
Subcanopy	Fairly dense. Sugar maple, white pine, hemlock, black cherry, yellow

	birch, hophornbeam, beech, boxelder, musclewood, black birch, and hackberry.
Shrub layer	Patchy. Alternate-leaved dogwood, nannyberry, common buckthorn (abundant along field edge), chokecherry, witch hazel, green ash, hackberry, prickly gooseberry, musclewood, sugar maple, purple-flowering raspberry, highbush cranberry, red oak, poison ivy, basswood, currant, riverbank grape, Oriental honeysuckle, butternut, mountain maple, common barberry (along field edge).
Herb layer	Very dense; dominated by ostrich fern. Also large-flowered trillium, white baneberry, false Solomon's seal, zigzag goldenrod, sensitive fern, interrupted fern, sedges, lady fern, small-flowered crowfoot, enchanter's nightshade, bluets, wood anemone, Canada mayflower, horsetail, shinleaf, burdock, tall meadow rue, grasses, dandelion, great angelica, jewelweed, thin-leaved sunflower, moneywort; dame's rocket at northern end.
Birds	American redstart, American goldfinch, American crow, scarlet tanager, red-eyed vireo, eastern wood-pewee, gray catbird, warbling vireo, veery, downy woodpecker, hairy woodpecker, white-breasted nuthatch, eastern kingbird; yellow-bellied sapsucker holes.
Mammals	Chipmunk; woodchuck den near cornfield.
Habitat features	Some coarse woody debris; a few snags with cavities.

MB-9

Current cover	Field
Natural community	Sugar Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Some quaking aspen saplings at east end.
Shrub layer	Very sparse. Meadowsweet, nannyberry, poison ivy, quaking aspen.
Herb layer	Dense smooth brome; also some cow vetch, common milkweed, lady fern, virgin's bower, joe-pye weed, rough-stemmed goldenrod, thistle, groundnut.
Mammals	Deer.

MB-10

Current cover	Boxelder-Cottonwood-Willow
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Young trees; very open towards west end. Boxelder, willow, American elm, butternut, cottonwood, hackberry; one large silver maple.
Subcanopy	Boxelder, riverbank grape, common buckthorn.
Shrub layer	Alder, riverbank grape, common buckthorn, Oriental honeysuckle, alternate-leaved dogwood, boxelder, poison ivy, common barberry.
Herb layer	Abundant species include ostrich fern, tall nettle, goldenrod, cocklebur, field horsetail, sensitive fern, jewelweed, and goutweed. Also tall meadow rue, joe-pye weed, grasses, bitter dock, false hellebore, winter cress, hedge bindweed, wild cucumber, reed canary grass, wood nettle, dame's rocket, common fleabane, white snakeroot, tall blue lettuce, dandelion, moneywort, starry false Solomon's seal, agrimony, burdock, common plantain, hooked crowfoot, common blue violet, red baneberry, ground

	ivy, reed canary grass, thin-leaved sunflower.
Birds	Eastern phoebe, downy woodpecker, gray catbird, song sparrow, common yellowthroat, American goldfinch, downy woodpecker, cedar waxwing, yellow warbler, tree swallow. Tracks of wild turkey, sandpiper, and many other birds.
Herps	American toad, green frog.
Mammals	Chipmunk; gray squirrel and raccoon tracks; deer browse; woodchuck den.
Habitat features	Some snags with cavities.

MB-11

Current cover	Northern Hardwoods
Natural community	Sugar Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Dense. Sugar maple, basswood, butternut, yellow birch, black birch.
Subcanopy	Red oak, basswood.
Shrub layer	Mountain maple.
Herb layer	Dense ostrich fern; also large-flowered trillium, zigzag goldenrod, white baneberry.
Birds	Hairy woodpecker, gray catbird, song sparrow, common yellowthroat.
Herps	Green frog.
Note	Species composition similar to MB-8.

MB-12

Current cover	Early Successional
Natural community	Sugar Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Scattered saplings and young trees. White pine, boxelder, butternut, staghorn sumac, basswood, gray birch, American elm, green ash.
Shrub layer	Patchy. Oriental honeysuckle, riverbank grape, common buckthorn, gray-stemmed dogwood.
Herb layer	Dominated by rough-stemmed goldenrod and grasses; ostrich fern and sensitive fern also abundant. Also cow vetch, ground ivy, jewelweed, lady fern, thistle, tall buttercup, common milkweed, dandelion, horsetail, zigzag goldenrod.
Birds	Baltimore oriole, black-capped chickadee, song sparrow, common yellowthroat, indigo bunting.
Mammals	Deer

MB-13

Current cover	Early Successional (power lines)
Natural community	Sugar Maple-Ostrich Fern Riverine Floodplain Forest and Mesic Red Oak-Northern Hardwood Forest
Shrub layer	Dense; dominated by staghorn sumac. Also red oak, bush honeysuckle, blackberry, Oriental honeysuckle, silky dogwood, quaking aspen, gray birch; an autumn olive just outside the NW corner.
Herb layer	Dense; dominated by goldenrod. Also dogbane, sensitive fern, lady fern, tall meadow rue, cinnamon fern, whorled loosestrife; large patch of

	phragmites just outside property.
Birds	House wren, common yellowthroat, eastern towhee, veery, great crested flycatcher.
Mammals	Woodchuck hole.

MB-14

Current cover	Lawn
Natural community	Mesic Red Oak-Northern Hardwood Forest
Canopy	Two young trees: red oak and white ash. Lawn covered with cottonwood seeds...
Herb layer	Grass. Ragweed at edge.
Mammals	Deer tracks.
Habitat features	Rocky fill over culvert.

MB-15

Current cover	Red Oak-Northern Hardwoods
Natural community	Mesic Red Oak-Northern Hardwood Forest
Canopy	Dense; somewhat open at east end. Red oak dominates (except in seep); also white ash, red maple, bigtooth aspen, sugar maple. At west end: cottonwood, quaking aspen, butternut, black cherry, boxelder.
Subcanopy and high shrubs	Black birch abundant; also white ash, nannyberry, common buckthorn, red maple, boxelder, American elm, quaking aspen, paper birch, basswood, striped maple, black cherry, red oak, hemlock, white pine, gray birch.
Shrub layer (low)	Fairly sparse. Maple-leaved viburnum, black cherry, blackberry, striped maple, white pine, beaked hazelnut, hemlock, bush honeysuckle, meadowsweet, chokecherry, alternate-leaved dogwood, nannyberry, red oak, poison ivy, Virginia creeper, white ash, shadbush, Oriental honeysuckle, raspberry, late low blueberry, sugar maple.
Herb layer	Sparse to dense; dominated by sensitive fern. Also flat-topped aster, field horsetail, cinnamon fern, intermediate woodfern, white lettuce, New York fern, wood anemone, interrupted fern, wild sarsaparilla, royal fern, whorled loosestrife, thin-leaved sunflower, starflower, marginal woodfern, blue-stemmed goldenrod, false Solomon's seal, Canada mayflower, tall rattlesnake root, bracken fern, celandine, sweet-scented bedstraw, motherwort, white avens, white snakeroot, enchanter's nightshade, jewelweed, sedges, bluets, white lettuce, lady fern, wild cucumber, golden alexanders.
Birds	Veery (pair), tufted titmouse, brown-headed cowbird, wild turkey, cedar waxwing, American robin, ovenbird, great crested flycatcher, eastern wood-pewee, white-breasted nuthatch, red-eyed vireo, blue jay, hairy woodpecker, northern cardinal, house wren, downy woodpecker, Cooper's hawk, great crested flycatcher, pileated woodpecker, ovenbird, chestnut-sided warbler.
Mammals	Woodchuck burrow, chipmunk.
Habitat features	Snags; abundant coarse woody debris. Extensive seep, including a large, muddy, treeless area in the northwestern portion.

MB-16

Current cover	Early Successional Hardwoods
Natural community	Mesic Red Oak-Northern Hardwood Forest
Canopy	Uneven; somewhat open. Red oak, paper birch, quaking aspen, red maple, white ash, American elm, quaking aspen, black cherry.
Subcanopy and high shrubs	Fairly dense. White ash, nannyberry, butternut, alternate-leaved dogwood, black cherry, red maple, musclewood, white pine, beaked hazelnut, common buckthorn, basswood, boxelder.
Shrub layer (low)	Sparse. Chokecherry, basswood, blackberry, black cherry, Virginia creeper, prickly gooseberry, mountain maple, striped maple, poison ivy, common buckthorn, red oak, alternate-leaved dogwood, quaking aspen. Wetter part of seep has alder, common elderberry.
Herb layer	Very dense. Dominated by sensitive fern and wild sarsaparilla; also tall blue lettuce, sedges, Canada mayflower, round-leaved pyrola, white lettuce, starflower, false Solomon's seal, lady fern, fringed loosestrife, wood anemone, field horsetail, large-flowered trillium. Wetter part of seep has jewelweed, turtlehead, jack-in-the-pulpit, cinnamon fern.
Birds	Eastern wood-pewee, tufted titmouse (pair), American redstart, American goldfinch, cedar waxwing, ovenbird, brown-headed cowbird.
Herps	Gray treefrog.
Mammals	Deer, chipmunk.
Habitat features	Snags and coarse woody debris.

MB-17

Current cover	Cultivated (cornfield)
Natural community	Mesic Red Oak-Northern Hardwood Forest
Herb layer	Planted corn.
Birds	Spotted sandpiper, killdeer.
Habitat features	Herbicide is applied yearly.

OLD MILL PARK

Visited 5/21/05, 6/17/05.

OMP-1

Current cover	Beaver Meadow
Natural community	Beaver Wetland
Shrub layer	Scattered alder, raspberry, boxelder, steeplebush, meadowsweet, common elderberry, and nannyberry.
Herb layer	Continuous, dominated by reed canary grass and other graminoids such as tussock sedge and drooping sedge. Also ostrich fern, wild cucumber, winter cress, cattail, virgin's bower, sensitive fern, fringed bindweed, boneset, joe-pye weed, jewelweed, blue flag, tearthumb, tall nettle, rough-stemmed and other goldenrods, bedstraw, marsh bedstraw. Goutweed patch at southeast corner of meadow, next to lawn.

Birds	Gray catbird, Baltimore oriole, American crow, common grackle, song sparrow, common yellowthroat, American goldfinch, red-winged blackbird, chimney swift, American robin, cedar waxwing, eastern phoebe, hairy woodpecker; northern cardinal nearby.
Herps	Green frog.
Mammals	Old beaver lodge; raccoon, deer.
Habitat features	Abundant coarse woody debris; a few snags at margins.

OMP-2

Current cover	White Pine
Natural community	Northern Hardwood Forest
Canopy	Even-aged (~50 year old) white pines; some black cherry and red maple.
Subcanopy	A few American elms.
Shrub layer	Moderately dense high and low shrubs. Mostly saplings, some of them beginning to reach subcanopy. Black cherry, sugar maple, hophornbeam, red maple, yellow birch, chokecherry, beech, alternate-leaved dogwood, American elm, raspberry, Virginia creeper. Japanese barberry along trail and towards beaver meadow.
Herb layer	Dense. Sensitive fern, starflower, lady fern, fringed bindweed, red trillium, sedges, Canada mayflower, trout lily, early meadow rue, cinnamon fern, Canada lily, bedstraw, heart-leaved aster, partridgeberry, wood anemone, tall meadow rue, small-flowered crowfoot, red baneberry, common blue violet, dandelion, dogbane, tall buttercup, white avens, sunflower.
Birds	Blue jay, black-capped chickadee, tufted titmouse, red-eyed vireo, hairy woodpecker.
Mammals	Chipmunk.
Herps	Red eft.
Habitat features	A few snags; a little coarse woody debris.

OMP-3

Current cover	Hemlock-Northern Hardwoods-White Pine
Natural community	Hemlock Forest
Canopy/subcanopy	Dense. Hemlock; some white pine, red maple, and yellow birch.
Shrub layer	Fairly sparse saplings of hemlock, beech, and sugar maple, plus mountain maple, alternate-leaved dogwood, and Japanese barberry. Low shrubs very sparse.
Herb layer	Sparse; red baneberry, red trillium, starflower, trout lily, marginal woodfern, intermediate woodfern, lady fern, sensitive fern, beech fern, jack-in-the-pulpit, starflower, New York fern, plantain-leaved sedge, horsetail.
Birds	Black-capped chickadee, white-breasted nuthatch, pileated woodpecker feeding sign.
Mammals	Red squirrel.
Habitat features	Moderately abundant coarse woody debris; one snag with cavities.

OMP-4

Current cover	Northern Hardwoods
Natural community	Northern Hardwood Forest
Canopy	Dense; mostly pole-sized red maple and beech; occasional white pine, quaking aspen, and black cherry.
Subcanopy	Sugar maple saplings; dead gray birches.
Shrub layer	High shrubs moderately dense; low shrubs fairly sparse. Beech, hemlock, sugar maple, chokecherry, alternate-leaved dogwood, Japanese barberry, bristly currant, red maple, striped maple, black cherry, white pine, quaking aspen.
Herb layer	Moderately dense; Canada mayflower abundant. Partridgeberry, haircap moss, marginal woodfern, hay-scented fern, interrupted fern, wild cucumber, dogbane, red trillium, jumpseed, bluets, bedstraw, red baneberry, bristly clubmoss, tree clubmoss, shining clubmoss, beechdrops, New York fern, wood strawberry, field hawkweed, dandelion, Indian cucumber, helleborine. Seep: abundant sensitive fern, cinnamon fern, and sedges, as well as some jack-in-the-pulpit, red elderberry, false Solomon's seal, trout lily, and lady fern.
Birds	White-breasted nuthatch, American goldfinch, ovenbird.
Mammals	Chipmunk.
Habitat features	Moderately abundant coarse woody debris; snags common but skinny.

OMP-5

Current cover	Early Successional Hardwoods
Natural community	Sugar Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Fairly dense uneven aged sugar maple, red maple, willow, white ash, and black cherry.
Subcanopy and understory	Moderately dense American elm, beech, sugar maple, and yellow birch.
Shrub layer	Moderately dense, with abundant Oriental honeysuckle. Also Japanese barberry, chokecherry, meadowsweet, white pine, alternate-leaved dogwood, sugar maple, beech, shadbush, Asiatic bittersweet, riverbank grape, Virginia creeper, red oak, and staghorn sumac; common buckthorn near southern tip. Lower down by river: meadowsweet, silky dogwood, American elm, gray birch.
Herb layer	Dense; dominated by sedges and grasses. Also sensitive fern, hay-scented fern, golden alexanders, false Solomon's seal, false hellebore, tall meadow rue, wood anemone, red trillium, live-forever, wood strawberry, wild lettuce, groundnut, interrupted fern, bloodroot, New York fern, cinnamon fern, jumpseed, rough-stemmed goldenrod, yellow wood sorrel, Canada mayflower, zigzag goldenrod, fringed bindweed, tall blue lettuce, small-flowered crowfoot, red baneberry, pale touch-me-not, jewelweed, and helleborine. Lower down by river: Japanese knotweed, wild cucumber, agrimony.
Birds	Common grackle, black-capped chickadee, tufted titmouse.
Habitat features	Boulders by river. A few snags; abundant coarse woody debris.

OMP-6

Current cover	White Pine-Northern Hardwoods
Natural community	Northern Hardwood Forest
Canopy	Scattered white pines
Subcanopy	Dense. Saplings and pole-sized red maple, sugar maple, beech, and yellow birch.
Shrub layer	Sparse; dominated by beech. Also witch hazel, chokecherry, alternate-leaved dogwood, hawthorn, prickly gooseberry, beaked hazelnut, shadbush, American fly honeysuckle, raspberry, and saplings/seedlings of sugar maple, white pine, hemlock, red spruce, black cherry, hophornbeam, red oak, quaking aspen, and red maple. Japanese barberry in seep.
Herb layer	Patchy; fairly dense. Canada mayflower and interrupted fern are most prominent. Also starflower, wild oats, trout lily, lady fern, partridgeberry, hay-scented fern, bracken fern, dogbane, sensitive fern, false Solomon's seal, goldthread, New York fern, cinnamon fern, Indian cucumber, ground cedar, lady's slipper, tree clubmoss, and wild sarsaparilla. Seep in southeastern portion: dense ferns; foamflower, wood horsetail, tall meadow rue, and jewelweed.
Birds	Ovenbird, black-capped chickadee, American redstart, American goldfinch, chimney swift, black-throated green warbler, blue jay, pine warbler, great crested flycatcher.
Mammals	Gray squirrel, chipmunk.
Herps	Red eft.
Habitat features	Moderate coarse woody debris; a few short snags.

OMP-7

Current cover	Hemlock-Northern Hardwoods-White Pine
Natural community	Hemlock Forest
Canopy	Dominated by hemlock; also white pine and beech.
Subcanopy	Dominated by hemlock; also beech and yellow birch.
Shrub layer	Very sparse. Hemlock, striped maple, beech.
Herb layer	Very sparse. Partridgeberry, polypody.
Birds	Pileated woodpecker feeding sign.
Mammals	Red squirrel, chipmunk.
Habitat features	Snag with cavities; boulders.

OMP-8

Current cover	Hemlock-Northern Hardwoods-White Pine
Natural community	Hemlock Forest
Canopy	Dominated by hemlock; also yellow birch, red maple, beech, white pine.
Subcanopy	Scattered hemlock; dense in some places.
Shrub layer	Patchy. Hemlock, witch hazel, beech, shadbush, striped maple, mountain maple, hobblebush, red spruce.
Herb layer	Patchy. Painted trillium, goldthread, partridgeberry, starflower, Indian

	cucumber, lady's slipper, common wood sorrel, wild sarsaparilla, bluebead lily, oak fern, Canada mayflower, lady fern, beech fern, trout lily, intermediate woodfern, polypody, wood anemone, wintergreen, jewelweed, tall rattlesnake root, red trillium, sensitive fern, wild oats, tree clubmoss, foamflower. Day lily, swamp buttercup, field horsetail, wood horsetail, moneywort, and coltsfoot along river.
Birds	Pileated woodpecker holes; Blackburnian warbler, black-throated green warbler, brown creeper, black-capped chickadee, ovenbird, scarlet tanager, hairy woodpecker, American robin. In vicinity of beaver meadow (just outside the park): drumming ruffed grouse; rose-breasted grosbeak, white-throated sparrow, great crested flycatcher, common yellowthroat, winter wren, wood thrush, hermit thrush.
Mammals	Red squirrel, chipmunk; mink tracks along Clay Brook.
Herps	Red eft.
Habitat features	Occasional snags and coarse woody debris.

OMP-9

Current cover	White Pine
Natural community	Northern Hardwood Forest
Canopy	Moderately dense even-aged white pines.
Subcanopy	Patchy. Red maple dominant; a few paper birch, black cherry, pin cherry.
Shrub layer	High shrubs moderately to very dense; low shrubs sparse. Many tall beech saplings; also hemlock, shadbush, yellow birch, sugar maple, striped maple, late low blueberry, red oak, beaked hazelnut, European mountain-ash, and red spruce.
Herb layer	Well developed; Canada mayflower is abundant. Common wood sorrel, starflower, woodrush, bluebead lily, intermediate woodfern, partridgeberry, goldthread, wild sarsaparilla, Indian pipe, ground cedar, wild oats, tree clubmoss.
Birds	Ovenbird, black-capped chickadee, American redstart, Blackburnian warbler, hairy woodpecker, American goldfinch, blue jay, pine warbler, broad-winged hawk, hermit thrush, blue-headed vireo.
Habitat features	Few snags; moderately abundant coarse woody debris; scattered low conifer cover.

RIVERWALK

Visited 8/12/05, 8/19/05.

RW-1

Current cover	Field
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	One boxelder.
Shrub layer	Scattered low shrubs. Virginia creeper, multiflora rose, black locust, riverbank grape.
Herb layer	Dense; dominated by foxtail grass and other grasses. Also wild madder,

	ground ivy, ragweed, clearweed, wild cucumber, ground cherry, tall nettle, common plantain, wild carrot, creeping buttercup, yellow wood sorrel, burdock, hog peanut.
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RW-2

Current cover	Early Successional
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Scattered tall cottonwoods.
Subcanopy and high shrubs	Patchy; dominated by boxelder. Also riverbank grape, American elm, common buckthorn, green ash, butternut.
Low shrubs	Scattered; abundant along trail. Virginia creeper, riverbank grape, boxelder, silky dogwood, common buckthorn, multiflora rose, Oriental honeysuckle, raspberry, chokecherry, alternate-leaved dogwood, black cherry, Japanese barberry, green ash, hackberry. Along trail, multiflora rose and Oriental honeysuckle are abundant; also some Norway maple.
Herb layer	Dense. Dominated by jewelweed; moneywort also abundant. Rough-stemmed goldenrod, violet, white vervain, wild carrot, evening primrose, yellow wood sorrel, pale touch-me-not, daisy fleabane, wild cucumber, white avens, agrimony, celandine (abundant near entrance), clearweed, Virginia stickseed, burdock, motherwort, white avens, field horsetail, sensitive fern, wood nettle, willow herb, reed canary grass, late goldenrod, bitter dock, dame's rocket (large patch), jumpseed, garlic mustard (near parking area).
Birds	Northern flicker, black-capped chickadee, American crow, gray catbird, American redstart, American goldfinch, house wren, northern cardinal.
Mammals	Woodchuck hole.
Habitat features	Coarse woody debris.

RW-3

Current cover	Floodplain Forest
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Open; silver maple and cottonwood. Black locusts on trail.
Subcanopy and high shrubs	Fairly dense; dominated by boxelder. Also riverbank grape, American elm, silver maple, hackberry, slippery elm.
Shrub layer (low)	Sparse. Boxelder, hackberry, riverbank grape, silver maple, black locust, multiflora rose.
Herb layer	Very dense. Dominated by wood nettle; ostrich fern and pale touch-me-not also abundant. Also jewelweed, goutweed (abundant near river), hog peanut, devil's beggar-ticks, wild cucumber, wild rye and other grasses, ground ivy, burdock, common plantain, yellow wood sorrel, violet, daisy fleabane, tall blue lettuce, goldenrod, white avens, tall nettle, agrimony, black nightshade, creeping bellflower, honewort, lamb's quarters, motherwort, enchanter's nightshade, dame's rocket, celandine, Japanese knotweed (patch on north side of trail near the black locusts; another patch on south side of trail, about 50 feet west of where the trail forks by the river); a little purple loosestrife on riverbank.

Birds	Song sparrow, cedar waxwing, American goldfinch, American crow, American robin, black-capped chickadee, northern cardinal, American redstart, tufted titmouse, downy woodpecker, northern flicker. Great blue heron, ring-billed gull, belted kingfisher, and Canada goose on river.
Mammals	Gray squirrel; old beaver sign near river. Raccoon and beaver tracks on shore north of property.
Herps	Garter snake.

RW-4

Current cover	Field
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Herb layer	Dense; dominated by foxtail grass and other grasses. Also wild madder, Virginia creeper, dandelion, wild carrot, yellow wood sorrel, burdock, red clover, ground ivy, cow vetch, curled dock.

SALMON HOLE PARK

Visited 7/6/05, 8/21/05, 8/22/05.

SH-1

Current cover	Lawn
Natural community	Mesic Red Oak-Northern Hardwood Forest

SH-2

Current cover	Lawn
Natural community	Mesic Red Oak-Northern Hardwood Forest
Canopy	A few cottonwood trees.
Herb layer	Dominated by grass; also common plantain, English plantain, yellow wood sorrel, lamb's quarters, black medick, white clover.

SH-3

Current cover	Early Successional Hardwoods
Natural community	Mesic Red Oak-Northern Hardwood Forest
Canopy	Open. Red oak, cottonwood, boxelder, basswood, butternut.
Subcanopy and high shrubs	Fairly dense/patchy. Red oak, boxelder, green ash, American elm, basswood, Norway maple, glossy buckthorn, common buckthorn, alternate-leaved dogwood; staghorn sumac abundant near road edge; a Norway spruce near top.
Shrub layer (low)	Moderately dense/patchy; invasives abundant. Basswood, poison ivy, green ash, common buckthorn, black raspberry, mountain maple, Virginia creeper, Norway maple, Oriental honeysuckle, prickly gooseberry, chokecherry, glossy buckthorn, alternate-leaved dogwood, highbush cranberry, purple-flowering raspberry, red oak, European mountain-ash (eastern portion). Japanese barberry abundant along southeast road edge.
Herb layer	Dense (sparse by road and in eastern portion). Moneywort, zigzag goldenrod, and jewelweed abundant; also sensitive fern, enchanter's

	nightshade, lady fern, goldenrod, white avens, ostrich fern, jumpseed, fringed loosestrife, jack-in-the-pulpit, spinulose woodfern, interrupted fern, common fleabane, field horsetail, burdock, yellow wood sorrel.
Birds	American robin, gray catbird, black-capped chickadee.
Habitat features	Some snags, coarse woody debris, intermittent streams; seepy.

SH-4

Current cover	Lawn
Natural community	Mesic Red Oak-Northern Hardwood Forest
Canopy	A few American elm, willow and boxelder.
Subcanopy	Black locusts at forest edge.
Shrub layer	A few boxelder and black raspberry; at forest edge, Oriental honeysuckle abundant; also common buckthorn and glossy buckthorn.
Herb layer	Dominated by grass and moneywort; also dandelion, common plantain, yellow wood sorrel, enchanter's nightshade, zigzag goldenrod, jumpseed. At edge: chicory, yarrow, curled dock, garlic mustard.

SH-5

Current cover	Rock Outcrop
Natural community	Riverside Outcrop
Shrub layer	Occasional American elm, chokecherry, red osier dogwood, common buckthorn, Oriental honeysuckle.
Herb layer	Dense patches; extensive bare rock. Dominated by grasses; also common St. Johnswort, common plantain, mosses, wormwood, red clover, marginal woodfern, wild madder, common fleabane, golden alexanders, common milkweed, goldenrod, bluebell, white sweet clover, hawkweed, yarrow, oxeye daisy, low hop clover, groundnut.
Habitat features	Several snags.

SH-6

Current cover	Boxelder-Cottonwood-Willow
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Open and uneven. Basswood, cottonwood, green ash, Norway maple, butternut.
Shrub layer	Scattered. Red osier dogwood, common buckthorn, poison ivy, Virginia creeper, glossy buckthorn, red oak, willow, black raspberry, chokecherry, basswood, riverbank grape, boxelder, green ash, butternut, purple-flowering raspberry, Oriental honeysuckle.
Herb layer	Dense. Groundnut, goutweed, fringed loosestrife, hog peanut, birdsfoot trefoil, red clover, wormwood, tall buttercup, golden alexanders, common plantain, field horsetail, day lily, jewelweed, devil's beggar-ticks, agrimony, joe-pye weed, white campion, moneywort.
Birds	Eastern phoebe, house wren, gray catbird, northern cardinal.
Mammals	Cottontail.

SH-7

Current cover	Rock Outcrop
Natural community	Riverside Outcrop
Shrub layer	Very sparse. Willow, American elm, red osier dogwood, smooth rose, Oriental honeysuckle, shadbush, common buckthorn, green ash, common barberry, multiflora rose, black raspberry, chokecherry, poison ivy, staghorn sumac, cottonwood, silver maple, green ash.
Herb layer	Very sparse. Bluebell, balsam ragwort, grasses, downy goldenrod and other goldenrods, white sweet clover, common plantain, rough cinquefoil, daisy fleabane, groundnut, sensitive fern, water hemlock, common St. Johnswort, wormwood, butter-and-eggs, wild strawberry, mosses, lichens, oxeye daisy, dogbane, mullein, yarrow, hawkweed, blue vervain, aster, birdsfoot trefoil, dark green bulrush, sedges, purple loosestrife, black-eyed susan, cocklebur.
Birds	Common grackle, northern flicker, song sparrow.
Mammals	Gray squirrel.

SH-8

Current cover	Shrub and Sapling Thicket
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Scattered cottonwoods.
Subcanopy and shrubs	Dense. Cottonwood, basswood, American elm; black locust abundant; poison ivy, red oak, ninebark, chokecherry, shadbush, gray birch, riverbank grape, Oriental honeysuckle, American bittersweet, boxelder, green ash, willow.
Herb layer	Patchy; some bare sand. White sweet clover, groundnut, showy tick trefoil, grasses, bouncing bet, yellow wood sorrel, wormwood, starry false Solomon's seal, field horsetail, common milkweed.
Birds	Osprey perched on snag; American crow.
Mammals	A beaver-girdled cottonwood.
Habitat features	A snag.

SH-9

Current cover	Shrub and Sapling Thicket
Natural community	Riverside Outcrop
Canopy	A few taller American elms.
Shrub layer	Moderately dense, with uneven-sized shrubby trees. Silver maple, American elm, riverbank grape, willow.
Herb layer	Tall meadow rue, joe-pye weed.
Birds	Song sparrow.
Habitat features	A snag.

SH-10

Current cover	Grassy Shore
Natural community	Rivershore Grassland
Shrub layer	Scattered patches of silver maple, green ash, red osier dogwood,

	basswood, American elm, cottonwood, riverbank grape.
Herb layer	Dense reed canary grass; dogbane also abundant. Also purple loosestrife, joe-pye weed, cocklebur, common St. Johnswort.
Habitat features	Abundant bare cobble.

SH-11

Current cover	Early Successional (power lines)
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Shrub layer	Patchy. Silver maple, willow, cottonwood.
Herb layer	Dense. Cocklebur, reed canary grass, joe-pye weed, one-seeded bur cucumber, purple loosestrife; dense spikerush along river edge.

SH-12

Current cover	Gravel Shore
Natural community	River Sand or Gravel Shore
Shrub layer	A few cottonwood seedlings.
Herb layer	Very sparse. Reed canary grass, dogbane, cocklebur, rush, pondweed.
Birds	Ring-billed gulls, American crow.
Mammals	Deer tracks.
Habitat features	Cobblestone tiger beetle (ID not confirmed) seen on 8/21/05.

SH-13

Current cover	Grassy Shore
Natural community	Rivershore Grassland; River Mud Shore
Shrub layer	Willow.
Herb layer	Reed canary grass abundant; also rush, false pimpernel, cyperus, cocklebur, purple loosestrife, knotweed, monkey flower, barnyard grass, small water plantain, lovegrass, blue vervain.
Mammals	Beaver tracks.

SH-14

Current cover	Boxelder-Cottonwood-Willow
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy/subcanopy	Dense boxelder; also riverbank grape, silver maple, willow.
Shrub layer	Sparse. Riverbank grape, boxelder, glossy buckthorn, common elderberry, silver maple, raspberry.
Herb layer	Fairly dense, with bare sandy spots. Dominated by whitegrass; also joe-pye weed, jewelweed, hedge bindweed, devil's beggar-ticks, wormwood, white vervain, common milkweed, a little Japanese knotweed in the middle, bouncing bet, black nightshade, dame's rocket, bittersweet nightshade, field horsetail, white sweet clover, clearweed, yellow wood sorrel, lamb's quarters, wild rye.
Birds	American goldfinch, cedar waxwing.
Habitat features	Treehouse/platform.

SH-15

Current cover	Early Successional
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Shrub layer	Scattered cottonwood.
Herb layer	Dense; dominated by cocklebur. Also purslane, barnyard grass and other grasses, nodding smartweed, purple loosestrife, arrowhead, pondweed, monkey flower, bulrush, boneset, one-seeded bur cucumber, thin-leaved sunflower, another sunflower, field horsetail, common milkweed.
Birds	Green heron; great blue heron tracks.

SH-16

Current cover	Early Successional
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Shrub layer	Scattered willow and cottonwood.
Herb layer	Dense (with patchy bare sand); dominated by cocklebur. Also lovegrass, drooping woodreed, barnyard grass, other grasses, hedge bindweed, nodding smartweed, bittersweet nightshade, purple loosestrife, cyperus, carpetweed, doorweed, evening primrose.
Birds	Song sparrow, great blue heron.

SH-17

Current cover	Boxelder-Cottonwood-Willow
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Scattered cottonwood.
Subcanopy	Dense boxelder; riverbank grape.
Shrub layer	Sparse. Green ash, riverbank grape, basswood.
Herb layer	Dense; dominated by jewelweed and whitegrass. Also tall nettle, bittersweet nightshade, wood nettle, wild cucumber, white vervain, wormwood, common plantain, daisy fleabane, devil's beggar-ticks, drooping woodreed, yellow wood sorrel, celandine, motherwort, reed canary grass, a little goutweed.
Birds	Cedar waxwing, gray catbird, house wren, white-breasted nuthatch, downy woodpecker; belted kingfisher on river.
Mammals	Deer browse; beaver-felled cottonwoods.
Habitat features	Abundant coarse woody debris.

SH-18

Current cover	Early Successional
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Shrub layer	Moderately dense cottonwood.
Herb layer	Dense; dominated by cocklebur, field horsetail, tall nettle, and hedge bindweed. Also burdock, nodding smartweed, purple loosestrife, late goldenrod, wild mint, sunflower, bittersweet nightshade, jewelweed, common milkweed, joe-pye weed, lovegrass, wild cucumber, phragmites (hedge bindweed is doing a reasonably good job of smothering it).

Birds	American goldfinch, spotted sandpiper.
Mammals	Beaver feeding sign, muskrat tracks.

SH-19

Current cover	Sandy Shore
Natural community	River Sand or Gravel Shore
Herb layer	Cocklebur and smartweed abundant.
Mammals	Muskrat tracks.

SH-20

Current cover	Floodplain Forest
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Open/patchy. Dominated by silver maple; cottonwood abundant on south side; also boxelder.
Subcanopy and high shrubs	Fairly sparse to moderately dense. Boxelder, American bittersweet, catalpa, American elm, riverbank grape.
Shrub layer	Moderately dense. Virginia creeper, poison ivy, raspberry, American bittersweet, common buckthorn, boxelder, riverbank grape, staghorn sumac, catalpa, silver maple, common barberry, snowberry.
Herb layer	Dense/patchy; ostrich fern dominant towards middle; more diverse towards edges. Jumpseed, joe-pye weed, white snakeroot, yellow wood sorrel, wild rye, hog peanut, evening primrose, burdock, virgin's bower, wormwood, black-eyed susan, starry false Solomon's seal, cocklebur, white vervain, motherwort, goutweed, panic grass, black nightshade, whitegrass, pale touch-me-not, jewelweed, mullein, nodding smartweed, one-seeded bur cucumber, brome, Virginia stickseed, daisy fleabane, dame's rocket, tall nettle, bittersweet nightshade, enchanter's nightshade, wood nettle, ragweed, wild cucumber.
Birds	American goldfinch, American robin, American crow, hairy woodpecker, green heron.
Mammals	Old beaver sign.
Herps	American toad.
Habitat features	Abundant coarse woody debris.

SH-21

Current cover	Sandy Shore
Natural community	River Sand or Gravel Shore
Shrub layer	Sparse; Virginia creeper, riverbank grape, willow, silver maple.
Herb layer	Sparse; dominated by cocklebur and grasses. Also wormwood, white sweet clover, smartweeds, cyperus, purple loosestrife, devil's beggar-ticks, three-seeded mercury, water purslane, barnyard grass, beggar-ticks.
Mammals	Deer and raccoon tracks.

SH-22

Current cover	Early Successional (power lines)
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Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Shrub layer: high	Moderately dense, dominated by staghorn sumac; riverbank grape, boxelder.
Shrub layer: low	Sparse blackberry, common elderberry, Oriental honeysuckle.
Herb layer	Dense; dominated by ostrich fern and jewelweed. Also fringed bindweed, Virginia stickseed, yellow wood sorrel, carpenter's square, dame's rocket, wild cucumber, pale touch-me-not, tall nettle, willow herb, groundnut, Japanese knotweed patch at west tip.
Birds	Song sparrow, black-capped chickadee, American crow.
Mammals	Deer browse.

SH-23

Current cover	Grassy Shore
Natural community	Rivershore Grassland
Shrub layer	Cottonwood seedlings abundant; also silver maple seedlings and Virginia creeper.
Herb layer	Dominated by grasses, including lovegrass; also cocklebur, purple loosestrife, ditch stonecrop, nodding smartweed, evening primrose, spikerush, blue vervain, barnyard grass, dwarf St. Johnswort, hedge bindweed, field horsetail, mullein, water horehound, common milkweed.

VALLEY RIDGE

Visited 8/9/05, 8/24/05.

VR-1

Current cover	Early Successional (power lines)
Natural community	Mesic Red Oak-Northern Hardwood Forest
Shrub layer (high)	Dense patches of staghorn sumac; also witch hazel and glossy buckthorn.
Shrub layer (low)	Fairly dense. Blackberry abundant; also alternate-leaved dogwood, red maple, purple-flowering raspberry, alder.
Herb layer	Dense. Sensitive fern, lady fern, interrupted fern, common scouring rush, wild sarsaparilla, Christmas fern, jewelweed, flat-topped aster.
Birds	American goldfinch, black-capped chickadee, common yellowthroat, gray catbird.
Mammals	Raccoon and deer tracks.

VR-2

Current cover	Red Oak-Northern Hardwoods
Natural community	Mesic Red Oak-Northern Hardwood Forest
Canopy	Fairly dense. Cottonwood and red oak abundant; also bigtooth aspen, paper birch, quaking aspen, black cherry, white ash, white oak; yellow birch by seep.
Subcanopy and high shrubs	Fairly dense. Red maple abundant; also white ash, American elm, black birch, sugar maple, witch hazel, striped maple, white pine, paper birch, basswood, beech; yellow birch by seep and beaver meadow.

Shrub layer (low)	Moderately dense. Invasives scattered throughout. Alternate-leaved dogwood, white ash, sugar maple, mountain maple, witch hazel, red oak, glossy buckthorn, riverbank grape, boxelder, Virginia creeper, arrowwood, common buckthorn, Oriental honeysuckle, Asiatic bittersweet, striped maple, beech, black cherry, purple-flowering raspberry, witch hazel, basswood, beaked hazelnut, chokecherry, bush honeysuckle, meadowsweet, maple-leaved viburnum, white oak; hobblebush and Japanese barberry along stream.
Herb layer	Patchy; fairly sparse. Sensitive fern, enchanter's nightshade, yellow wood sorrel, zigzag goldenrod, field horsetail, lady fern, Christmas fern, bracken fern, false Solomon's seal, wild sarsaparilla, interrupted fern, jack-in-the-pulpit, blue-stemmed goldenrod, sedges, Canada mayflower, white baneberry, ostrich fern, red trillium, wild oats, large-flowered trillium, Indian cucumber, wintergreen, common speedwell, bittersweet nightshade, white avens, common scouring rush, cinnamon fern, intermediate woodfern, starflower, wood anemone, small-flowered crowfoot, fragile fern, oak fern, large-leaved aster. Along stream: jewelweed, great burdock, white avens, bittersweet nightshade, enchanter's nightshade. Westernmost seep: jewelweed abundant; also sedge, sensitive fern, ostrich fern. Next seep to east: ringed with moneywort and dense sensitive fern. Seep near middle of stand: bare mud, with sensitive fern and ostrich fern around it. Seep below VR-11: sensitive fern abundant; also cinnamon fern, flat-topped aster, turtlehead, jewelweed, field horsetail, bittersweet nightshade.
Birds	White-breasted nuthatch, eastern wood-pewee, American goldfinch, black-capped chickadee, blue jay, pileated woodpecker.
Mammals	Deer browse, scat, and tracks; raccoon tracks.
Habitat features	Abundant coarse woody debris; some snags; small streams have cut deep valleys through the sand; small seeps; possible vernal pool.

VR-3

Current cover	Shrub and Sapling Thicket
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Scattered willow, red maple, green ash, American elm, silver maple, boxelder.
Subcanopy and shrubs	Dense to extremely dense. Oriental honeysuckle and common buckthorn very abundant in northern portion; also American elm, alder, willow, silky dogwood, boxelder, gray-stemmed dogwood, raspberry, silver maple, meadowsweet, Virginia creeper, basswood, poison ivy, green ash, multiflora rose, common barberry, riverbank grape, glossy buckthorn, white ash. Strip south of VR-8: white pine, striped maple, American elm, boxelder, musclewood, black cherry, Oriental honeysuckle, red maple.
Herb layer	Patchy; dense in places. Jewelweed, sensitive fern, moneywort, rough-stemmed goldenrod, and ostrich fern abundant; large patch of lakeshore

	sedge; also Virginia stickseed, water hemlock, fringed loosestrife, jumpseed, dwarf raspberry, bittersweet nightshade, yellow wood sorrel, enchanter's nightshade, late goldenrod, common milkweed, crown vetch, bull thistle, agrimony, dame's rocket, white avens.
Birds	Gray catbird, eastern wood-pewee, tufted titmouse, American robin, song sparrow, common grackle, black-capped chickadee, common yellowthroat, American goldfinch, blue jay.
Mammals	Deer browse; chipmunk; raccoon tracks along river.
Habitat features	Some snags; some coarse woody debris.

VR-4

Current cover	Floodplain Forest
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Open. Silver maple, cottonwood, white pine.
Subcanopy and high shrubs	Moderate to fairly dense. Common buckthorn abundant; also slippery elm, white ash, riverbank grape, hawthorn, green ash, American elm, boxelder, Oriental honeysuckle.
Shrub layer (low)	Fairly sparse to dense. Common buckthorn abundant; also white ash, black cherry, common barberry.
Herb layer	Dense. Sensitive fern, ostrich fern, and moneywort abundant; also jewelweed, goldenrod, field horsetail, enchanter's nightshade, jumpseed, interrupted fern.
Birds	Eastern kingbird, American robin, gray catbird, European starling, American redstart.
Mammals	Deer fawns; beaver-girdled cottonwoods.
Habitat features	Snags; intermittent stream.

VR-5

Current cover	Hardwood Swamp
Natural community	Red Maple-Black Ash Swamp
Canopy	Scattered red maple, white ash.
Subcanopy and high shrubs	Patchy. Glossy buckthorn, alder, winterberry, American elm, gray-stemmed dogwood.
Shrub layer (low)	Meadowsweet.
Herb layer	Dense. Jewelweed, sensitive fern, moneywort, bittersweet nightshade, cinnamon fern, white avens, skunk cabbage, duckweed, marsh bedstraw, marsh fern, forget-me-not, dwarf raspberry, wild mint, grass, field horsetail, willow herb.
Birds	American robin, eastern wood-pewee.
Mammals	Deer browse.

VR-6

Current cover	Oak-Hardwoods
Natural community	Pitch Pine-Oak-Heath Sandplain Forest
Canopy	Red maple and red oak abundant; also pitch pine and white oak.

Subcanopy and high shrubs	White pine and red maple abundant; also witch hazel, striped maple, shadbush, red pine. In ravine: sugar maple, mountain maple, yellow birch, beech, common buckthorn, Norway maple, boxelder.
Shrub layer (low)	Sparse to fairly dense. Late low blueberry, striped maple, maple-leaved viburnum, huckleberry, red oak, beaked hazelnut, hawthorn, blackberry, Oriental honeysuckle, common barberry; poison ivy and Japanese barberry in ravine.
Herb layer	Moderate to fairly dense. Wild sarsaparilla abundant; also blue-stemmed goldenrod and another goldenrod, bracken fern, Canada mayflower, bastard toadflax, dogbane, starflower, Virginia stickseed, hog peanut, rough-stemmed goldenrod, wild oats, tall rattlesnake root, large-flowered trillium, Indian cucumber, whorled wood aster, Christmas fern. In ravine/seeep: interrupted fern, white baneberry, oak fern, beech fern, beechdrops, jewelweed, sensitive fern, ostrich fern, bittersweet nightshade, yellow wood sorrel, enchanter's nightshade, Indian tobacco, moneywort, royal fern, cinnamon fern, willow herb, early meadow rue, common scouring rush, drooping woodreed.
Birds	American robin, brown creeper, downy woodpecker.
Mammals	Deer tracks, chipmunk, woodchuck hole.
Habitat features	Snags; some coarse woody debris; deep-cut stream.

VR-7

Current cover	Phragmites
Natural community	Beaver Meadow, Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Moderately dense patch of willow saplings.
Shrub layer	Scattered alder, common elderberry.
Herb layer	Extremely dense phragmites. Also jewelweed, bittersweet nightshade.
Mammals	Raccoon tracks along VR-6 edge.

VR-8

Current cover	Beaver Meadow
Natural community	Beaver Wetland
Shrub layer (high)	Scattered alder; patch at west end with American elm, red maple, glossy buckthorn.
Shrub layer (low)	Scattered/patchy. Virginia creeper, meadowsweet, alder, silky dogwood, red raspberry.
Herb layer	Dense. Narrow-leaved cattail and reed canary grass abundant; also Canada thistle, Virginia stickseed, jewelweed, clearweed, tearthumb, bittersweet nightshade, skunk cabbage, marsh marigold, ostrich fern, purple loosestrife, field horsetail, nodding smartweed, bull thistle, mullein, rough-stemmed goldenrod, late goldenrod, sensitive fern, lakeshore sedge, willow herb, bur-reed, halberd-leaved tearthumb.
Birds	Blue jay, American goldfinch, American robin, eastern wood-pewee, eastern kingbird, red-winged blackbird, cedar waxwing, gray catbird, song sparrow.
Mammals	Recent beaver feeding and dam-building activity.

VR-9

Current cover	Phragmites
Natural community	Beaver Wetland
Shrub layer	One small glossy buckthorn.
Herb layer	Dense phragmites; jewelweed also abundant. Bittersweet nightshade, enchanter's nightshade, clearweed.
Birds	Black-capped chickadee; blue jay tracks.
Mammals	Raccoon tracks; deer browse.
Habitat features	A few snags.

VR-10

Current cover	Oak-Hardwoods-Hemlock
Natural community	Hemlock Forest
Canopy	Fairly dense. Yellow birch, red maple, red oak, paper birch, white pine, white oak, white ash.
Subcanopy and high shrubs	Fairly dense. Yellow birch, hemlock, beech, white pine, witch hazel, striped maple.
Shrub layer (low)	Sparse to none where hemlocks are dense; patchy elsewhere. Virginia creeper, white ash, glossy buckthorn, Oriental honeysuckle, beaked hazelnut, Japanese barberry.
Herb layer	Sparse to none where hemlocks are dense; patchy elsewhere. Wild sarsaparilla, Christmas fern, lady fern, jack-in-the-pulpit, sensitive fern, ostrich fern, hog peanut, starflower, white baneberry, intermediate woodfern, Canada mayflower, Indian pipe.
Birds	Black-capped chickadee, rose-breasted grosbeak, eastern wood-pewee, white-breasted nuthatch; pileated woodpecker holes.
Habitat features	Large cut stumps; some coarse woody debris; snag with pileated woodpecker holes.

VR-11

Current cover	Marsh
Natural community	Shallow Emergent Marsh
Herb layer	Reed canary grass abundant; also narrow-leaved cattail, field horsetail, willow herb.

WINOOSKI GORGE

Visited 8/3/05, 8/21/05, 8/28/05.

WG-1

Current cover	Early Successional Hardwoods-Cedar
Natural community	Limestone Bluff Cedar-Pine Forest
Canopy	Open. Paper birch, quaking aspen, bigtooth aspen, basswood, white pine, red oak, white oak, black cherry, red maple, bitternut hickory, northern white cedar, red pine, dead butternuts, hackberry, white ash, cottonwood,

	sugar maple, hemlock.
Subcanopy & high shrubs	Dense northern white cedar; also basswood, hemlock, common buckthorn, white ash, yellow birch, white pine, red maple, American elm, hophornbeam, bitternut hickory, hawthorn, apple, sugar maple, autumn olive, quaking aspen. Muscledwood and mountain maple in ravine.
Shrub layer (low)	Sparse/patchy. Common buckthorn and poison ivy abundant; also northern white cedar, purple-flowering raspberry, green ash, Virginia creeper, red elderberry, common barberry, bitternut hickory, black cherry, muscledwood, hophornbeam, white oak, hemlock, sugar maple, white ash, red oak, basswood, alternate-leaved dogwood, summer grape, hackberry, quaking aspen, riverbank grape, round-leaved dogwood, Japanese barberry, white pine, glossy buckthorn, prickly gooseberry, buffaloberry, Oriental honeysuckle, raspberry, autumn olive; mountain maple in ravine.
Herb layer	Sparse/patchy. False Solomon's seal and zigzag goldenrod abundant; also ebony sedge, bulblet fern, fragile fern, jack-in-the-pulpit, wild ginger, red baneberry, white baneberry, mullein, wild sarsaparilla, columbine, white wood aster, spikenard, Virginia stickseed, maidenhair fern, thimbleweed, interrupted fern, common speedwell, hog peanut, white lettuce, large-flowered trillium, sensitive fern, helleborine, dalibarda, polypody, marginal woodfern, walking fern, early meadow rue, Canada mayflower, blue cohosh, blue-stemmed goldenrod, bloodroot, bluebell, hawkweeds, hooked crowfoot, burdock, red trillium, large-leaved aster, tall buttercup, wild lettuce, lady fern, wild basil, rough-stemmed goldenrod, round-leaved pyrola, dogbane, aster, white sweet clover, lopseed, dandelion, cow vetch, sweet-scented bedstraw, black-seeded ricegrass, hemp nettle, celandine, catnip, motherwort, herb Robert, enchanter's nightshade, bittersweet nightshade, willow herb, wild licorice, climbing fumitory, butter-and-eggs, yarrow; garlic mustard on property boundary, just below fence line. In ravine: ostrich fern, jewelweed, jumpseed.
Birds	Red-breasted nuthatch, black-capped chickadee, American goldfinch, song sparrow, cedar waxwing, downy woodpecker, American robin, mourning dove, northern cardinal, eastern wood-pewee, hairy woodpecker, American crow, white-breasted nuthatch, tufted titmouse, blue jay, common grackle; barred owl pellets; pileated woodpecker; sharp-shinned hawk feather among a pile of mourning dove feathers.
Mammals	Deer, chipmunk, gray squirrel; red squirrel middens; woodchuck holes; old beaver-cut stumps along river; red fox scent. In ravine: raccoon and deer tracks, and unknown carnivore scats.
Herps	Wood frog, gray treefrog, garter snake.
Habitat features	Rock outcrops; rocky at bottom of hill; a few snags; coarse woody debris; ravine just east of WG-8.

WG-2

Current cover	Cliff
Natural community	Temperate Calcareous Cliff
Canopy	Stunted northern white cedar.

Shrub layer	Stunted northern white cedar.
Herb layer	Columbine, aster, smooth cliffbrake, false Solomon's seal, maidenhair spleenwort.

WG-3

Current cover	Oak-Hardwoods
Natural community	Dry Oak Forest
Canopy	Open. Red oak, red maple, white oak, shadbush, white pine, black cherry, quaking aspen.
Subcanopy and shrubs	Huckleberry, late low blueberry, low sweet blueberry, round-leaved dogwood, white ash, basswood, bitternut hickory, beaked hazelnut, black cherry, shadbush, sheep laurel; occasional low northern white cedar.
Herb layer	Bracken fern, large-leaved aster, partridgeberry, bastard toadflax, Pennsylvania sedge, blue-stemmed goldenrod, grass, dogbane, Canada mayflower, fringed polygala, wintergreen, whorled wood aster, white wood aster, round-leaved pyrola, pinesap, yarrow, hop clover.

WG-4

Current cover	Early Successional
Natural community	Limestone Bluff Cedar-Pine Forest
Canopy	Scattered paper birch and quaking aspen saplings.
Subcanopy	Scattered/patchy northern white cedar saplings; paper birch.
Shrub layer	Patchy; dominated by northern white cedar. Also quaking aspen, white pine, buffaloberry, red oak, willows, balm of Gilead, bigtooth aspen, red elderberry, alternate-leaved dogwood.
Herb layer	Sparse. Downy goldenrod abundant; also mosses, white sweet clover, ebony sedge, cow vetch, butter-and-eggs, yarrow, wild carrot, common plantain, doorweed, ragweed.
Mammals	Heavy deer browse on cedars.
Habitat features	Dumped marble 'slag' from mine across the street.

WG-5

Current cover	Grassy Shore
Natural community	Rivershore Grassland
Shrub layer	Patchy at northeast end. Boxelder, riverbank grape, Virginia creeper.
Herb layer	Dense. Reed canary grass abundant; also narrow-leaved cattail, purple loosestrife (beetle-damaged), cocklebur, jewelweed, wild mint, bittersweet nightshade, joe-pye weed, tall nettle, wormseed mustard, thistle, hedge bindweed, wild cucumber, ostrich fern, blue vervain, evening primrose, goldenrod, dame's rocket, climbing false buckwheat, Japanese knotweed (very small cluster), Canada thistle, wormwood, common milkweed, bouncing bet, monkey flower, coltsfoot, drooping woodreed.
Habitat features	Coarse woody debris.

WG-6

Current cover	Muddy Shore
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Natural community	River Mud Shore
Shrub layer	Scattered cottonwood and silver maple seedlings.
Herb layer	Fairly sparse. Water purslane, nodding smartweed and other smartweeds/knotweeds, devil's beggar-ticks, purple loosestrife, moneywort, spikerush, rush, marsh yellow cress, monkey flower, barnyard grass, water purslane, false pimpernel.
Mammals	Deer and raccoon tracks.

WG-7

Current cover	White Pine-Hemlock-Hardwoods
Natural community	Hemlock Forest
Canopy	Open. White pine, red maple, red oak, white oak.
Subcanopy	Dense hemlock.
Shrub layer	Very sparse; mountain maple on rock outcrop.
Herb layer	Very sparse. Rock outcrop at north border has abundant walking fern; also fragile fern, bulblet fern, maidenhair spleenwort, wall rue, sweet-scented bedstraw, wild oats, bloodroot, wild sarsaparilla, wild cucumber.
Birds	Barred owl pellets; red-breasted nuthatch.
Mammals	Red squirrel middens.
Habitat features	Rock outcrop.

WG-8

Current cover	Cliff
Natural community	Temperate Calcareous Cliff
Shrub layer	Mountain maple abundant; scattered northern white cedar, red elderberry.
Herb layer	Scattered. Bulblet fern abundant; also columbine, spikenard, bittersweet nightshade, early meadow rue, mosses and lichens.
Habitat features	Mostly bare rock.

WG-9

Current cover	Early Successional (power lines)
Natural community	Limestone Bluff Cedar-Pine Forest
Canopy	A few northern white cedars and white pines.
Shrub layer	Fairly dense. Red oak, gray birch, paper birch, staghorn sumac, poison ivy, northern white cedar, multiflora rose, quaking aspen, glossy buckthorn, alternate-leaved dogwood, American elm, Oriental honeysuckle, white ash, chokecherry, red maple, blackberry, sweetfern, bush honeysuckle, black cherry, autumn olive, bitternut hickory, common barberry, gray-stemmed dogwood, low sweet blueberry; common buckthorn abundant at bottom of slope.
Herb layer	Patchy. Rough-stemmed goldenrod abundant. Grass, trailing arbutus, pussytoes, yarrow, downy goldenrod, common St. Johnswort, Indian tobacco, yellow wood sorrel, lady fern, early meadow rue, bulblet fern, wild ginger, maidenhair fern, Christmas fern, zigzag goldenrod, marginal woodfern, whorled loosestrife, large-flowered trillium, blue cohosh, rough

	cinquefoil, celandine, wild sarsaparilla, white wood aster, goldenrod, Deptford pink, grass-leaved goldenrod, bastard toadflax, birdsfoot trefoil, sensitive fern, groundnut, bittersweet nightshade, silverrod. Goutweed by river.
Birds	Black-capped chickadee, blue jay, gray catbird, song sparrow, northern cardinal, indigo bunting, ruffed grouse, ruby-throated hummingbird, common yellowthroat.
Mammals	Woodchuck holes; deer trail/scat; beaver-cut trees.

WINOOSKI NATURE TRAIL & CATLIN ISLAND

Visited 6/7/05, 6/9/05, 6/13/05, 6/22/05, 6/30/05.

WNT-1

Current cover	Boxelder-Cottonwood-Willow
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Dense. Dominated by cottonwood, up to parking area. Willow, green ash, boxelder; silver maple at edge of marsh.
Subcanopy	Dense boxelder, American elm; staghorn sumac, Norway maple.
Shrub layer	Dense; abundant invasives, especially common buckthorn. Norway maple, multiflora rose, raspberry, boxelder, grape, Oriental honeysuckle, green ash, poison ivy, Virginia creeper, alternate-leaved dogwood, arrowwood, silky dogwood; a few red oak and sugar maple seedlings.
Herb layer	Sparse to dense. Jewelweed abundant; also tall buttercup, burdock, white avens, goldenrod, currant, field hawkweed, jumpseed, dandelion, helleborine, sensitive fern, field horsetail, moneywort. In power line opening: dense goldenrod, with sedges, purple loosestrife, and hedge bindweed. Small Japanese knotweed patch at edge of parking area.
Birds	Hairy woodpecker, American robin, red-winged blackbird, American goldfinch, northern cardinal, cedar waxwing.
Mammals	Gray squirrel; beaver-cut trees.
Herps	Garter snake.
Habitat features	Garbage. Large culvert with stream coming out of it; abundant coarse woody debris; pile of concrete slabs.

WNT-2

Current cover	Early Successional Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Fairly dense, with some large gaps. White and green ash, American elm, black cherry, red maple, shadbush, white oak, beech; large red oaks towards east end.
Subcanopy/ high shrubs	Fairly dense toward west end; common buckthorn abundant. Also boxelder, white and green ash, musclewood, red oak, highbush cranberry, hawthorn, American elm, staghorn sumac, black cherry, Norway maple, beech, hophornbeam, white oak, silver maple, nannyberry, shadbush.

Shrub layer (low)	Moderate to dense. Common buckthorn, Virginia creeper and poison ivy abundant. Also white ash, Oriental honeysuckle, boxelder, currant, chokecherry, multiflora rose, Norway maple, alternate-leaved dogwood, riverbank grape, gray-stemmed dogwood, blackberry, raspberry, musclewood, beaked hazelnut, nannyberry, red oak, green ash, prickly gooseberry, arrowwood, Japanese barberry, witch hazel, maple-leaved viburnum, hawthorn, sugar maple, and beech.
Herb layer	Fairly dense to dense. Moneywort, sensitive fern, and jewelweed dominate; also sedges, lady fern, enchanter's nightshade, highbush cranberry, dandelion, grasses, common plantain, bittersweet nightshade, great burdock, jumpseed, tall buttercup, yellow wood sorrel, sweet-scented bedstraw, dame's rocket, winter cress, wild cucumber, ostrich fern, marsh fern, goldenrod, wood strawberry, common cinquefoil, jack-in-the-pulpit, white avens, cinnamon fern, interrupted fern, New York fern, false Solomon's seal, intermediate woodfern, partridgeberry, daisy fleabane, violets, bluets, white lettuce, bracken fern, sedge, common scouring rush, hooked crowfoot, dogbane, asters, tall meadow rue, agrimony; abundant garlic mustard by property boundary (road).
Birds	Tufted titmouse, Baltimore oriole, American robin, blue jay, gray catbird, warbling vireo, red-eyed vireo, downy woodpecker, eastern wood-pewee, wood thrush, northern flicker, common grackle, least flycatcher, cedar waxwing, mourning dove, black-capped chickadee, white-breasted nuthatch, American goldfinch, great crested flycatcher, red-winged blackbird, American crow, downy woodpecker, veery, American redstart.
Mammals	Deer, gray squirrel, chipmunk, red fox scent.
Habitat features	Intermittent streams; extensive seeps; snags and coarse woody debris

WNT-3

Current cover	Early Successional
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Scattered willow; cottonwood along forest edges.
Subcanopy	Scattered saplings: boxelder, American elm, green ash, silver maple.
Shrub layer	Patchy. Virginia creeper, multiflora rose, purple-flowering raspberry, willow, staghorn sumac, raspberry, boxelder, sweetfern.
Herb layer	Dense. Crown vetch and jewelweed abundant; also winter cress, grasses, ostrich fern, curled dock, phragmites, dame's rocket, purple loosestrife, mullein, thistle, goldenrod, motherwort, false Solomon's seal, sensitive fern, field horsetail, Pennsylvania bitter cress, catnip.
Birds	Yellow warbler, red-eyed vireo, eastern wood-pewee, American crow, warbling vireo, song sparrow.
Habitat features	Stream; crayfish; rocky fill from railroad.

WNT-4

Current cover	Boxelder-Cottonwood-Willow
Natural community	Beaver Wetland
Canopy	Open. Dominated by willow; also green ash and cottonwood.

Subcanopy	Moderately dense. Boxelder, willow, American elm, alder, green ash.
Shrub layer	Moderately dense. Raspberry, multiflora rose, arrowwood, chokecherry, Oriental honeysuckle, green ash, riverbank grape, currant, Virginia creeper.
Herb layer	Dense; phragmites, moneywort, and jewelweed abundant. Also field horsetail, sensitive fern, lady fern, jumpseed, white avens, sedges, goldenrod, and ostrich fern.
Birds	Northern cardinal, common yellowthroat, yellow warbler, gray catbird, American robin.

WNT-5

Current cover	Red Oak-Northern Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Dense. Red oak dominates; also white ash, red maple, yellow birch, beech.
Subcanopy	Beech, American elm, hophornbeam, red oak, paper birch, red maple, white ash.
Shrub layer	Fairly dense. Young white ash saplings dominate; also witch hazel, beaked hazelnut, multiflora rose, beech, chokecherry, Virginia creeper, maple-leaved viburnum, common buckthorn, muscledwood, Japanese barberry, alternate-leaved dogwood, bush honeysuckle, round-leaved dogwood.
Herb layer	Moderately dense. Enchanter's nightshade, sedges, lady fern, sensitive fern, small-flowered crowfoot, grasses, moneywort, New York fern, Christmas fern, false Solomon's seal, heart-leaved aster, early meadow rue, blue-stemmed goldenrod, sedges; Virginia stickseed at edge of power lines.
Birds	Red-eyed vireo, least flycatcher, black-capped chickadee, gray catbird, American redstart, yellow warbler, cedar waxwing.
Habitat features	Coarse woody debris, seepy.

WNT-6

Current cover	Early Successional Hardwoods (includes power line corridor)
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Dense young trees; uneven height. Bigtooth aspen, black walnut, American elm, red oak, paper birch, basswood, shagbark hickory, white ash, cottonwood.
Subcanopy and high shrubs	Dense. Sugar maple, common buckthorn, hophornbeam, Oriental honeysuckle, hemlock, red spruce, Norway maple, basswood, muscledwood, bitternut hickory, witch hazel, white ash, quaking aspen, paper birch, cottonwood, shagbark hickory, staghorn sumac, alder, arrowwood, glossy buckthorn, American elm.
Low shrubs	Fairly dense. Poison ivy, maple-leaved viburnum, white ash, red cedar, Virginia creeper, basswood, beaked hazelnut, witch hazel, hawthorn, common barberry, Japanese barberry, chokecherry, quaking aspen, bush honeysuckle, glaucous honeysuckle, round-leaved dogwood, common

	buckthorn, gray-stemmed dogwood, gray birch, nannyberry, sugar maple, Oriental honeysuckle, glossy buckthorn, red oak, purple-flowering raspberry, green ash, multiflora rose. Under power lines: raspberry, silky dogwood, meadowsweet, riverbank grape.
Herb layer	Dense. Abundant early meadow rue; also false Solomon's seal, marginal woodfern, grasses, goldenrod, wild sarsaparilla, small-flowered crowfoot, polypody, large-leaved aster, fragile fern, Solomon's seal, plantain-leaved sedge, birdsfoot trefoil, common speedwell, Indian hemp, oxeye daisy, hog peanut, moneywort, mullein, yarrow, wood strawberry, aster, wild ginger, fringed loosestrife, hog peanut, daisy fleabane, thimbleweed, agrimony, white sweet clover, also winter cress, lady fern, tall buttercup, dandelion, common plantain, blue-eyed grass, drooping sedge, curled dock, yellow iris, yellow wood sorrel, intermediate woodfern, goldenrod, rush, wild carrot. Jewelweed and sensitive fern abundant under power lines.
Birds	Red-eyed vireo, American robin, blue jay, Baltimore oriole, American redstart, common yellowthroat, yellow warbler, black-capped chickadee, gray catbird.
Mammals	Red fox (above little cliff; active—fresh scat below) and woodchuck dens.
Herps	Garter snake, northern leopard frog.
Habitat features	Rocky—extensive rock outcrops; cliff; abundant coarse woody debris. Human-created 'talus' by interstate is good snake habitat.

WNT-7

Current cover	Early Successional
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest and Beaver Wetland
Canopy	Taller trees abundant at south end. Cottonwood, willow, boxelder, hackberry, green ash.
Subcanopy	Boxelder, American elm, green ash, butternut.
Shrub layer	Dense patches. Raspberry, common buckthorn, green ash, grape, Virginia creeper, chokecherry, Oriental honeysuckle, basswood, meadowsweet, boxelder, alder, arrowwood, American elm, Japanese barberry, silky dogwood, multiflora rose.
Herb layer	Dense; ostrich fern and reed canary grass abundant. Big goutweed patch, common plantain, tall meadow rue, sensitive fern, smooth brome, goldenrod, yellow wood sorrel, moneywort, jewelweed, dame's rocket, ground ivy, common blue violet, purple loosestrife, fringed bindweed, live-forever, bouncing bet, dogbane, sedges (including bristly sedge and lakeshore sedge), bulb-bearing water hemlock, marsh bedstraw, field horsetail, Pennsylvania bitter cress, narrow-leaved cattail, thistle, marsh fern, water horehound, blue vervain, joe-pye weed, blue flag.
Birds	Eastern kingbird, warbling vireo, song sparrow, Blackburnian warbler, gray catbird, yellow warbler, Baltimore oriole, American redstart, nesting red-winged blackbirds, warbling vireo, swamp sparrow, common yellowthroat, American goldfinch, northern waterthrush, tree swallow, great crested flycatcher.

Mammals	Old beaver-felled trees; deer fawn.
Herps	Garter snake.
Habitat features	Abundant coarse woody debris.

WNT-8

Current cover	Early Successional (power line corridor)
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Shrub layer	Scattered boxelder, American elm, and Oriental honeysuckle.
Herb layer	Dense; ostrich fern and reed canary grass dominate. Also goldenrod, ground ivy, winter cress, common blue violet, dandelion, common plantain, dame's rocket, tall meadow rue, mouse-ear chickweed, hedge bindweed, groundnut, fringed bindweed, tall buttercup.
Birds	Gray catbird, song sparrow, Baltimore oriole, tufted titmouse, veery, red-eyed vireo, hairy woodpecker, common grackle.

WNT-9

Current cover	Floodplain Forest
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Tall, fairly closed canopy. Silver maple, cottonwood, American elm, willow, red maple.
Subcanopy and high shrubs	Moderately dense. Boxelder, American elm, green ash, common buckthorn, silver maple.
Shrub layer	Abundant Virginia creeper; otherwise sparse. Black cherry, poison ivy. By little island: common barberry, Japanese barberry, common buckthorn.
Herb layer	Dense. Ostrich fern, goutweed, dame's rocket, and wood nettle are all abundant. Also grasses, sensitive fern, jewelweed, jumpseed, enchanter's nightshade, yellow wood sorrel, dandelion, bitter dock, curled dock, tall nettle, celandine, moneywort, ground ivy; Japanese knotweed in portion south of WNT-30.
Birds	Common yellowthroat, warbling vireo, song sparrow, red-eyed vireo, red-winged blackbird, black-capped chickadee, cedar waxwing, Baltimore oriole, yellow warbler, common grackle, veery, blue jay, belted kingfisher, American robin, American crow, hairy woodpecker, Canada goose, great crested flycatcher, chestnut-sided warbler, white-breasted nuthatch.
Mammals	Red fox, raccoon, and deer tracks; gray squirrel.
Herps	American toad, northern leopard frog.
Habitat features	Abundant snags and coarse woody debris.

WNT-10

Current cover	Early Successional
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Some paper birch, green ash, and black oak at south end.
Subcanopy	Scattered American elm, boxelder, common buckthorn; white pine and abundant staghorn sumac on west side.
Shrub layer	Scattered clumps of Oriental honeysuckle, blackberry, green ash,

	raspberry, Virginia creeper; Oriental honeysuckle and common buckthorn all along edge.
Herb layer	Dominated by rough-stemmed goldenrod and sedges; also dame's rocket, motherwort, daisy fleabane, virgin's bower, jumpseed, groundnut, ostrich fern, bitter dock, jewelweed, white avens.
Birds	American robin, veery, chimney swift, common grackle, American redstart, yellow warbler, gray catbird, warbling vireo.
Mammals	Deer beds.
Herps	Garter snake.

WNT-11

Current cover	Pond
Natural community	Beaver Wetland
Shrub layer	Dense silver maple seedlings at north end.
Herb layer	Jewelweed, devil's beggar-ticks, bulb-bearing water hemlock, bedstraw, moneywort; blue flag and yellow iris at north end; dense, extensive Eurasian watermilfoil in pond and in stream feeding it.
Birds	Nesting tree swallows; song sparrow, American robin, blue jay, hairy woodpecker, cedar waxwing; common grackle carrying food to nestlings; great crested flycatcher, red-winged blackbird, brown-headed cowbird, green heron, downy woodpecker.
Mammals	Fresh beaver sign; raccoon, deer, and muskrat tracks; gray squirrel.
Herps	Garter snake, green frogs.
Habitat features	Abundant coarse woody debris; many big snags with cavities.

WNT-12

Current cover	Early Successional (floodplain forest opened up by beavers)
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Open. Silver maple, green ash, white ash.
Subcanopy	Open; boxelder and black cherry.
Shrub layer	Very dense in places. Common buckthorn, and Oriental honeysuckle abundant; also chokecherry, boxelder, blackberry, raspberry, Virginia creeper, butternut, glossy buckthorn, riverbank grape.
Herb layer	Dense. Sensitive fern abundant; also ostrich fern, goldenrod, joe-pye weed, jumpseed, field horsetail, groundnut, forget-me-not, grasses, lady fern, burdock, jewelweed, tall buttercup, marsh bedstraw, moneywort, tall meadow rue, dame's rocket.
Birds	Veery, warbling vireo, eastern kingbird, black-capped chickadee, yellow warbler, great crested flycatcher, brown-headed cowbird, red-winged blackbird, song sparrow, white-breasted nuthatch.
Mammals	Deer .
Herps	Garter snake.
Habitat features	Many trees girdled by beavers and soon to be snags.

WNT-13

Current cover	Boxelder-Cottonwood-Willow
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Open to dense. Northwestern portion has a tall, fairly dense canopy, almost exclusively cottonwood. Also silver maple and American elm.
Subcanopy	Fairly dense. Dominated by boxelder; also American elm, green ash, silver maple, white pine; Norway maple just north of WNT-17.
Shrub layer	Low shrubs fairly sparse; high shrubs moderate to dense. Oriental honeysuckle, common buckthorn, black cherry, chokecherry, green ash, alternate-leaved dogwood, butternut, Virginia creeper, white pine, highbush cranberry, Japanese barberry. Dense eastern portion dominated by green ash and boxelder; also common buckthorn, chokecherry, Virginia creeper, Oriental honeysuckle, silky dogwood.
Herb layer	Fairly dense; patchy. Jewelweed and sensitive fern abundant; dense patches of ostrich fern. Also jumpseed, field horsetail, enchanter's nightshade, white avens, burdock, dame's rocket, helleborine, yellow wood sorrel, spinulose woodfern, intermediate woodfern, common St. Johnswort, bitter dock.
Birds	American robin, common grackle, Baltimore oriole, blue jay, gray catbird, warbling vireo, yellow warbler, American redstart, white-breasted nuthatch, hairy woodpecker, American goldfinch, common yellowthroat, northern cardinal, downy woodpecker, least flycatcher, pileated woodpecker.
Mammals	Gray squirrel drey. Apparent deer browse line in shrubs.
Herps	Green frog, garter snake, northern leopard frog.
Habitat features	Tip-ups; abundant coarse woody debris. Mound of concrete slabs in northeastern portion.

WNT-14

Current cover	Early Successional (includes power line corridor)
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Scattered young silver maple, boxelder, and cottonwood.
Shrub layer	Shrubs abundant. Alder abundant; also green ash, willow, boxelder, riverbank grape, silky dogwood, staghorn sumac, Oriental honeysuckle, raspberry, gray-stemmed dogwood, American elm, arrowwood, multiflora rose, gray birch, glossy buckthorn, alternate-leaved dogwood, common buckthorn.
Herb layer	Dense; dominated by ostrich fern, sensitive fern, goldenrod, and reed canary grass and other grasses. Also sedges, blue flag, cattails, phragmites, marsh bedstraw, cow vetch, thistle, burdock, tall buttercup, dandelion, common plantain, moneywort, forget-me-not, bitter dock, jumpseed, tall meadow rue, curled dock, yellow iris, lady fern, joe-pye weed, swamp candles, jewelweed, field horsetail, common St. Johnswort, oxeye daisy, Deptford pink, mullein, blue vervain, wild carrot, black medick.
Birds	Chimney swift. Baltimore oriole, tree swallow, yellow warbler, blue jay, common yellowthroat, cedar waxwing, gray catbird, eastern kingbird,

	warbling vireo, American goldfinch.
Mammals	Beaver-felled green ash and silver maple across path; gray squirrel.
Herps	Wood frog.
Habitat features	Snags; piles of concrete.

WNT-15

Current cover	Reed Canary Grass
Natural community	Beaver Wetland
Canopy	Patches of saplings, mostly green ash; also boxelder, gray birch and alder.
Shrub layer	Scattered arrowwood; Oriental honeysuckle clumps a little south of power lines.
Herb layer	Dominated by reed canary grass. Also cattails, thistle, smartweed, blue vervain, yellow wood sorrel, raspberry, cow vetch, tearthumb, sensitive fern, ostrich fern, jewelweed, both cattail species, bulb-bearing water hemlock, marsh bedstraw. Waterweed in stream. Purple loosestrife at western edge.
Birds	Red-winged blackbird, common grackle, mourning dove.
Mammals	Deer; recent beaver activity.
Habitat features	Deep, meandering streams and beaver channels; fish in streams; many snags with cavities; abundant coarse woody debris. Old asphalt/concrete (remains of road), piles of bricks and mortar, and other mounds of material between WNT-14 and WNT-16, and south of WNT-19.

WNT-16

Current cover	Cattail Marsh
Natural community	Beaver Wetland
Herb layer	Dense; dominated by cattails. Some blue vervain, jewelweed, tall nettle, thistle; bur-reed, soft-stem bulrush, and waterweed in stream.
Birds	Red-winged blackbird, cedar waxwing.
Mammals	Muskrat lodge.
Habitat features	Many snags.

WNT-17

Current cover	Phragmites
Natural community	Beaver Wetland
Herb layer	Dense phragmites; also reed canary grass.

WNT-18

Current cover	Phragmites
Natural community	Beaver Wetland
Herb layer	Dense phragmites.
Habitat features	Off property.

WNT-19

Current cover	Cattail Marsh
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Natural community	Beaver Wetland
Herb layer	Dense cattails.
Birds	Green heron.
Habitat features	Abundant coarse woody debris.

WNT-20

Current cover	Shrub and Sapling Thicket
Natural community	Beaver Wetland
Canopy	Scattered young green ash.
Shrub layer	Dense; dominated by alder and arrowwood; also gray-stemmed dogwood and glossy buckthorn.
Herb layer	Sparse to fairly dense. Reed canary grass, sensitive fern, yellow wood sorrel, tussock sedge.
Birds	Gray catbird; female yellow warbler carrying food to nestlings.
Habitat features	Snags and coarse woody debris.

WNT-21

Current cover	Hardwood Swamp
Natural community	Beaver Wetland
Canopy	Open; 20-foot high willows
Shrub layer	Dense willow sprouts; scattered seedlings and low shrubs of green ash, arrowwood, boxelder, glossy buckthorn, and Virginia creeper.
Herb layer	Dense; water horsetail is dominant. Also common cattail, narrow-leaved cattail, purple loosestrife, marsh bedstraw, joe-pye weed, forget-me-not, sensitive fern, jewelweed.
Birds	Red-winged blackbird, American goldfinch.
Mammals	Deer browse.
Habitat features	Snags abundant.

WNT-22

Current cover	Pond (10 by 80 feet)
Natural community	Beaver Wetland
Birds	Common grackle, red-winged blackbird, song sparrow.
Mammals	Recently maintained beaver dam.
Habitat features	Water coming out of culvert stinks of detergent.

WNT-23

Current cover	Pond
Natural community	Beaver Wetland
Herb layer	Duckweed.
Birds	Red-winged blackbird.
Mammals	Otter; beaver lodge.
Herps	Bullfrog, green frog.

WNT-24

Current cover	Cattail Marsh
Natural community	Beaver Wetland
Shrub layer	Scattered arrowwood, alder, American elm, Virginia creeper, silver maple.
Herb layer	Dominated by narrow-leaved cattail; common cattail and reed canary grass also abundant. Purple loosestrife at northwestern tip (mating beetles seen); duckweed; bulb-bearing water hemlock, jewelweed, blue flag, marsh fern.
Birds	Nesting red-winged blackbirds; mourning dove, belted kingfisher, swamp sparrow, green heron, song sparrow, common yellowthroat, yellow warbler, common grackle.
Habitat features	Scattered snags with cavities; some open water.

WNT-25

Current cover	Shrub and Sapling Thicket
Natural community	Beaver Wetland
Canopy	A few young green ash trees.
Shrub layer	Dense alder and arrowwood; also boxelder and green ash saplings.
Herb layer	Dense sensitive fern; cattail patches.
Birds	Willow flycatcher, swamp sparrow, warbling vireo, yellow warbler, mourning dove, tree swallow, cedar waxwing, great crested flycatcher, green heron, red-winged blackbird.
Mammals	Beaver-felled tree.
Habitat features	Snags.

WNT-26

Current cover	Cattail Marsh
Natural community	Beaver Wetland
Herb layer	Dense; common and narrow-leaved cattails. Arrowhead abundant; also reed canary grass, blue flag, purple loosestrife, bristly sedge.
Mammals	Deer.

WNT-27

Current cover	Hardwood Swamp
Natural community	Beaver Wetland
Canopy	Open; green ash.
Shrub layer	Dense high shrub patches. Alder, arrowwood, green ash.
Herb layer	Dense throughout, interspersed with standing water. Dominated by drooping sedge; sensitive fern also abundant. Common cattail, blue flag.
Birds	American goldfinch, northern cardinal, red-winged blackbird, black-capped chickadee, yellow warbler, blue-gray gnatcatcher, warbling vireo.

WNT-28

Current cover	Phragmites
Natural community	Beaver Wetland
Canopy	A few big willows.
Herps	Gray treefrogs.

WNT-29

Current cover	Shrub and Sapling Thicket
Natural community	Beaver Wetland
Canopy	Open; dominated by green ash; also boxelder and silver maple.
Shrub layer	Dense. Mostly green ash and alder; also arrowwood, silky dogwood, Oriental honeysuckle, chokecherry.
Herb layer	Moderate to fairly dense. Sensitive fern, lady fern, moneywort, jumpseed, sedges, ostrich fern, thistle, reed canary grass.
Birds	American woodcock, least flycatcher, yellow warbler, veery, song sparrow, northern cardinal, red-winged blackbird.
Habitat features	Tarps (shelters?) near southeast corner.

WNT-30

Current cover	Shrub and Sapling Thicket
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Some protruding saplings of silver maple, boxelder, green ash, American elm, and gray birch.
Shrub layer	Dense high shrubs, dominated by green ash, alder, and arrowwood; also Oriental honeysuckle, raspberry, glossy buckthorn, common buckthorn, riverbank grape, Virginia creeper, gray-stemmed dogwood, silky dogwood, Japanese barberry, gray birch.
Herb layer	Patchy. Reed canary grass and other grasses, groundnut, sensitive fern (dense in wider, western portion), narrow-leaved cattail, marsh bedstraw, blue flag, rough-stemmed goldenrod, ostrich fern, moneywort, bittersweet nightshade, tearthumb, lady fern, jewelweed, winter cress, thistle, marsh fern. Phragmites bordering WNT-13.
Birds	Willow flycatcher, red-winged blackbird, warbling vireo, veery, yellow warbler, northern flicker, Baltimore oriole, common grackle, song sparrow, gray catbird.
Mammals	Deer, raccoon.
Herps	Garter snake.
Habitat features	Elevated, drier area; old garbage (car parts, stove); appears to be an old road.

WNT-31

Current cover	Phragmites
Natural community	Beaver Wetland
Herb layer	Dense phragmites; also reed canary grass and blue vervain.

WNT-32

Current cover	Pond
Natural community	Beaver Wetland
Herb layer	Bur-reed dense around edges. Also common cattail, narrow-leaved cattail, grasses, tall nettle, winter cress, dame's rocket, jewelweed, common milkweed, burdock, duckweed, blue flag; a little purple loosestrife.

	Phragmites patch on north side; also has reed canary grass and blue vervain.
Birds	Warbling vireo, red-winged blackbird, common yellowthroat, song sparrow, American goldfinch, wood duck; mallard with ducklings.
Mammals	Deer and red fox tracks; fresh beaver sign; muskrat.
Herps	Green frog.
Habitat features	Several snags with cavities; abundant coarse woody debris. Visible from trail.

WNT-33

Current cover	Reed Canary Grass (under N-S power lines)
Natural community	Beaver Wetland
Herb layer	Very dense; pure reed canary grass.
Birds	Eastern kingbird.

WNT-34

Current cover	Cattail Marsh
Natural community	Beaver Wetland
Herb layer	Dense; dominated by narrow-leaved cattail. Also bur-reed, reed canary grass, bristly sedge.
Birds	Tree swallow, red-winged blackbird, willow flycatcher, song sparrow, common yellowthroat, yellow warbler, common grackle, swamp sparrow; great blue heron overhead.
Habitat features	Coarse woody debris; standing water.

WNT-35

Current cover	Pond (~100 x 30 feet)
Natural community	Beaver Wetland
Shrub layer	Patchy shrubs and saplings on west side: alder, American elm. At north end of pond: Oriental honeysuckle, arrowwood, gray-stemmed dogwood, boxelder, raspberry, Virginia creeper.
Herb layer	Common cattail, bladderwort, pondweed, bulb-bearing water hemlock.
Birds	Nesting red-winged blackbirds.
Mammals	Old beaver sign, raccoon and deer tracks.
Herps	Green frog, bullfrog.
Habitat features	A big snag.

WNT-36

Current cover	Reed Canary Grass
Natural community	Beaver Wetland
Shrub layer	Sparse; Oriental honeysuckle and raspberry.
Herb layer	Dense reed canary grass. Also thistle, narrow-leaved cattail, marsh bedstraw, sensitive fern; a little purple loosestrife.
Habitat features	Raised, drier area; apparently part of an old road.

WNT-37

Current cover	Pond
Natural community	Beaver Wetland
Herb layer	Surrounded by cattail marsh.
Birds	Belted kingfisher flew by.
Herps	Green frog.

WNT-38

Current cover	Pond (15 x 100 ft)
Natural community	Beaver Wetland
Herb layer	Cattail, narrow-leaved cattail, duckweed, bur-reed, purple loosestrife, bristly sedge, bulb-bearing water hemlock, waterweed, coontail.
Mammals	Fairly fresh beaver-chewed sticks, raccoon and deer tracks.
Herps	Bullfrog, green frog.

WNT-39

Current cover	Early Successional Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Young trees; somewhat open; fairly low at southern end. Cottonwood abundant; also red oak, basswood, paper birch, white pine, red maple; black locusts under I-89.
Subcanopy and high shrubs	Moderate to very dense. Boxelder, staghorn sumac, common buckthorn, witch hazel, hophornbeam, basswood, sugar maple, white ash, white oak, red oak, northern white cedar.
Shrub layer	Fairly dense. Poison ivy abundant; also Oriental honeysuckle, black cherry, glossy buckthorn, white oak, red oak, staghorn sumac, green ash, white ash, common barberry, Virginia creeper, common buckthorn, grape, American elm, Asiatic bittersweet, alternate-leaved dogwood, sugar maple, Japanese barberry, chokecherry, hawthorn, maple-leaved viburnum, beaked hazelnut, round-leaved dogwood, Norway maple.
Herb layer	Moderate to fairly dense. Wormwood, grasses, birdsfoot trefoil, cow vetch, and other weedy species towards southern end; also goldenrod, field horsetail, daisy fleabane, sedges, grasses, tall buttercup, wild sarsaparilla, false Solomon's seal, lady fern, wood anemone, white avens, Christmas fern, thimbleweed, common St. Johnswort, Deptford pink, cow vetch, white sweet clover, self-heal.
Birds	Northern cardinal, gray catbird, eastern phoebe, song sparrow, tufted titmouse, American robin; rock doves under overpass.
Herps	Garter snake.
Mammals	Old beaver chewed/felled trees; deer browse, chipmunk.
Habitat features	Very rocky—fill from interstate construction.

WNT-40

Current cover	Oak-hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest

Canopy	Dominated by red oak; also beech, white ash, white oak, bigtooth aspen, quaking aspen.
Subcanopy	Hophornbeam, American elm, beech, white oak, white ash, black cherry.
Shrub layer	Fairly dense high shrubs: witch hazel, beech, sugar maple, white ash, shadbush. Moderate to dense low shrubs: white ash dominates; also sugar maple, white oak, beaked hazelnut, red oak, alternate-leaved dogwood, late low blueberry, witch hazel, black cherry, grape, chokecherry, poison ivy, red maple, common buckthorn, Asiatic bittersweet (bordering WNT-12).
Herb layer	Fairly sparse. Wood anemone, sedges, goldenrod, false Solomon's seal, white lettuce, tall rattlesnake root, wild sarsaparilla, dalibarda, beechdrops, bracken fern, common speedwell, marginal woodfern, starflower, touch-me-not, interrupted fern, thimbleweed, common cinquefoil, common fleabane, early meadow rue. Intermittent stream has dense moneywort; also jumpseed, jewelweed, sensitive fern, bitter dock, interrupted fern, grasses, bittersweet nightshade, horsetails.
Birds	Red-winged blackbird, hairy woodpecker, eastern wood-pewee, gray catbird, black-capped chickadee.
Mammals	Several woodchuck dens; chipmunk, deer.
Habitat features	Moderately abundant coarse woody debris; some snags; intermittent stream.

WNT-41

Current cover	Grassy Shore
Natural community	Riverside Outcrop; Rivershore Grassland
Subcanopy	At edge, a few American elm and basswood saplings.
Shrub layer	Sparse. Green ash, red maple, riverbank grape, poison ivy, glossy buckthorn, American bittersweet, cottonwood seedlings.
Herb layer	Patchy. Dominated by grass and white sweet clover; also hawkweed, groundnut, yellow iris, sedges, evening primrose, rush, daisy fleabane, common plantain, cow vetch, blue flag, birdsfoot trefoil, purple loosestrife, bouncing bet, groundnut, centaury, yarrow, soft-stem bulrush, common milkweed.
Birds	Tracks of Canada goose, wild turkey, and American crow; common grackle.
Mammals	Raccoon tracks.
Habitat features	Quite a bit of bare rock; coarse woody debris.

WNT-42

Current cover	Cliff
Natural community	Temperate Calcareous Cliff
Canopy	Northern white cedar.
Shrub layer	At top: basswood, red oak, round-leaved dogwood, white ash, white oak, common buckthorn.
Herb layer	Sparse. Grasses, common fleabane, aster, columbine, poison ivy, smooth cliffbrake; early meadow rue towards top. At top: abundant wood betony;

	also bastard toadflax, pussytoes, thimbleweed, large-leaved aster.
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WNT-43

Current cover	White Pine-Oak
Natural community	Limestone Bluff Cedar-Pine Forest; Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Somewhat open; canopy of red and white oak.
Subcanopy	Dense; dominated by white pine. Also sugar maple, red maple, common buckthorn, witch hazel, basswood, northern white cedar, red pine.
Shrub layer	Fairly dense. Poison ivy abundant; also round-leaved dogwood, white ash, common buckthorn, hophornbeam, beaked hazelnut, basswood, common barberry, Oriental honeysuckle, and red oak.
Herb layer	Early meadow rue dominates; white baneberry, wood anemone, large-leaved aster, blue-stemmed goldenrod, daisy fleabane, bedstraw, pussytoes, bracken fern, thimbleweed, woodland sunflower, common speedwell, enchanter's nightshade; wood betony abundant at edge of cliff.
Birds	Cedar waxwing, eastern phoebe, gray catbird.
Mammals	Chipmunk.

WNT-44

Current cover	Early Successional (power lines)
Natural community	Mesic Maple-Ash-Hickory-Oak Forest; Limestone Bluff Cedar-Pine Forest
Canopy	Western portion has dense saplings and high shrubs: alder, common buckthorn, staghorn sumac, red maple, grape. Eastern portion open and grassy.
Shrub layer	Fairly dense in western portion, with alternate-leaved dogwood, raspberry, blackberry. Eastern portion has clusters of saplings and shrubs, some dense/extensive: red oak, white pine, staghorn sumac, common barberry, common buckthorn, poison ivy, Oriental honeysuckle, glossy buckthorn, pin cherry, northern white cedar, beaked hazelnut, musclewood, witch hazel, gray-stemmed dogwood, rose.
Herb layer	Dense. Western portion: jewelweed, sensitive fern, goldenrod, ostrich fern. Eastern portion: goldenrod, white sweet clover, mullein, wild carrot, dogbane, hawkweed, woodland sunflower, low bindweed, thimbleweed, early meadow rue, wild sarsaparilla, common plantain, burdock.
Birds	Song sparrow, brown-headed cowbird.
Mammals	Deer beds.
Habitat features	Homeless person's shelter in western portion.

CI-1

Current cover	Grassy Shore
Natural community	Rivershore Grassland
Shrub layer	Glossy buckthorn, highbush cranberry.
Herb layer	Various grasses; bedstraw, common milkweed, Indian hemp, wild carrot, groundnut, Japanese knotweed, ostrich fern, joe-pye weed.

CI-2

Current cover	Floodplain forest
Natural community	Silver maple-Ostrich fern Riverine Floodplain Forest
Canopy	Fairly dense. Willow, basswood, boxelder, silver maple, cottonwood, green ash, white ash.
Shrub layer (high)	Moderately dense; boxelder.
Shrub layer (low)	Scattered common barberry, Oriental honeysuckle, Virginia creeper, poison ivy, common buckthorn, Japanese barberry, raspberry. Dense common buckthorn and Oriental honeysuckle at west end.
Herb layer	Dense. Much of interior is solid ostrich fern. Also grasses, coltsfoot, moneywort, horsetail, dogbane, wormwood, wild carrot, Japanese knotweed, bedstraw, burdock, white snakeroot, dame's rocket, sensitive fern, enchanter's nightshade, hog peanut, ostrich fern, golden alexanders, goutweed, groundnut, creeping buttercup, jewelweed, sedges, jumpseed, bitter dock, jack-in-the-pulpit, yellow wood sorrel, tall nettle, celandine, wild basil. Narrow (10-20 foot) margin along north end with reed canary grass, nettles, coltsfoot, goutweed, and horsetail.
Birds	Wild turkey, great crested flycatcher, eastern wood-pewee, great crested flycatcher, northern flicker, blue jay, downy woodpecker, warbling vireo, American crow, gray catbird, black-capped chickadee, eastern phoebe, American robin, Baltimore oriole, eastern kingbird, song sparrow, cedar waxwing, American goldfinch, yellow warbler, red-winged blackbird, American redstart, blue-gray gnatcatcher, common grackle, tree swallow, chestnut-sided warbler, veery, scarlet tanager.
Mammals	Raccoon, deer, mink, gray squirrel, old beaver sign.
Habitat features	Some cavity trees.

CI-2b (not mapped—opening at south/west end)

Current cover	Floodplain Forest/Early Successional
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Mainly boxelder.
Shrub layer	Common buckthorn, alternate-leaved dogwood, Japanese barberry, Oriental honeysuckle, common barberry, grape.
Herb layer	Dense; abundant dogbane, winter cress, unidentified mint, and small sedges. Also dame's rocket, intermediate woodfern, motherwort, tall nettle, jewelweed, lady fern.

CI-3

Current cover	Early Successional/Floodplain Forest (opening partly created by beavers)
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Basswood, paper birch.
Shrub layer	Abundant common buckthorn, Oriental honeysuckle, common barberry, Japanese barberry; also highbush cranberry, grape.
Herb layer	Reed canary grass abundant; also dame's rocket, yellow iris.
Birds	Chestnut-sided warbler, yellow warbler, Baltimore oriole, common

	yellowthroat, old pileated woodpecker holes.
Mammals	Red fox den.
Habitat features	Deer ticks.

CI-4

Current cover	Early Successional (power lines)
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Shrub layer	Scattered Oriental honeysuckle; Virginia creeper.
Herb layer	Dense; abundant reed canary grass and ostrich fern. Also sensitive fern, dame's rocket, winter cress, tall nettle, thistle, burdock.

WOODSIDE PARK

Visited 6/14/05, 6/15/05, 6/25/05, 6/26/05.

WP-1

Current cover	Boxelder-Cottonwood-Willow
Natural community	Silver Maple-Sensitive Fern Riverine Floodplain Forest
Canopy	Very open. Dominated by willow; also American elm.
Subcanopy & high shrubs	Fairly dense. Dominated by boxelder; also quaking aspen, alder, American elm, common buckthorn, and Oriental honeysuckle.
Shrub layer (low)	Moderately dense. Blackberry, common elderberry, riverbank grape, boxelder, quaking aspen, common buckthorn, Oriental honeysuckle, alder, Virginia creeper, meadowsweet, nannyberry, and raspberry; silky dogwood in wetter western corner.
Herb layer	Very dense; dominated by sensitive fern and jewelweed. Also lakeshore sedge, other sedges, marsh bedstraw, turtlehead, tall meadow rue, sweet-scented bedstraw, jack-in-the-pulpit, white avens, enchanter's nightshade, and jumpseed. A wetter area in the western corner has abundant narrow-leaved cattail, field horsetail, joe-pye weed, purple loosestrife, and lakeshore sedge, as well as some bittersweet nightshade.
Birds	Rose-breasted grosbeak, red-winged blackbird, warbling vireo, American robin, yellow warbler, veery, house wren, common yellowthroat, American redstart, cedar waxwing, blue-gray gnatcatcher (mated pair), gray catbird, mourning dove, song sparrow.
Mammals	Deer browse.
Habitat features	Coarse woody debris abundant.

WP-2

Current cover	Early Successional Hardwoods
Natural community	Sugar Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Green ash, cottonwood, and butternut.
Subcanopy	Sugar maple, black cherry, hawthorn.
Shrub layer	Bitternut hickory, chokecherry, alternate-leaved dogwood. Oriental honeysuckle is abundant; also some common buckthorn.
Herb layer	Dense; abundant ostrich fern. Also moneywort, dame's rocket, interrupted

	fern, lady fern, white avens, rough-stemmed goldenrod, and other goldenrods.
Birds	Downy woodpecker, tufted titmouse.
Mammals	Chipmunk.

WP-3

Current cover	Beaver Meadow; Cattail Marsh; Beaver Pond
Natural community	Beaver Wetland
Canopy	Scattered large willow trees around the edge; scattered butternut and other trees on elevated island near the middle.
Shrub layer	Clumps of alder throughout, forming thickets along much of the margin; also American elm, meadowsweet, silky dogwood; boxelder seedlings in some meadows.
Herb layer	Extensive cattail marsh in western portion; both common and narrow-leaved cattail. Southern portion has dense tussocks with sedges, narrow-leaved cattail, rushes, and grasses. Some tall sedge-dominated wet meadow patches along the margins (lakeshore sedge and others); these also include jewelweed, goldenrods, dame's rocket, moneywort, ground ivy, Virginia creeper, sensitive fern, ostrich fern, winter cress, tall meadow rue, great water dock, joe-pye weed, and wood nettle. Wetter portions include water plantain, devil's beggar-ticks, forget-me-not, bladderwort, pondweed, arrowhead, yellow pond lily, bristly sedge, drooping sedge, other sedges, sensitive fern, bulb-bearing water hemlock, bittersweet nightshade, great water dock, water horehound, tearthumb, marsh bedstraw, joe-pye weed, jewelweed, turtlehead, marsh marigold, false hellebore, tall meadow rue, reed canary grass, boneset, marsh fern, bur-reed, cinnamon fern, and forget-me-not. Purple loosestrife at western, northern, and southern edges. Dense mats of moneywort at edges. A large patch of phragmites at the northern edge. Dense ostrich fern and shrubs on island and south of pond. Much of pond is covered with bur-reed and swamp loosestrife; also narrow-leaved cattail, rush, duckweed.
Birds	Red-winged blackbird, yellow warbler, warbling vireo, eastern kingbird, wood duck, pileated woodpecker, common grackle, song sparrow, chimney swift, cedar waxwing, swamp sparrow, common yellowthroat, least flycatcher, white-breasted nuthatch, blue-gray gnatcatcher, veery, gray catbird, black-capped chickadee, rose-breasted grosbeak (pair), American robin, Baltimore oriole, northern waterthrush, great crested flycatcher, brown-headed cowbird, eastern wood-pewee, American goldfinch, black-billed cuckoo (pair).
Mammals	Beaver lodge in pond, and recently cut alders; deer, chipmunk; possible coyote tracks.
Herps	Many green frogs; American toad. Two painted turtles fighting.
Habitat features	Snags and coarse woody debris abundant. Fish.

WP-4

Current cover	Lawn
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Fragments of floodplain forest between picnic tables, with cottonwood and boxelder.
Herb layer	Grass, white clover, common plantain, dandelion, burdock, yellow wood sorrel, black medick. Dame's rocket, ground ivy, and goutweed are abundant around the edge; also common milkweed, white campion, cleavers.
Birds	Song sparrow, common yellowthroat, American redstart, warbling vireo, American robin.

WP-5

Current cover	Boxelder-Cottonwood-Willow
Natural community	Silver Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Open. Cottonwood, butternut, green ash, and boxelder are all abundant; some willow, silver maple, and hackberry. Canopy is more open towards the lawn. A black locust along the trail.
Subcanopy	Dense/patchy. Boxelder dominates; also American elm, green ash, and black locust.
Shrub layer	Fairly sparse. Virginia creeper, common buckthorn, green ash, red elderberry, chokecherry, boxelder, common elderberry, riverbank grape, staghorn sumac.
Herb layer	Very dense. Ostrich fern dominates; ground ivy, dame's rocket, and moneywort are common. Also jewelweed, wood nettle, sensitive fern, wild cucumber, white avens, jack-in-the-pulpit, enchanter's nightshade, goutweed, tall nettle, white snakeroot, white baneberry, great angelica, tall meadow rue, water hemlock, grasses, and clearweed. Along the trail: fringed bindweed, burdock, jumpseed, motherwort, hog peanut, common fleabane, winter cress, celandine. Towards the lawn, goldenrod, thin-leaved sunflower, and white snakeroot are abundant.
Birds	Pileated woodpecker, blue jay, wood thrush, northern flicker, Baltimore oriole, rose-breasted grosbeak, white-breasted nuthatch, yellow warbler, common yellowthroat, yellow-throated vireo, great crested flycatcher, downy woodpecker, red-winged blackbird, chestnut-sided warbler, American redstart, American robin, tufted titmouse, least flycatcher, warbling vireo, blue-gray gnatcatcher, gray catbird, black-capped chickadee, veery, song sparrow, eastern wood-pewee; Canada geese on river.
Mammals	Gray squirrel.
Herps	American toad.
Habitat features	Coarse woody debris and tree cavities abundant.

WP-6

Current cover	Northern Hardwoods
Natural community	Sugar Maple-Ostrich Fern Riverine Floodplain Forest

Canopy	Tall and dense. White pine, butternut, basswood, quaking aspen, black cherry, sugar maple, yellow birch, bigtooth aspen, red maple.
Subcanopy and high shrubs	Fairly dense. Basswood, green ash, bitternut hickory, red oak, hackberry, white ash, silver maple, musclewood, paper birch, yellow birch, black maple, hophornbeam, witch hazel, sugar maple, beech, white oak, American elm, common buckthorn, staghorn sumac.
Shrub layer (low)	Fairly sparse to moderate. Green ash, Virginia creeper, chokecherry, nannyberry, common buckthorn, boxelder, raspberry, sugar maple, red oak, black cherry, alternate-leaved dogwood, beaked hazelnut, prickly gooseberry, maple-leaved viburnum.
Herb layer	Dense; ostrich fern and jewelweed abundant. Also wood nettle, sweet-scented bedstraw, tall meadow rue, white snakeroot, bloodroot, heart-leaved aster, wormwood, goldenrods (including zigzag goldenrod, blue-stemmed goldenrod, and rough-stemmed goldenrod), sensitive fern, jack-in-the-pulpit, moneywort, Christmas fern, large-flowered trillium, white lettuce, sweet cicely, false hellebore, white avens, false Solomon's seal, Virginia waterleaf, red trillium, Canada mayflower, starflower, white baneberry, field horsetail, lady fern, New York fern, hog peanut, hooked crowfoot, red baneberry, grasses, sedges, enchanter's nightshade, wild cucumber, bedstraw, interrupted fern, early meadow rue, groundnut.
Birds	White-breasted nuthatch, gray catbird, American goldfinch, black-capped chickadee, scarlet tanager, veery, hairy woodpecker, tufted titmouse, red-eyed vireo, eastern wood-pewee, blue jay, rose-breasted grosbeak.
Mammals	Chipmunk, gray squirrel.
Herps	Green frog, garter snake.
Habitat features	Snags, cavities, coarse woody debris.

WP-7

Current cover	Oak-Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest
Canopy	Tall and dense. Dominated by red oak (some quite large); also white oak; some white and pitch pines near northern property boundary.
Subcanopy and high shrubs	Fairly dense; dominated by red maple and witch hazel. Also white ash, shagbark hickory, basswood, and black cherry.
Shrub layer (low)	Sparse. Hophornbeam, white ash, maple-leaved viburnum, red maple, sugar maple, Virginia creeper, common buckthorn, witch hazel, basswood, Asiatic bittersweet, black cherry, purple-flowering raspberry, raspberry, chokecherry, beaked hazelnut, bush honeysuckle, red elderberry, blackberry, prickly gooseberry.
Herb layer	Fairly dense; interrupted fern, early meadow rue, and wild sarsaparilla are abundant. Also lady fern, maidenhair fern, pointed-leaved tick trefoil, sweet-scented bedstraw, hog peanut, blue-stemmed goldenrod, false Solomon's seal, hooked crowfoot, white baneberry, small-flowered crowfoot, marginal woodfern, jack-in-the-pulpit, yellow wood sorrel, white avens, wood anemone, fragile fern, enchanter's nightshade, sweet cicely, whorled loosestrife, wild oats.

Birds	Wood thrush, veery, black-capped chickadee, American redstart, warbling vireo, ruby-throated hummingbird. Chipping sparrow in railroad corridor. Large unidentified raptor.
Mammals	Chipmunk; several woodchuck dens.
Herps	American toad.
Habitat features	Coarse woody debris and snags; large cavity trees; very sandy soil (good digging for woodchucks).

WP-8

Current cover	Hardwood Swamp
Natural community	Beaver Wetland
Canopy	Open/patchy. Red maple dominates.
Subcanopy	Dense/patchy. American elm, alder, red maple, black ash, yellow birch, white ash, musclewood.
Shrub layer (low)	Sparse; alder.
Herb layer	Dense jewelweed, sensitive fern, and sedges (including stipitate sedge and lakeshore sedge); cinnamon fern, interrupted fern, marsh marigold, common scouring rush, bittersweet nightshade, turtlehead, boneset, Clinton's woodfern, jack-in-the-pulpit, field horsetail, dwarf raspberry.
Birds	Yellow-bellied sapsucker.

WP-9

Current cover	Red Oak-Northern Hardwoods
Natural community	Mesic Maple-Ash-Hickory-Oak Forest; Sugar Maple-Ostrich Fern Riverine Floodplain Forest
Canopy	Dense. Cottonwood, bitternut hickory, butternut, and red oak abundant. Also red maple, white ash, hackberry, black cherry, basswood, white oak.
Subcanopy and high shrubs	Bitternut hickory, basswood, red maple, white ash, sugar maple, boxelder, butternut, paper birch, yellow birch, sugar maple, black cherry, hackberry, staghorn sumac, American elm, gray birch, common buckthorn, hophornbeam. Black locust on trail. Wetter areas have musclewood, black ash, and alder.
Shrub layer (low)	Virginia creeper, chokecherry, grape, boxelder, highbush cranberry, raspberry, staghorn sumac, red oak, nannyberry, bitternut hickory, Oriental honeysuckle, common buckthorn, Japanese barberry, black cherry, basswood, red maple, chokecherry, gray-stemmed dogwood, poison ivy. Wetter areas also have currant, meadowsweet.
Herb layer	Ostrich fern dominates; extensive common scouring rush patch in eastern portion. Also bloodroot, zigzag goldenrod, false Solomon's seal, virgin's bower, sedges, interrupted fern, sensitive fern, dogbane, lady fern, goldenrods, sweet-scented bedstraw, wild madder, early meadow rue, Canada lily, daisy fleabane, tall meadow rue, enchanter's nightshade, Christmas fern, red baneberry, white baneberry, beech fern, grasses, groundnut, hog peanut, celandine, white snakeroot, pointed-leaved tick trefoil, wild cucumber, jack-in-the-pulpit, large-flowered trillium, fringed loosestrife, heart-leaved aster. Wetter areas have abundant sedges

	(including stipitate sedge), jewelweed, sensitive fern, and cinnamon fern; two large phragmites patches; also royal fern, cattail, boneset, field horsetail, marsh bedstraw, joe-pye weed, bittersweet nightshade, sweet-scented bedstraw, turtlehead, dwarf raspberry.
Birds	Wood thrush, veery, white-breasted nuthatch, least flycatcher, gray catbird, red-eyed vireo, American redstart, song sparrow, Baltimore oriole, house wren, warbling vireo, downy woodpecker, American goldfinch, great crested flycatcher, yellow warbler, rose-breasted grosbeak.
Mammals	Raccoon tracks; chipmunk, gray squirrel.
Herps	Garter snake.
Habitat features	Extensive seep; some very muddy, treeless areas. Large snags with cavities.

ANIMAL SPECIES LIST FOR THE WINOOSKI VALLEY PARK DISTRICT, SUMMER 2005

LATIN NAME	COMMON NAME	CP	DP	DI	DSC	EO	EAH	HW	MF	ML	MCA	MB	OMP	RW	SH	VR	WG	WNT	WP	STATUS
<i>Ambystoma maculatum</i>	Spotted salamander	x																		
<i>Notophthalmus viridescens</i>	Red-spotted newt	x											x							
<i>Bufo americanus</i>	American toad	x		x					x			x			x			x	x	
<i>Pseudacris crucifer</i>	Spring peeper	x					x		x											
<i>Hyla versicolor</i>	Gray treefrog	x					x		x			x					x	x		
<i>Rana catesbeiana</i>	Bullfrog	x					x		x									x		
<i>Rana clamitans</i>	Green frog	x		x	x	x	x	x	x			x	x					x	x	
<i>Rana sylvatica</i>	Wood frog	x							x								x	x		
<i>Rana pipiens</i>	Northern leopard frog		x	x	x		x	x	x	x								x		
<i>Rana palustris</i>	Pickerel frog	x																		
<i>Chrysemys picta</i>	Painted turtle	x					x												x	
<i>Thamnophis sirtalis</i>	Garter snake	x	x		[x]		x		x		x			x			x	x	x	
<i>Phalacrocorax auritus</i>	Double-crested cormorant	x																		
<i>Botaurus lentiginosus</i>	American bittern	x																		S3B,S3N
<i>Ixobrychus exilis</i>	Least bittern		x																	S2B,S2N; SC
<i>Ardea herodias</i>	Great blue heron	x		x					x					x	x			x		S2S3B,S5N
<i>Ardea alba</i>	Great egret		x	x																
<i>Butorides virescens</i>	Green heron			x			x								x			x		
<i>Cathartes aura</i>	Turkey vulture	x							x			x								S3B,S4N
<i>Branta canadensis</i>	Canada goose	x	x											x				x	x	
<i>Aix sponsa</i>	Wood duck	x		x	x		x		x									x	x	
<i>Anas platyrhynchos</i>	Mallard	x	x	x	x													x		
<i>Pandion haliaetus</i>	Osprey														x					S2B,S4N
<i>Circus cyaneus</i>	Northern harrier		x				x													S2B,S3S4N; SC
<i>Accipiter striatus</i>	Sharp-shinned hawk	x															x			
<i>Accipiter cooperii</i>	Cooper's hawk											x								S2S3B,SZN; SC
<i>Buteo lineatus</i>	Red-shouldered hawk	x																		
<i>Buteo platypterus</i>	Broad-winged hawk	x											x							
<i>Buteo jamaicensis</i>	Red-tailed hawk	x					x		x											
<i>Bonasa umbellus</i>	Ruffed grouse	x					x		x				[x]				x			
<i>Meleagris gallopavo</i>	Wild turkey	x										x						x		
<i>Rallus limicola</i>	Virginia rail	x																		
<i>Porzana carolina</i>	Sora			x																S2S3B,S3N; SC
<i>Gallinula chloropus</i>	Common moorhen			x																S2B,S2N
<i>Fulica americana</i>	American coot		x																	SAB,S2N
<i>Charadrius vociferus</i>	Killdeer											x								
<i>Actitis macularia</i>	Spotted sandpiper						x					x			x					
<i>Scolopax minor</i>	American woodcock	x					x	x										x		

ANIMAL SPECIES LIST FOR THE WINOOSKI VALLEY PARK DISTRICT, SUMMER 2005

LATIN NAME	COMMON NAME	CP	DP	DI	DSC	EO	EAH	HW	MF	ML	MCA	MB	OMP	RW	SH	VR	WG	WNT	WP	STATUS
<i>Larus delawarensis</i>	Ring-billed gull	x	x											x	x					
<i>Sterna caspia</i>	Caspian tern		x																	
<i>Columbia livia</i>	Rock dove				w													x		*
<i>Zenaidura macroura</i>	Mourning dove	x	x		[x]		x	[x]	x								x	x	x	
<i>Coccyzus erythrophthalmus</i>	Black-billed cuckoo																		x	
<i>Strix varia</i>	Barred owl	x							x								x			
<i>Otus asio</i>	Eastern screech-owl		x																	
<i>Chordeiles minor</i>	Common nighthawk	x																		S2S3B,SZN; SC
<i>Chaetura pelagica</i>	Chimney swift				x	x	x				x		x					x	x	
<i>Archilochus colubris</i>	Ruby-throated hummingbird	x		x					x								x		x	
<i>Ceryle alcyon</i>	Belted kingfisher	x		x	x		x		x					x	x			x		
<i>Sphyrapicus varius</i>	Yellow-bellied sapsucker	x		(x)		(x)						(x)							x	
<i>Picoides pubescens</i>	Downy woodpecker	x		x	x	x	x		x			x		x	x	x	x	x	x	
<i>Picoides villosus</i>	Hairy woodpecker	x		x		x	x		x			x	x		x		x	x	x	
<i>Colaptes auratus</i>	Northern flicker	x		x			x	x	x					x	x			x	x	
<i>Dryocopus pileatus</i>	Pileated woodpecker	x		x		(x)	(x)		x			x	(x)			x	x	x	x	
<i>Contopus virens</i>	Eastern wood-pewee	x		x		x	x		x			x				x	x	x	x	
<i>Empidonax alnorum</i>	Alder flycatcher	[x]																		
<i>Empidonax traillii</i>	Willow flycatcher	x							x										x	
<i>Empidonax minimus</i>	Least flycatcher	x					x												x	x
<i>Sayornis phoebe</i>	Eastern phoebe	x		x			x		x			x	x		x				x	
<i>Myiarchus crinitus</i>	Great crested flycatcher	x		x		x	x		x			x	x						x	x
<i>Tyrannus tyrannus</i>	Eastern kingbird	x					x		x			x				x			x	x
<i>Vireo flavifrons</i>	Yellow-throated vireo	x																		x
<i>Vireo solitarius</i>	Blue-headed vireo	x							x				x							
<i>Vireo gilvus</i>	Warbling vireo	x				x	x		x			x							x	x
<i>Vireo olivaceus</i>	Red-eyed vireo	x		x		x	x		x			x	x						x	x
<i>Cyanocitta cristata</i>	Blue jay	x		x					x	x	x	x	x			x	x	x	x	
<i>Corvus brachyrhynchos</i>	American crow	x	x	x			x	x	x			x	x	x	x		x	x		
<i>Corvus corax</i>	Common raven	x																		
<i>Tachycineta bicolor</i>	Tree swallow	x	x				x		x			x							x	
<i>Stelgidopteryx serripennis</i>	Northern rough-winged swallow						x					x								
<i>Poecile atricapillus</i>	Black-capped chickadee	x	x	x	x	x	x	x	x			x	x	x	x	x	x	x	x	
<i>Baeolophus bicolor</i>	Tufted titmouse	x		x	[x]	x	x		x			x	x	x		x	x	x	x	
<i>Sitta canadensis</i>	Red-breasted nuthatch	x															x			
<i>Sitta carolinensis</i>	White-breasted nuthatch	x		x	[x]	x	x		x			x	x		x	x	x	x	x	
<i>Certhia americana</i>	Brown creeper	x		x									x			x				
<i>Troglodytes aedon</i>	House wren					x	x					x		x	x					x

ANIMAL SPECIES LIST FOR THE WINOOSKI VALLEY PARK DISTRICT, SUMMER 2005

LATIN NAME	COMMON NAME	CP	DP	DI	DSC	EO	EAH	HW	MF	ML	MCA	MB	OMP	RW	SH	VR	WG	WNT	WP	STATUS
<i>Troglodytes troglodytes</i>	Winter wren	x											[x]							
<i>Cistothorus palustris</i>	Marsh wren		x																	
<i>Poliophtila caerulea</i>	Blue-gray gnatcatcher			x			x											x	x	S3B,SZN
<i>Sialia sialis</i>	Eastern bluebird	x																		
<i>Catharus fuscescens</i>	Veery	x		x		x	x		x			x						x	x	
<i>Catharus guttatus</i>	Hermit thrush	x											x							
<i>Hylocichla mustelina</i>	Wood thrush	x				x							[x]					x	x	
<i>Turdus migratorius</i>	American robin	x		x		x	x	x	x		x	x	x	x	x	x	x	x	x	
<i>Dumetella carolinensis</i>	Gray catbird	x		x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	
<i>Sturnus vulgaris</i>	European starling															x				*
<i>Bombycilla cedrorum</i>	Cedar waxwing	x	x	x			x	x	x	x		x	x	x	x	x	x	x	x	
<i>Dendroica petechia</i>	Yellow warbler	x					x	x	x			x						x	x	
<i>Dendroica pensylvanica</i>	Chestnut-sided warbler	x										x						x	x	
<i>Dendroica caerulescens</i>	Black-throated blue warbler	x																		
<i>Dendroica coronata</i>	Yellow-rumped warbler	x																		
<i>Dendroica virens</i>	Black-throated green warbler	x							x				x							
<i>Dendroica fusca</i>	Blackburnian warbler	x											x					x		
<i>Dendroica pinus</i>	Pine warbler	x											x							S3B,SZN
<i>Dendroica cerulea</i>	Cerulean warbler	x																		S1B,SZN; SC
<i>Mniotilta varia</i>	Black-and-white warbler	x																		
<i>Setophaga ruticilla</i>	American redstart	x					x	x				x	x	x		x		x	x	
<i>Seiurus aurocapillus</i>	Ovenbird	x							x			x	x							
<i>Seiurus noveboracensis</i>	Northern waterthrush	x																x	x	
<i>Seiurus motacilla</i>	Louisiana waterthrush	x																		
<i>Geothlypis trichas</i>	Common yellowthroat	x			x		x		x			x	x			x	x	x	x	
<i>Piranga olivacea</i>	Scarlet tanager	x							x			x	x					x	x	
<i>Pipilo erythrophthalmus</i>	Eastern towhee	x										x								
<i>Spizella passerina</i>	Chipping sparrow																			[x]
<i>Spizella pusilla</i>	Field sparrow	x																		
<i>Melospiza melodia</i>	Song sparrow	x	x	x	x		x	x	x			x	x	x	x	x	x	x	x	
<i>Melospiza georgiana</i>	Swamp sparrow						x	x	x									x	x	
<i>Zonotrichia albicollis</i>	White-throated sparrow	x											[x]							
<i>Junco hyemalis</i>	Dark-eyed junco	x																		
<i>Cardinalis cardinalis</i>	Northern cardinal			x	[x]	x	x		x			x	[x]	x	x		x	x		
<i>Pheucticus ludovicianus</i>	Rose-breasted grosbeak	x							x				[x]			x				x
<i>Passerina cyanea</i>	Indigo bunting	[x]					x		x			x					x			
<i>Dolichonyx oryzivorus</i>	Bobolink	x					x													
<i>Agelaius phoeniceus</i>	Red-winged blackbird	x		x			x	x	x				x			x		x	x	

ANIMAL SPECIES LIST FOR THE WINOOSKI VALLEY PARK DISTRICT, SUMMER 2005

LATIN NAME	COMMON NAME	CP	DP	DI	DSC	EO	EAH	HW	MF	ML	MCA	MB	OMP	RW	SH	VR	WG	WNT	WP	STATUS
<i>Quiscalus quiscula</i>	Common grackle	x		x									x		x	x	x	x	x	
<i>Molothrus ater</i>	Brown-headed cowbird	x				x			x			x						x	x	
<i>Icterus galbula</i>	Baltimore oriole	x					x					x	x					x	x	
<i>Carduelis tristis</i>	American goldfinch	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	
<i>Sorex cinereus</i>	Masked shrew	x																		
Talpidae	Mole	x				x														
<i>Sylvilagus floridanus</i>	Eastern cottontail	x													x					*
<i>Tamias striatus</i>	Eastern chipmunk	x	x		[x]	x	x		x			x	x			x	x	x	x	
<i>Marmota monax</i>	Woodchuck	x		x		x	x	x	x			x		x		x	x	x	x	
<i>Sciurus carolinensis</i>	Gray squirrel	x		x	[x]		x		x	x	x	x	x	x	x		x	x	x	
<i>Tamiasciurus hudsonicus</i>	Red squirrel	x			[x]		x		x				x				x			
<i>Castor canadensis</i>	Beaver	x	x	x	(x)		x	x	x				(x)	x	x	x	(x)	x	x	
<i>Peromyscus sp.</i>	Mouse	x																		
<i>Ondatra zibethicus</i>	Muskrat	x	x	x			x	?	x						x				x	
<i>Erethizon dorsatum</i>	Porcupine	x																		
<i>Canis latrans</i>	Coyote	x																		?
<i>Vulpes vulpes</i>	Red fox				w		x		x									x	x	(*)
<i>Procyon lotor</i>	Raccoon	x		x	x		x		x			x	x	x	x	x	x	x	x	
<i>Martes pennanti</i>	Fisher	x			[w]															
<i>Mustela vison</i>	Mink				w		x						x						x	
<i>Mephitis mephitis</i>	Striped skunk	[x]	x	x		x	(?)													
<i>Lontra canadensis</i>	River otter						x												x	
<i>Lynx rufus</i>	Bobcat	x																		
<i>Odocoileus virginianus</i>	White-tailed deer	x		x	x	x	x	x	x			x	x		x	x	x	x	x	
<i>Alces alces</i>	Moose	x		(?)				(?)												
Property codes: CP = Colchester Pond Natural Area; DP = Delta Park; DI = Derway Island; DSC = Donohue Sea Caves; EO = Essex Overlook Park; EAH = Ethan Allen Homestead Park; HW = Heineburg Wetlands; MF = Macrae Farm Park; ML = Mayes Landing; MCA = Millyard Canoe Access; MB = Muddy Brook Park; OMP = Old Mill Park; RW = Riverwalk; SH = Salmon Hole Park; VR = Valley Ridge; WG = Winooski Gorge; WNT = Winooski Nature Trail; WP = Woodside Park.																				
Occurrence codes: x = species seen or heard (or fresh sign found) by Charles Eiseman in summer 2005; (x) = old sign; (?) = possible old sign; [x] = just outside property; w = saw in winter before inventory.																				
Status codes: S1 = very rare in Vermont; S2 = rare in Vermont; S3 = uncommon in Vermont; S4 = apparently secure; S5 = demonstrably secure; SA = accidental in Vermont; SZ = not of practical conservation concern because there are no definable occurrences; B indicates breeding status; N indicates nonbreeding status; SC = species of special concern in Vermont; * = introduced species; (*) = species both native and introduced.																				

PLANT SPECIES LIST FOR THE WINOOSKI VALLEY PARK DISTRICT, SUMMER 2005

COMMON NAME	LATIN NAME	CP	DP	DI	DSC	EO	EAH	HW	MF	ML	MCA	MB	OMP	RW	SH	VR	WG	WNT	WP	STATUS
Agrimony	<i>Agrimonia gryposepala</i>	x			x		x		x			x	x	x	x	x		x		
Alder	<i>Alnus</i> sp.	x		x	x		x	x	x			x	x			x		x	x	
Alsike clover	<i>Trifolium hybridum</i>						x													*
Alternate-leaved dogwood	<i>Cornus alternifolia</i>	x				x	x	x	x			x	x	x	x	x	x	x	x	
American bittersweet	<i>Celastrus scandens</i>					x			x						x				x	
American chestnut	<i>Castanea dentata</i>	x																		
American elm	<i>Ulmus americana</i>	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	
American fly honeysuckle	<i>Lonicera canadensis</i>	x											x							
Apple	<i>Pyrus malus</i>	x		x			x		x								x			*
Arrowhead	<i>Sagittaria latifolia</i>	x	x	x	x		x	x	x	x					x				x	x
Arrowwood	<i>Viburnum recognitum</i>	x					x	x	x							x			x	
Asiatic bittersweet	<i>Celastrus orbiculatus</i>	x					x	x					x			x			x	***
Asters (unspecified)	<i>Aster</i> sp.	x		x			x	x	x	x	x				x		x	x		
Autumn olive	<i>Elaeagnus umbellata</i>	x	x									[x]					x			***
Avens (unspecified)	<i>Geum</i> sp.	x																		
Balm of Gilead	<i>Populus x jackii</i>																x			(*)
Balsam ragwort	<i>Senecio pauperculus</i>														x					
Baneberry (unspecified)	<i>Actaea</i> sp.	x							x											
Barnyard grass	<i>Echinochloa crusgalli</i>		x												x		x			*
Basswood	<i>Tilia americana</i>	x				x	x		x			x			x	x	x	x	x	
Bastard toadflax	<i>Comandra umbellata</i>	x														x	x	x		
Beach pea	<i>Lathyrus maritimus</i>		x																	S2; T
Beaked hazelnut	<i>Corylus cornuta</i>	x				x		x	x			x	x			x			x	x
Bedstraw (unspecified)	<i>Galium</i> sp.	x					x		x			x	x						x	x
Beech	<i>Fagus grandifolia</i>	x					x	x	x			x	x			x	x	x	x	
Beechdrops	<i>Epifagus virginiana</i>	x							x				x			x			x	
Beech fern	<i>Thelypteris phegopteris</i>	x											x			x				x
Beggar-ticks	<i>Bidens</i> sp.	x			x		x		x						x					
Bergamot	<i>Monarda</i> sp.						x													(*)
Bigtooth aspen	<i>Populus grandidentata</i>	x					x		x	x		x				x	x	x	x	
Birdsfoot trefoil	<i>Lotus corniculatus</i>	x					x								x		x	x		*
Bitter dock	<i>Rumex obtusifolius</i>		x				x	x				x		x					x	*
Bitternut hickory	<i>Carya cordiformis</i>	x				x			x								x	x	x	
Bittersweet (unspecified)	<i>Celastrus</i> sp.	x				x	x													(***)
Bittersweet nightshade	<i>Solanum dulcamara</i>	x	x	x	x	x	x	x	x		x	x			x	x	x	x	x	***
Black ash	<i>Fraxinus nigra</i>	x					x		x											x
Blackberry	<i>Rubus allegheniensis</i>	x				x	x	x	x			x			x	x	x	x	x	
Black birch	<i>Betula lenta</i>	x					x	x	x			x				x				
Black cherry	<i>Prunus serotina</i>	x				x	x	x	x			x	x	x		x	x	x	x	
Black-eyed susan	<i>Rudbeckia hirta</i>	x					x		x						x					

PLANT SPECIES LIST FOR THE WINOOSKI VALLEY PARK DISTRICT, SUMMER 2005

COMMON NAME	LATIN NAME	CP	DP	DI	DSC	EO	EAH	HW	MF	ML	MCA	MB	OMP	RW	SH	VR	WG	WNT	WP	STATUS
Black locust	<i>Robinia pseudoacacia</i>		x			x	x							x	x			x	x	***
Black maple	<i>Acer nigrum</i>																		x	S3
Black medick	<i>Medicago lupulina</i>											x			x			x	x	*
Black nightshade	<i>Solanum nigrum</i>													x	x					*
Black oak	<i>Quercus velutina</i>	x	x				x		x									x		
Black raspberry	<i>Rubus occidentalis</i>	x			x	x	x		x						x					
Black-seeded ricegrass	<i>Oryzopsis racemosa</i>	x															x			
Black walnut	<i>Juglans nigra</i>	x																x		
Bladder campion	<i>Silene cucubalus</i>	x																		*
Bladderwort	<i>Utricularia vulgaris</i>		x	x			x	x	x									x	x	
Bloodroot	<i>Sanguinaria canadensis</i>	x				x	x		x				x				x		x	
Bluebead lily	<i>Clintonia borealis</i>	x							x				x							
Bluebell	<i>Campanula rotundifolia</i>	x							x						x		x			
Blue cohosh	<i>Caulophyllum thalictroides</i>	x															x			
Blue-eyed grass	<i>Sisyrinchium</i> sp.	x																x		
Blue flag	<i>Iris versicolor</i>	x	x	x			x	x	x	x			x					x		
Blue-stemmed goldenrod	<i>Solidago caesia</i>	x				x	x		x			x				x	x	x	x	
Bluets	<i>Houstonia caerulea</i>											x	x					x		
Blue vervain	<i>Verbena hastata</i>	x					x					x			x		x	x		
Boneset	<i>Eupatorium perfoliatum</i>	x	x						x	x		x	x		x				x	
Bottlebrush grass	<i>Elymus hystrix</i>	x																		
Bouncing bet	<i>Saponaria officinalis</i>		x				x		x						x		x	x		*
Boxelder	<i>Acer negundo</i>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	
Bracken fern	<i>Pteridium aquilinum</i>	x							x			x	x			x	x	x		
Bristly clubmoss	<i>Lycopodium annotinum</i>	x											x							
Bristly crowfoot	<i>Ranunculus pensylvanicus</i>								x											S2
Bristly currant	<i>Ribes lacustre</i>												x							
Bristly sedge	<i>Carex comosa</i>	x			x		x	x										x	x	
Broad beech fern	<i>Thelypteris hexagonoptera</i>	x																		S2
Brome	<i>Bromus</i> sp.														x					
Buffaloberry	<i>Shepherdia canadensis</i>																x			S3
Bugleweed	<i>Lycopus</i> sp.	x	x	x		x	x	x	x	x										
Bulb-bearing water hemlock	<i>Cicuta bulbifera</i>		x	x	x		x	x	x									x	x	
Bulblet fern	<i>Cystopteris bulbifera</i>	x							x								x			
Bull thistle	<i>Cirsium vulgare</i>	x		x	x				x							x				*
Bulrush (unspecified)	<i>Scirpus</i> sp.		x				x		x						x					
Bunchberry	<i>Cornus canadensis</i>	x																		
Burdock	<i>Arctium minus</i>	x		x	x		x		x	x	x	x		x	x		x	x	x	*
Bur-reed	<i>Sparganium</i> sp.	x	x	x	x		x	x	x							x		x	x	
Bush honeysuckle	<i>Diervilla lonicera</i>	x				x			x			x				x	x	x	x	

PLANT SPECIES LIST FOR THE WINOOSKI VALLEY PARK DISTRICT, SUMMER 2005

COMMON NAME	LATIN NAME	CP	DP	DI	DSC	EO	EAH	HW	MF	ML	MCA	MB	OMP	RW	SH	VR	WG	WNT	WP	STATUS
Butter-and-eggs	<i>Linaria vulgaris</i>	x	x			x	x					x			x		x			*
Butternut	<i>Juglans cinerea</i>	x		x	x	x	x		x			x		x	x		x	x	x	
Buttonbush	<i>Cephalanthus occidentalis</i>		x	x	x		x	x	x											
Canada anemone	<i>Anemone canadensis</i>		x																	
Canada lily	<i>Lilium canadense</i>						x		x				x							x
Canada mayflower	<i>Maianthemum canadense</i>	x				x	x	x	x			x	x			x	x			x
Canada St. Johnswort	<i>Hypericum canadense</i>	x																		
Canada thistle	<i>Cirsium arvense</i>	x			x	x	x		x							x	x			***
Carpenter's square	<i>Scrophularia marilandica</i>				x										x					S3
Carpetweed	<i>Mollugo verticillata</i>		x												x					*
Carrion flower	<i>Smilax herbacea</i>	x		x					x											
Catalpa	<i>Catalpa</i> sp.														x					*
Catnip	<i>Nepeta cataria</i>																x	x		*
Cattail	<i>Typha</i> sp.	x							x				x						x	x
Celandine	<i>Chelidonium majus</i>					x	x					x		x	x		x	x	x	***
Centaury	<i>Centaureium umbellatum</i>																	x		*
Chairmaker's rush	<i>Scirpus americanus</i>		x	x																
Chestnut oak	<i>Quercus prinus</i>	x																		
Chicory	<i>Cichorium intybus</i>						x		x						x					*
Chokeberry	<i>Aronia</i> sp.	x					x													
Chokecherry	<i>Prunus virginiana</i>	x				x	x	x	x			x	x	x	x	x		x	x	
Christmas fern	<i>Polystichum acrostichoides</i>	x							x			x				x	x	x	x	
Cinnamon fern	<i>Osmunda cinnamomea</i>	x					x	x	x			x	x			x		x	x	
Clearweed	<i>Pilea pumila</i>	x	x	x	x		x		x					x	x	x	x		x	
Cleavers	<i>Galium aparine</i>																			x
Climbing false buckwheat	<i>Polygonum scandens</i>		x	x			x	x									x			
Climbing fumitory	<i>Adlumia fungosa</i>																x			S3
Clinton's woodfern	<i>Dryopteris clintoniana</i>	x																	x	
Cocklebur	<i>Xanthium</i> sp.		x				x		x		x	x			x		x			
Coltsfoot	<i>Tussilago farfara</i>	x											x				x	x		***
Columbine	<i>Aquilegia canadensis</i>	x				x			x								x	x		
Common barberry	<i>Berberis vulgaris</i>	x							x			x			x	x	x	x		***
Common blue violet	<i>Viola papilionacea</i>						x					x	x						x	
Common buckthorn	<i>Rhamnus cathartica</i>	x	x		x	x	x	x	x	x		x	x	x	x	x	x	x	x	***
Common cattail	<i>Typha latifolia</i>	x					x	x	x			x							x	x
Common cinquefoil	<i>Potentilla simplex</i>	x					x		x										x	
Common elderberry	<i>Sambucus canadensis</i>	x	x	x	x		x	x	x			x	x		x	x				x
Common fleabane	<i>Erigeron philadelphicus</i>								x			x			x				x	x
Common milkweed	<i>Asclepias syriaca</i>	x	x	x	x		x		x	x		x			x	x	x	x	x	
Common plantain	<i>Plantago major</i>	x	x	x	x	x	x		x	x	x	x		x	x		x	x	x	*

PLANT SPECIES LIST FOR THE WINOOSKI VALLEY PARK DISTRICT, SUMMER 2005

COMMON NAME	LATIN NAME	CP	DP	DI	DSC	EO	EAH	HW	MF	ML	MCA	MB	OMP	RW	SH	VR	WG	WNT	WP	STATUS
Common rush	<i>Juncus effusus</i>						x													
Common St. Johnswort	<i>Hypericum perforatum</i>	x				x	x		x						x		x	x		*
Common scouring rush	<i>Equisetum hyemale</i>					x										x		x	x	
Common speedwell	<i>Veronica officinalis</i>	x						x	x							x	x	x		*
Common sunflower	<i>Helianthus annuus</i>		x																	(*)
Common watermilfoil	<i>Myriophyllum sibiricum</i>						x													
Common wood sorrel	<i>Oxalis montana</i>												x							
Coontail	<i>Ceratophyllum sp.</i>			x					x									x		
Corn	<i>Zea mays</i>						x						x							(*)
Cottonwood	<i>Populus deltoides</i>	x		x	x	x	x		x	x	x	x		x	x	x	x	x	x	
Cow vetch	<i>Vicia cracca</i>	x	x	x	x		x		x	x		x		x			x	x		*
Cowwheat	<i>Melampyrum lineare</i>	x																		
Crabgrass	<i>Digitaria sp.</i>		x																	*
Creeping bellflower	<i>Campanula rapunculoides</i>													x						*
Creeping buttercup	<i>Ranunculus repens</i>						x							x				x		***
Crested woodfern	<i>Dryopteris cristata</i>	x																		
Crown vetch	<i>Coronilla varia</i>					x	x	x								x		x		*
Curled dock	<i>Rumex crispus</i>	x					x		x			x		x	x			x		*
Currant	<i>Ribes sp.</i>	x			x		x					x						x	x	
Cyperus	<i>Cyperus sp.</i>		x		x										x					
Daisy fleabane	<i>Erigeron sp.</i>	x		x		x	x		x			x		x	x			x	x	
Dalibarda	<i>Dalibarda repens</i>					x											x	x		
Dame's rocket	<i>Hesperis matronalis</i>					x	x		x			x		x	x	x	x	x	x	***
Dandelion	<i>Taraxacum officinale</i>	x				x	x		x	x	x	x	x	x	x		x	x	x	*
Dark green bulrush	<i>Scirpus atrovirens</i>	x			x		x		x						x					
Day lily	<i>Hemerocallis fulva</i>					x	x			x			x		x					*
Deptford pink	<i>Dianthus armeria</i>	x					x		x								x	x		*
Devil's beggar-ticks	<i>Bidens frondosa</i>	x	x	x			x	x	x		x			x	x		x	x	x	
Ditch stonecrop	<i>Penthorum sedoides</i>	x	x				x								x					
Dodder	<i>Cuscuta sp.</i>			x			x		x											
Dogbane	<i>Apocynum sp.</i>	x	x	x			x	x	x	x		x	x		x	x	x	x	x	
Doorweed	<i>Polygonum aviculare</i>		x				x		x						x		x			*
Downy goldenrod	<i>Solidago puberula</i>														x		x			
Downy yellow violet	<i>Viola pubescens</i>	x																		
Drooping sedge	<i>Carex crinita</i>	x	x	x			x		x				x					x	x	
Drooping woodreed	<i>Cinna latifolia</i>	x		x		x									x	x	x			
Duckweed (unspecified)	Lemnaceae	x		x	x		x	x	x							x		x	x	
Duckweed (<i>Spirodela</i>)	<i>Spirodela sp.</i>								x											
Dwarf cinquefoil	<i>Potentilla canadensis</i>		x																	
Dwarf raspberry	<i>Rubus pubescens</i>	x							x							x			x	

PLANT SPECIES LIST FOR THE WINOOSKI VALLEY PARK DISTRICT, SUMMER 2005

COMMON NAME	LATIN NAME	CP	DP	DI	DSC	EO	EAH	HW	MF	ML	MCA	MB	OMP	RW	SH	VR	WG	WNT	WP	STATUS
Dwarf St. Johnswort	<i>Hypericum mutilum</i>		x	x											x					
Early meadow rue	<i>Thalictrum dioicum</i>	x				x			x				x			x	x	x	x	
Early saxifrage	<i>Saxifraga virginensis</i>	x																		
Ebony sedge	<i>Carex eburnea</i>																x			
Ebony spleenwort	<i>Asplenium platyneuron</i>	x							x											
Elderberry (unspecified)	<i>Sambucus</i> sp.											x								
Elecampane	<i>Inula helenium</i>	x																		*
Enchanter's nightshade	<i>Circaea quadrisulcata</i>	x			x	x	x	x	x	x		x		x	x	x	x	x	x	
English plantain	<i>Plantago lanceolata</i>	x							x						x					*
Eurasian watermilfoil	<i>Myriophyllum spicatum</i>			x														x		***
European frogbit	<i>Hydrocharis morsus-ranae</i>		x	x																***
European mountain-ash	<i>Sorbus aucuparia</i>	x						x					x		x					*
Evening primrose	<i>Oenothera biennis</i>		x	x	x		x		x	x				x	x		x	x		
False hellebore	<i>Veratrum viride</i>						x		x			x	x							x
False nettle	<i>Boehmeria cylindrica</i>	x	x	x	x		x	x	x											
False pimpernel	<i>Lindernia dubia</i>								x						x		x			
False Solomon's seal	<i>Smilacina racemosa</i>	x				x	x		x			x	x			x	x	x	x	
Field chickweed	<i>Cerastium arvense</i>	x																		
Field hawkweed	<i>Hieracium pratense</i>	x											x					x		*
Field horsetail	<i>Equisetum arvense</i>	x	x	x			x		x		x	x	x	x	x	x		x	x	
Flat-topped aster	<i>Aster umbellatus</i>	x										x				x				
Flowering rush	<i>Butomus umbellatus</i>			x			x													***
Foamflower	<i>Tiarella cordifolia</i>	x											x				x			
Forget-me-not	<i>Myosotis scorpioides</i>			x			x		x			x				x		x	x	***
Four-leaved milkweed	<i>Asclepias quadrifolia</i>	x							x											S3S4
Foxtail grass	<i>Setaria</i> sp.													x						(*)
Foxtail sedge	<i>Carex vulpinoidea</i>	x					x		x											
Fragile fern	<i>Cystopteris fragilis</i>	x							x							x	x	x	x	
Freshwater cordgrass	<i>Spartina pectinata</i>		x																	
Fringed bindweed	<i>Polygonum cilinode</i>	x					x		x				x		x			x	x	
Fringed loosestrife	<i>Lysimachia ciliata</i>	x	x	x			x	x	x	x		x			x	x		x	x	
Fringed polygala	<i>Polygala paucifolia</i>	x							x								x			
Garlic mustard	<i>Alliaria officinalis</i>						x							x	x		x	x		***
Glaucous honeysuckle	<i>Lonicera dioica</i>	x							x										x	
Glossy buckthorn	<i>Rhamnus frangula</i>	x	x		x	x	x	x	x						x	x	x	x	x	***
Golden alexanders	<i>Zizia aurea</i>	x							x			x	x		x			x		
Goldenrods (unspecified)	<i>Solidago</i> sp.	x		x		x	x	x	x			x	x	x	x	x	x	x	x	
Goldthread	<i>Coptis trifolia</i>	x							x				x							
Goutweed	<i>Aegopodium podagraria</i>						x		x			x	x	x	x		x	x	x	***
Grape (unspecified)	<i>Vitis</i> sp.	x				x												x	x	

PLANT SPECIES LIST FOR THE WINOOSKI VALLEY PARK DISTRICT, SUMMER 2005

COMMON NAME	LATIN NAME	CP	DP	DI	DSC	EO	EAH	HW	MF	ML	MCA	MB	OMP	RW	SH	VR	WG	WNT	WP	STATUS
Grasses (unspecified)	Poaceae	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	(*)
Grass-leaved arrowhead	<i>Sagittaria graminea</i>		x																	
Grass-leaved goldenrod	<i>Euthamia graminifolia</i>	x	x				x		x								x			
Gray birch	<i>Betula populifolia</i>	x					x	x				x	x		x		x	x	x	
Gray-stemmed dogwood	<i>Cornus racemosa</i>	x										x				x	x	x	x	
Great angelica	<i>Angelica atropurpurea</i>						x		x			x							x	
Great burdock	<i>Arctium lappa</i>															x		x		*
Great water dock	<i>Rumex orbiculatus</i>						x	x											x	
Green ash	<i>Fraxinus pennsylvanica</i>	x	x	x	x	x	x	x	x	x		x		x	x	x	x	x	x	
Ground cedar	<i>Lycopodium digitatum</i>	x											x							
Ground cherry	<i>Physalis sp.</i>													x						
Ground ivy	<i>Glechoma hederacea</i>		x	x	x		x		x	x		x		x				x	x	***
Groundnut	<i>Apios americana</i>		x	x		x	x	x	x	x		x	x		x		x	x	x	
Hackberry	<i>Celtis occidentalis</i>					x	x		x			x		x			x	x	x	
Haircap moss	<i>Polytrichum sp.</i>	x							x				x							
Hairgrass	<i>Deschampsia flexuosa</i>	x																		
Halberd-leaved tearthumb	<i>Polygonum arifolium</i>				x		x		x							x				
Hawkweed (unspecified)	<i>Hieracium sp.</i>	x													x		x	x		(*)
Hawthorn	<i>Crataegus sp.</i>	x					x						x			x	x	x	x	
Hay-scented fern	<i>Dennstaedtia punctilobula</i>	x											x							
Heart-leaved aster	<i>Aster cordifolius</i>	x											x					x	x	
Hedge bindweed	<i>Calystegia sepium</i>	x	x	x			x	x	x	x	x	x			x		x	x		
Hedge nettle	<i>Stachys sp.</i>		x	x			x		x	x	x									
Helleborine	<i>Epipactis helleborine</i>	x							x				x				x	x		*
Hemlock	<i>Tsuga canadensis</i>	x					x		x			x	x			x	x	x		
Hemp nettle	<i>Galeopsis tetrahit</i>																x			*
Herb Robert	<i>Geranium robertianum</i>	x															x			*
Highbush blueberry	<i>Vaccinium corymbosum</i>	x																		
Highbush cranberry	<i>Viburnum trilobum</i>		x				x	x		x	x	x			x			x	x	
Hoary alyssum	<i>Berteroa incana</i>	x	x				x		x											*
Hobblebush	<i>Viburnum alnifolium</i>	x							x				x			x				
Hog peanut	<i>Amphicarpa bracteata</i>	x	x	x		x	x	x	x	x		x		x	x	x	x	x	x	
Honewort	<i>Cryptotaenia canadensis</i>								x					x						
Hooked crowfoot	<i>Ranunculus recurvatus</i>	x										x					x	x	x	
Hop clover	<i>Trifolium agrarium</i>	x															x			*
Hophornbeam	<i>Ostrya virginiana</i>	x				x			x			x	x				x	x	x	
Horsetail (unspecified)	<i>Equisetum sp.</i>											x	x					x		
Horseweed	<i>Erigeron canadensis</i>		x																	
Huckleberry	<i>Gaylussacia baccata</i>	x							x							x	x			
Indian cucumber	<i>Medeola virginiana</i>	x							x				x			x				

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Indian hemp	<i>Apocynum cannabinum</i>											x						x		
Indian pipe	<i>Monotropa uniflora</i>	x							x				x			x				
Indian tobacco	<i>Lobelia inflata</i>	x		x					x							x	x			
Intermediate woodfern	<i>Dryopteris intermedia</i>	x				x	x	x	x			x	x			x		x		
Interrupted fern	<i>Osmunda claytoniana</i>	x				x	x		x			x	x		x	x	x	x	x	
Iris (unspecified)	<i>Iris</i> sp.	x							x											(*)
Jack-in-the-pulpit	<i>Arisaema triphyllum</i>	x		x	x	x	x	x	x			x	x		x	x	x	x	x	
Japanese barberry	<i>Berberis thunbergii</i>							x	x	x			x	x	x	x	x	x	x	***
Japanese knotweed	<i>Polygonum cuspidatum</i>										x		x	x	x		x	x		***
Jewelweed	<i>Impatiens capensis</i>	x	x	x	x	x	x	x	x			x	x	x	x	x	x	x	x	
Joe-pye weed	<i>Eupatorium maculatum</i>	x	x	x	x				x			x	x		x		x	x	x	
Jumpseed	<i>Polygonum virginiana</i>	x		x		x	x		x				x	x	x	x	x	x	x	
Juniper	<i>Juniperus communis</i>	x																		
Knotweeds	<i>Polygonum</i> spp.	x	x	x	x				x		x				x		x			(*)
Lady fern	<i>Athyrium filix-femina</i>	x		x	x	x	x	x	x			x	x		x	x	x	x	x	
Lady's slipper	<i>Cypripedium acaule</i>	x							x				x							
Lakeshore sedge	<i>Carex lacustris</i>	x	?		?			x	?	x						x		x	x	
Lamb's quarters	<i>Chenopodium album</i>											x			x					*
Lance-leaved loosestrife	<i>Lysimachia hybrida</i>		x																	S1
Lance-leaved wild licorice	<i>Galium lanceolatum</i>	x										x								
Large-flowered bellwort	<i>Uvularia grandiflora</i>	x											x							
Large-flowered trillium	<i>Trillium grandiflorum</i>	x						x				x				x	x		x	
Large-leaved aster	<i>Aster macrophyllus</i>	x														x	x	x		
Large water plantain	<i>Alisma triviale</i>		x	x																
Late goldenrod	<i>Solidago gigantea</i>	x	x	x	x						x	x		x	x	x				
Late low blueberry	<i>Vaccinium pallidum</i>	x										x	x			x	x	x		
Leatherwood	<i>Dirca palustris</i>	x											x							
Lesser stitchwort	<i>Stellaria graminea</i>	x							x											*
Lilac	<i>Syringa vulgaris</i>					x	x													*
Lily-of-the-valley	<i>Convallaria majalis</i>										x									*
Live-forever	<i>Sedum purpureum</i>												x					x		*
Lopseed	<i>Phryma leptostachya</i>																x			
Lovegrass	<i>Eragrostis</i> sp.		x													x				
Low bindweed	<i>Calystegia spithamea</i>																	x		S2; T
Low hop clover	<i>Trifolium procumbens</i>	x														x				*
Low sweet blueberry	<i>Vaccinium angustifolium</i>	x															x			
Mad-dog skullcap	<i>Scutellaria lateriflora</i>	x	x	x				x												
Maidenhair fern	<i>Adiantum pedatum</i>	x															x		x	
Maidenhair spleenwort	<i>Asplenium trichomanes</i>	x				[*]											x			
Maple-leaved viburnum	<i>Viburnum acerifolium</i>	x						x				x				x		x	x	

PLANT SPECIES LIST FOR THE WINOOSKI VALLEY PARK DISTRICT, SUMMER 2005

COMMON NAME	LATIN NAME	CP	DP	DI	DSC	EO	EAH	HW	MF	ML	MCA	MB	OMP	RW	SH	VR	WG	WNT	WP	STATUS
Marginal woodfern	<i>Dryopteris marginalis</i>	x				x			x			x	x		x		x	x	x	
Marsh bedstraw	<i>Galium palustre</i>	x		x	x		x	x	x				x			x		x	x	
Marsh fern	<i>Thelypteris palustris</i>	x	x	x	x		x	x	x			x				x		x	x	
Marsh marigold	<i>Caltha palustris</i>	x							x							x			x	
Marsh St. Johnswort	<i>Triadenum virginicum</i>	x	x	x					x											
Marsh skullcap	<i>Scutellaria epilobiifolia</i>		x																	
Marsh speedwell	<i>Veronica scutellata</i>	x		x			x													
Marsh yellow cress	<i>Rorippa islandica</i>		x														x			
Meadowsweet	<i>Spiraea alba</i>	x		x	x		x	x	x			x	x			x		x	x	
Milk purslane	<i>Euphorbia maculata</i>		x																	
Miterwort	<i>Mitella diphylla</i>	x							x											
Moneywort	<i>Lysimachia nummularia</i>	x	x	x	x		x	x	x			x	x	x	x	x	x	x	x	***
Monkey flower	<i>Mimulus ringens</i>	x	x	x			x	x	x						x		x			
Motherwort	<i>Leonurus cardiaca</i>	x				x	x		x			x		x	x		x	x	x	*
Mountain maple	<i>Acer spicatum</i>	x			x		x		x			x	x		x	x	x			
Mouse-ear chickweed	<i>Cerastium vulgatum</i>	x				x												x		*
Mullein	<i>Verbascum thapsus</i>	x	x			x	x		x						x	x	x	x		*
Multiflora rose	<i>Rosa multiflora</i>	x	x		x		x	x	x					x	x	x	x	x		***
Musclewood	<i>Carpinus caroliniana</i>	x				x			x			x				x	x	x	x	
Mustard (unspecified)	<i>Brassicaceae</i>						x													(*)
Naked miterwort	<i>Mitella nuda</i>								x											
Nannyberry	<i>Viburnum lentago</i>	x	x	x			x	x	x			x	x					x	x	
Narrow-leaved cattail	<i>Typha angustifolia</i>	x	x	x	x		x	x	x	x						x	x	x	x	
New England aster	<i>Aster novae-angliae</i>	x																		
New Jersey tea	<i>Ceanothus americanus</i>								x											
New York fern	<i>Thelypteris noveboracensis</i>	x					x		x			x	x					x	x	
Ninebark	<i>Physocarpus opulifolius</i>														x					
Nodding smartweed	<i>Polygonum lapathifolium</i>		x	x			x		x						x	x	x			
Northern white cedar	<i>Thuja occidentalis</i>				x		x		x	x							x	x		
Norway maple	<i>Acer platanoides</i>					x	x							x	x	x		x		***
Norway spruce	<i>Picea abies</i>														x					*
Oak fern	<i>Gymnocarpium dryopteris</i>												x			x				
One-seeded bur cucumber	<i>Sicyos angulatus</i>										x				x					
Orange hawkweed	<i>Hieracium aurantiacum</i>	x																		*
Oriental honeysuckle	<i>Lonicera sp.</i>	x	x	x		x	x	x	x	x		x	x	x	x	x	x	x	x	***
Ostrich fern	<i>Matteuccia struthiopteris</i>	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	
Oxeye daisy	<i>Chrysanthemum leucanthemum</i>	x				x									x			x		*
Painted trillium	<i>Trillium undulatum</i>	x							x				x							
Pale corydalis	<i>Corydalis sempervirens</i>	x																		
Pale touch-me-not	<i>Impatiens pallida</i>	x				x				x			x	x	x					

PLANT SPECIES LIST FOR THE WINOOSKI VALLEY PARK DISTRICT, SUMMER 2005

COMMON NAME	LATIN NAME	CP	DP	DI	DSC	EO	EAH	HW	MF	ML	MCA	MB	OMP	RW	SH	VR	WG	WNT	WP	STATUS
Panic grass	<i>Panicum</i> sp.														x					
Panicled hawkweed	<i>Hieracium paniculatum</i>	x																		
Paper birch	<i>Betula papyrifera</i>	x	x			x	x	x	x				x	x		x	x	x	x	
Partridgeberry	<i>Mitchella repens</i>	x							x					x			x	x		
Pasture rose	<i>Rosa carolina</i>	x																		
Pennsylvania bitter cress	<i>Cardamine pensylvanica</i>	x																x		
Pennsylvania sedge	<i>Carex pensylvanica</i>	x							x								x			
Phragmites	<i>Phragmites australis</i>	x			x		x		x				[x]		x	x		x	x	***
Pickeralweed	<i>Pontederia cordata</i>	x	x																	
Pin cherry	<i>Prunus pensylvanica</i>	x					x		x					x				x		
Pin-cushion moss	<i>Leucobryum glaucum</i>	x																		
Pinedrops	<i>Pterospora andromedea</i>								[x]											S1; E
Pinesap	<i>Monotropa hypopithys</i>	x															x			
Pitch pine	<i>Pinus rigida</i>					x										x			x	
Plantain-leaved sedge	<i>Carex plantaginea</i>	x							x					x				x		
Plum	<i>Prunus</i> sp.	x																		(*)
Pointed-leaved tick trefoil	<i>Desmodium glutinosum</i>	x							x										x	
Poison ivy	<i>Toxicodendron radicans</i>	x	x	x		x	x	x	x	x		x			x	x	x	x	x	
Poke milkweed	<i>Asclepias exaltata</i>	x							x											S3
Polypody	<i>Polypodium virginianum</i>	x							x					x			x	x		
Pondweed	<i>Potamogeton</i> sp.	x		x			x		x						x			x	x	
Prickly gooseberry	<i>Ribes cynosbati</i>	x				x			x				x	x	x		x	x	x	
Purple-flowering raspberry	<i>Rubus odoratus</i>	x					x		x				x		x	x	x	x	x	
Purple loosestrife	<i>Lythrum salicaria</i>	x	x	x	x		x	x	x	x				x	x	x	x	x	x	***
Purple-stemmed aster	<i>Aster puniceus</i>	x																		
Purslane	<i>Portulaca oleracea</i>														x					*
Pussytoes	<i>Antennaria</i> sp.	x															x	x		
Quaking aspen	<i>Populus tremuloides</i>	x					x		x				x	x		x	x	x	x	
Ragweed	<i>Ambrosia artemisiifolia</i>	x	x				x		x	x	x	x		x	x		x			
Raspberry (unspecified)	<i>Rubus</i> sp.	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Rattlesnake fern	<i>Botrychium virginianum</i>	x																		
Red baneberry	<i>Actaea rubra</i>	x				x	x		x	x			x	x			x		x	
Red cedar	<i>Juniperus virginiana</i>	x					x		x									x		
Red clover	<i>Trifolium pratense</i>	x	x				x		x	x				x	x					*
Red elderberry	<i>Sambucus pubens</i>	x				x			x					x			x		x	
Red maple	<i>Acer rubrum</i>	x		x	x	x	x	x	x				x	x			x	x	x	x
Red oak	<i>Quercus rubra</i>	x	x			x	x	x	x				x	x		x	x	x	x	
Red osier dogwood	<i>Cornus stolonifera</i>	x					x	x	x						x					
Red pine	<i>Pinus resinosa</i>	x							x							x	x	x		
Red raspberry	<i>Rubus idaeus</i>	x				x	x									x				

PLANT SPECIES LIST FOR THE WINOOSKI VALLEY PARK DISTRICT, SUMMER 2005

COMMON NAME	LATIN NAME	CP	DP	DI	DSC	EO	EAH	HW	MF	ML	MCA	MB	OMP	RW	SH	VR	WG	WNT	WP	STATUS
Red spruce	<i>Picea rubens</i>	x											x					x		
Red trillium	<i>Trillium erectum</i>	x				x	x						x			x	x		x	
Reed canary grass	<i>Phalaris arundinacea</i>	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	***
Reindeer lichen	<i>Cladina</i> sp.	x																		
Rice cutgrass	<i>Leersia oryzoides</i>	x		x	x			x												
Riverbank grape	<i>Vitis riparia</i>	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	
Rock tripe	<i>Umbilicaria</i> sp.	x																		
Rose	<i>Rosa</i> sp.	x																x		
Rough avens	<i>Geum laciniatum</i>		x		x															S2
Rough bedstraw	<i>Galium asprellum</i>								x											
Rough cinquefoil	<i>Potentilla norvegica</i>								x						x		x			
Rough-fruited cinquefoil	<i>Potentilla recta</i>	x					x		x											*
Rough-stemmed goldenrod	<i>Solidago rugosa</i>	x		x	x		x		x	x		x	x	x		x	x	x	x	
Round-leaved dogwood	<i>Cornus rugosa</i>	x					x		x								x	x		
Round-leaved pyrola	<i>Pyrola rotundifolia</i>											x					x			
Round-lobed hepatica	<i>Hepatica americana</i>	x							x								x			
Royal fern	<i>Osmunda regalis</i>	x		x	x		x	x	x			x				x			x	
Rush (unspecified)	<i>Juncus</i> sp.	x							x						x		x	x	x	
Rusty woodsia	<i>Woodsia ilvensis</i>	x																		
Sanicle	<i>Sanicula</i> sp.	x							x											
Sedges (unspecified)	<i>Carex</i> spp.	x		x	x	x	x		x			x	x		x	x		x	x	
Self-heal	<i>Prunella vulgaris</i>	x				x			x									x		(*)
Sensitive fern	<i>Onoclea sensibilis</i>	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	
Sessile-fruited arrowhead	<i>Sagittaria rigida</i>		x																	S3
Shadbush	<i>Amelanchier</i> sp.	x	?						x			x	x		x	x		x		
Shagbark hickory	<i>Carya ovata</i>	x		x				x	x	x								x	x	
Sharp-lobed hepatica	<i>Hepatica acutiloba</i>	x																		
Sheep laurel	<i>Kalmia angustifolia</i>																x			
Sheep sorrel	<i>Rumex acetosella</i>	x																		***
Shining clubmoss	<i>Lycopodium lucidulum</i>	x											x							
Shinleaf	<i>Pyrola elliptica</i>	x							x			x								
Showy tick trefoil	<i>Desmodium canadense</i>						x		x	x		x			x					
Silky dogwood	<i>Cornus amomum</i>	x	x	x			x	x	x	x		x	x	x		x		x	x	
Silver maple	<i>Acer saccharinum</i>		x	x			x	x	x	x	x	x		x	x	x	x	x	x	
Silverrod	<i>Solidago bicolor</i>	x															x			
Silverweed	<i>Potentilla anserina</i>		x																	
Silvery glade fern	<i>Asplenium thelypteroides</i>	x																		
Skunk cabbage	<i>Symplocarpus foetidus</i>				x		x		x							x				
Slippery elm	<i>Ulmus rubra</i>	x												x		x	x			
Small-flowered crowfoot	<i>Ranunculus abortivus</i>	x				x			x			x	x			x	x	x	x	

PLANT SPECIES LIST FOR THE WINOOSKI VALLEY PARK DISTRICT, SUMMER 2005

COMMON NAME	LATIN NAME	CP	DP	DI	DSC	EO	EAH	HW	MF	ML	MCA	MB	OMP	RW	SH	VR	WG	WNT	WP	STATUS
Small water plantain	<i>Alisma subcordatum</i>														x					
Smartweed (unspecified)	<i>Polygonum</i> sp.	x	x						x						x		x	x		
Smooth brome	<i>Bromus inermis</i>	x				x	x		x	x	x	x						x		*
Smooth cliffbrake	<i>Pellaea glabella</i>								x								x	x		S3
Smooth rose	<i>Rosa blanda</i>	x													x					
Snowberry	<i>Symphoricarpos albus</i>														x					S3S4
Soft-stem bulrush	<i>Scirpus validus</i>	x	x	x	x				x									x		
Solomon's seal	<i>Polygonatum pubescens</i>	x							x									x		
Sow thistle	<i>Sonchus</i> sp.						x													*
Sphagnum	<i>Sphagnum</i> sp.	x																		
Spikenard	<i>Aralia racemosa</i>	x							x								x			
Spikerush	<i>Eleocharis</i> sp.	x	x												x		x			
Spinulose woodfern	<i>Dryopteris carthusiana</i>	x				x									x			x		
Spotted knapweed	<i>Centaurea maculosa</i>	x	[x]				x													***
Spreading dogbane	<i>Apocynum androsaemifolium</i>	x																		
Squawroot	<i>Conopholis americana</i>	x																		S2S3
Staghorn sumac	<i>Rhus typhina</i>	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Starflower	<i>Trientalis borealis</i>	x					x	x	x			x	x			x		x	x	
Starry false Solomon's seal	<i>Smilacina stellata</i>						x					x			x					
Steeplebush	<i>Spiraea tomentosa</i>	x											x							
Stipitate sedge	<i>Carex stipata</i>	x																	x	
Stout woodreed	<i>Cinna arundinacea</i>			x																S3
Strawberry (unspecified)	<i>Fragaria</i> sp.	x				x											x			
Striped maple	<i>Acer pensylvanicum</i>	x				x	x		x			x	x			x				
Sugar maple	<i>Acer saccharum</i>	x				x	x		x			x	x			x	x	x	x	
Summer grape	<i>Vitis aestivalis</i>	x							x								x			
Sunflower (unspecified)	<i>Helianthus</i> sp.						x		x				x		x					
Swamp buttercup	<i>Ranunculus septentrionalis</i>												x							
Swamp candles	<i>Lysimachia terrestris</i>	x	x	x			x		x									x		
Swamp dewberry	<i>Rubus hispidus</i>	x						x												
Swamp dock	<i>Rumex verticillatus</i>			x			x	x	x											
Swamp loosestrife	<i>Decodon verticillatus</i>							x	x										x	
Swamp milkweed	<i>Asclepias incarnata</i>	x		x	x		x	x	x											
Swamp rose	<i>Rosa palustris</i>								x											
Swamp white oak	<i>Quercus bicolor</i>	x		x					x	x										
Sweet cicely	<i>Osmorhiza</i> sp.	x				x			x										x	
Sweet everlasting	<i>Gnaphalium obtusifolium</i>		x																	
Sweetfern	<i>Comptonia peregrina</i>	x															x	x		
Sweetflag	<i>Acorus calamus</i>						x		x											
Sweet-scented bedstraw	<i>Galium triflorum</i>	x					x		x			x					x	x	x	

PLANT SPECIES LIST FOR THE WINOOSKI VALLEY PARK DISTRICT, SUMMER 2005

COMMON NAME	LATIN NAME	CP	DP	DI	DSC	EO	EAH	HW	MF	ML	MCA	MB	OMP	RW	SH	VR	WG	WNT	WP	STATUS
Water plantain	<i>Alisma sp.</i>	x	x				x		x										x	
Water purslane	<i>Ludwigia palustris</i>		x						x						x		x			
Water shield	<i>Brasenia schreberi</i>	x																		
Water smartweed	<i>Polygonum amphibium</i>	x	x						x											
Water stargrass	<i>Heteranthera dubia</i>			x																
Waterweed	<i>Elodea sp.</i>	x		x			x												x	
White ash	<i>Fraxinus americana</i>	x				x	x		x			x	x			x	x	x	x	
White avens	<i>Geum canadense</i>	x		x	x	x	x	x	x	x	x	x	x	x	x	x			x	x
White baneberry	<i>Actaea pachypoda</i>	x				x			x			x				x	x		x	
White beardtongue	<i>Pentstemon digitalis</i>	x																		
White campion	<i>Lychnis alba</i>						x		x						x				x	*
White clover	<i>Trifolium repens</i>	x	x		x	x	x		x	x	x	x			x				x	*
Whitegrass	<i>Leersia virginica</i>														x					
White lettuce	<i>Prenanthes sp.</i>	x							x			x					x	x	x	
White oak	<i>Quercus alba</i>	x				x		x	x							x	x	x	x	
White pine	<i>Pinus strobus</i>	x		x		x	x		x			x	x			x	x	x	x	
White pond lily	<i>Nymphaea odorata</i>		x	x			x	x	x											
White snakeroot	<i>Eupatorium rugosum</i>	x				x						x			x				x	x
White spruce	<i>Picea glauca</i>						x													
White sweet clover	<i>Melilotus alba</i>		x				x					x			x		x	x		*
White vervain	<i>Verbena urticifolia</i>						x		x					x	x					
White wood aster	<i>Aster divaricatus</i>	x																x		
Whorled loosestrife	<i>Lysimachia quadrifolia</i>	x					x	x	x			x						x		x
Whorled wood aster	<i>Aster acuminatus</i>	x							x							x	x			
Wild basil	<i>Satureja vulgaris</i>	x							x									x	x	
Wild calla	<i>Calla palustris</i>				x		x	x												
Wild carrot	<i>Daucus carota</i>	x	x				x		x	x				x				x	x	*
Wild cucumber	<i>Echinocystis lobata</i>	x	x	x			x	x	x		x	x	x	x	x			x	x	x
Wild garlic	<i>Allium sp.</i>						x													(*T)
Wild ginger	<i>Asarum canadense</i>	x																x	x	
Wild lettuce	<i>Lactuca canadensis</i>			x					x				x						x	
Wild licorice	<i>Galium circaezans</i>	x							x										x	
Wild madder	<i>Galium mollugo</i>	x					x		x	x				x	x					x
Wild mint	<i>Mentha arvensis</i>	x													x	x	x			
Wild oats	<i>Uvularia sessilifolia</i>	x							x				x				x	x		x
Wild parsnip	<i>Pastinaca sativa</i>						x		x			x								*
Wild raisin	<i>Viburnum cassinoides</i>	x					x													
Wild rice	<i>Zizania sp.</i>			x					x											
Wild rye	<i>Elymus sp.</i>			x	x					x	x			x	x					
Wild sarsaparilla	<i>Aralia nudicaulis</i>	x				x	x	x	x			x	x			x	x	x	x	

PLANT SPECIES LIST FOR THE WINOOSKI VALLEY PARK DISTRICT, SUMMER 2005

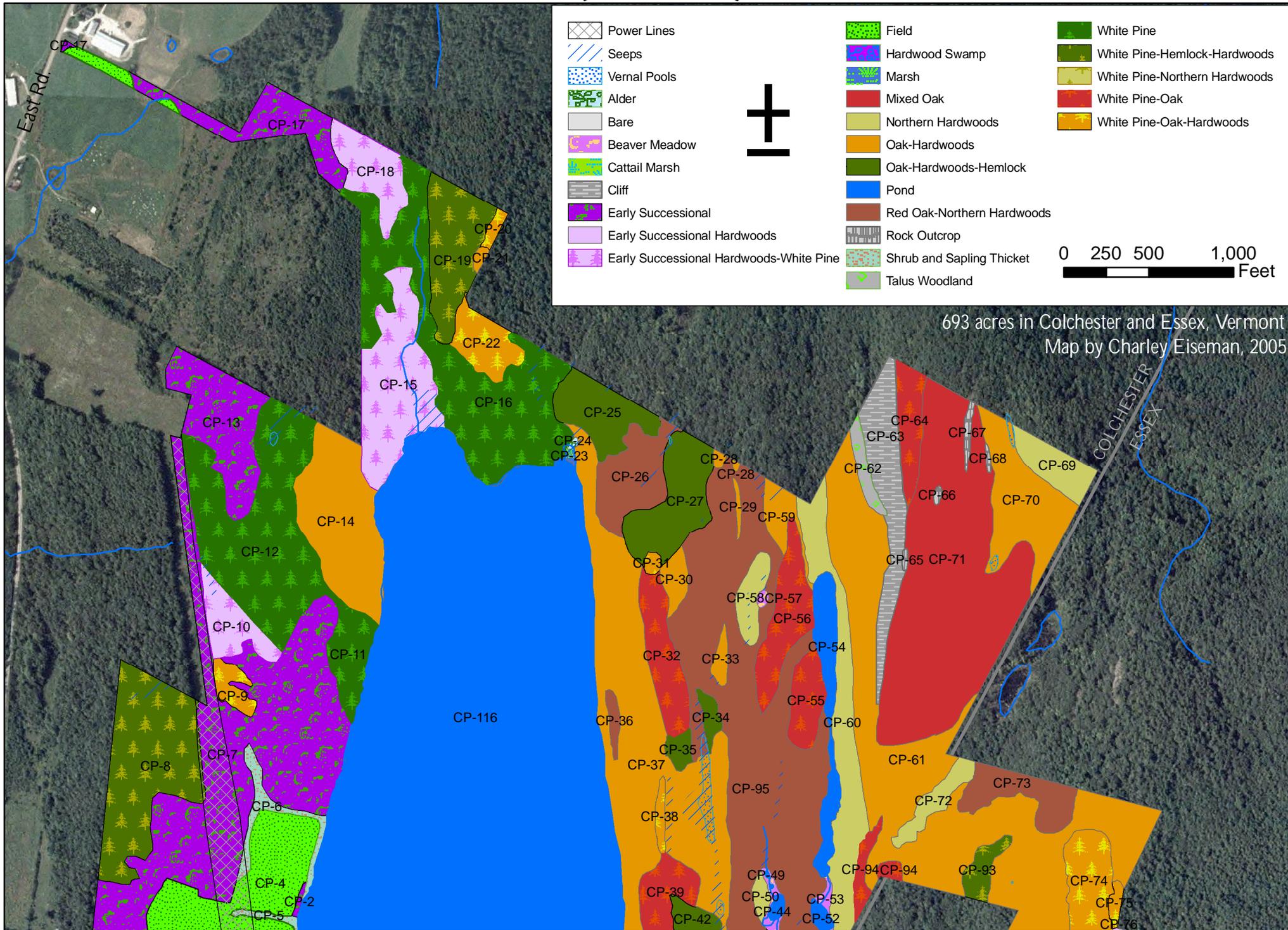
COMMON NAME	LATIN NAME	CP	DP	DI	DSC	EO	EAH	HW	MF	ML	MCA	MB	OMP	RW	SH	VR	WG	WNT	WP	STATUS
Wild strawberry	<i>Fragaria virginiana</i>	x													x					
Willow (unspecified)	<i>Salix</i> sp.	x	x	x	x		x	x	x			x	x		x	x	x	x	x	
Willow herb	<i>Epilobium</i> sp.	x	x		x									x	x	x	x			
Winterberry	<i>Ilex verticillata</i>	x		x			x	x	x							x				
Winter cress	<i>Barbarea vulgaris</i>					x	x		x			x	x					x	x	*
Wintergreen	<i>Gaultherium procumbens</i>	x							x				x			x	x			
Witch hazel	<i>Hamamelis virginiana</i>	x				x	x		x			x	x			x		x	x	
Wood anemone	<i>Anemone quinquefolia</i>											x	x			x		x	x	
Wood betony	<i>Pedicularis canadensis</i>																	x		
Wood horsetail	<i>Equisetum sylvaticum</i>	x							x				x							
Woodland sunflower	<i>Helianthus divaricatus</i>								x									x		
Wood nettle	<i>Laportea canadensis</i>	x	x	x			x	x	x	x		x		x	x			x	x	
Wood strawberry	<i>Fragaria vesca</i>	x											x					x		(*)
Woodrush	<i>Luzula</i> sp.												x							
Woolly bulrush	<i>Scirpus cyperinus</i>	x		x	x		x		x											
Wormseed mustard	<i>Erysimum cheiranthoides</i>			x	x		x		x								x			*
Wormwood	<i>Artemisia</i> sp.		x	x			x		x	x	x	x			x		x	x	x	(*)
Yarrow	<i>Achillea millefolium</i>	x				x	x		x						x		x	x		*
Yellow birch	<i>Betula alleghaniensis</i>	x					x		x			x	x			x	x	x	x	
Yellow goatsbeard	<i>Tragopogon pratensis</i>	x					x		x											*
Yellow iris	<i>Iris pseudacorus</i>			x			?	x				x						x		***
Yellow pond lily	<i>Nuphar variegatum</i>		x	x				x											x	
Yellow sweet clover	<i>Melilotus officinalis</i>									x										*
Yellow water crowfoot	<i>Ranunculus flabellaris</i>			x																S3
Yellow wood sorrel	<i>Oxalis</i> sp.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Yew	<i>Taxus canadensis</i>							x												
Zigzag goldenrod	<i>Solidago flexicaulis</i>	x							x			x	x		x	x	x		x	
Property codes: CP = Colchester Pond Natural Area; DP = Delta Park; DI = Derway Island; DSC = Donohue Sea Caves; EO = Essex Overlook Park;																				
EAH = Ethan Allen Homestead Park; HW = Heineburg Wetlands; MF = Macrae Farm Park; ML = Mayes Landing; MCA = Millyard Canoe Access;																				
MB = Muddy Brook Park; OMP = Old Mill Park; RW = Riverwalk; SH = Salmon Hole Park; VR = Valley Ridge; WG = Winooski Gorge;																				
WNT = Winooski Nature Trail; WP = Woodside Park.																				
Occurrence codes: x = species found by Charles Eiseman in summer 2005; [x] = just outside property; ? = identification uncertain.																				
Status codes: S1 = very rare in Vermont; S2 = rare in Vermont; S3 = uncommon in Vermont; S4 = apparently secure in Vermont;																				
E = species endangered in Vermont; T = species threatened in Vermont; SC = species of special concern in Vermont; * = introduced species;																				
(*) = species or genus both native and introduced; *** = species listed as invasive on the Invasive Plant Atlas of New England website.																				

INDEX OF MAPS

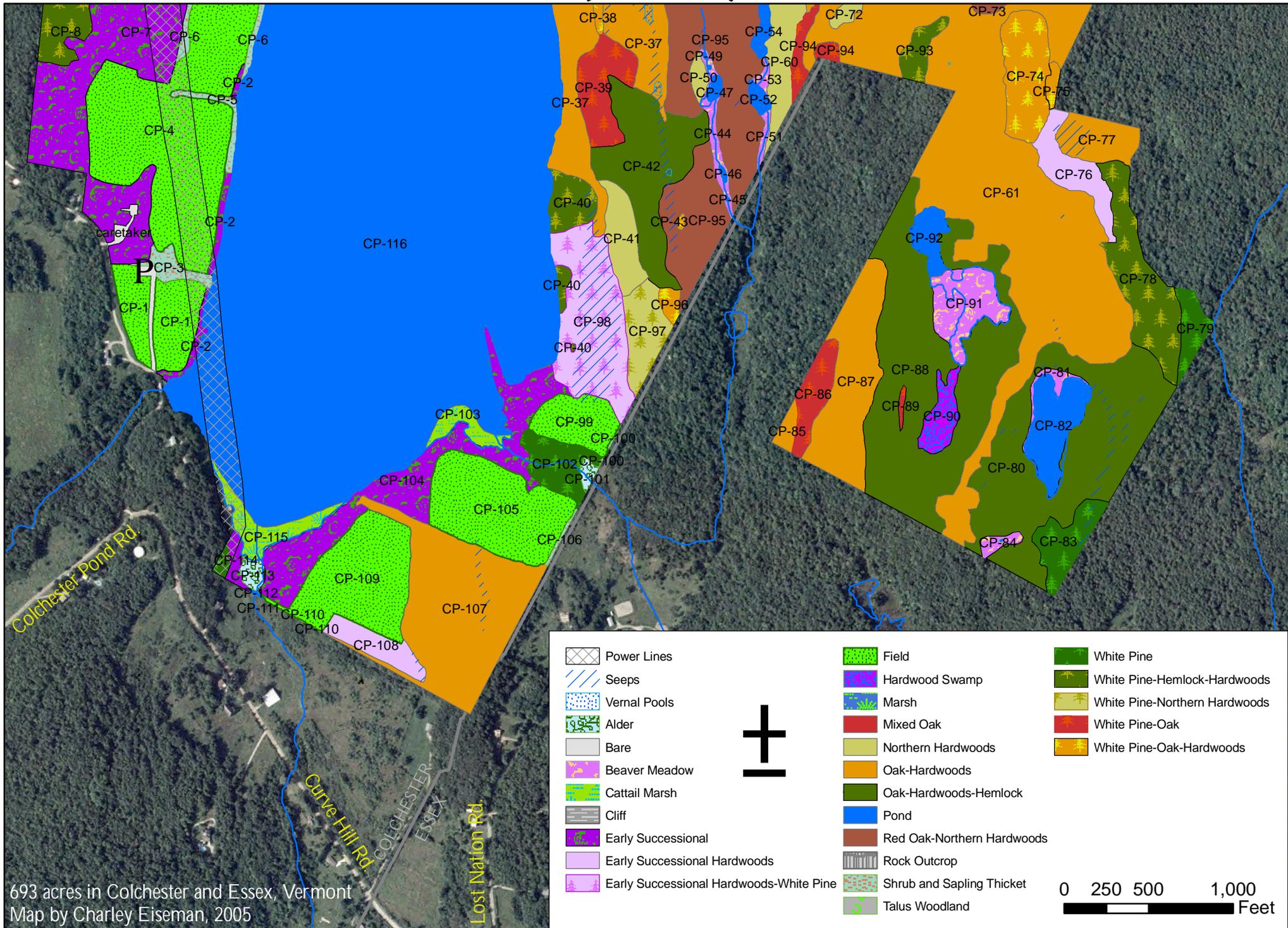
30 full-color maps are included on the following pages, in the order listed below. Following these are black-and-white maps for photocopying. They are included in the same order, the sole difference being that Ethan Allen Homestead is divided into two current cover maps (north and south).

Colchester Pond (North) – current cover
Colchester Pond (South) – current cover
Colchester Pond – natural communities
Delta Park – current cover
Delta Park – natural communities
Derway Island – current cover
Derway Island – natural communities
Donohue Sea Caves – current cover
Donohue Sea Caves – natural communities
Essex Overlook and Woodside Parks – current cover
Essex Overlook and Woodside Parks – natural communities
Ethan Allen Homestead – current cover
Ethan Allen Homestead – natural communities
Heineburg Wetlands – current cover
Heineburg Wetlands – natural communities
Macrae Farm – current cover
Macrae Farm – natural communities
Muddy Brook – current cover
Muddy Brook – natural communities
Old Mill Park – current cover
Old Mill Park – natural communities
Riverwalk – current cover
Salmon Hole – current cover
Riverwalk and Salmon Hole – natural communities
Valley Ridge – current cover
Valley Ridge – natural communities
Winooski Gorge – current cover
Winooski Gorge – natural communities
Winooski Nature Trail – current cover
Winooski Nature Trail – natural communities

Colchester Pond (North) - Current Cover

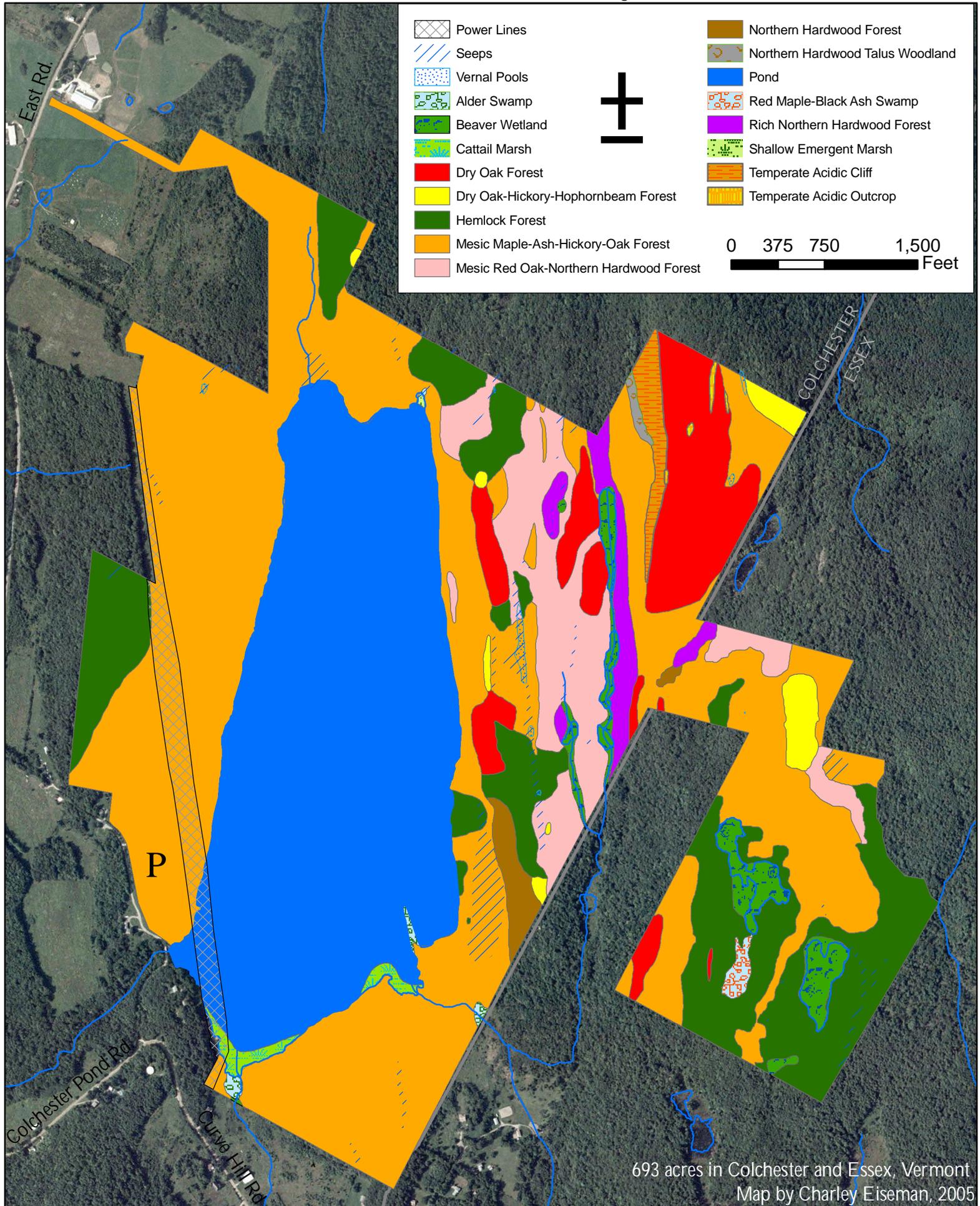


Colchester Pond (South) - Current Cover

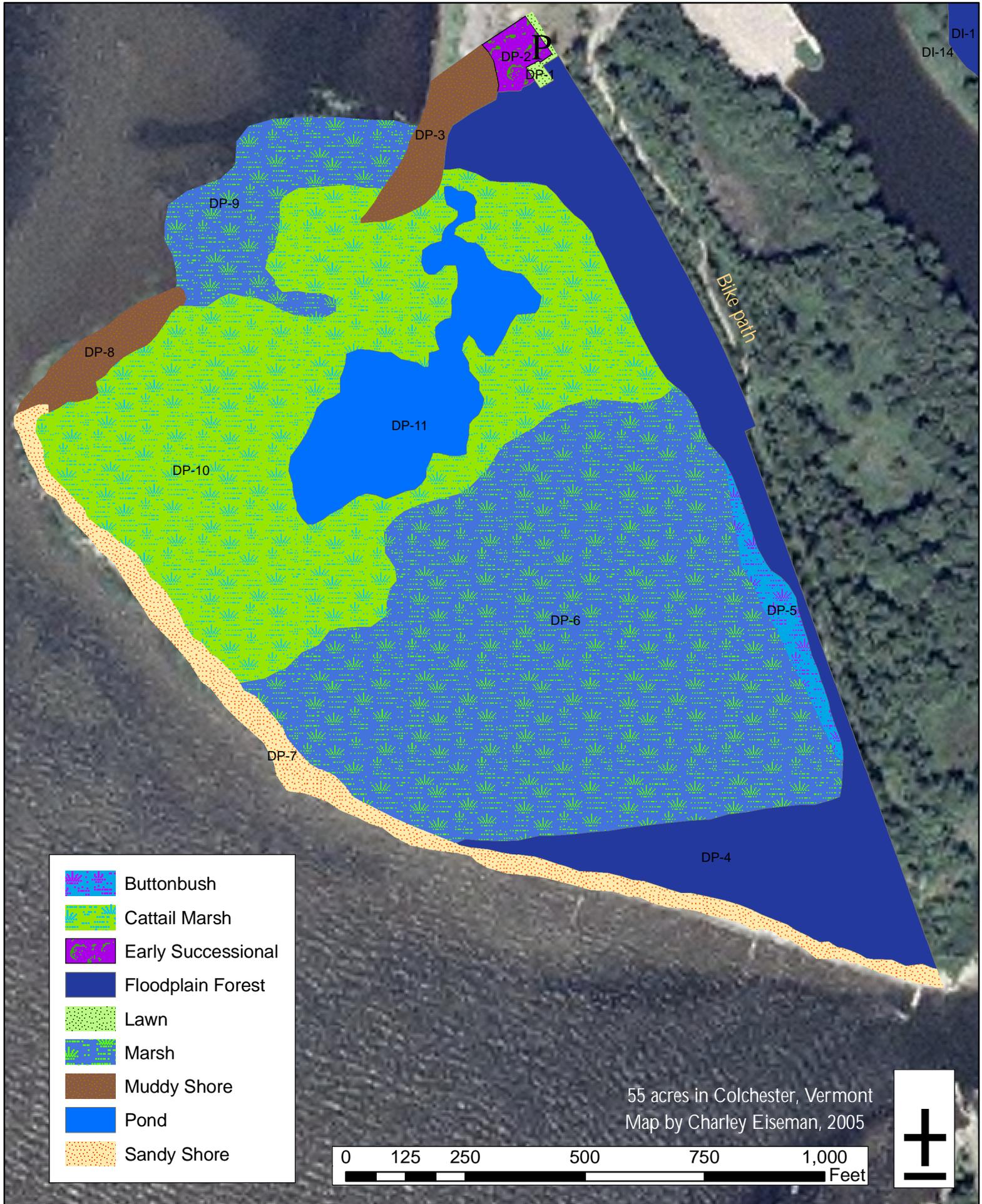


Colchester Pond - Natural Communities

Potential vegetation if left undisturbed

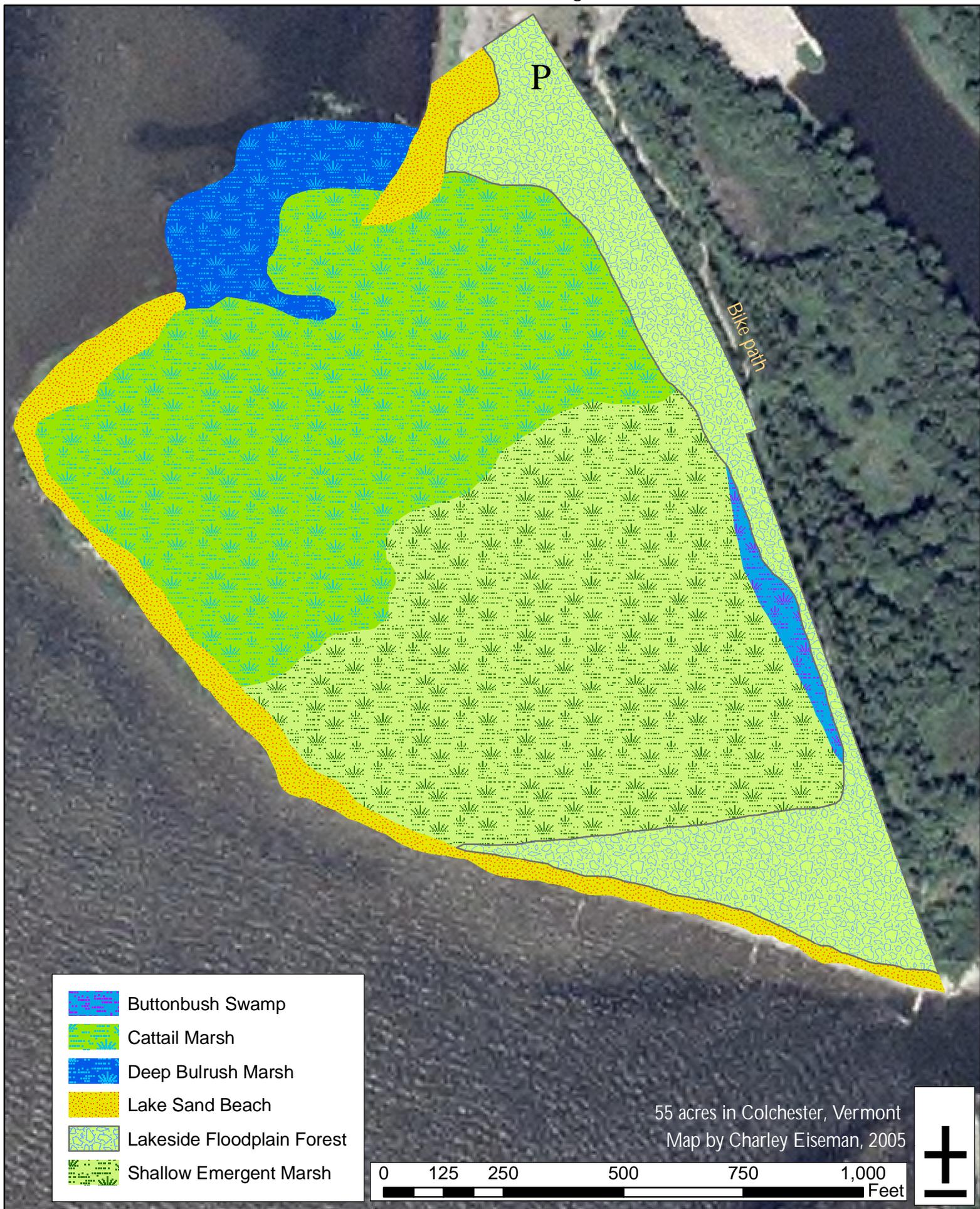


Delta Park - Current Cover

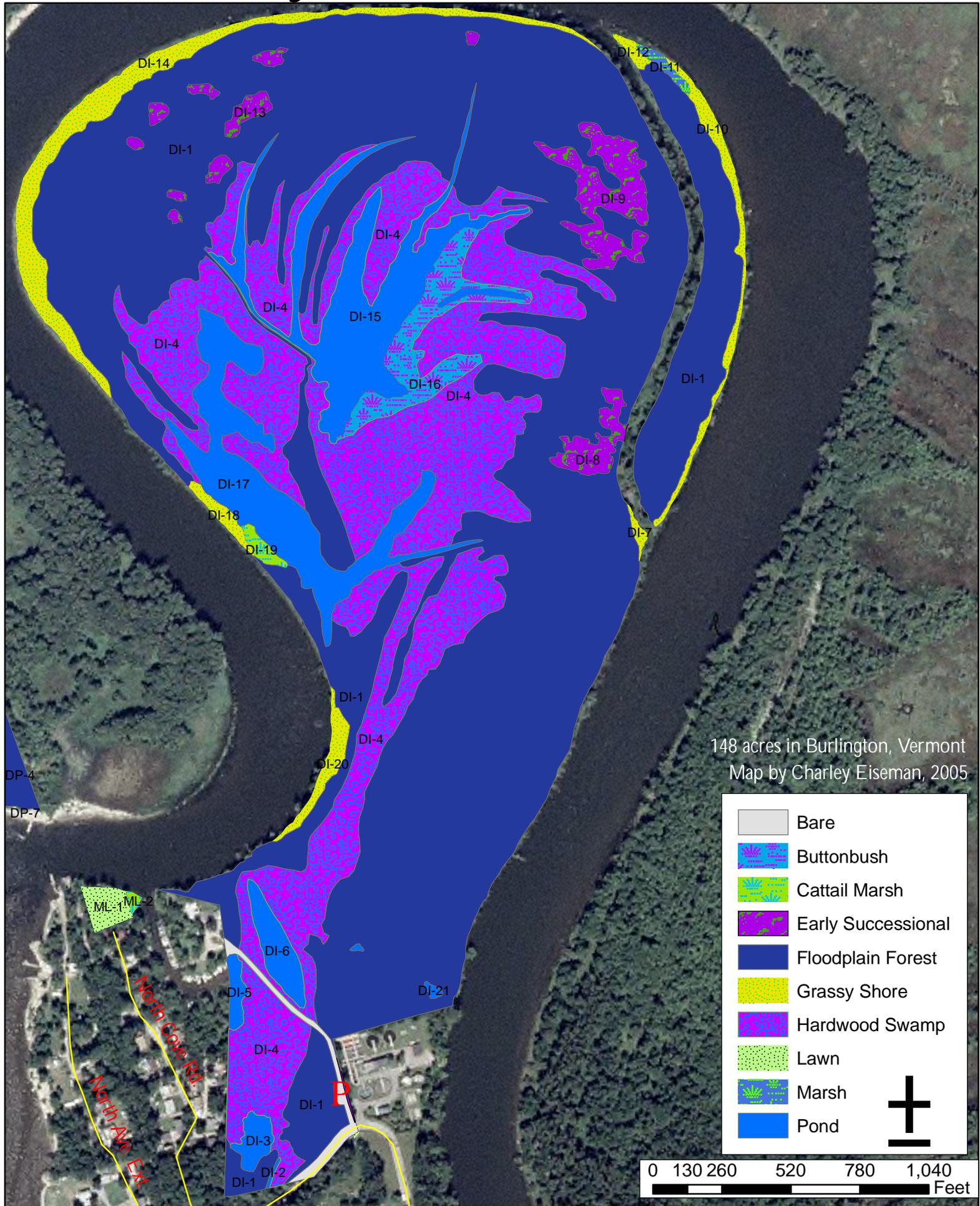


Delta Park - Natural Communities

Potential vegetation if left undisturbed

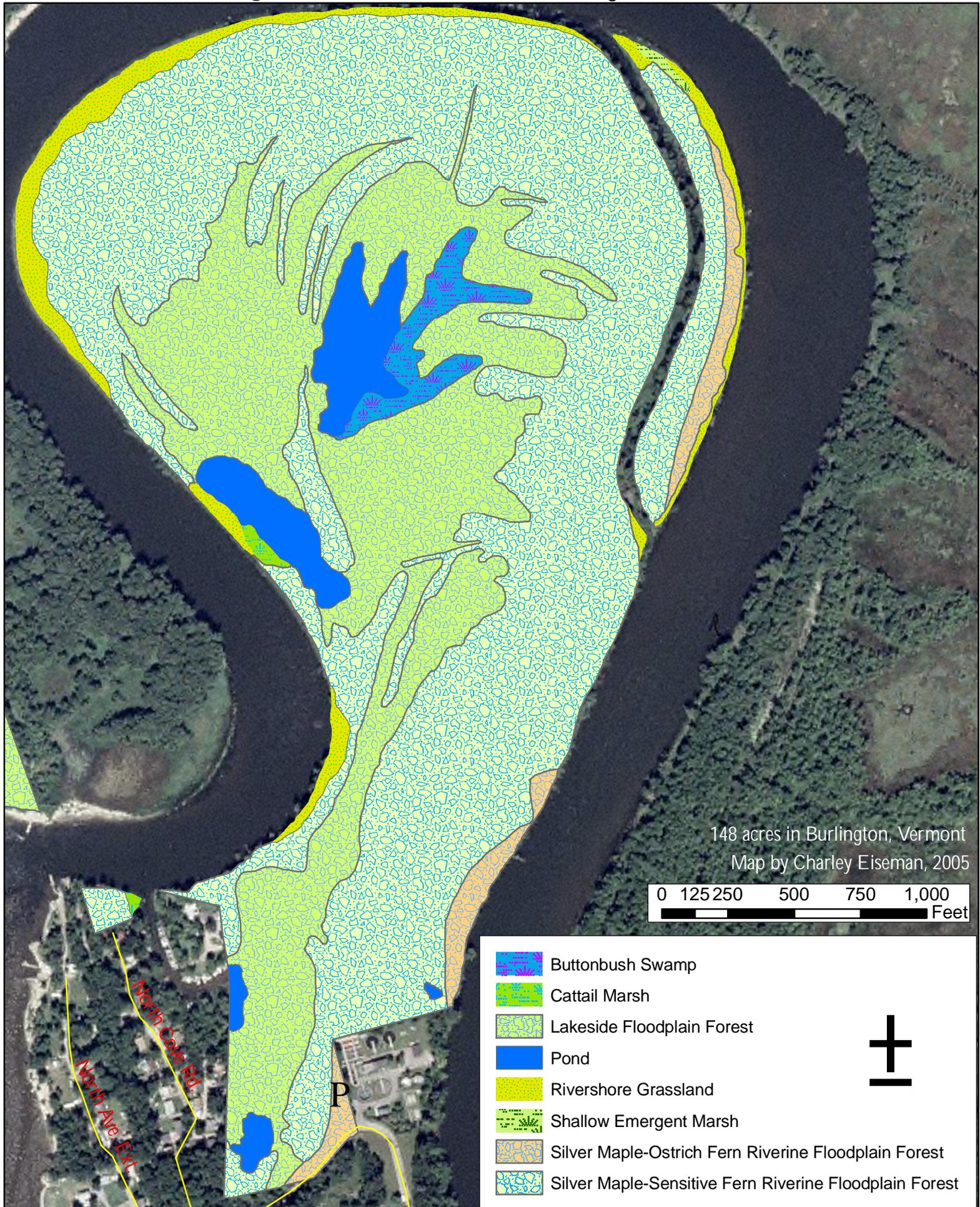


Derway Island - Current Cover

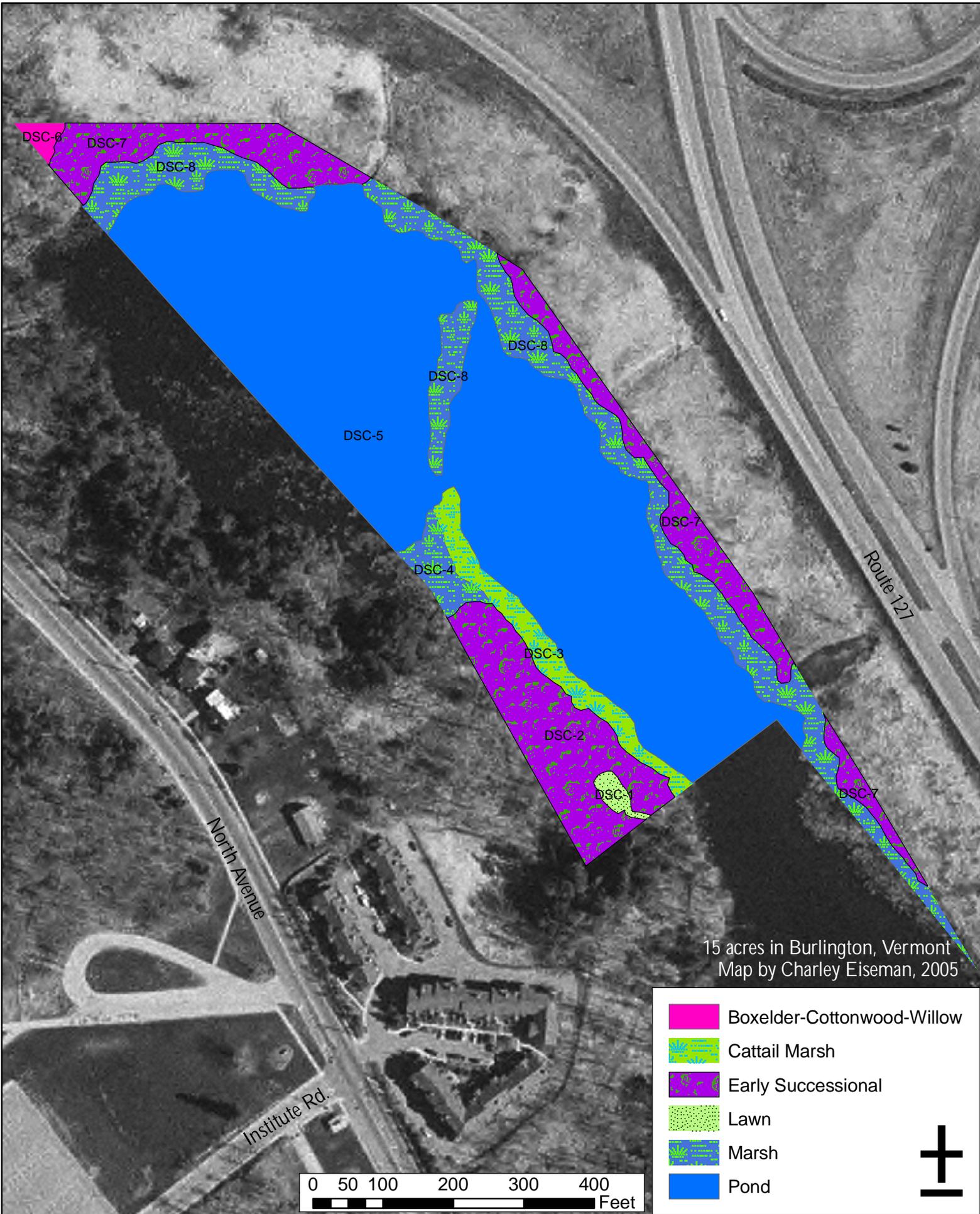


Derway Island - Natural Communities

Potential vegetation if left undisturbed

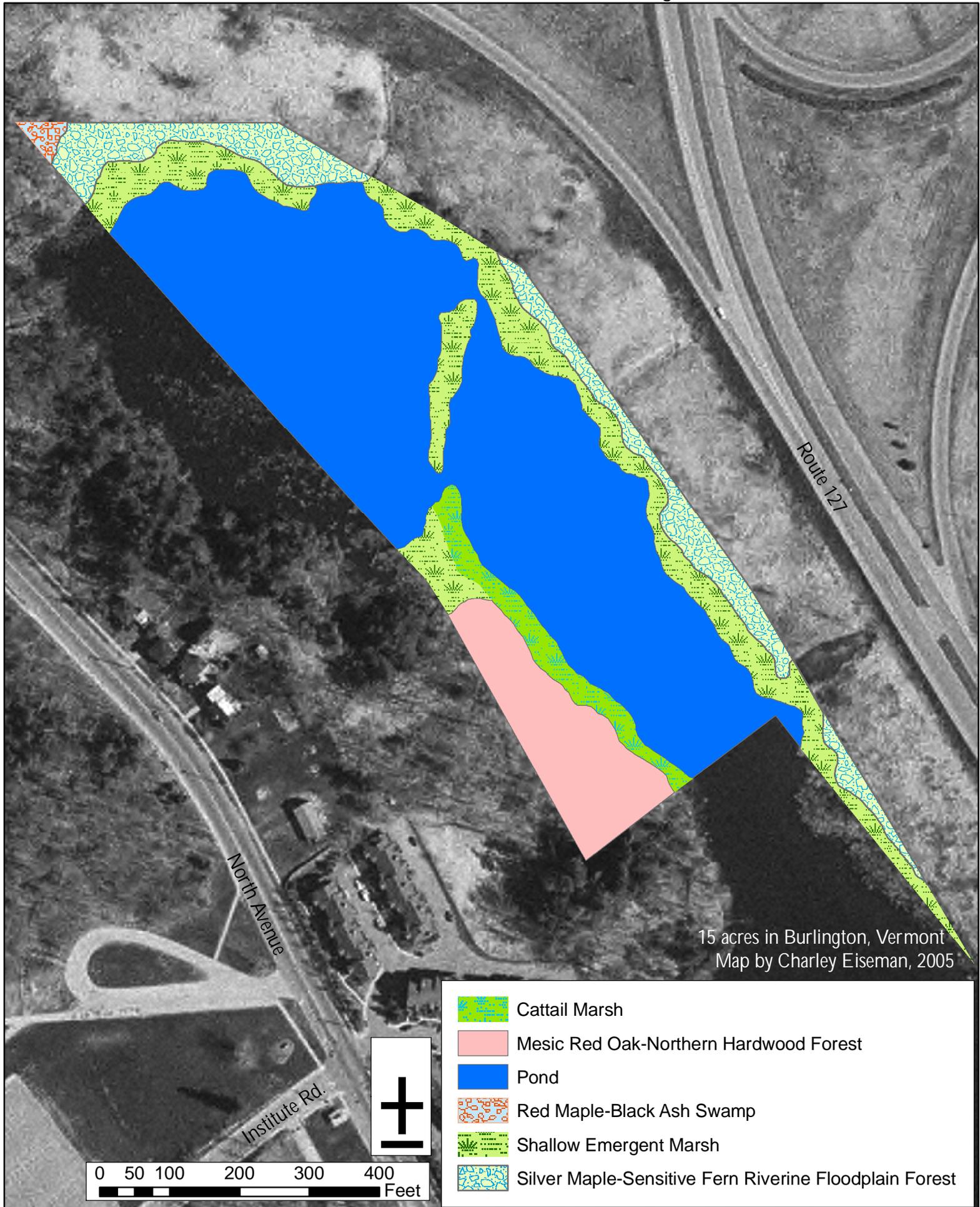


Donohue Sea Caves - Current Cover

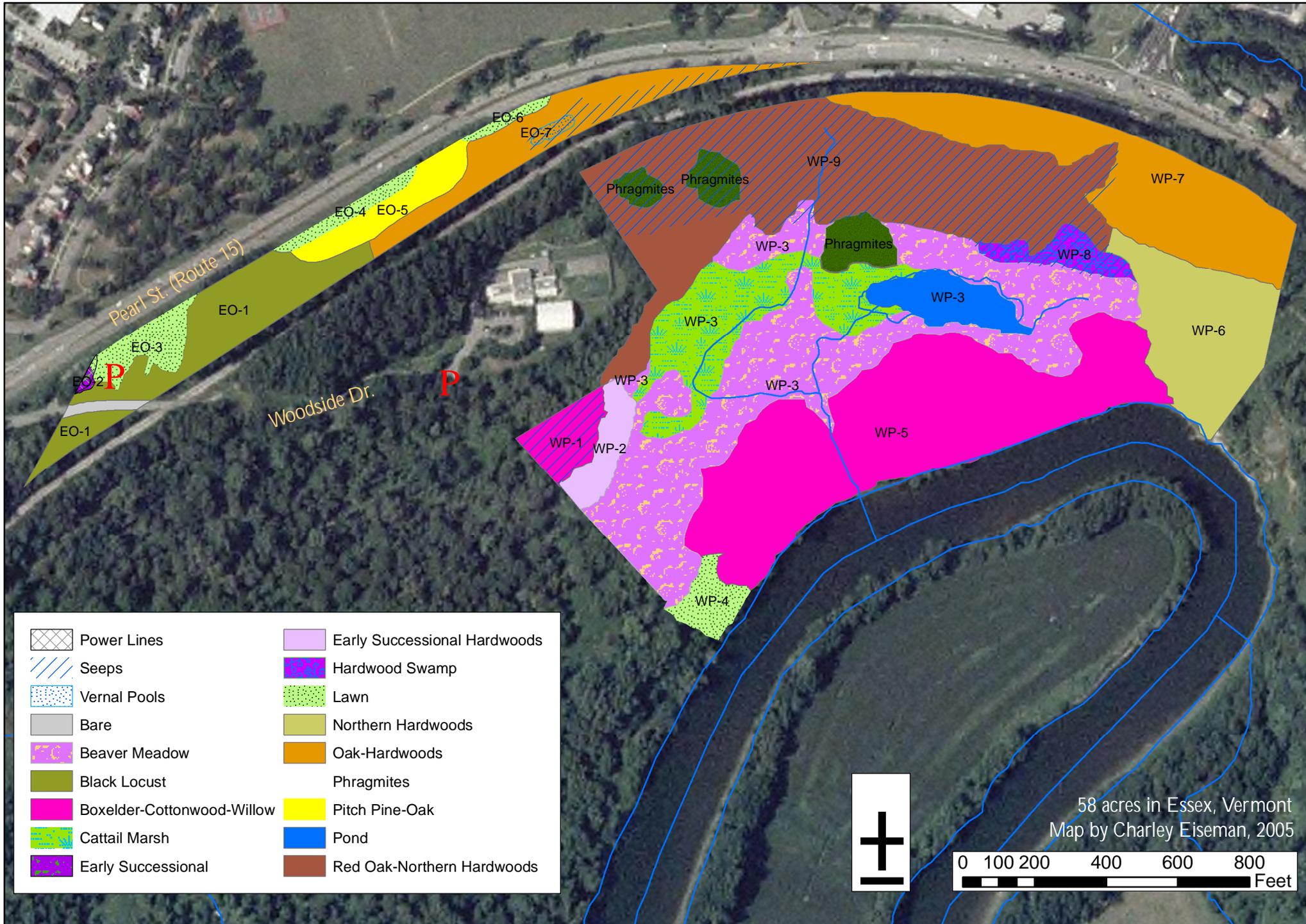


Donohue Sea Caves - Natural Communities

Potential vegetation if left undisturbed

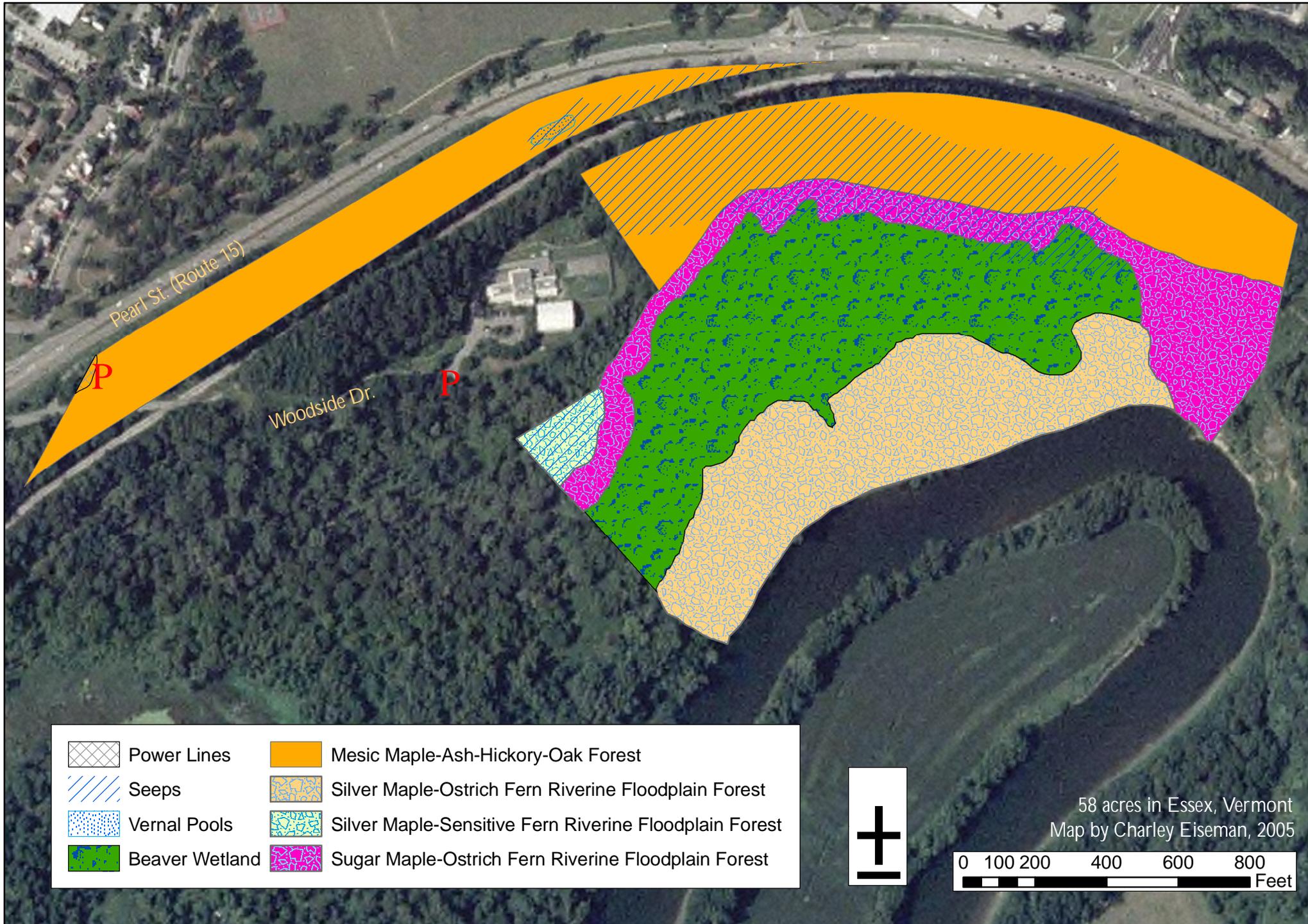


Essex Overlook and Woodside - Current Cover



Essex Overlook and Woodside - Natural Communities

Potential vegetation if left undisturbed



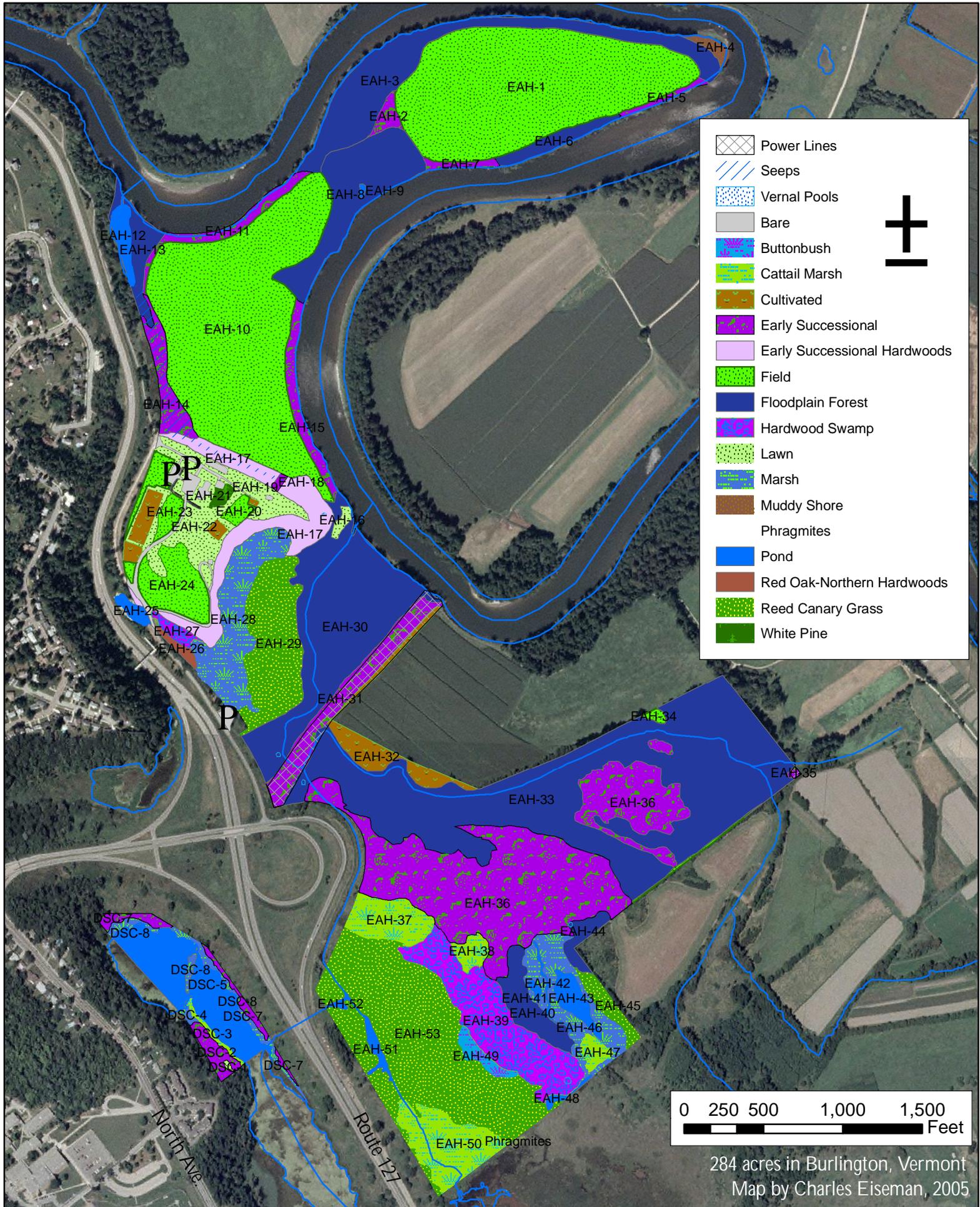
- | | |
|--|--|
|  Power Lines |  Mesic Maple-Ash-Hickory-Oak Forest |
|  Seeps |  Silver Maple-Ostrich Fern Riverine Floodplain Forest |
|  Vernal Pools |  Silver Maple-Sensitive Fern Riverine Floodplain Forest |
|  Beaver Wetland |  Sugar Maple-Ostrich Fern Riverine Floodplain Forest |



58 acres in Essex, Vermont
 Map by Charley Eiseman, 2005

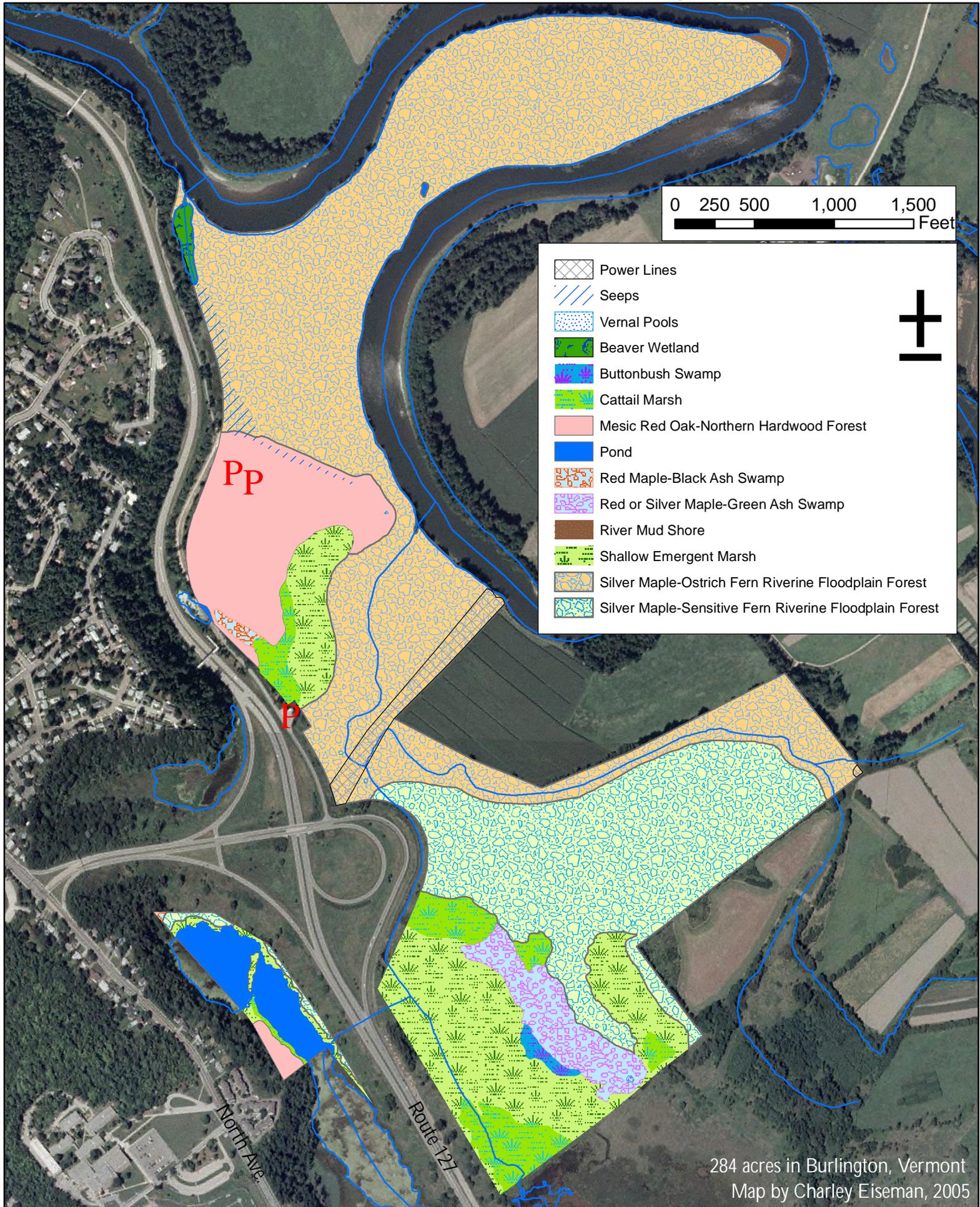
0 100 200 400 600 800 Feet

Ethan Allen Homestead - Current Cover

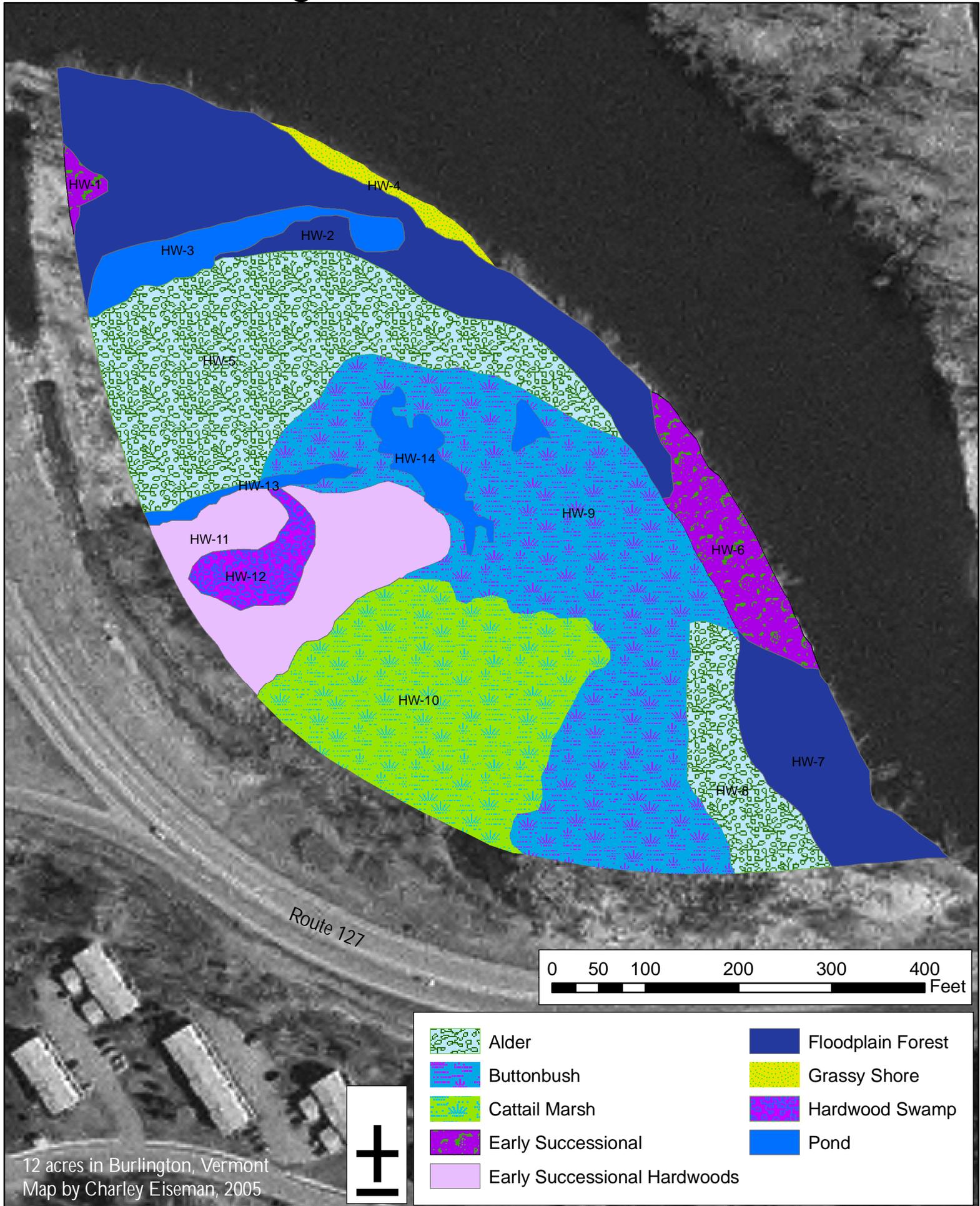


Ethan Allen Homestead - Natural Communities

Potential vegetation if left undisturbed

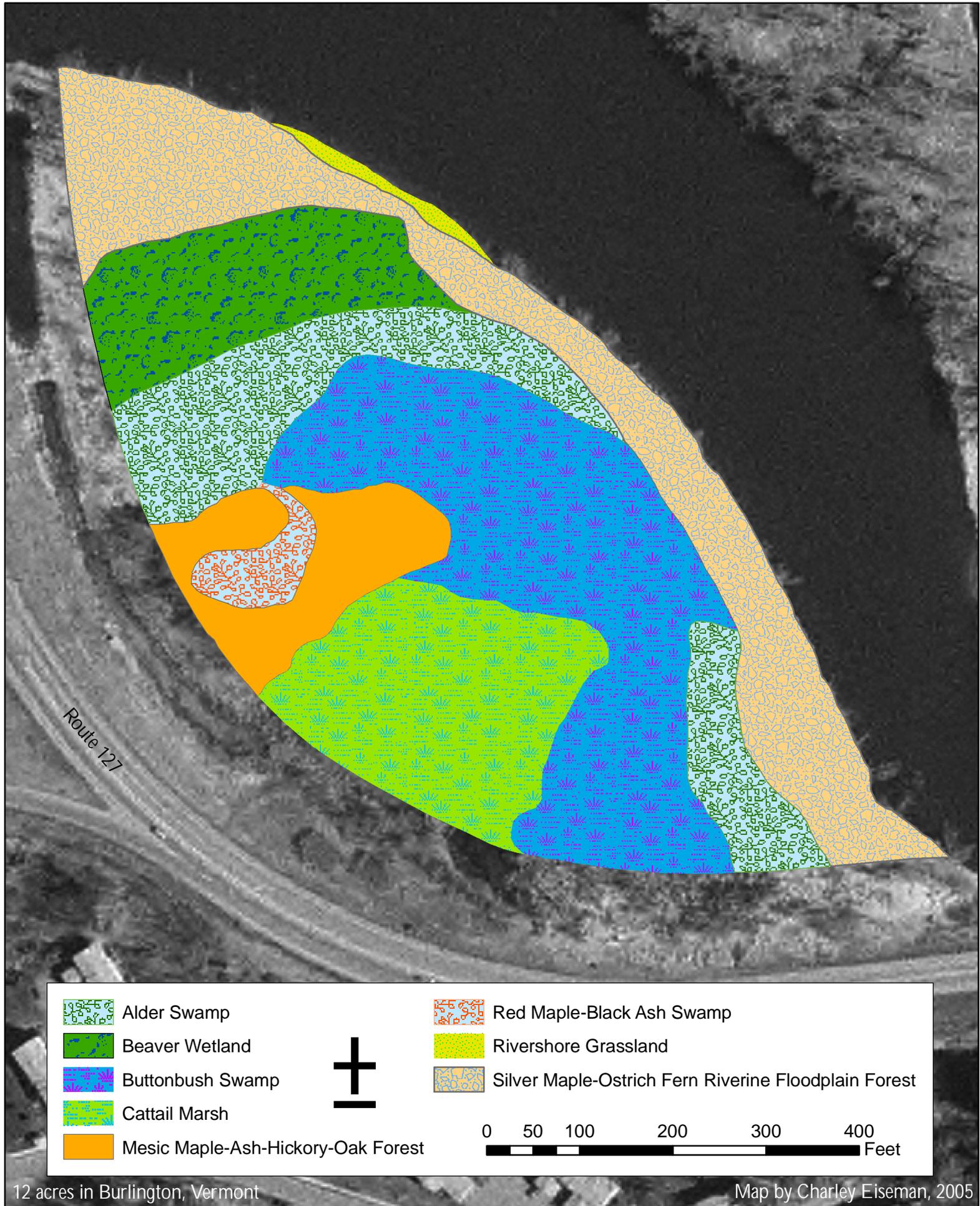


Heineburg Wetlands - Current Cover

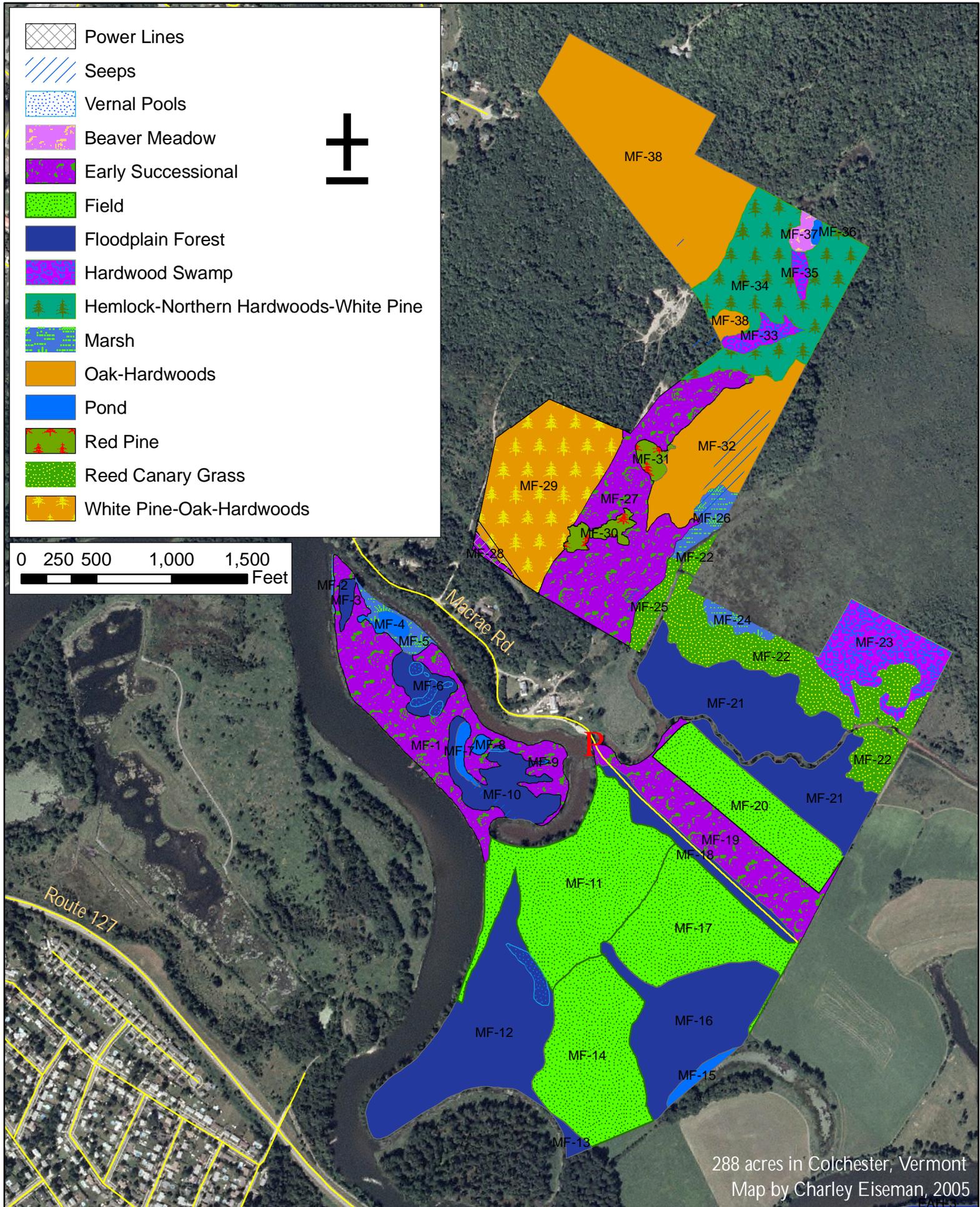
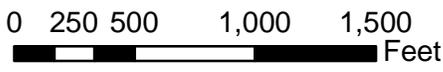


Heineburg Wetlands - Natural Communities

Potential vegetation if left undisturbed



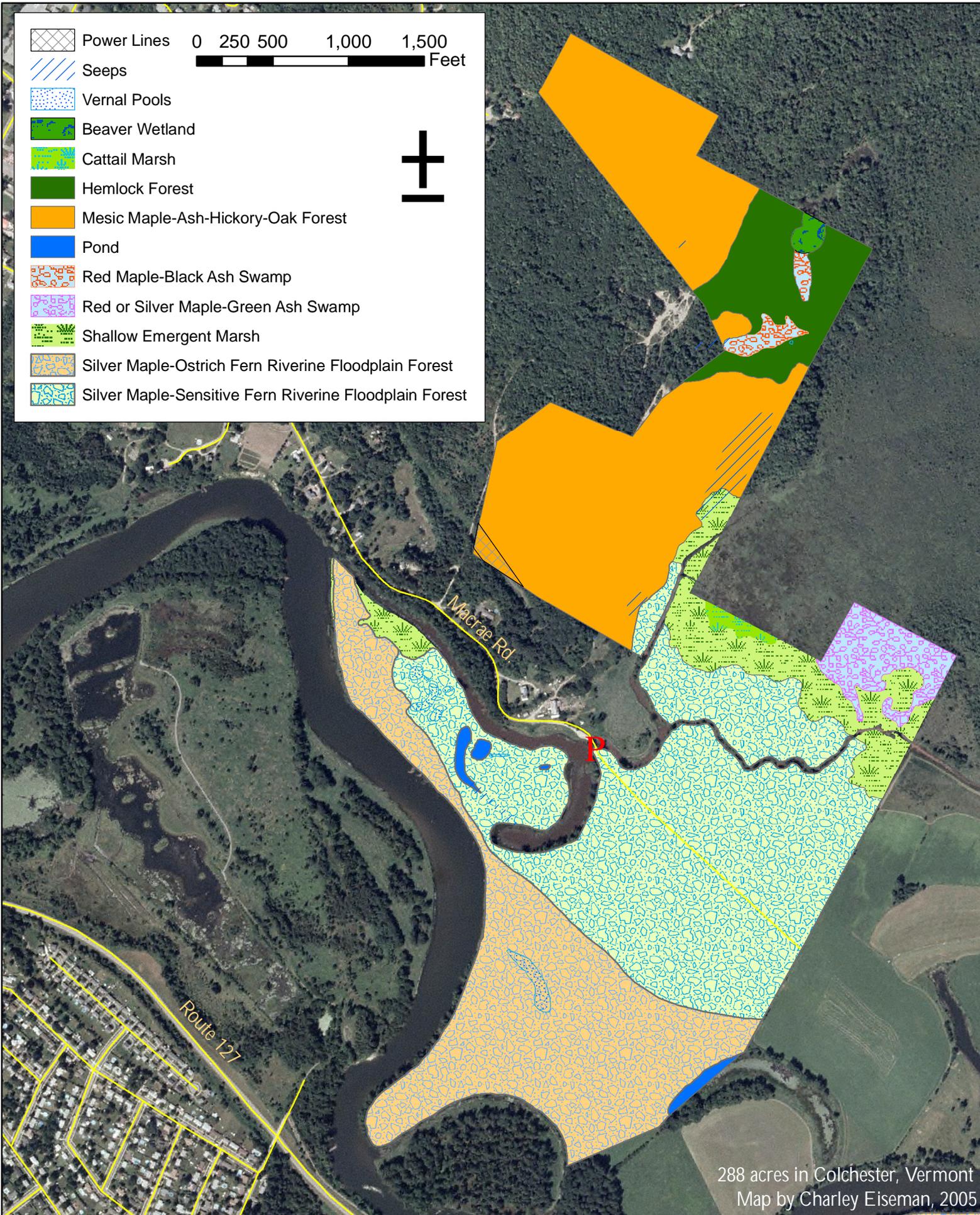
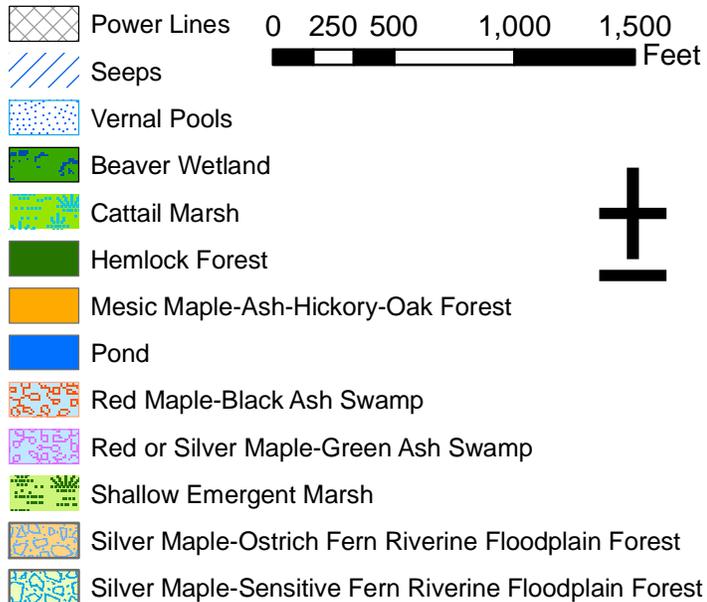
Macrae Farm - Current Cover



288 acres in Colchester, Vermont
Map by Charley Eiseman, 2005

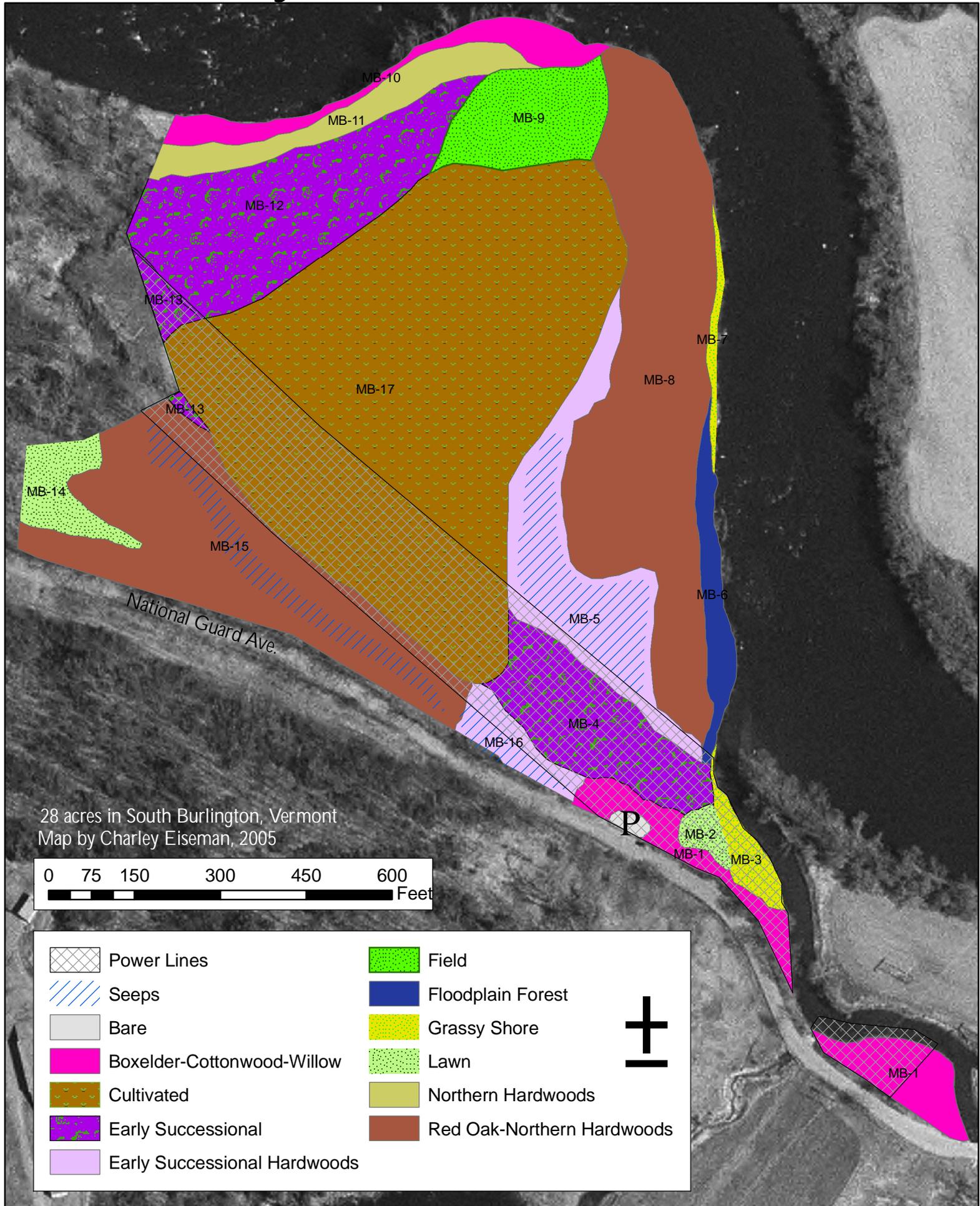
Macrae Farm - Natural Communities

Potential vegetation if left undisturbed



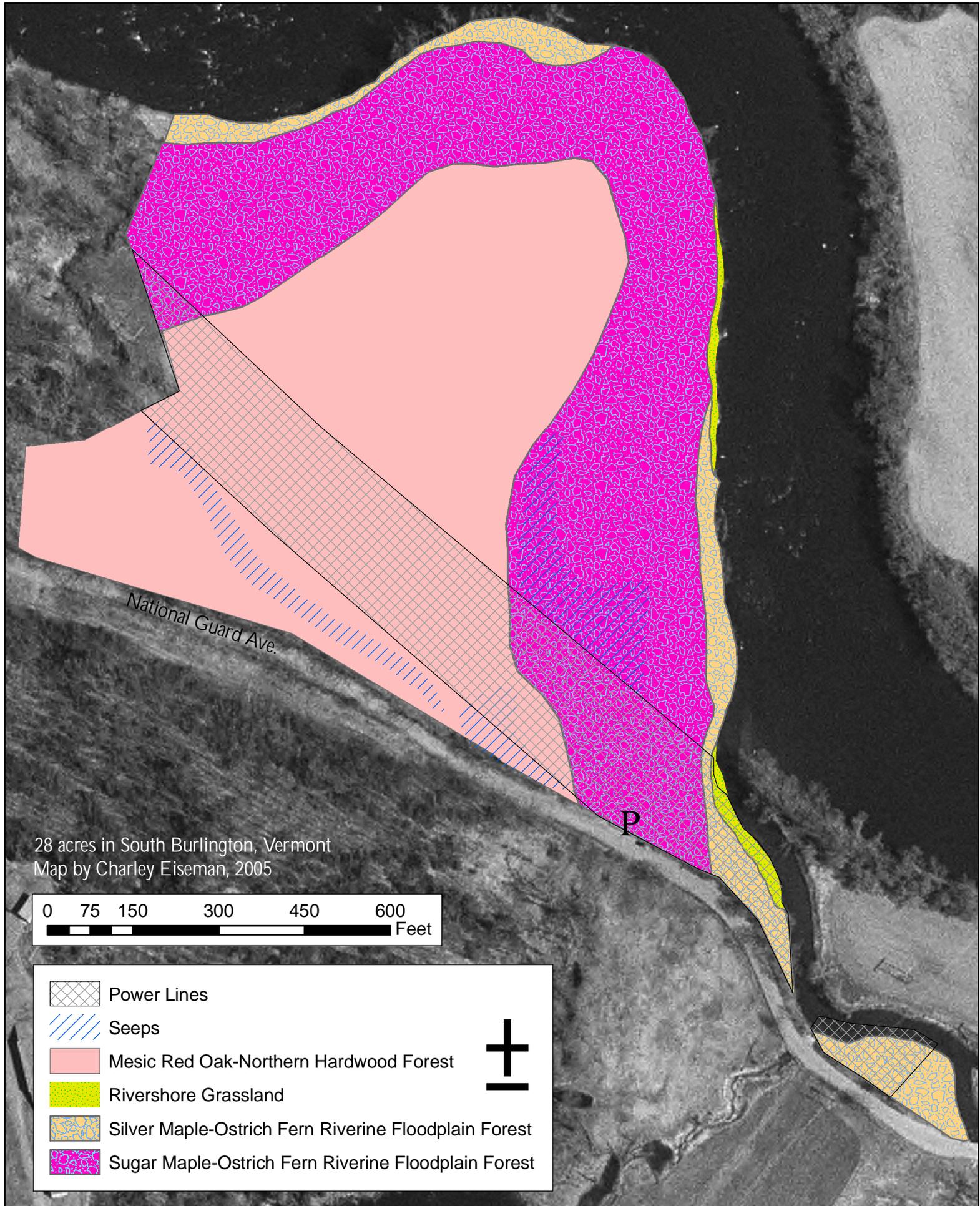
288 acres in Colchester, Vermont
 Map by Charley Eiseman, 2005

Muddy Brook - Current Cover

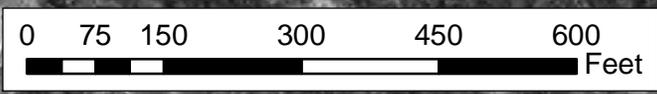


Muddy Brook - Natural Communities

Potential vegetation if left undisturbed



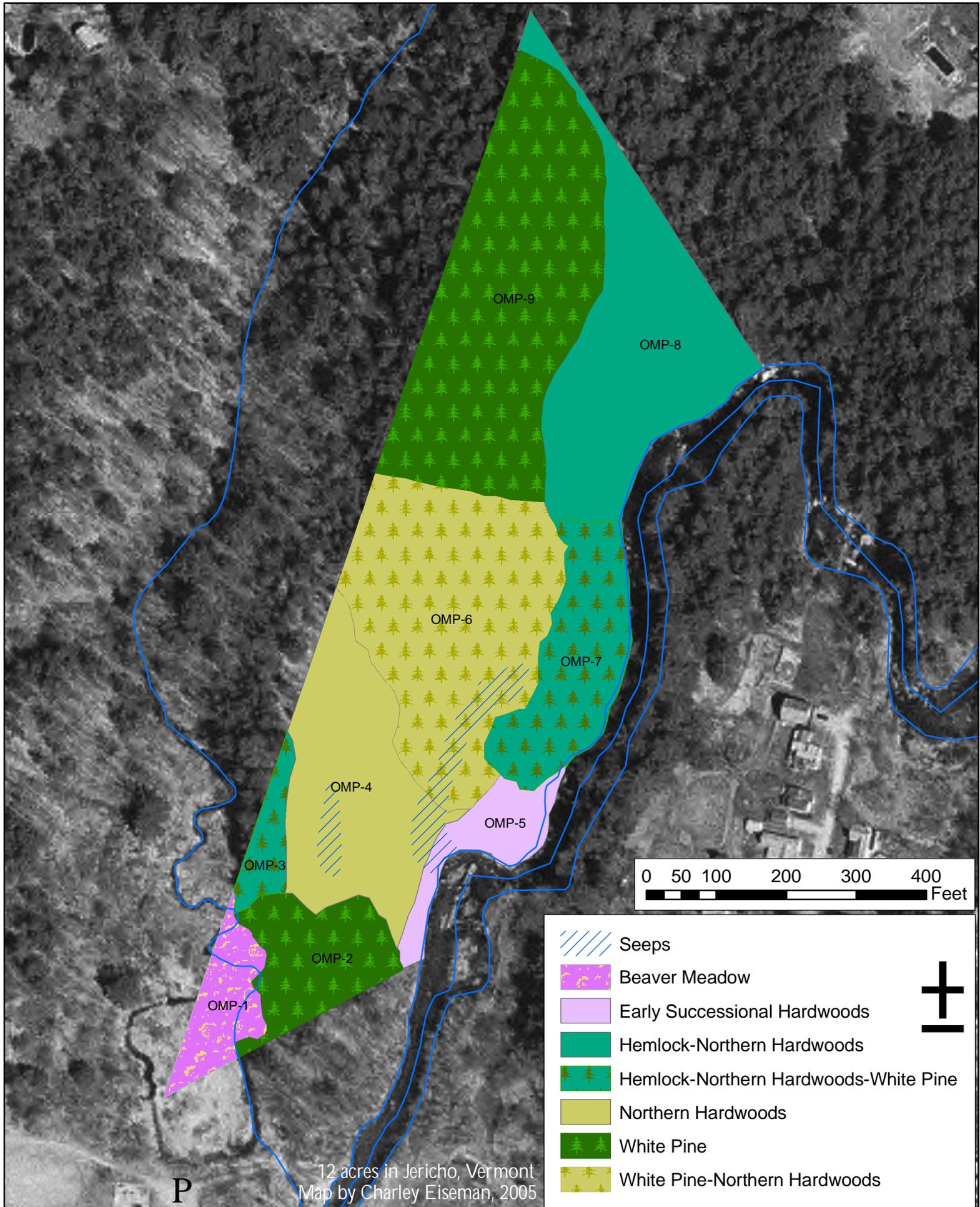
28 acres in South Burlington, Vermont
Map by Charley Eiseman, 2005



	Power Lines
	Seeps
	Mesic Red Oak-Northern Hardwood Forest
	Rivershore Grassland
	Silver Maple-Ostrich Fern Riverine Floodplain Forest
	Sugar Maple-Ostrich Fern Riverine Floodplain Forest

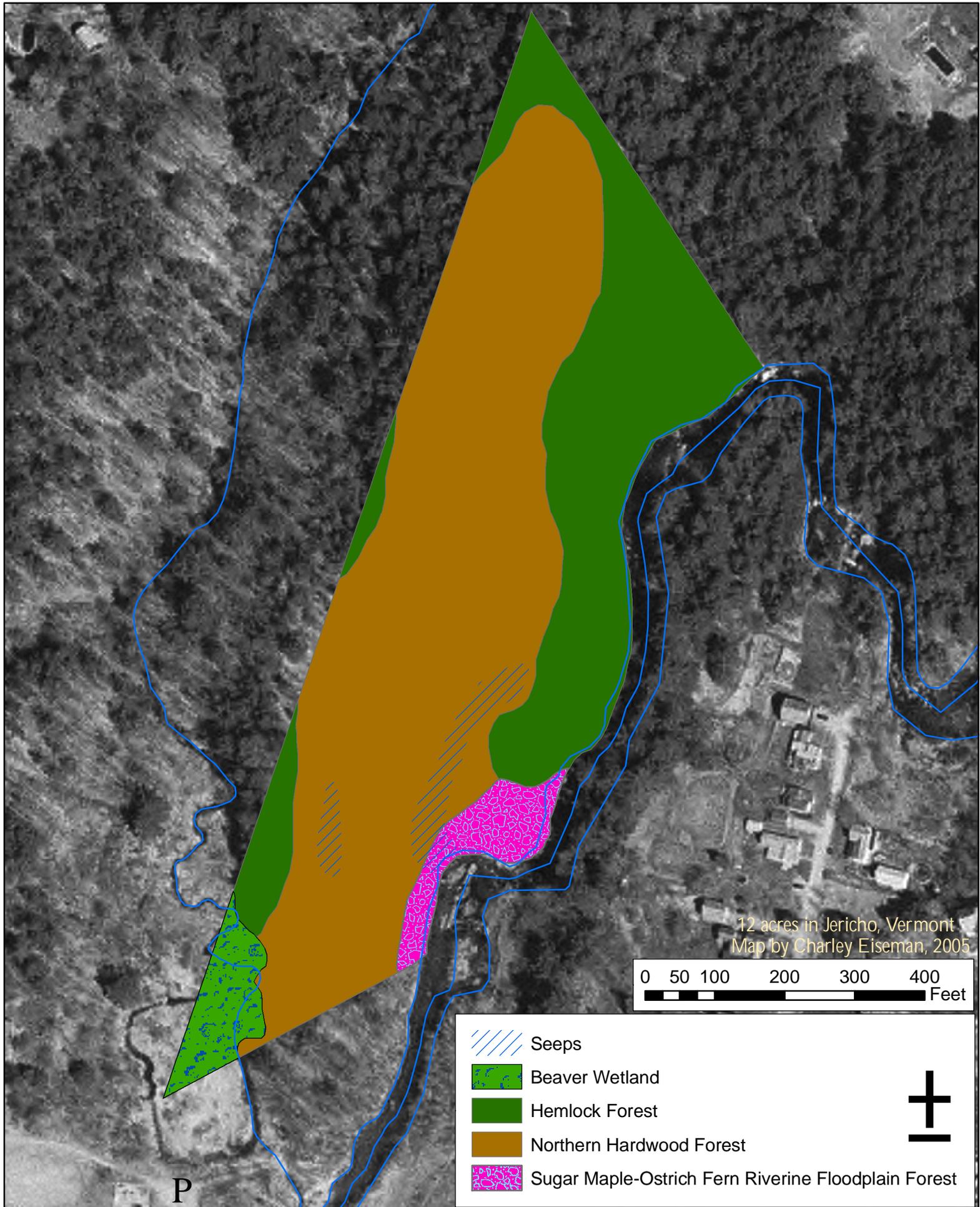


Old Mill Park - Current Cover

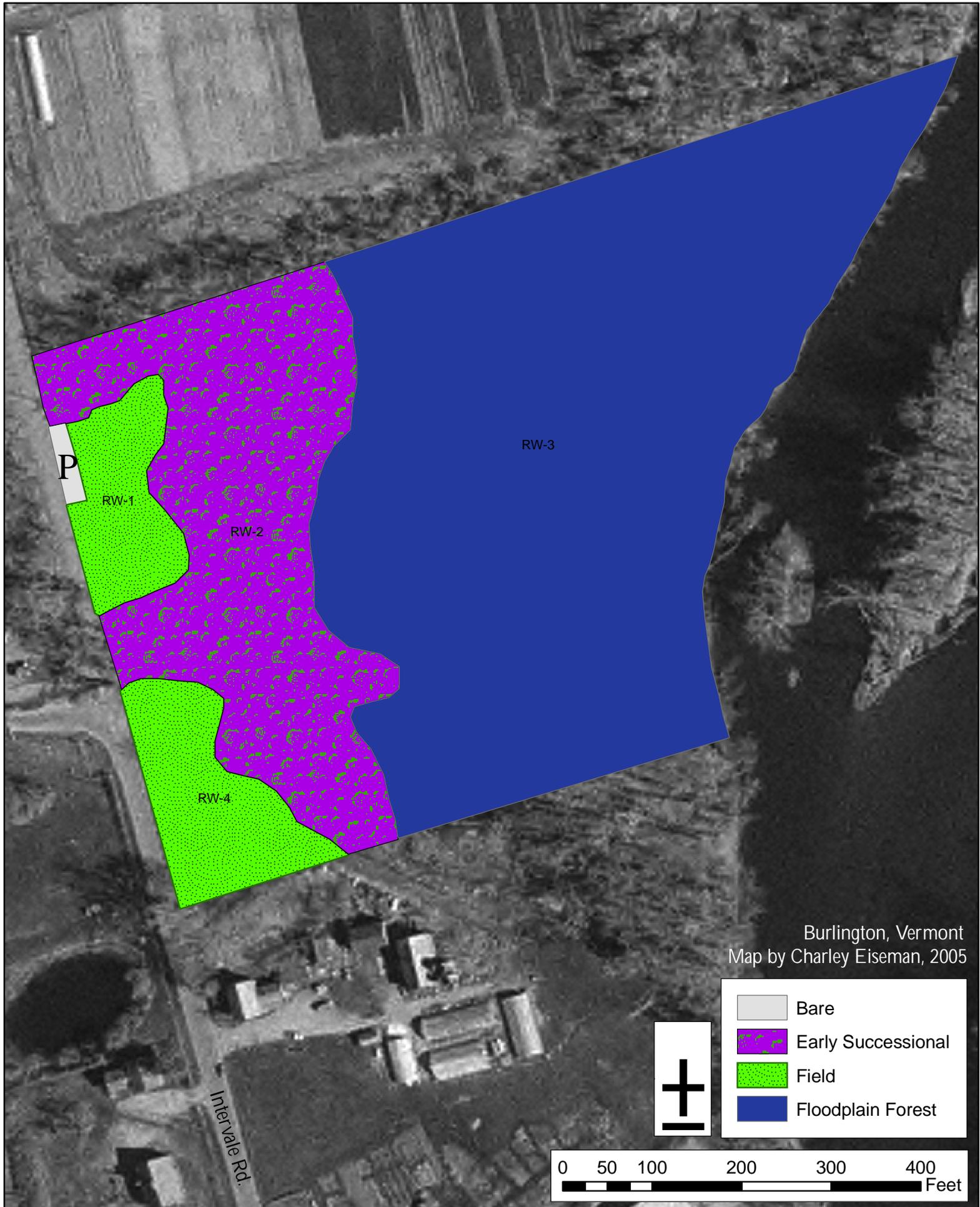


Old Mill Park - Natural Communities

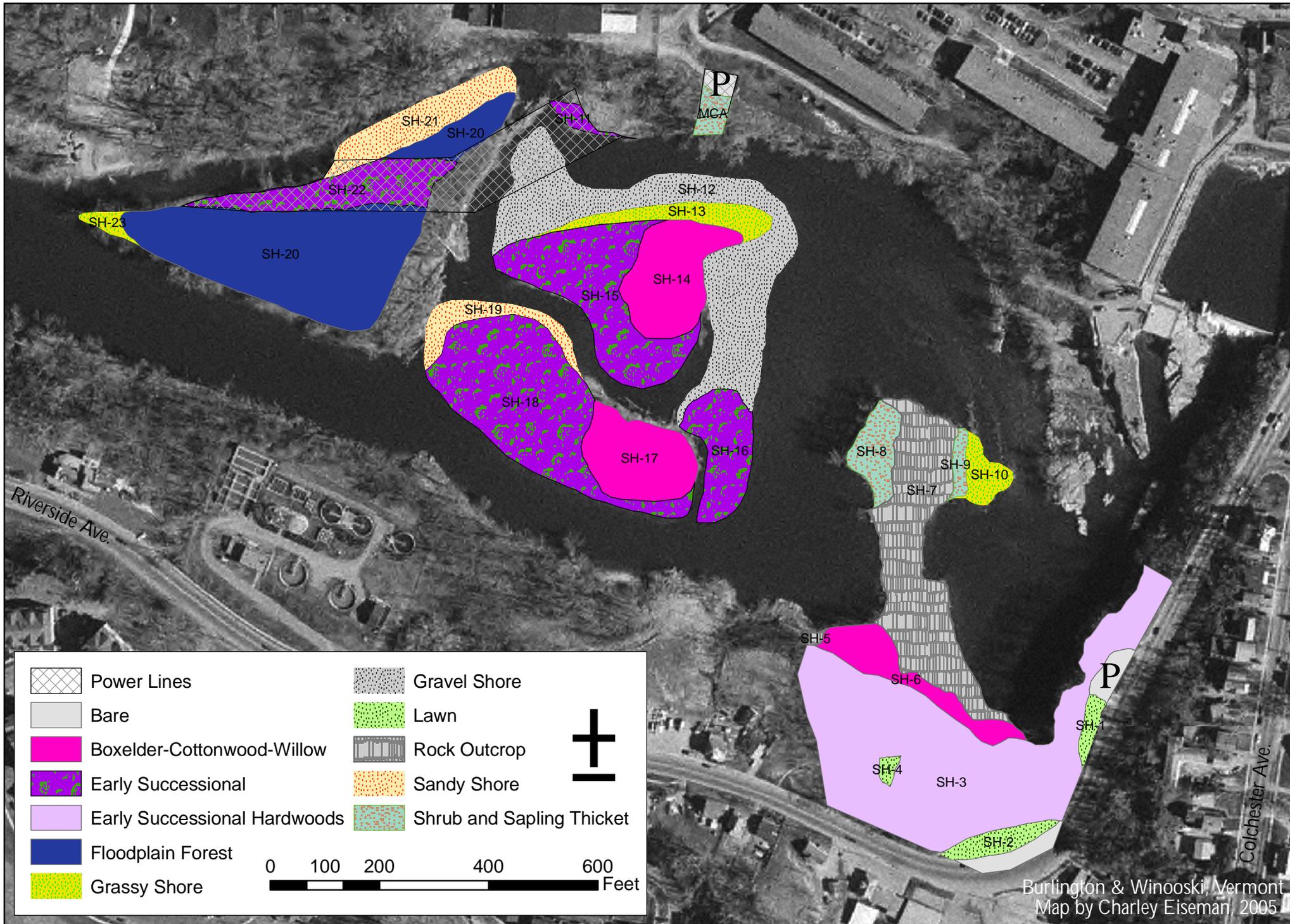
Potential vegetation if left undisturbed



Riverwalk - Current Cover

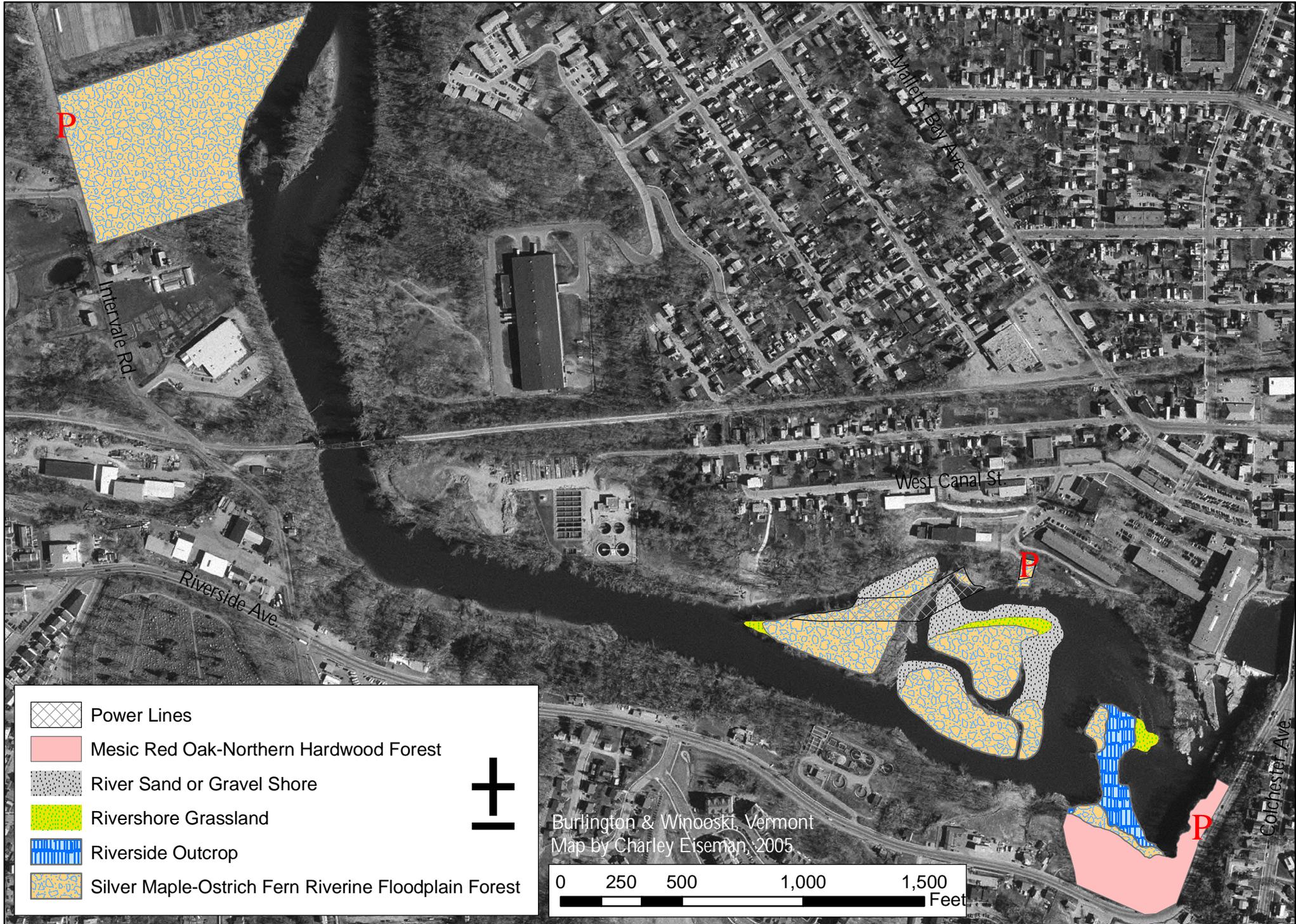


Salmon Hole Park - Current Cover



Riverwalk & Salmon Hole Park - Natural Communities

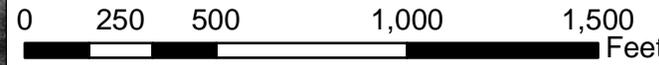
Potential vegetation if left undisturbed



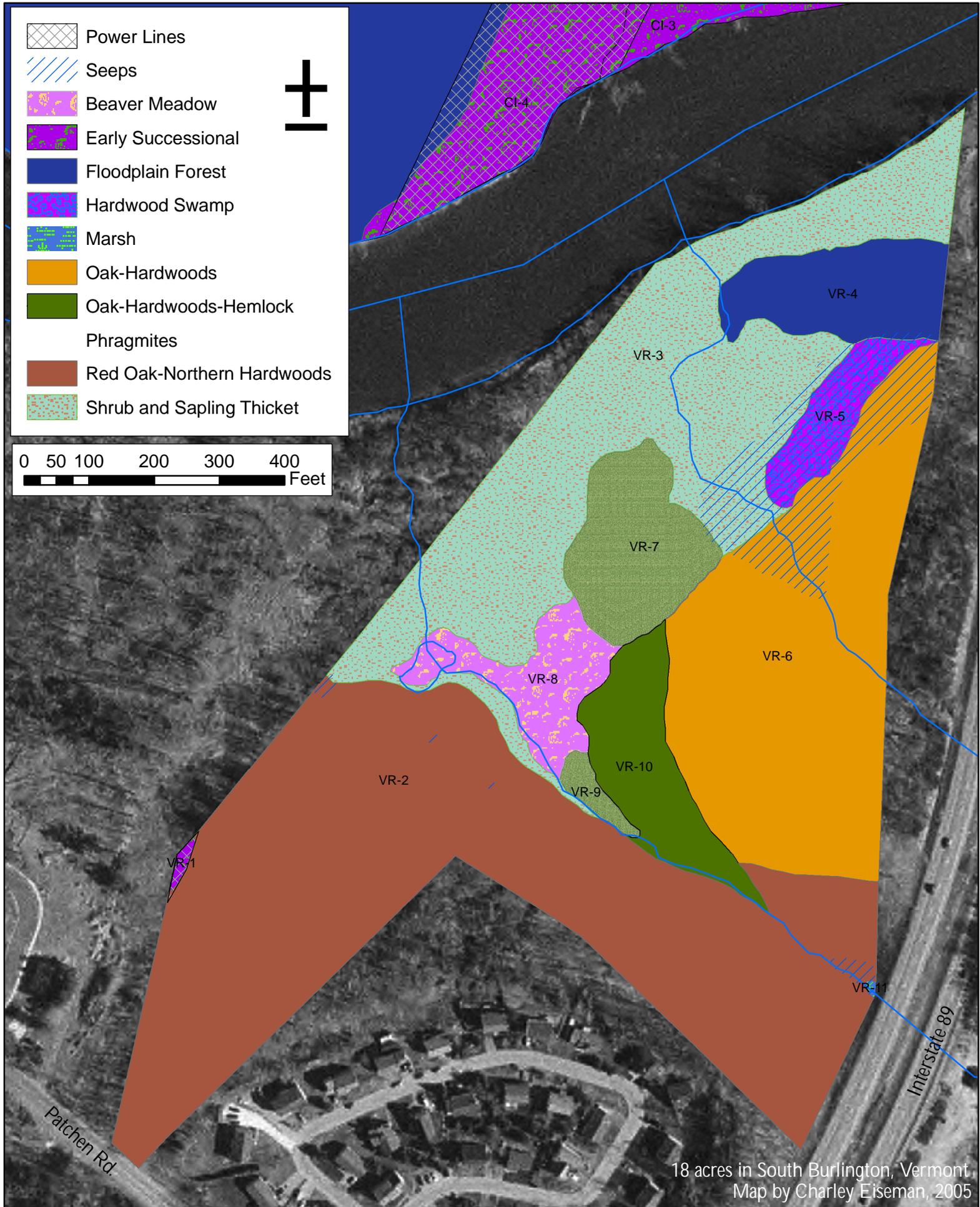
-  Power Lines
-  Mesic Red Oak-Northern Hardwood Forest
-  River Sand or Gravel Shore
-  Rivershore Grassland
-  Riverside Outcrop
-  Silver Maple-Ostrich Fern Riverine Floodplain Forest



Burlington & Winoeski, Vermont
 Map by Charley Eiseman, 2005



Valley Ridge - Current Cover



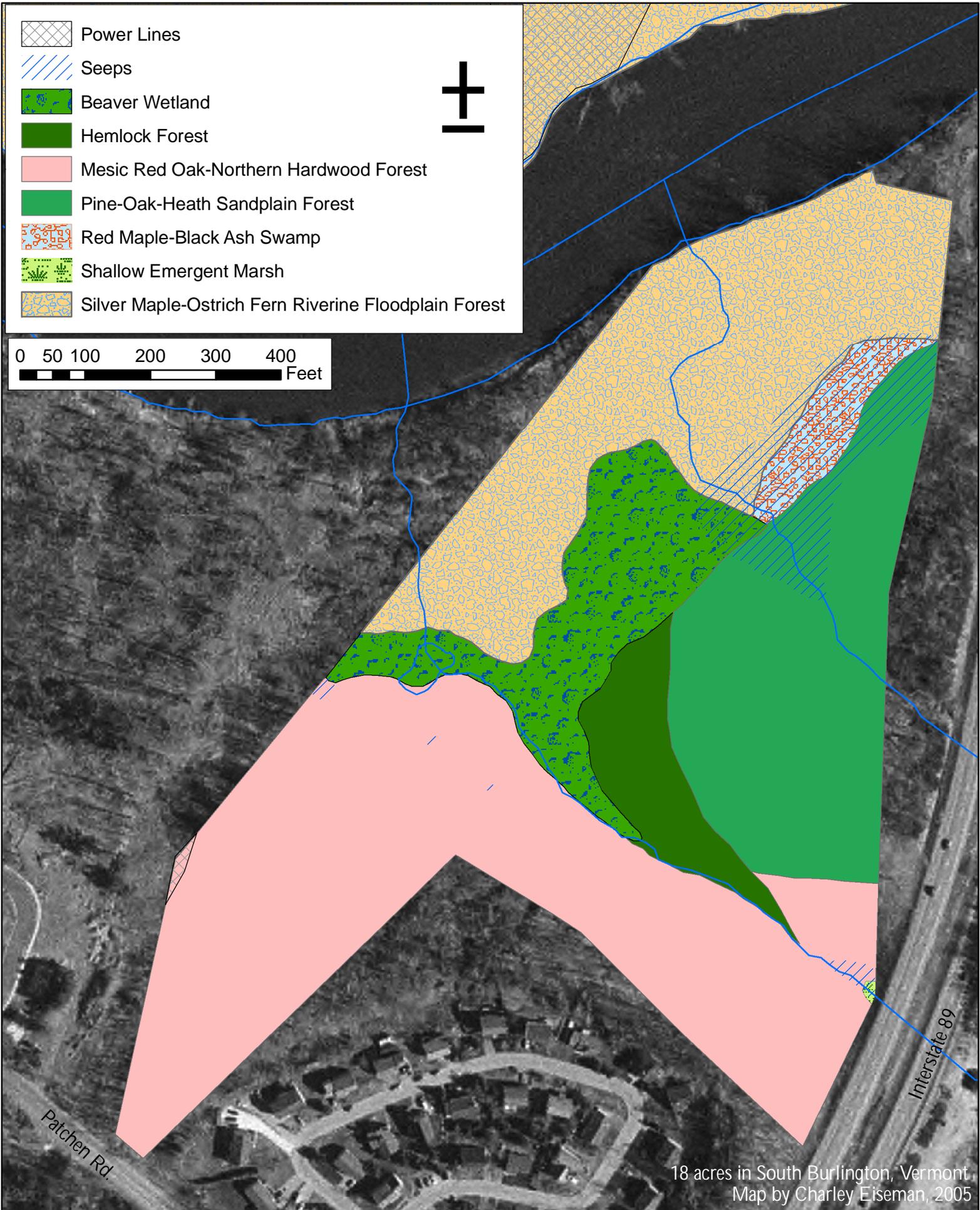
Valley Ridge - Natural Communities

Potential vegetation if left undisturbed

- Power Lines
- Seeps
- Beaver Wetland
- Hemlock Forest
- Mesic Red Oak-Northern Hardwood Forest
- Pine-Oak-Heath Sandplain Forest
- Red Maple-Black Ash Swamp
- Shallow Emergent Marsh
- Silver Maple-Ostrich Fern Riverine Floodplain Forest

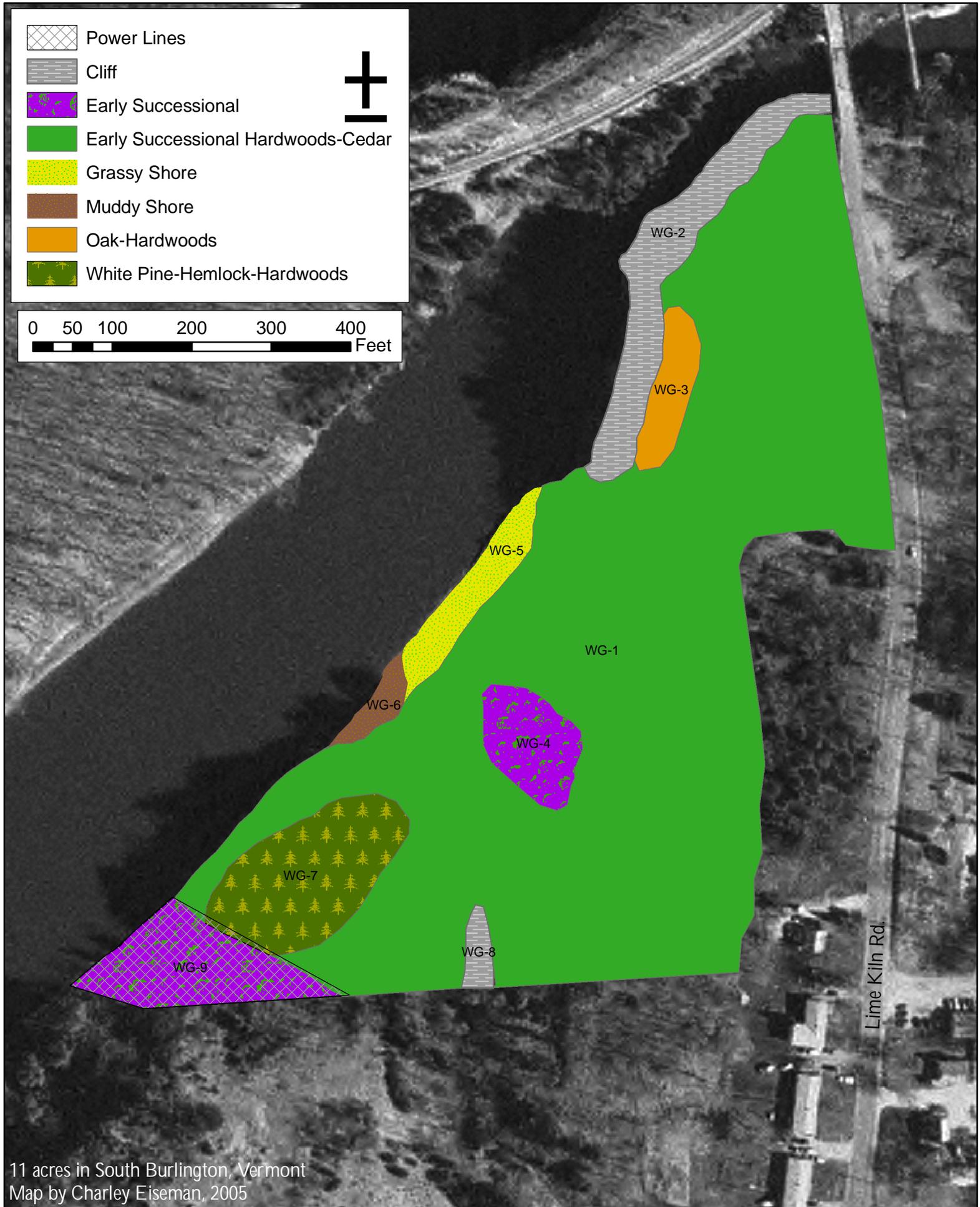
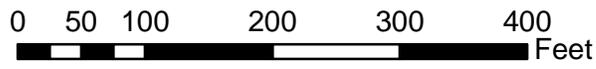


0 50 100 200 300 400 Feet



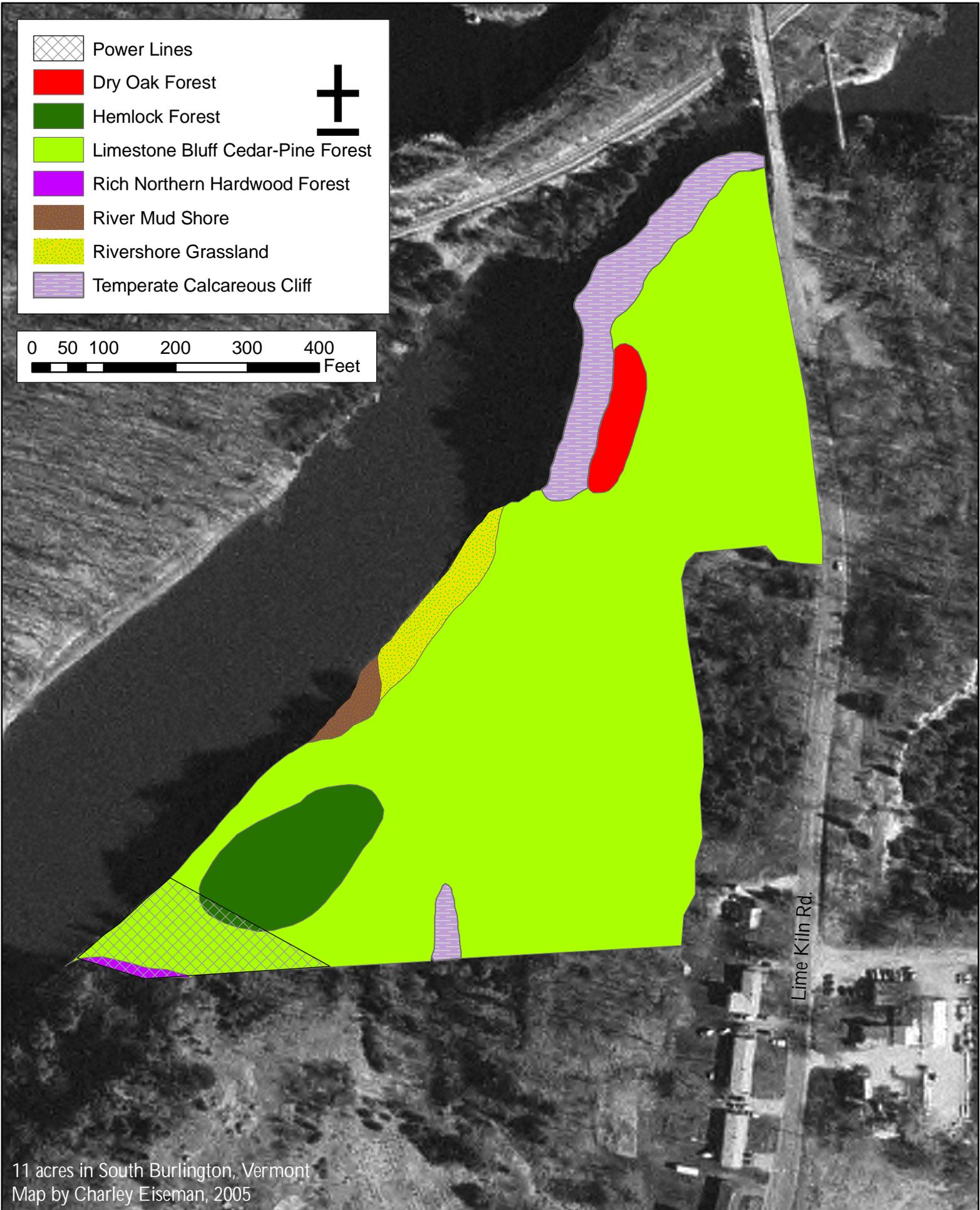
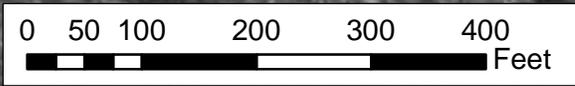
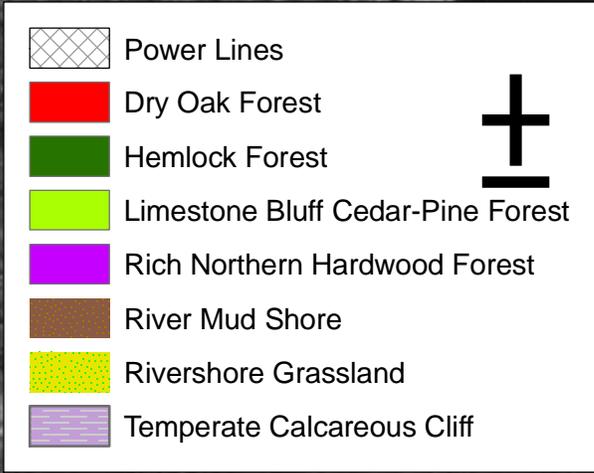
18 acres in South Burlington, Vermont
Map by Charley Eiseman, 2005

Winooski Gorge - Current Cover

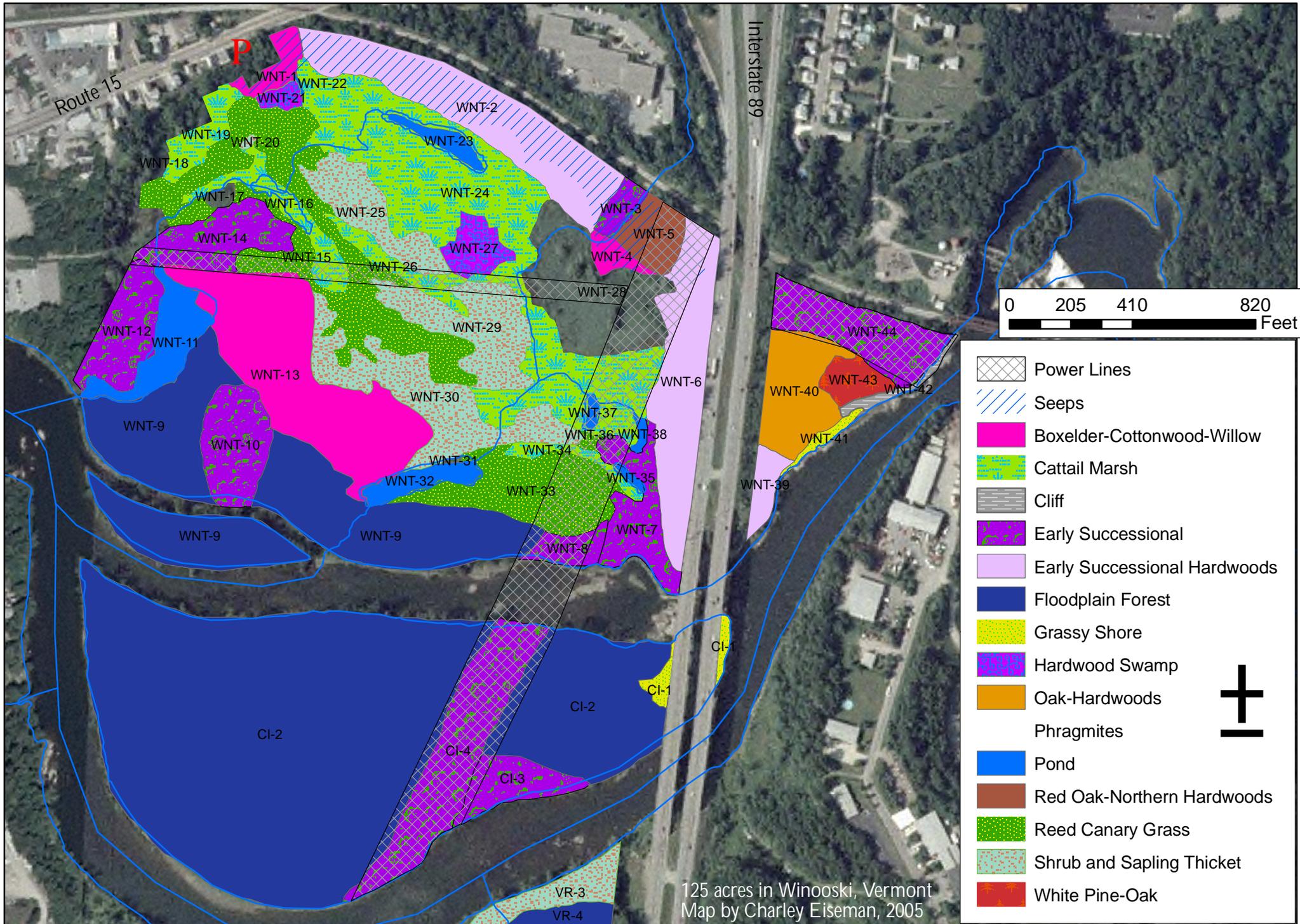


Winooski Gorge - Natural Communities

Potential vegetation if left undisturbed



Winooski Nature Trail - Current Cover



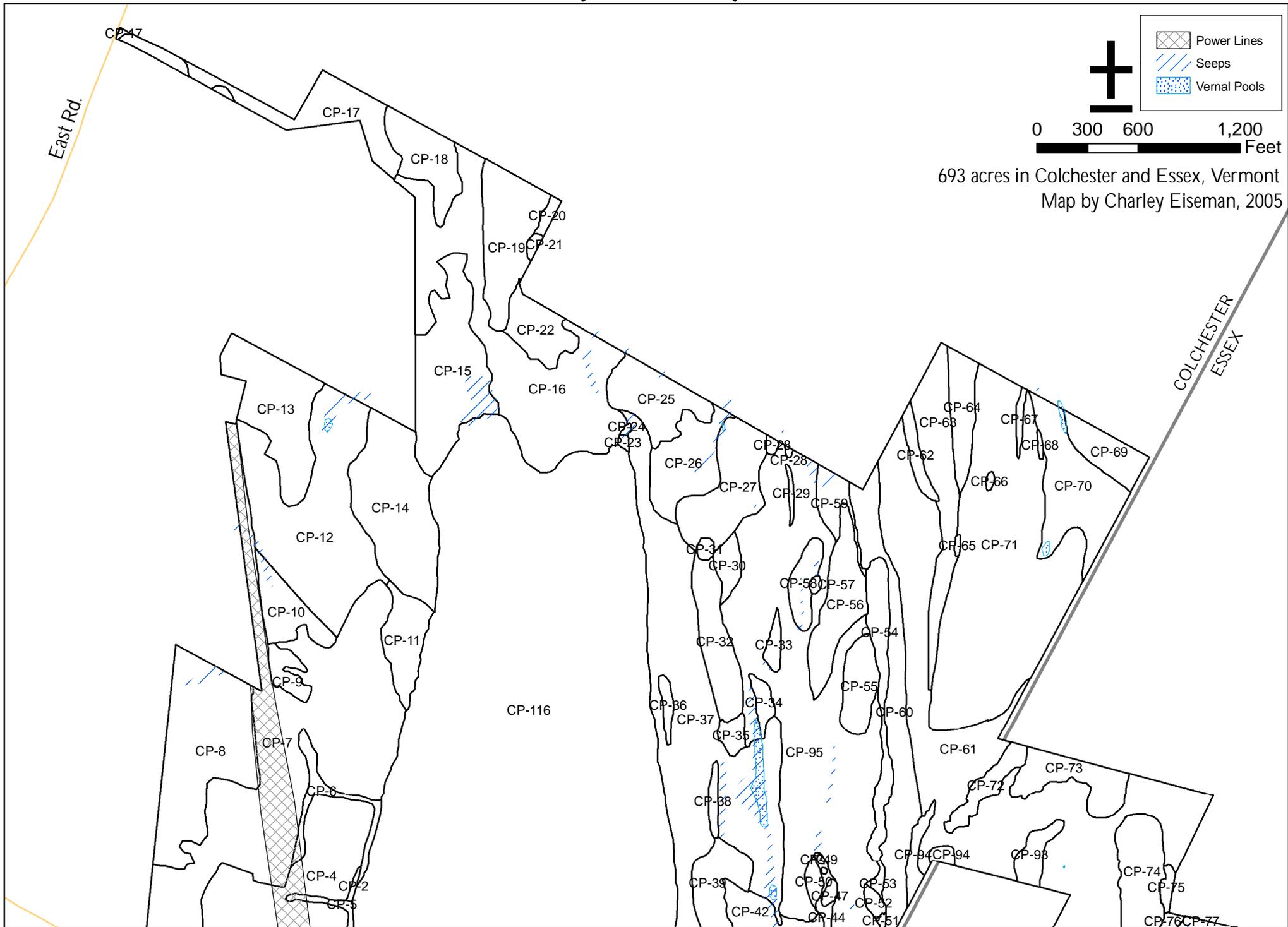
	Power Lines
	Seeps
	Boxelder-Cottonwood-Willow
	Cattail Marsh
	Cliff
	Early Successional
	Early Successional Hardwoods
	Floodplain Forest
	Grassy Shore
	Hardwood Swamp
	Oak-Hardwoods
	Phragmites
	Pond
	Red Oak-Northern Hardwoods
	Reed Canary Grass
	Shrub and Sapling Thicket
	White Pine-Oak

Winooski Nature Trail - Natural Communities

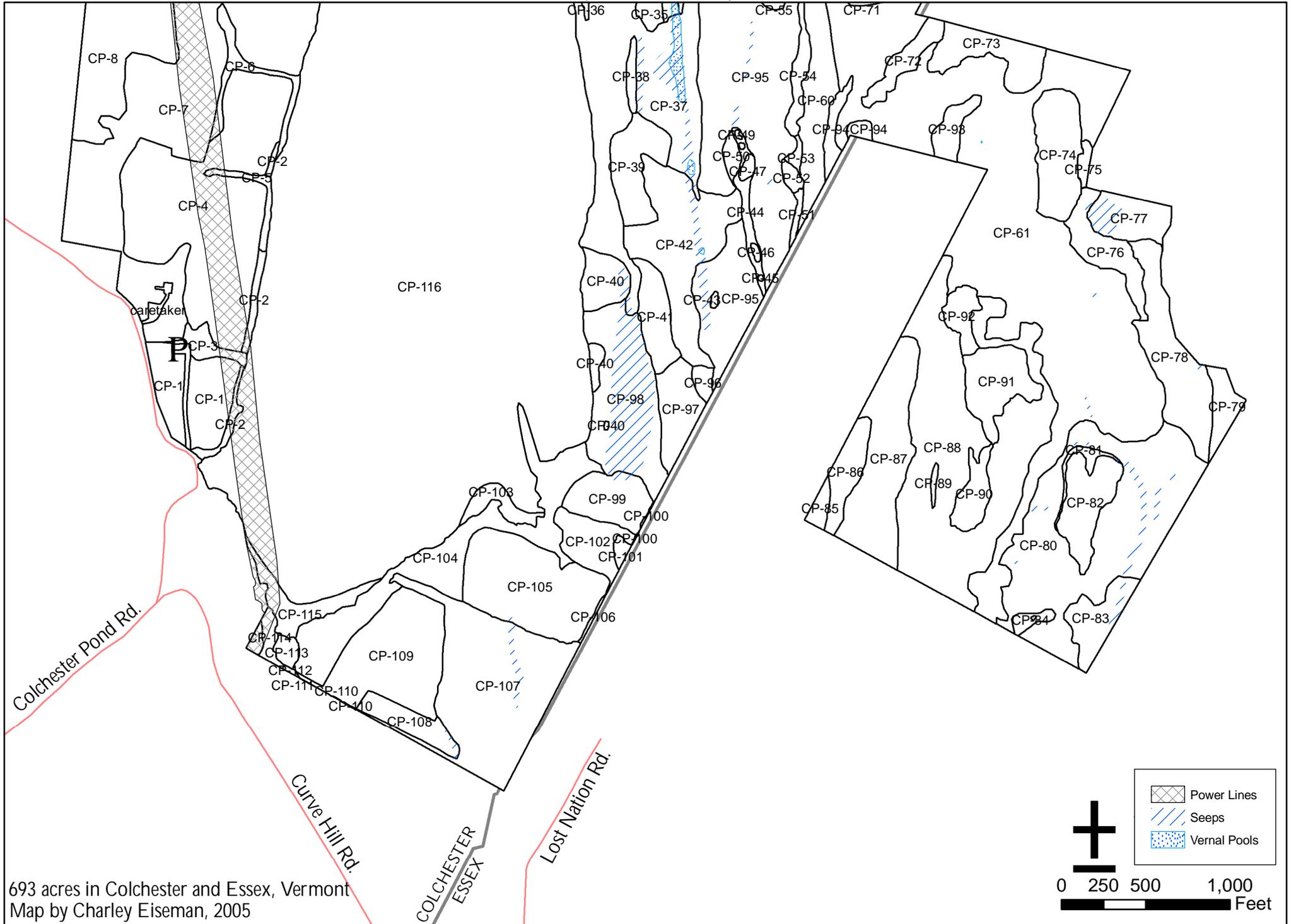
Potential vegetation if left undisturbed



Colchester Pond (North) - Current Cover

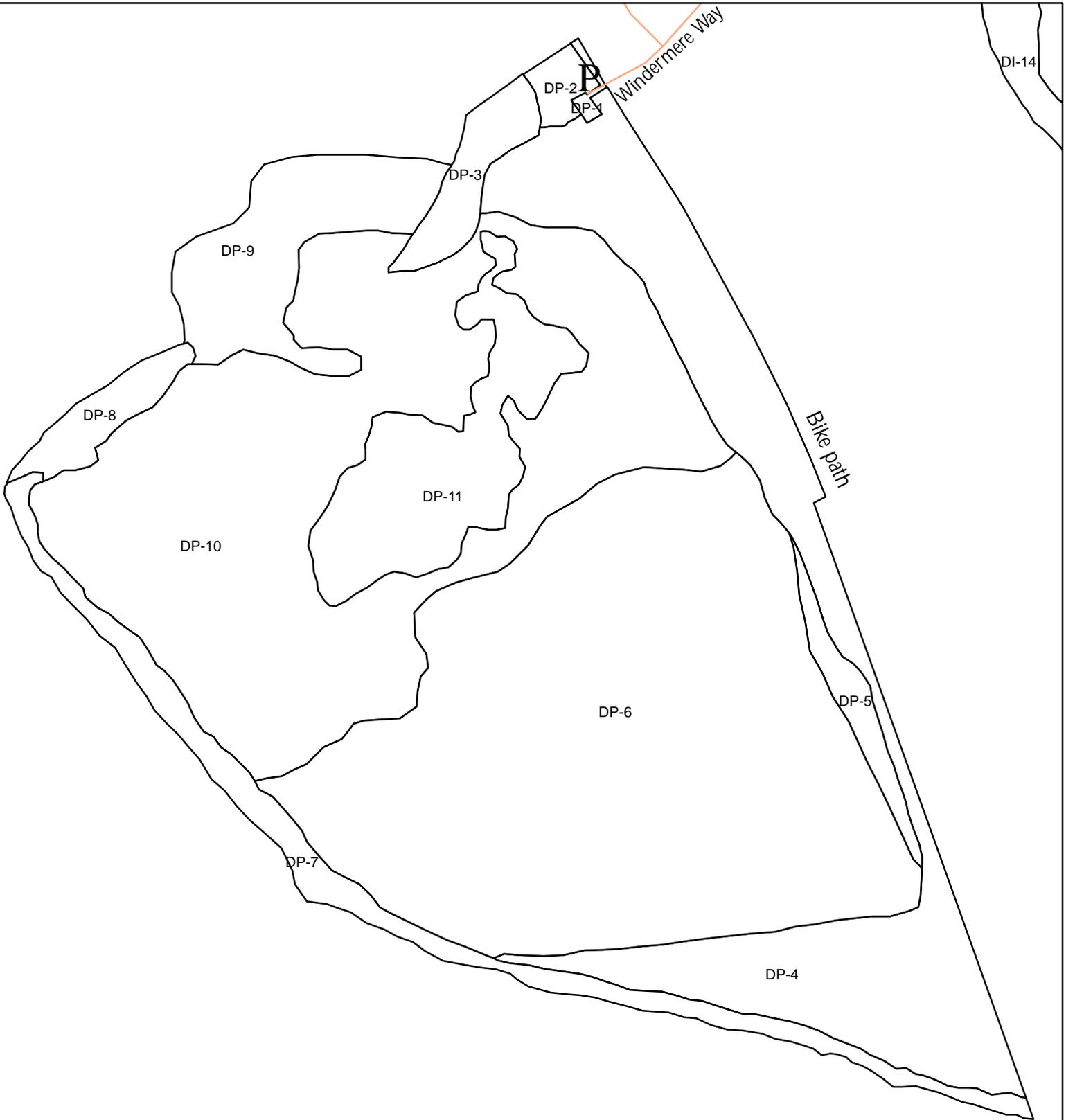


Colchester Pond (South) - Current Cover

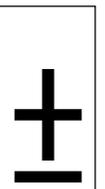
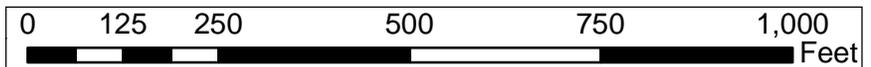


693 acres in Colchester and Essex, Vermont
Map by Charley Eiseman, 2005

Delta Park - Current Cover

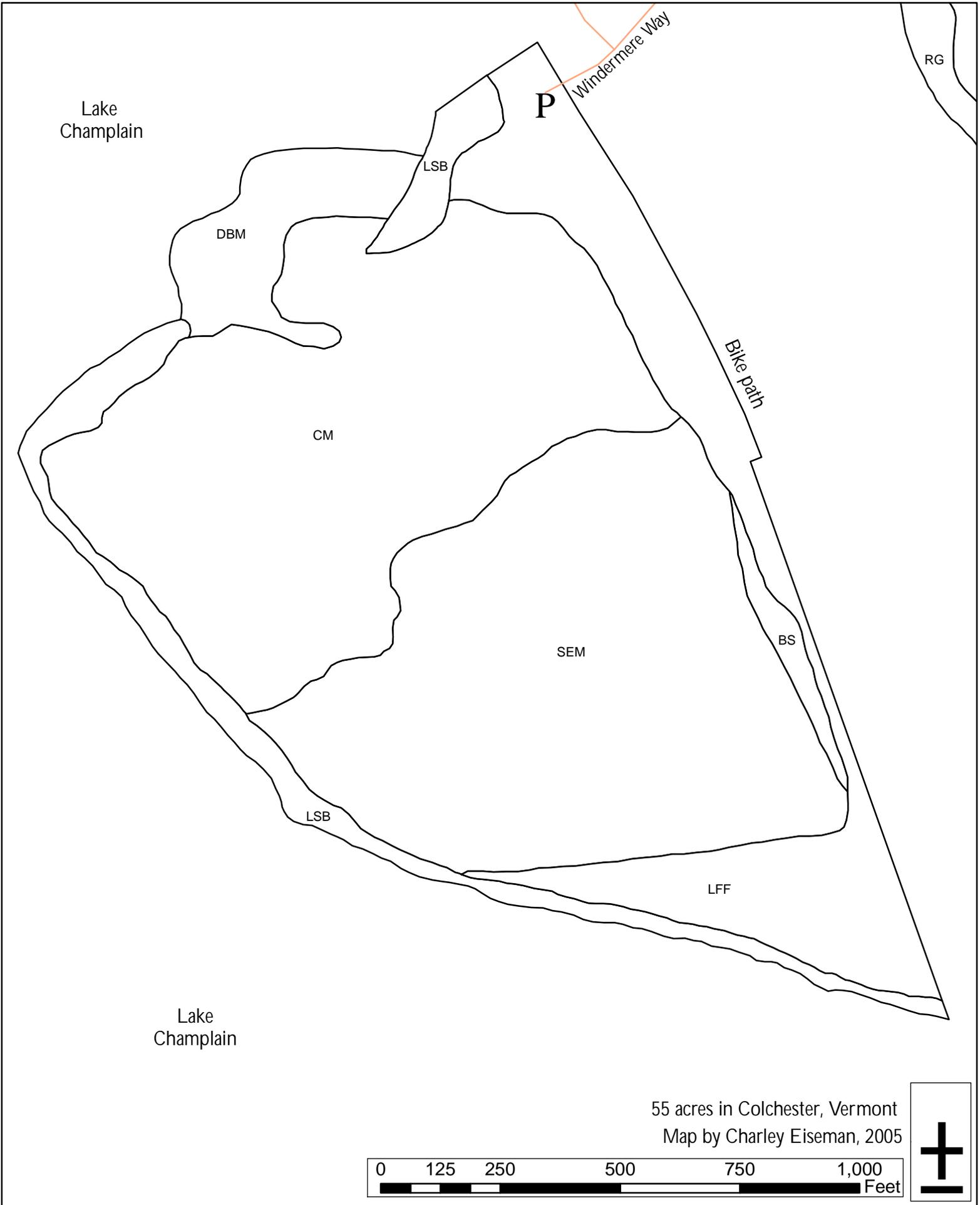


55 acres in Colchester, Vermont
Map by Charley Eiseman, 2005

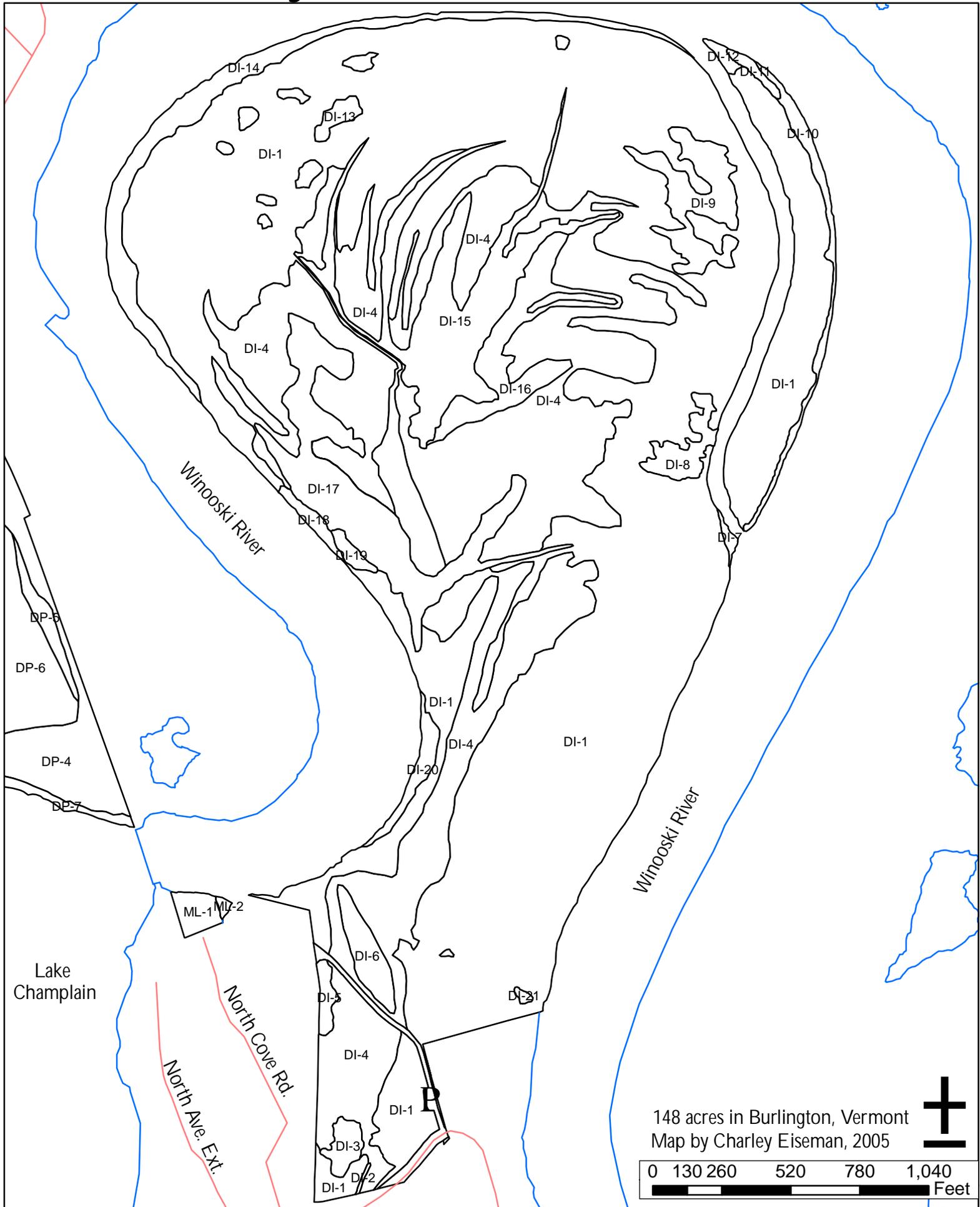


Delta Park - Natural Communities

Potential vegetation if left undisturbed

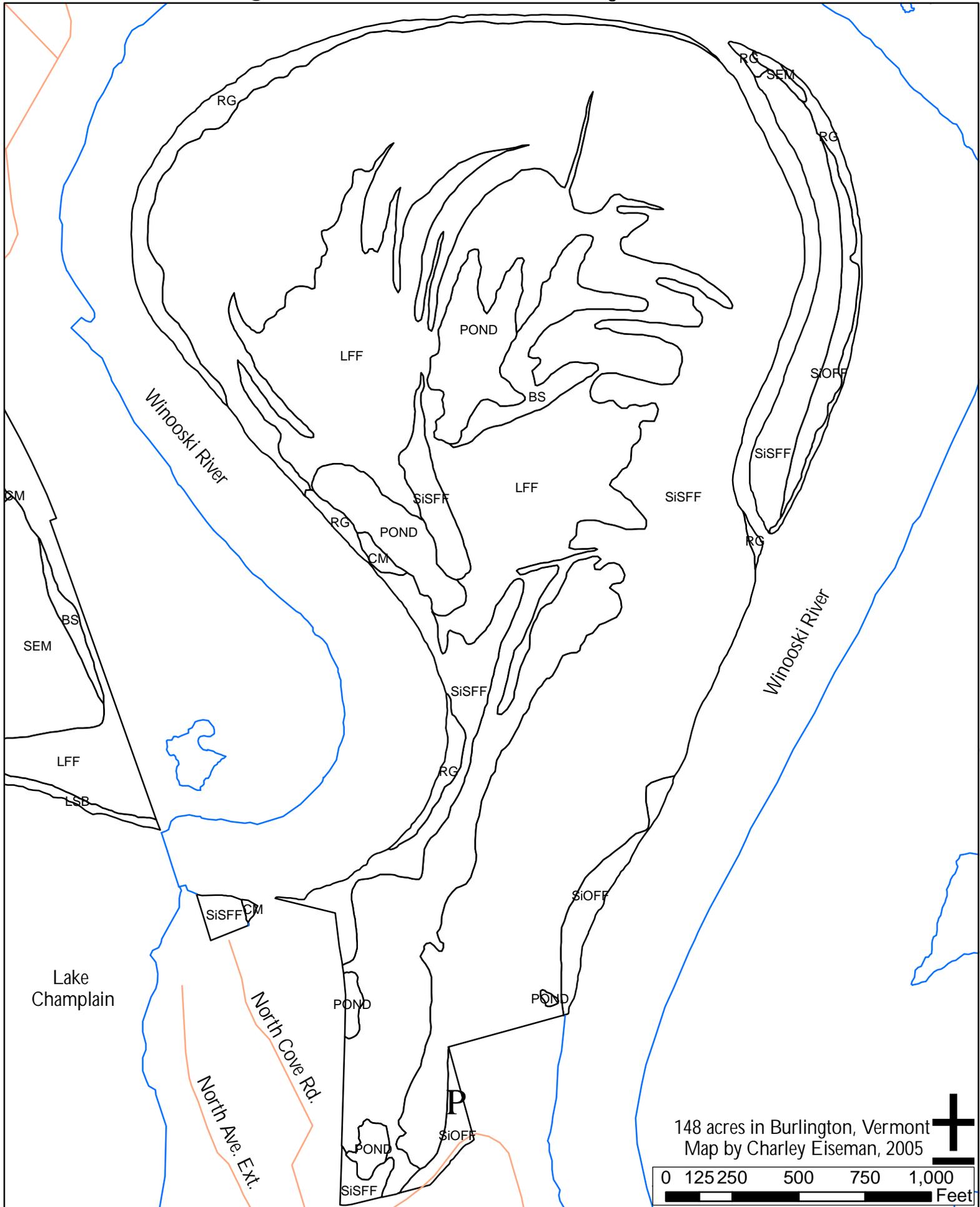


Derway Island - Current Cover

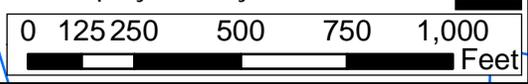


Derway Island - Natural Communities

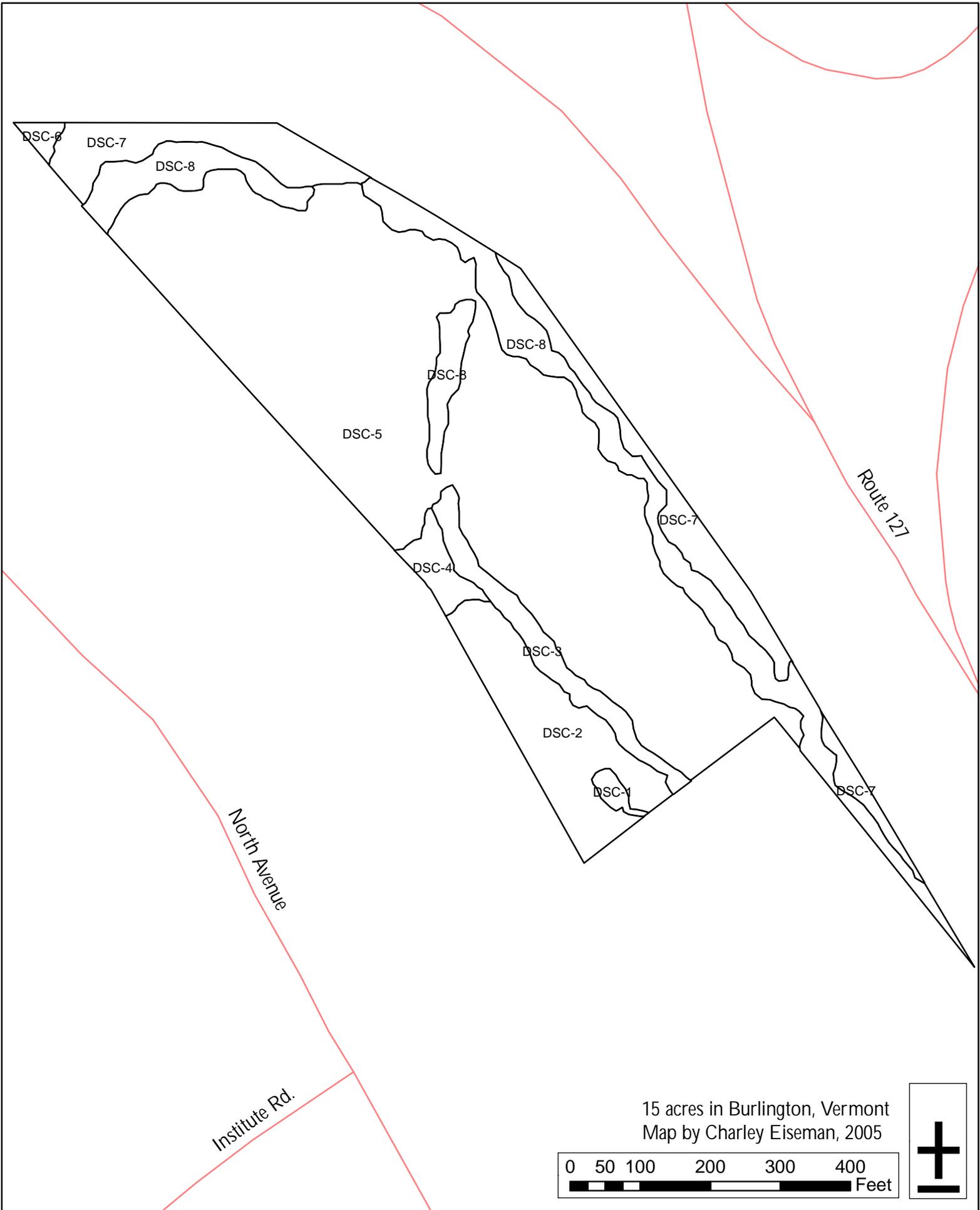
Potential vegetation if left undisturbed



148 acres in Burlington, Vermont
Map by Charley Eiseman, 2005

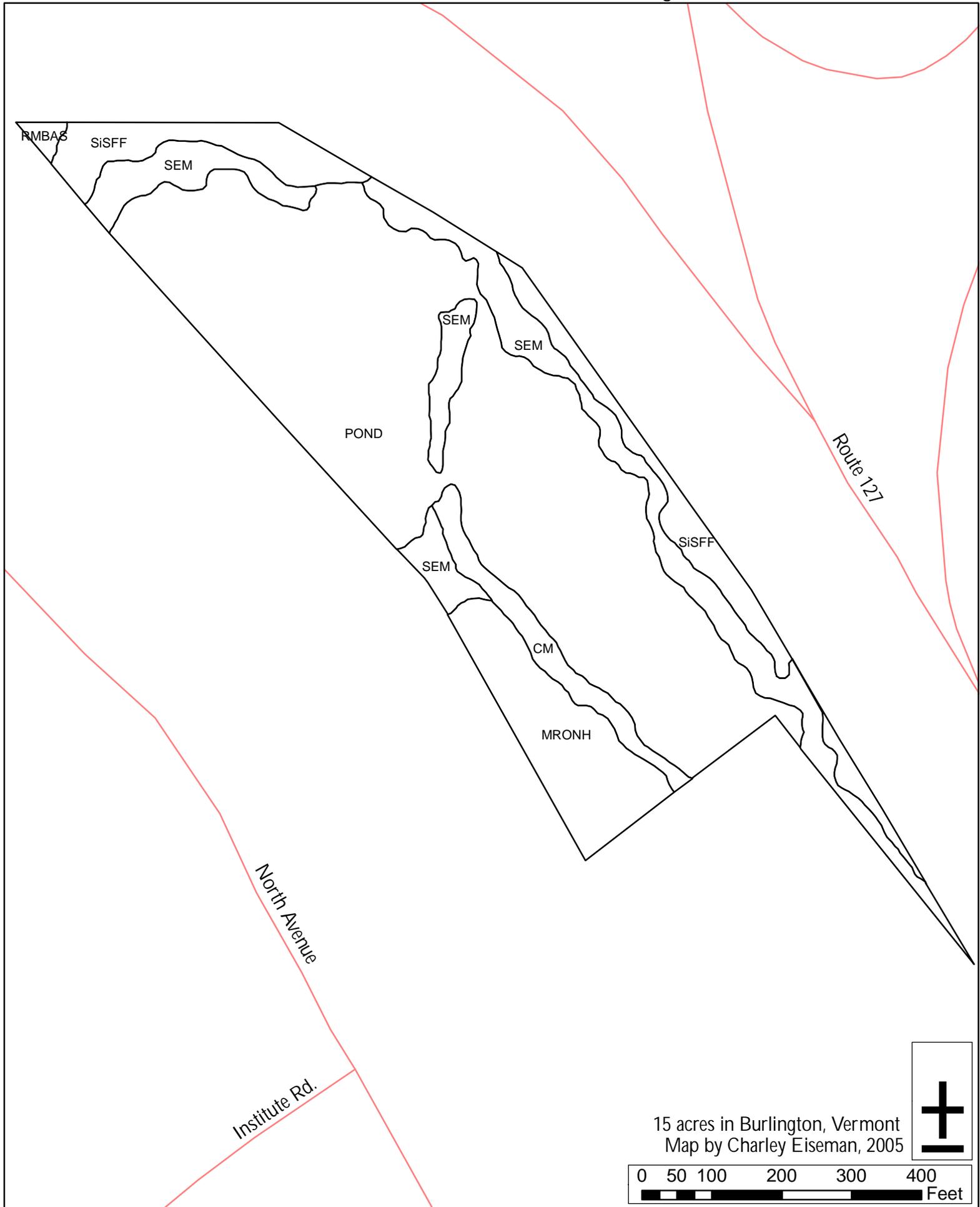


Donohue Sea Caves - Current Cover

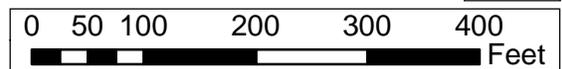


Donohue Sea Caves - Natural Communities

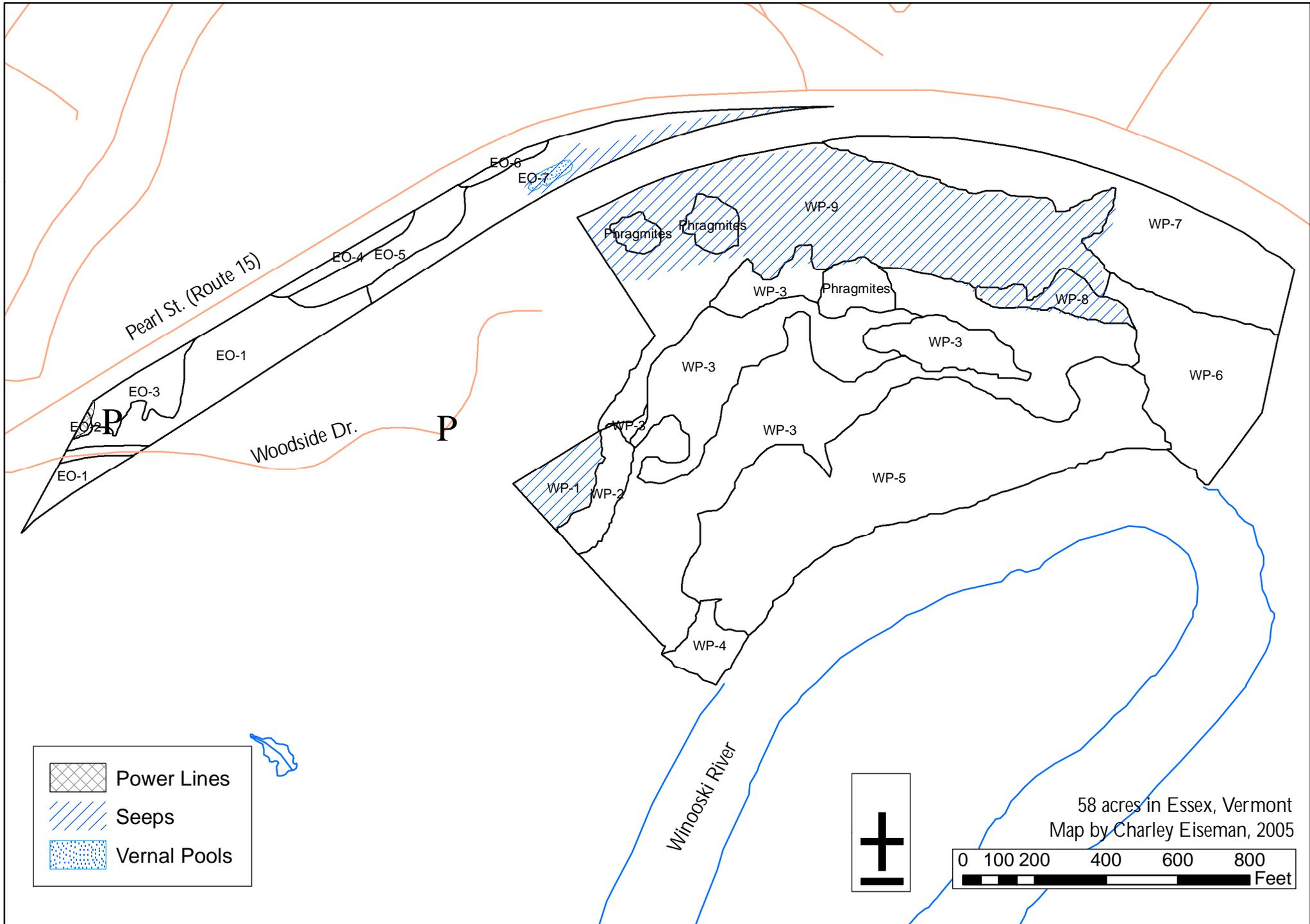
Potential vegetation if left undisturbed



15 acres in Burlington, Vermont
Map by Charley Eiseman, 2005

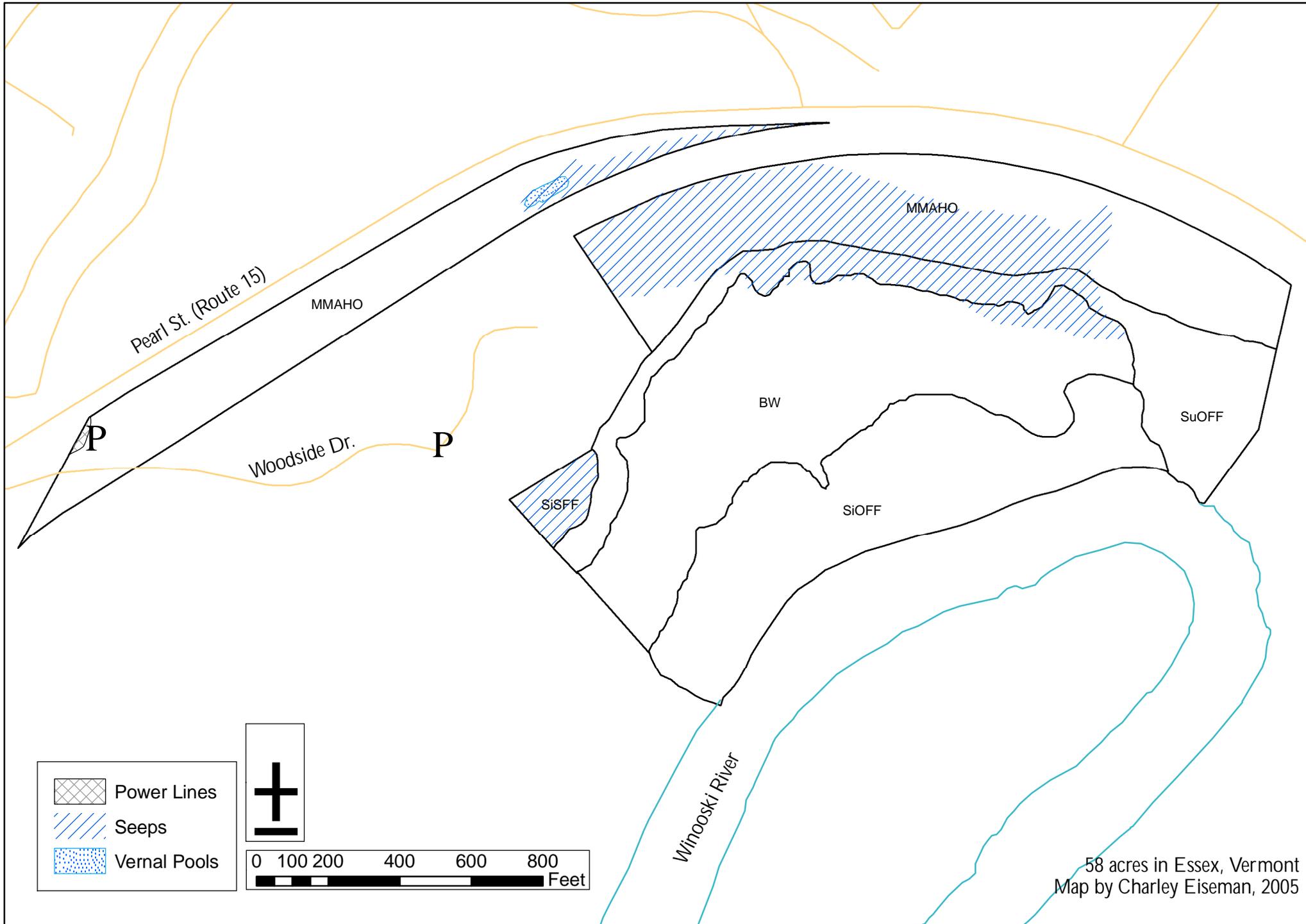


Essex Overlook and Woodside - Current Cover



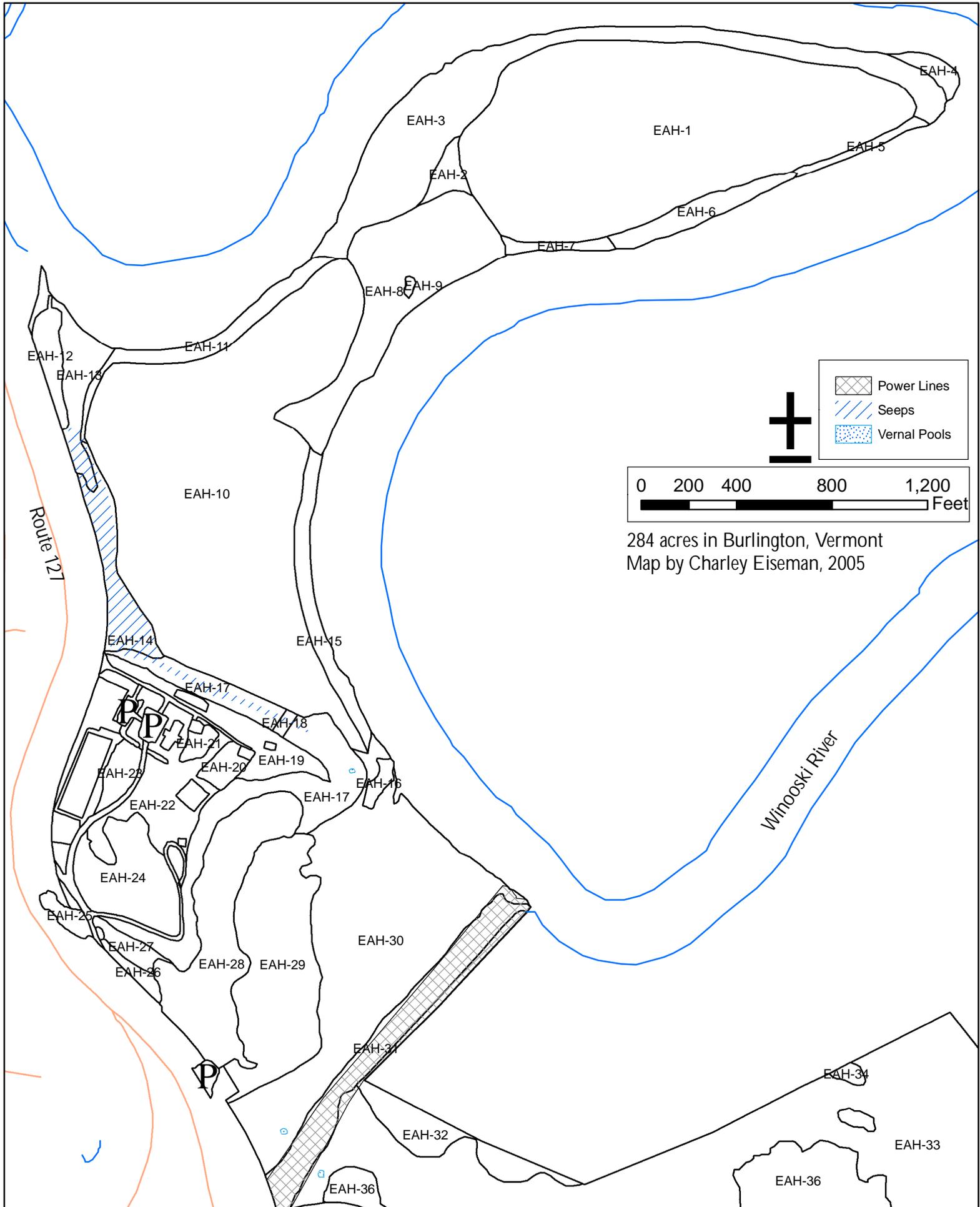
Essex Overlook and Woodside - Natural Communities

Potential vegetation if left undisturbed

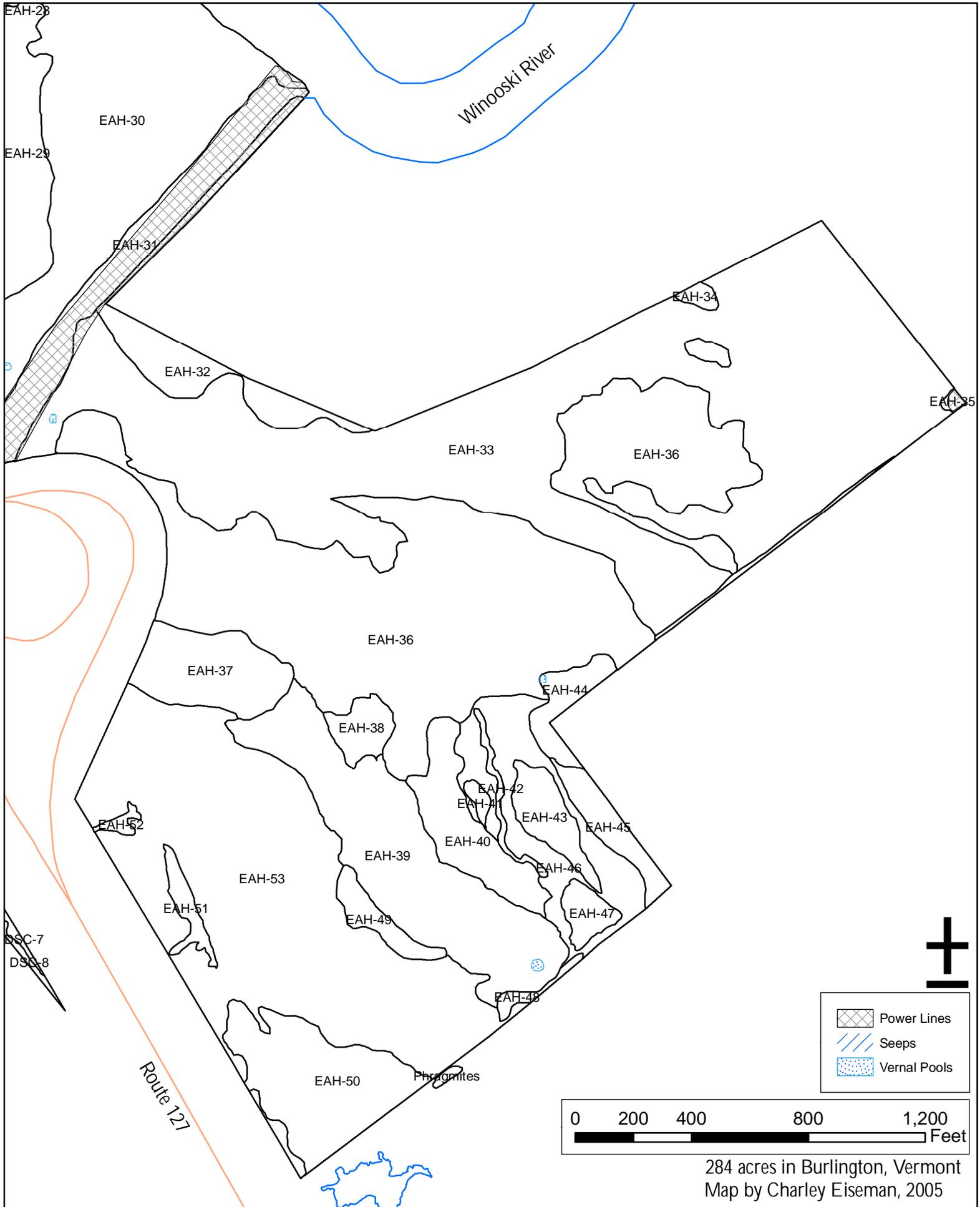


58 acres in Essex, Vermont
Map by Charley Eiseman, 2005

Ethan Allen Homestead (North) - Current Cover

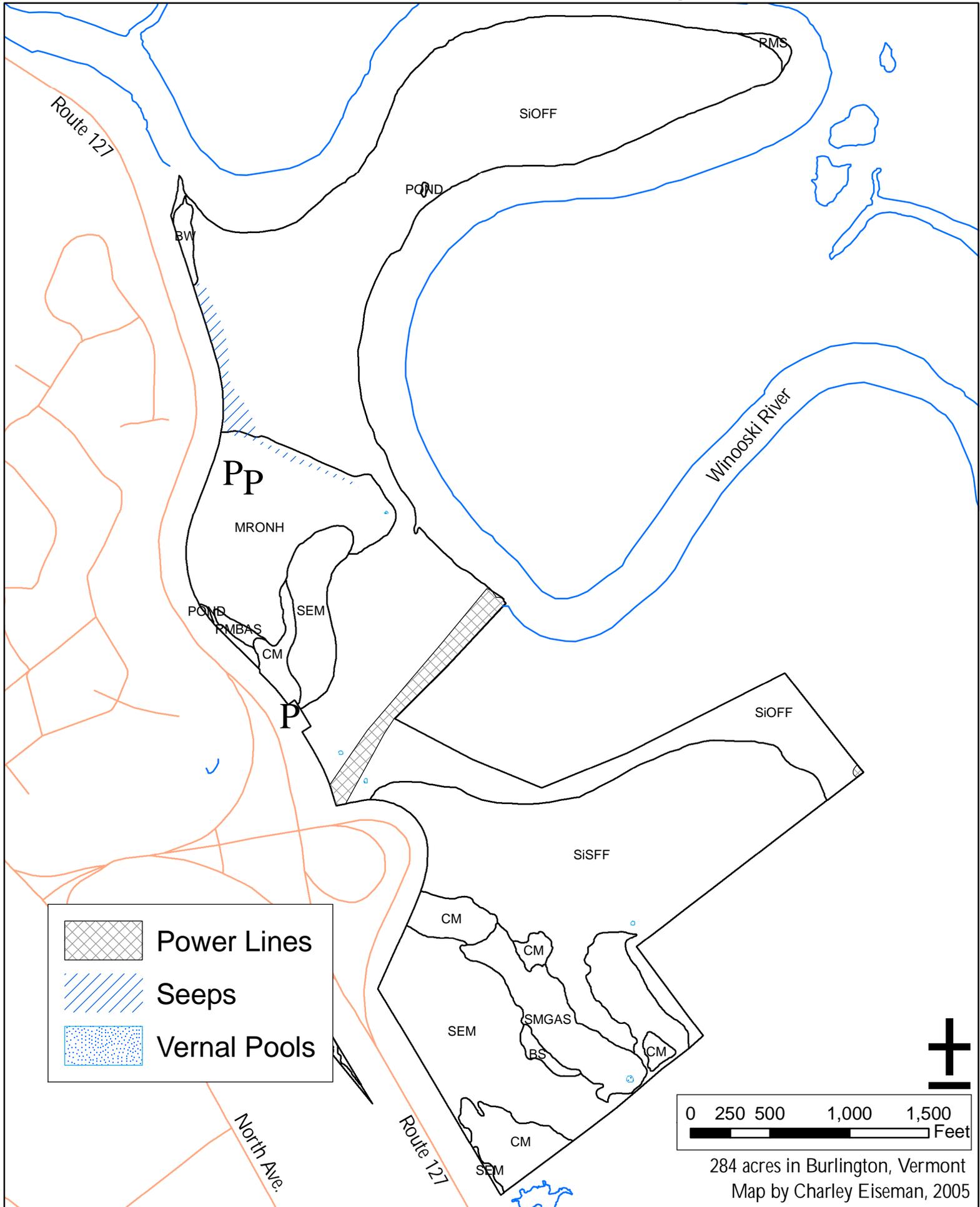


Ethan Allen Homestead (South) - Current Cover



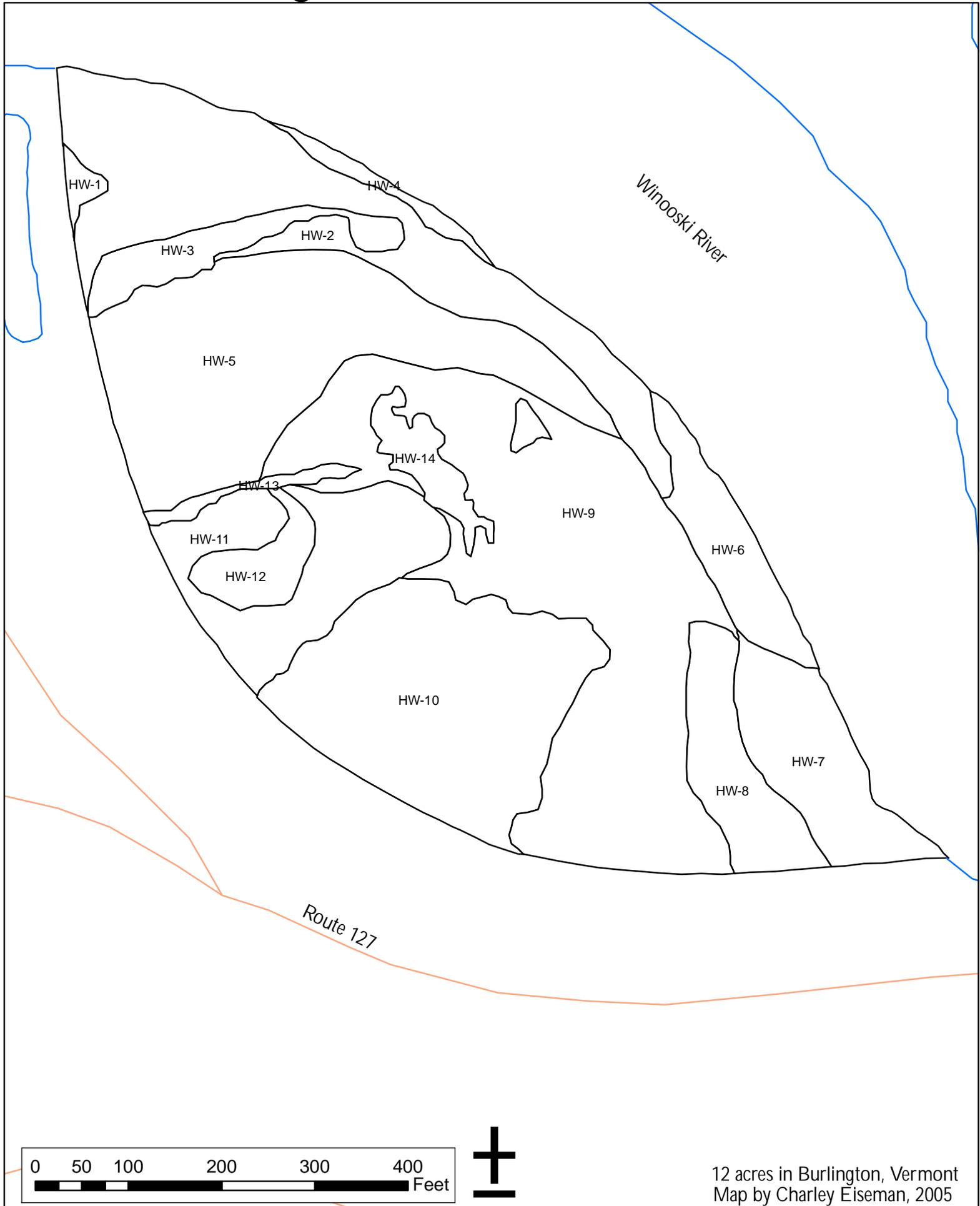
Ethan Allen Homestead - Natural Communities

Potential vegetation if left undisturbed



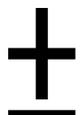
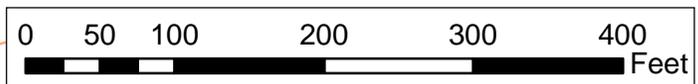
284 acres in Burlington, Vermont
 Map by Charley Eiseman, 2005

Heineburg Wetlands - Current Cover



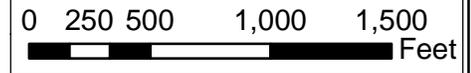
Heineburg Wetlands - Natural Communities

Potential vegetation if left undisturbed

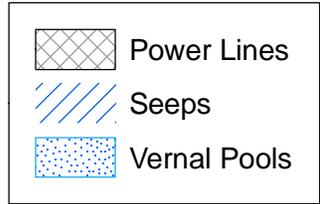
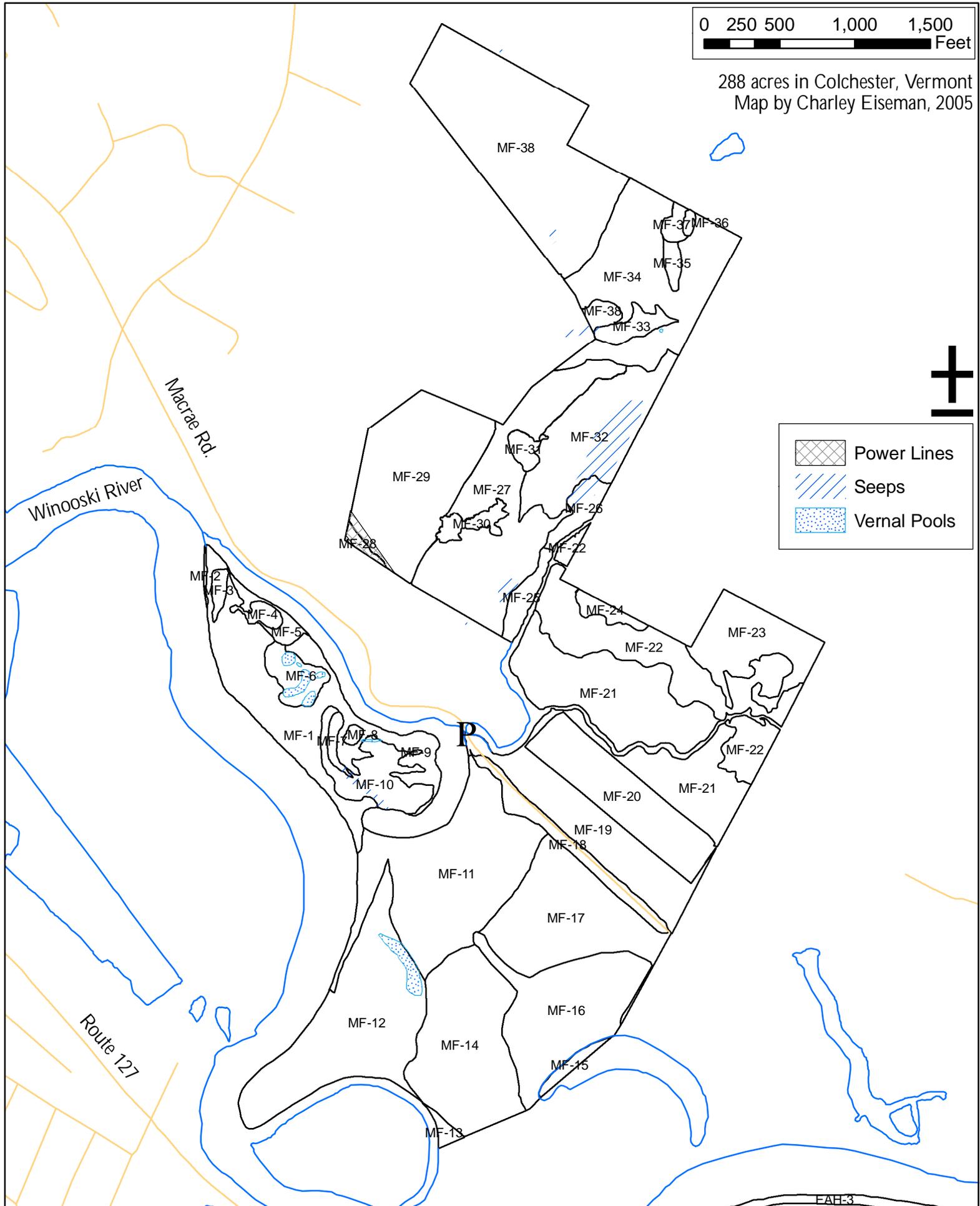


12 acres in Burlington, Vermont
Map by Charley Eiseman, 2005

Macrae Farm - Current Cover

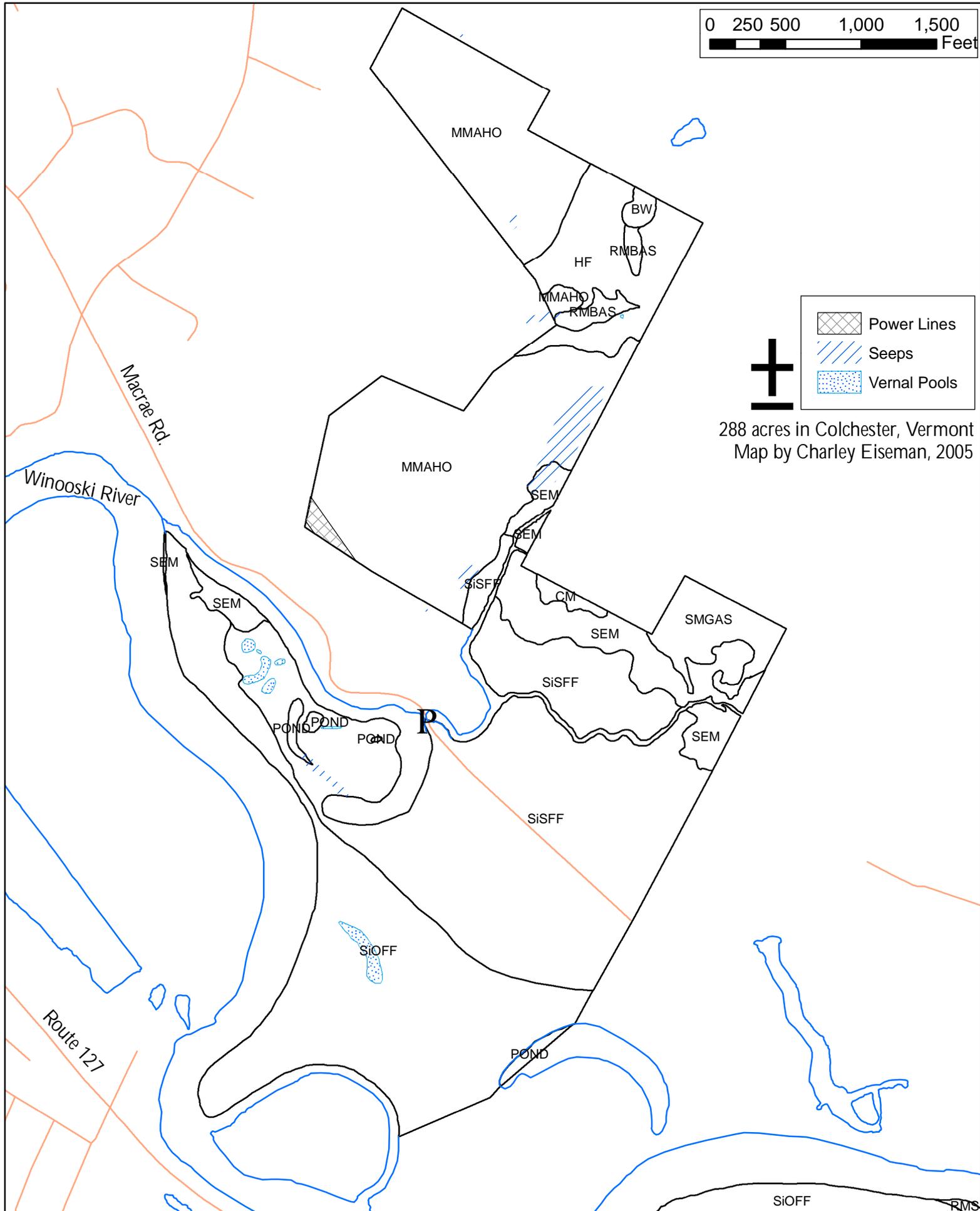
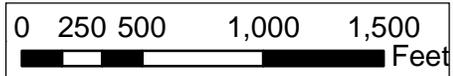


288 acres in Colchester, Vermont
Map by Charley Eiseman, 2005



Macrae Farm - Natural Communities

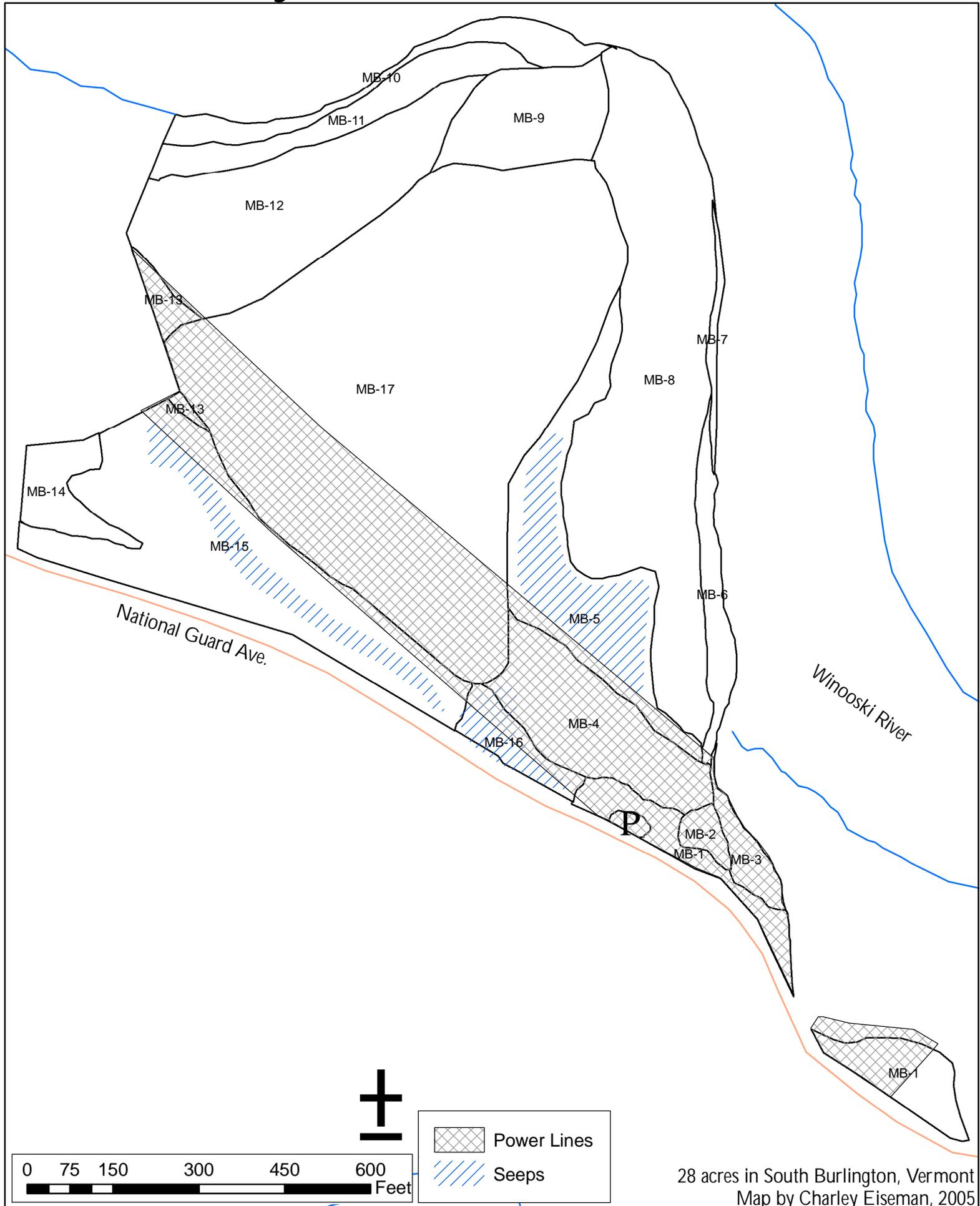
Potential vegetation if left undisturbed



- Power Lines
- Seeps
- Vernal Pools

288 acres in Colchester, Vermont
Map by Charley Eiseman, 2005

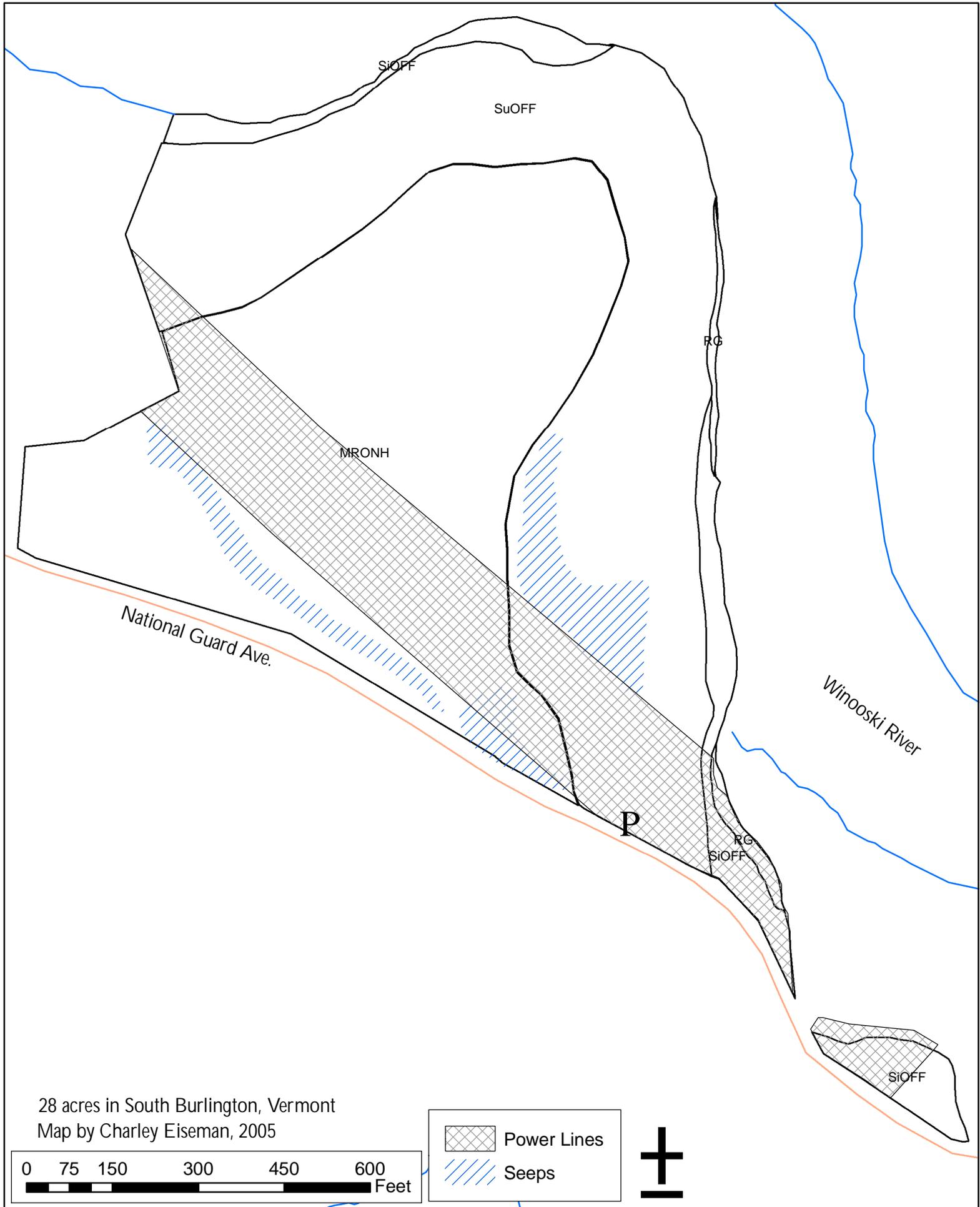
Muddy Brook - Current Cover



28 acres in South Burlington, Vermont
Map by Charley Eiseman, 2005

Muddy Brook - Natural Communities

Potential vegetation if left undisturbed



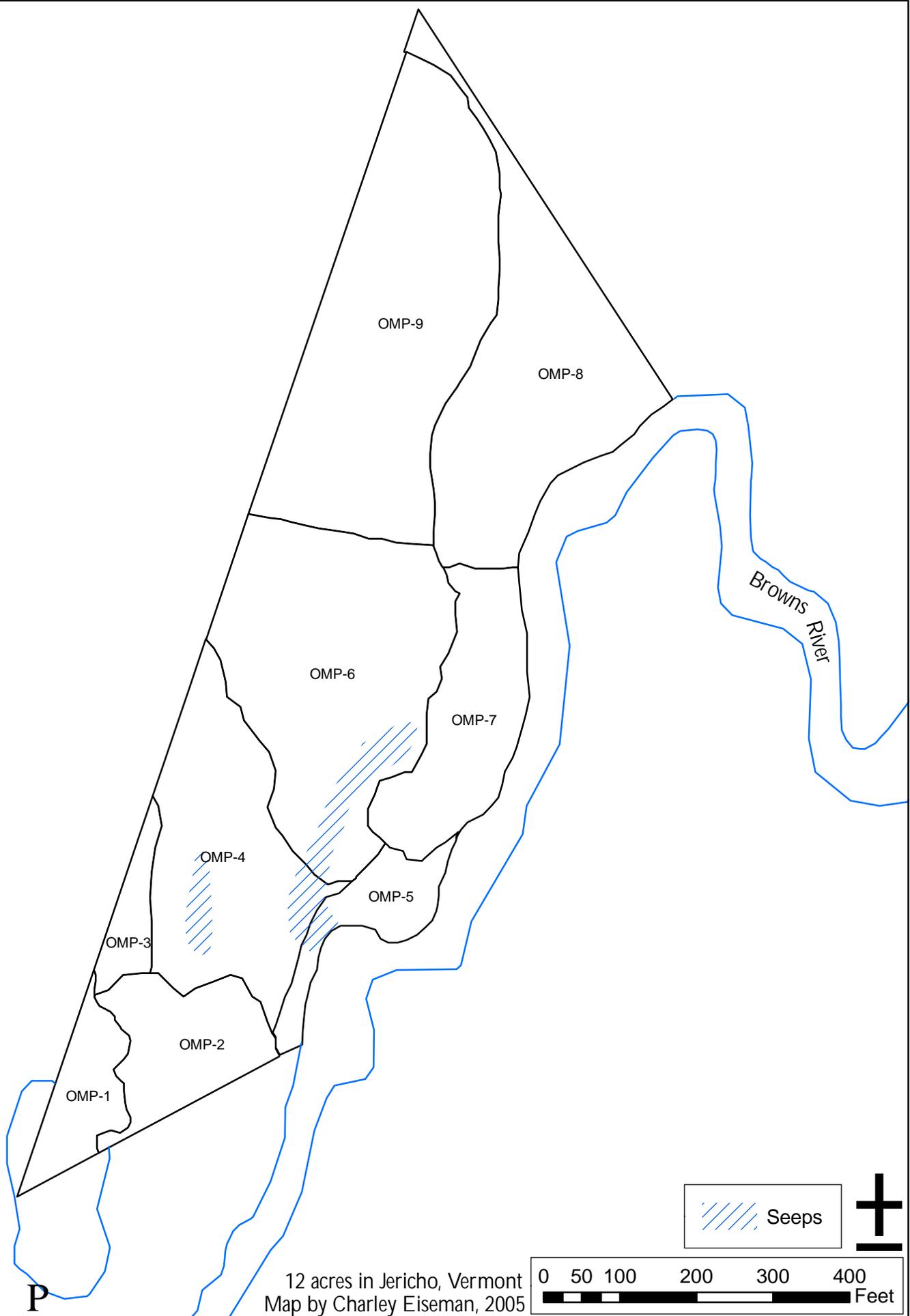
28 acres in South Burlington, Vermont
Map by Charley Eiseman, 2005

0 75 150 300 450 600 Feet

	Power Lines
	Seeps



Old Mill Park - Current Cover

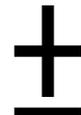
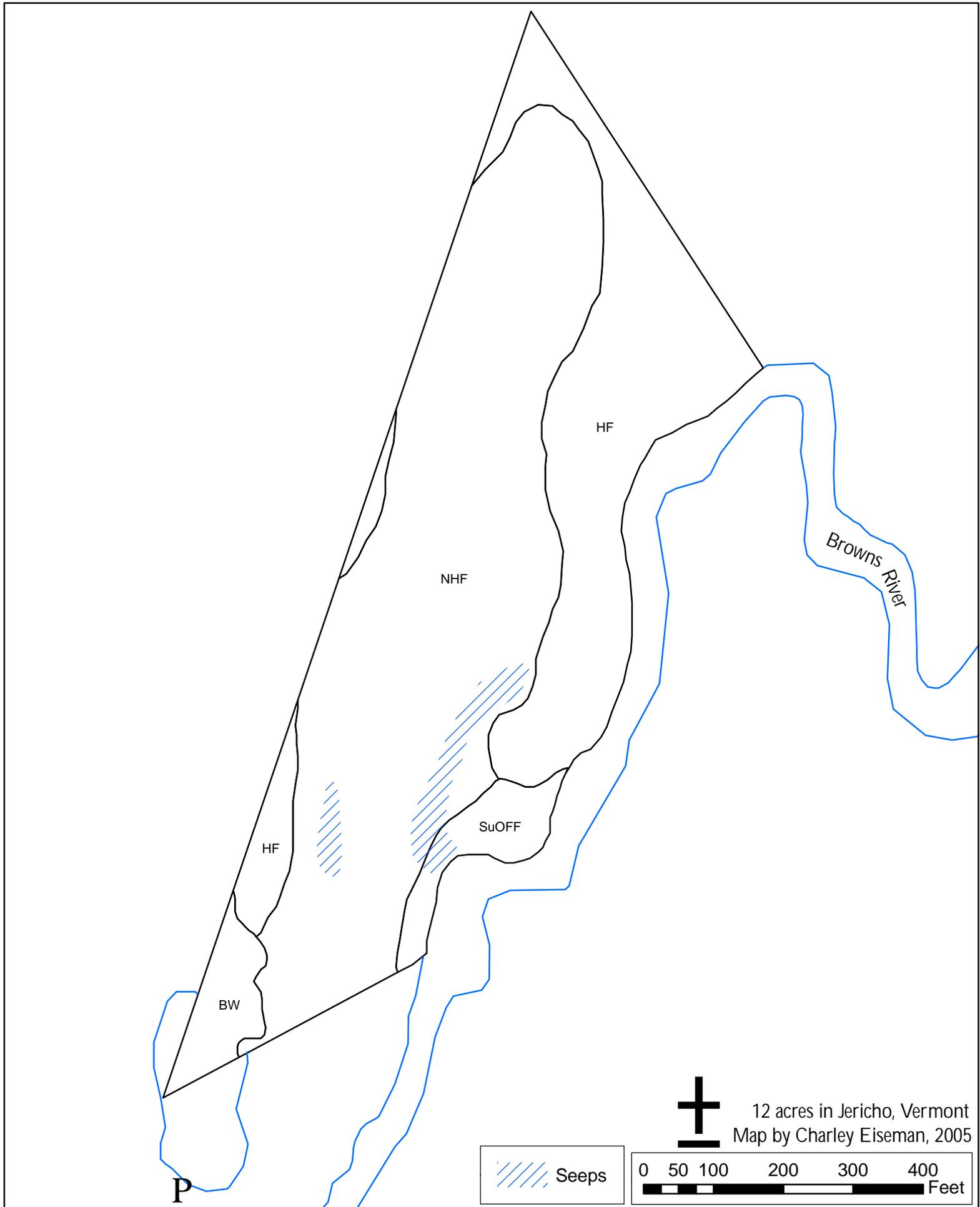


12 acres in Jericho, Vermont
Map by Charley Eiseman, 2005

0 50 100 200 300 400 Feet

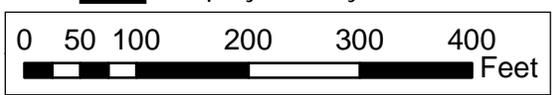
Old Mill Park - Natural Communities

Potential vegetation if left undisturbed

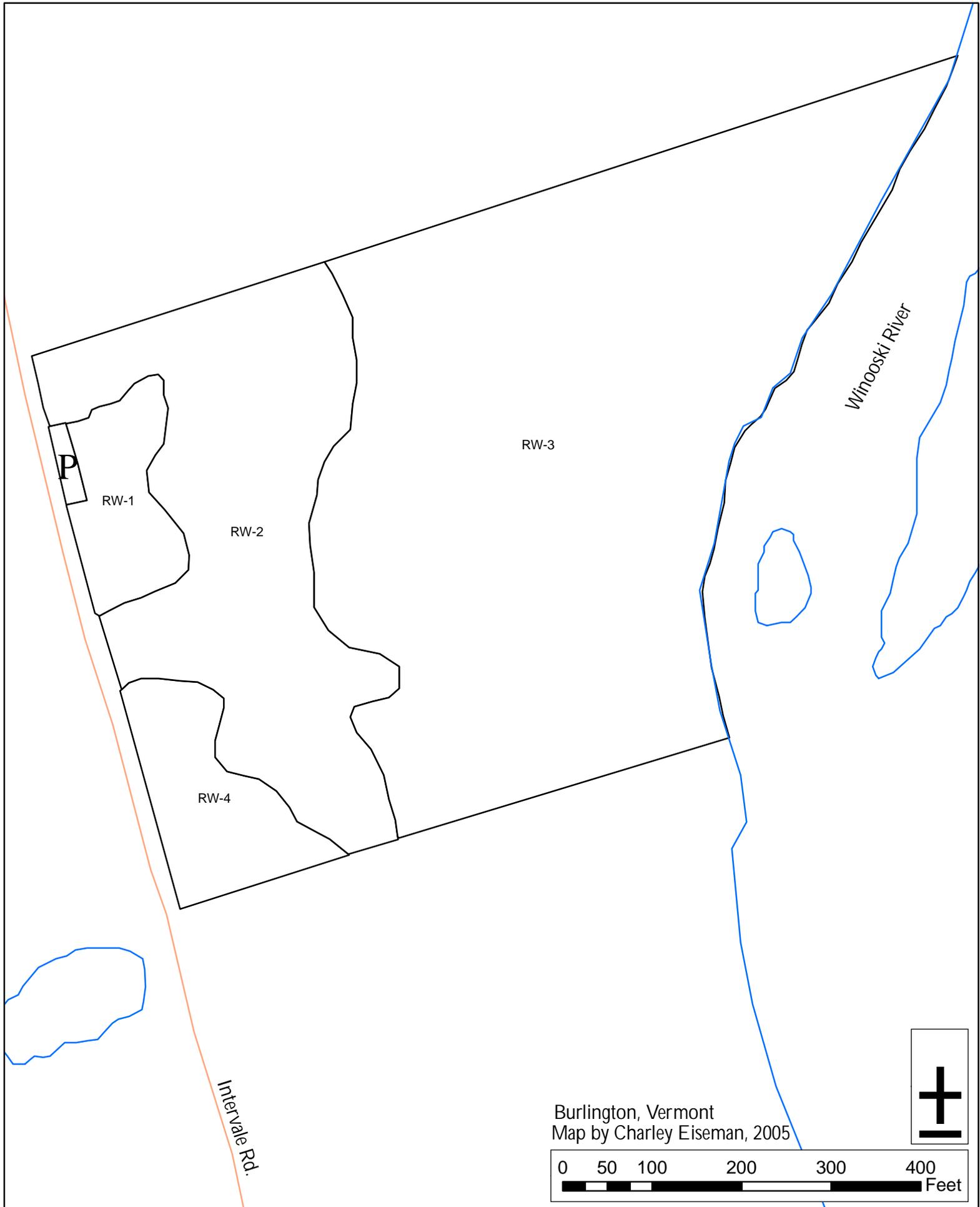


12 acres in Jericho, Vermont
Map by Charley Eiseman, 2005

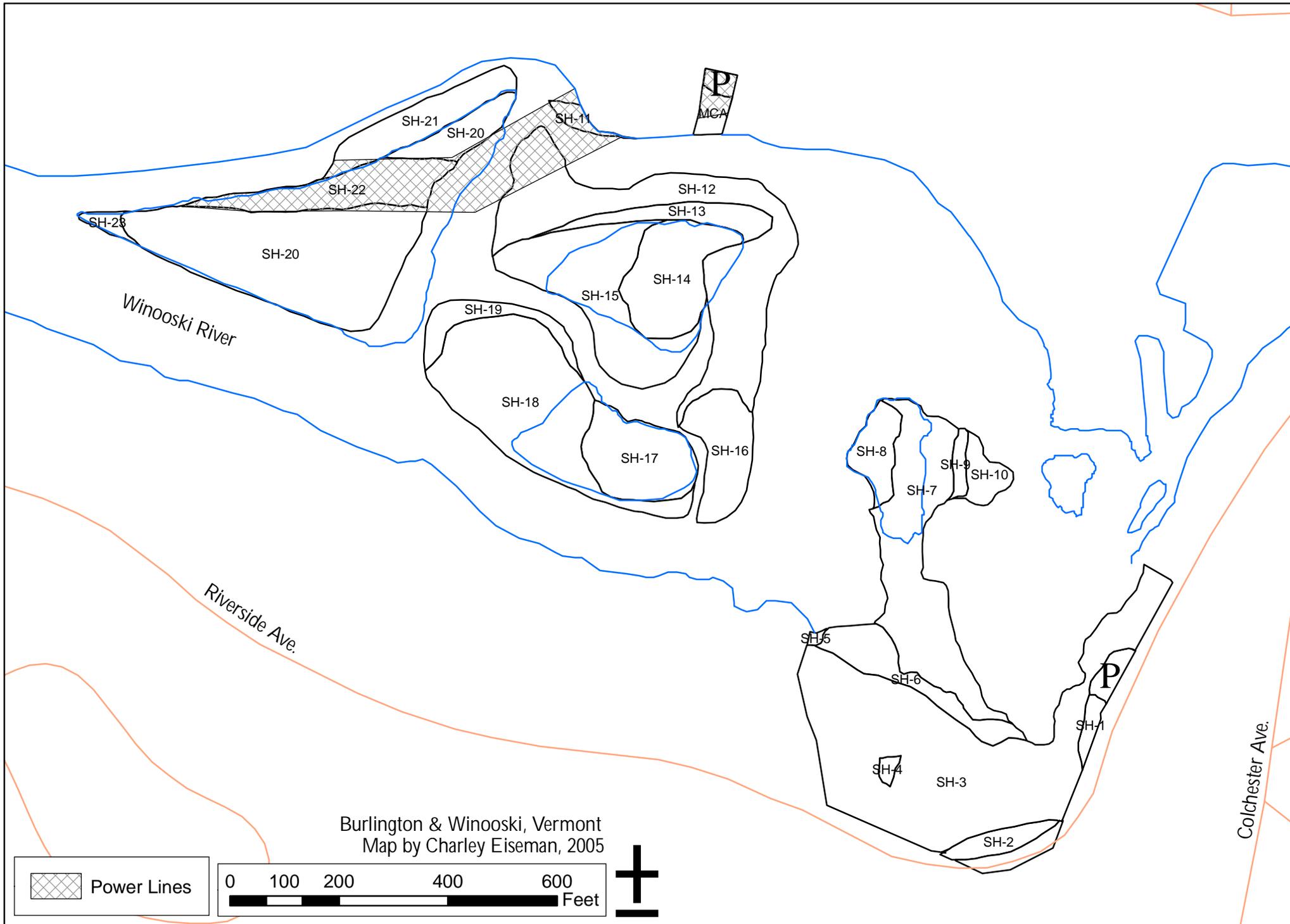
Seeps



Riverwalk - Current Cover



Salmon Hole Park - Current Cover



Burlington & Winooski, Vermont
Map by Charley Eiseman, 2005

 Power Lines

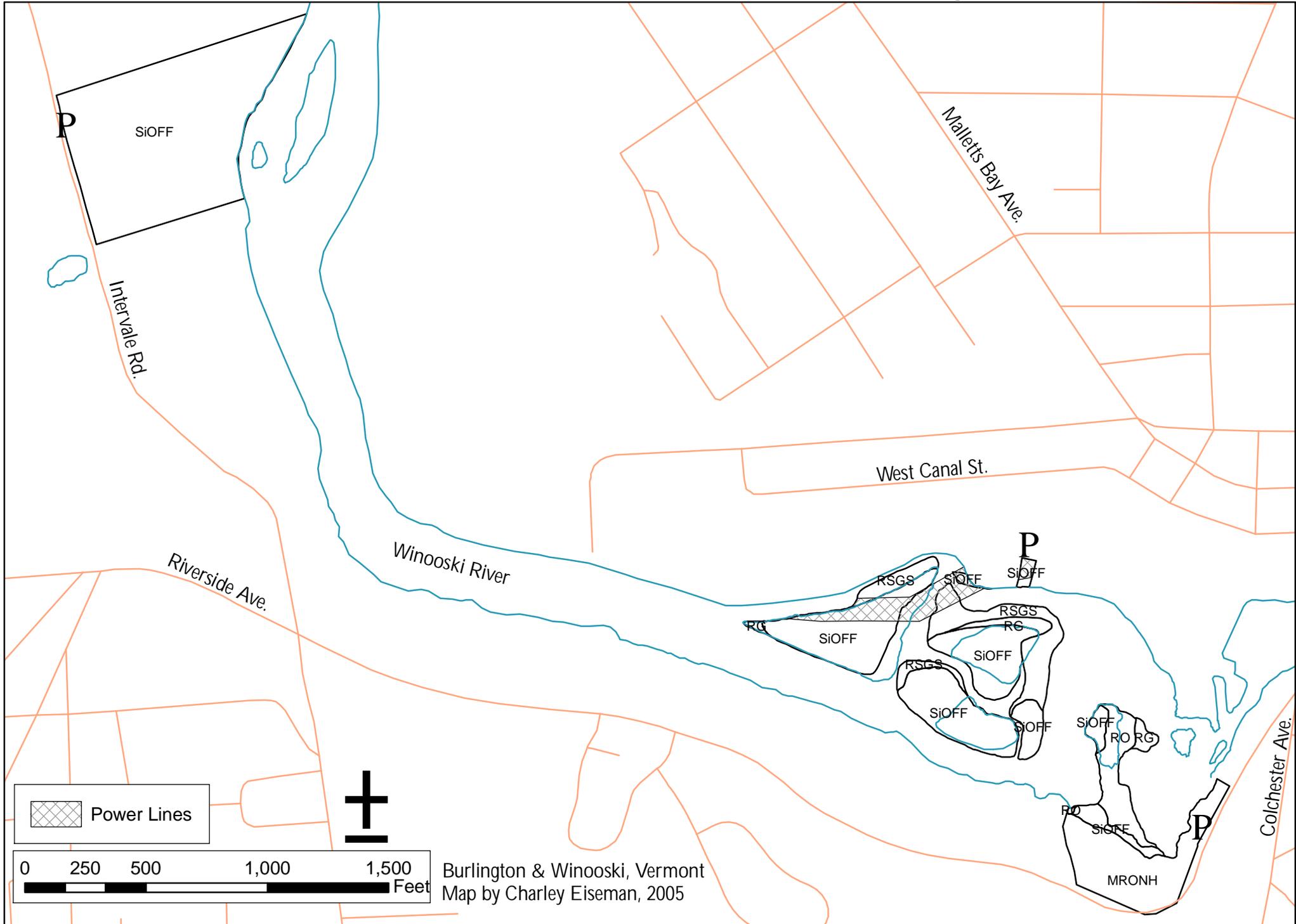
0 100 200 400 600
Feet



Colchester Ave.

Riverwalk & Salmon Hole Park - Natural Communities

Potential vegetation if left undisturbed

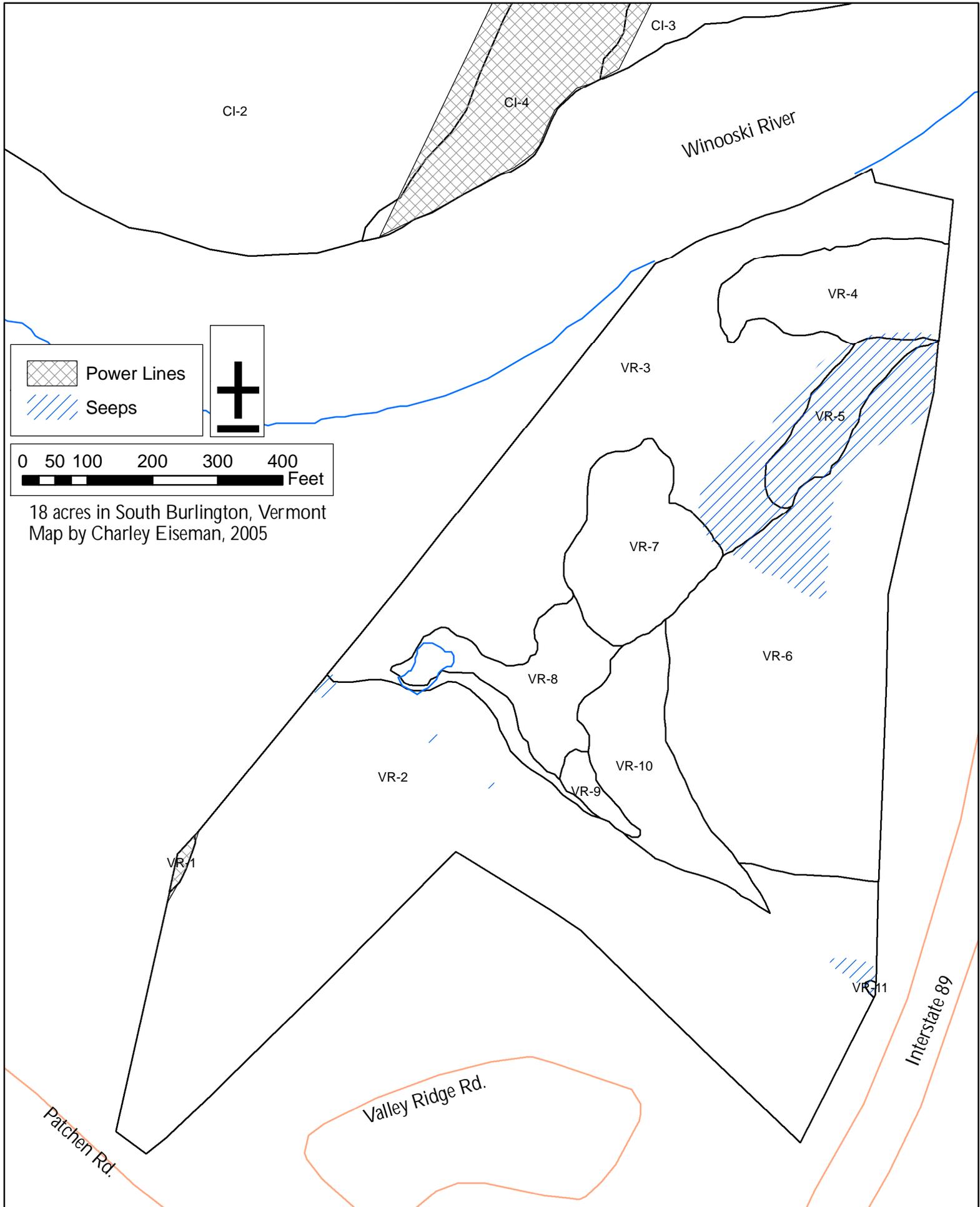


 Power Lines

0 250 500 1,000 1,500 Feet

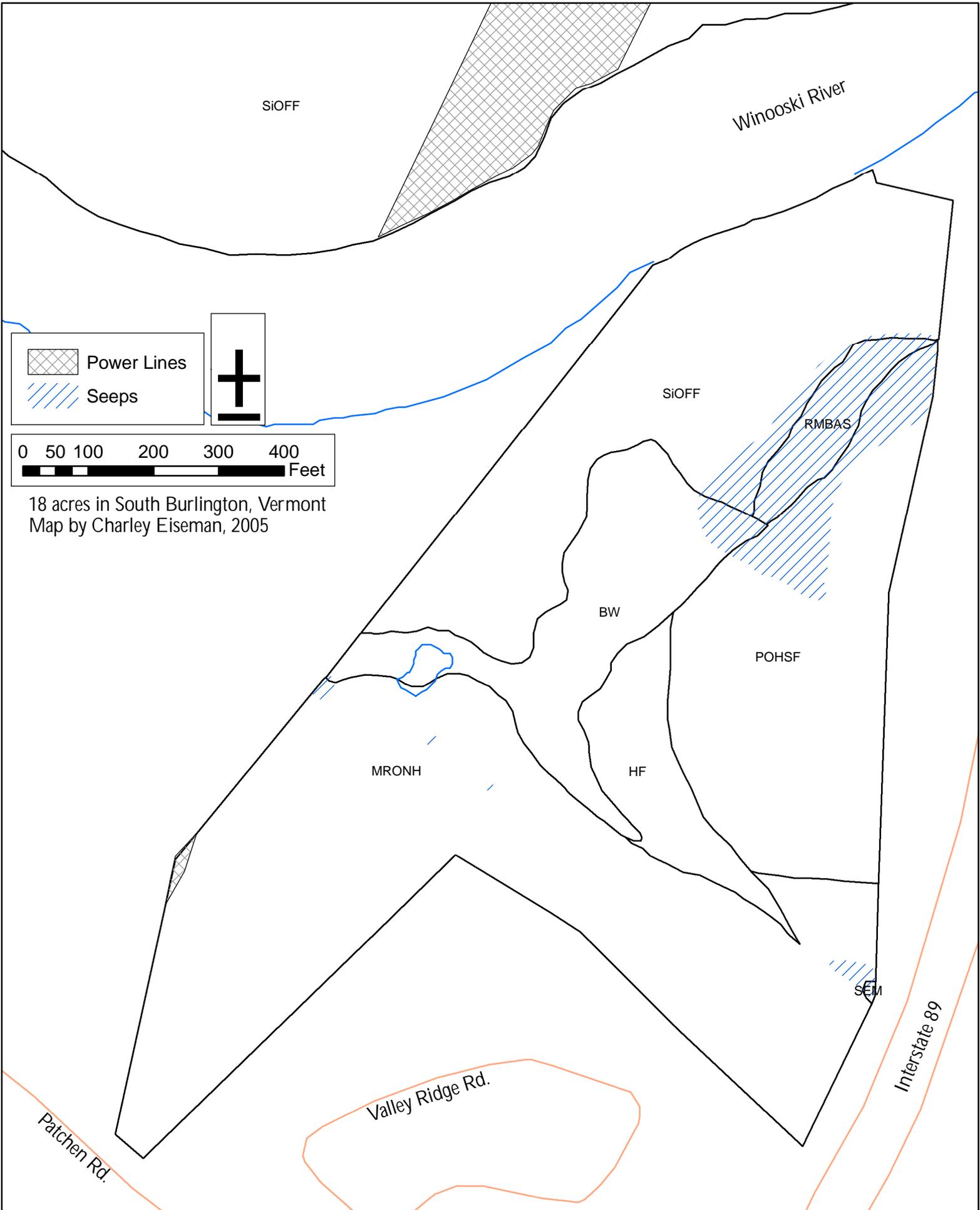
Burlington & Winooski, Vermont
Map by Charley Eiseman, 2005

Valley Ridge - Current Cover



Valley Ridge - Natural Communities

Potential vegetation if left undisturbed



SiOFF

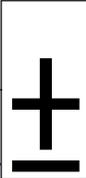
Winooski River



Power Lines



Seeps



0 50 100 200 300 400 Feet

18 acres in South Burlington, Vermont
Map by Charley Eiseman, 2005

SiOFF

RMBAS

BW

POHSF

MRONH

HF

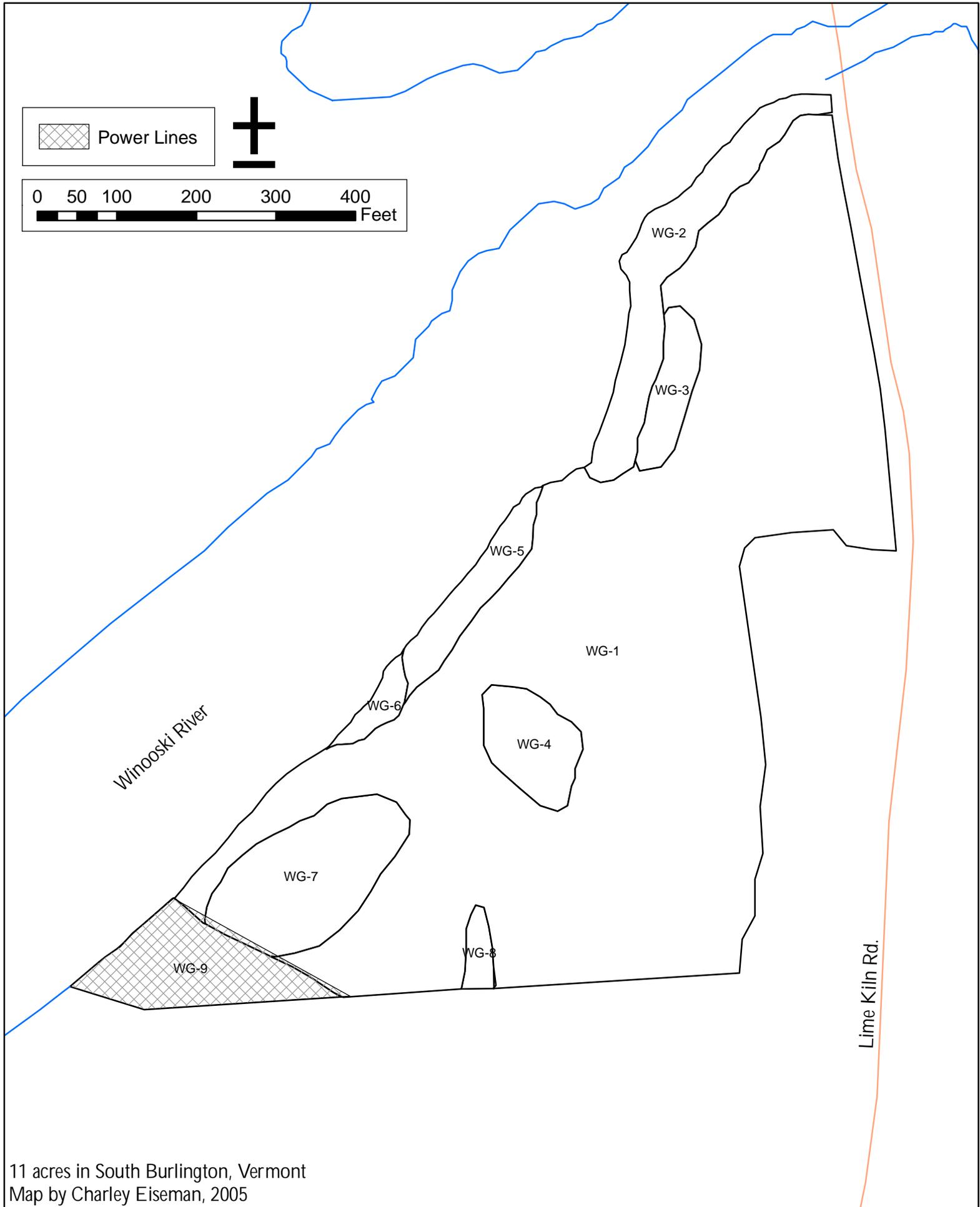
SEM

Patchen Rd.

Valley Ridge Rd.

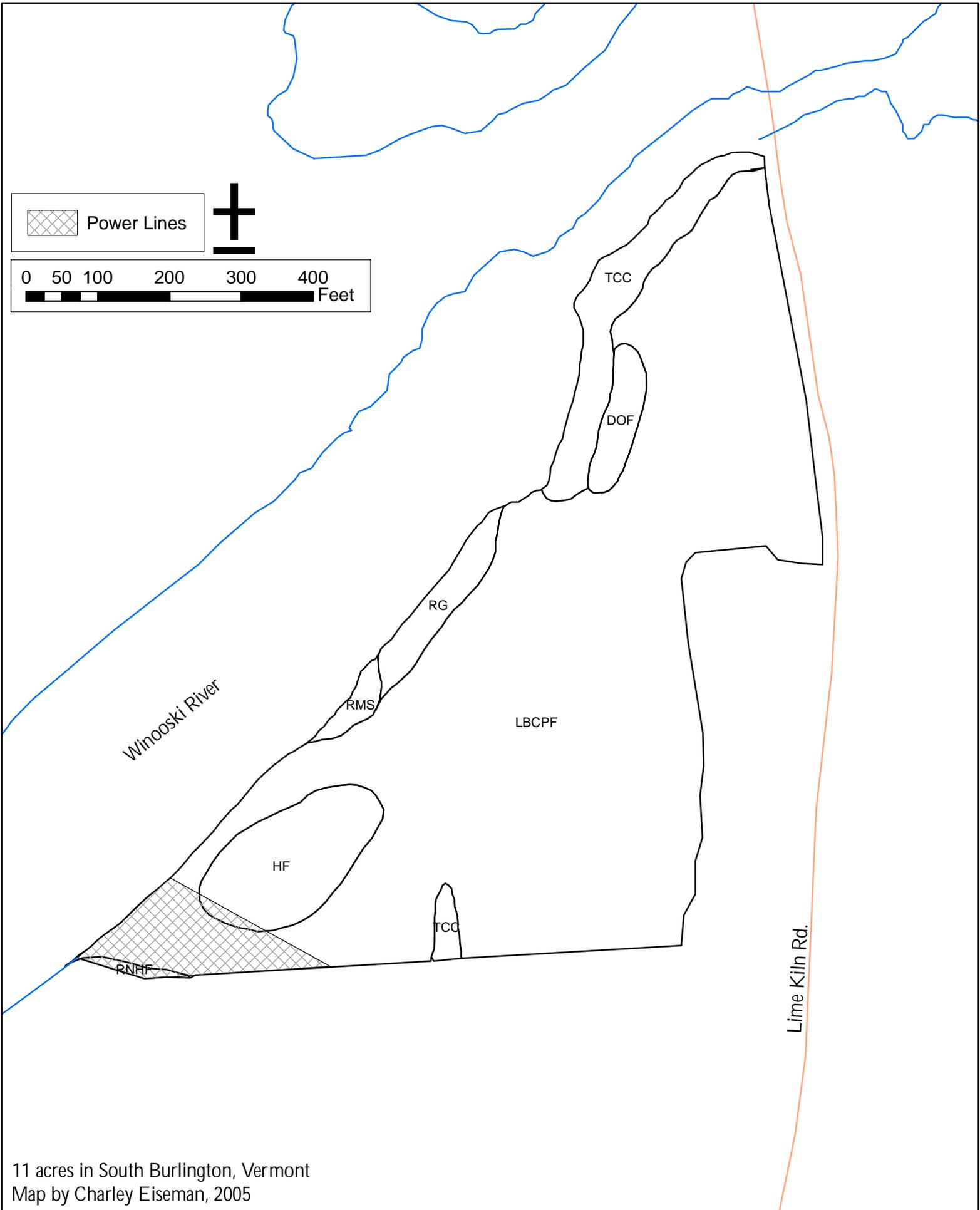
Interstate 89

Winooski Gorge - Current Cover

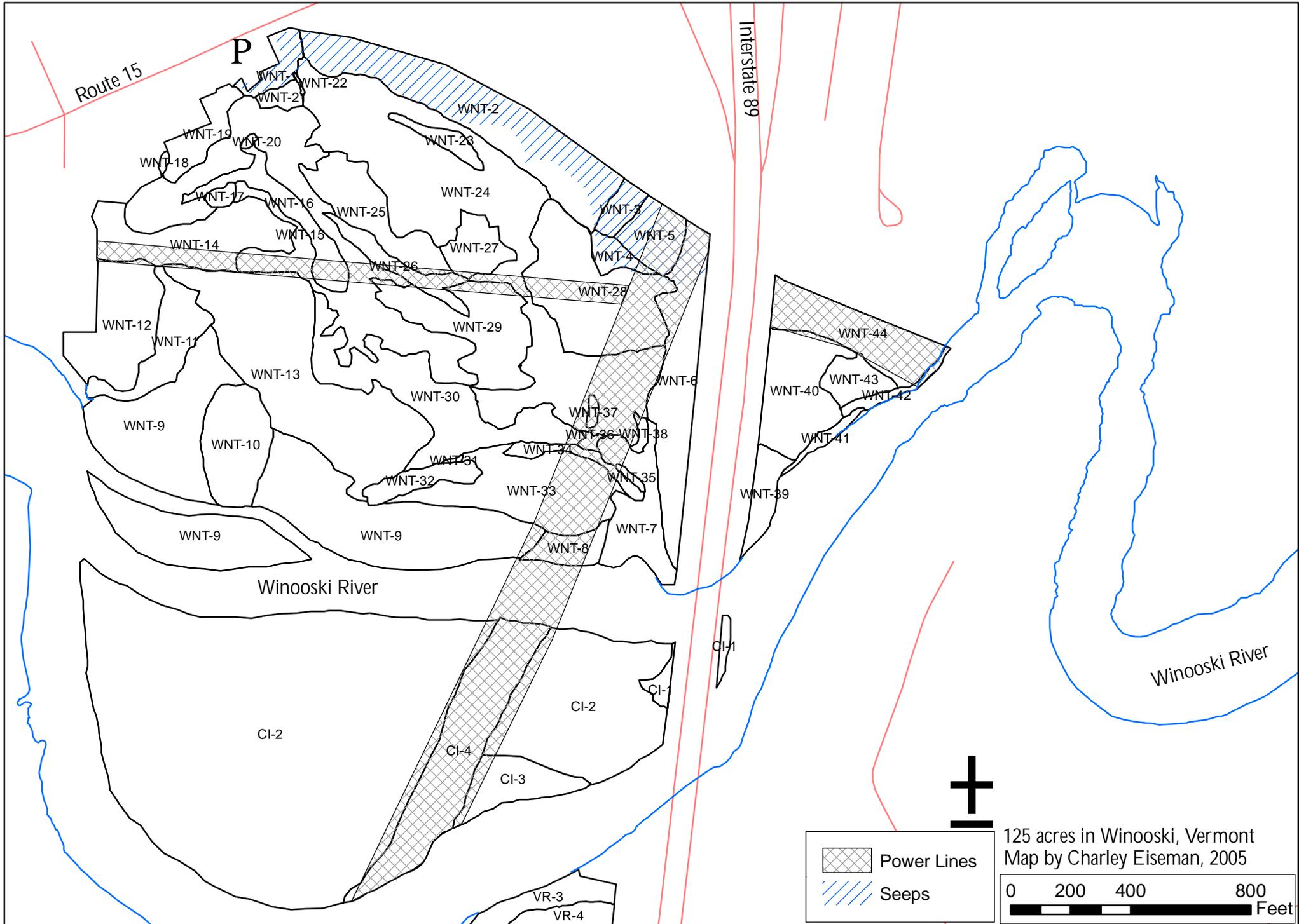


Winooski Gorge - Natural Communities

Potential vegetation if left undisturbed

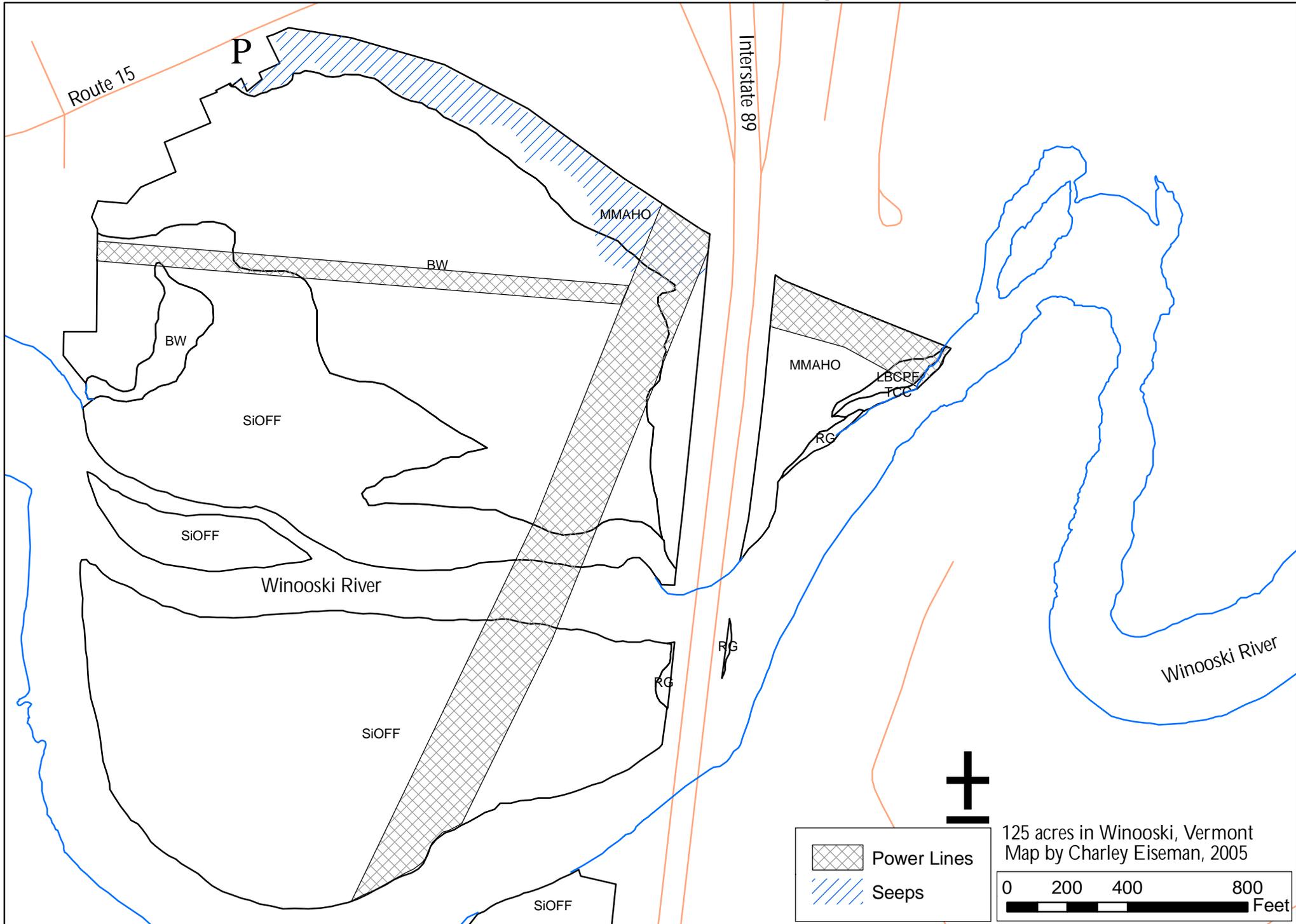


Winooski Nature Trail - Current Cover



Winooski Nature Trail - Natural Communities

Potential vegetation if left undisturbed



COLCHESTER POND NATURAL AREA

CP-1	Field	CP-59	Oak-Hardwoods
CP-2	Early Successional	CP-60	Northern Hardwoods
CP-3	Shrub and Sapling Thicket	CP-61	Oak-Hardwoods
CP-4	Field	CP-62	Talus Woodland
CP-5	Shrub and Sapling Thicket	CP-63	Cliff
CP-6	Shrub and Sapling Thicket	CP-64	White Pine-Oak
CP-7	Early Successional	CP-65	Rock Outcrop
CP-8	White Pine-Hemlock-Hardwoods	CP-66	Rock Outcrop
CP-9	White Pine-Oak-Hardwoods	CP-67	Rock Outcrop
CP-10	Early Successional Hardwoods-White Pine	CP-68	Rock Outcrop
CP-11	White Pine	CP-69	Northern Hardwoods
CP-12	White Pine	CP-70	Oak-Hardwoods
CP-13	Early Successional	CP-71	Mixed Oak
CP-14	Oak-Hardwoods	CP-72	Northern Hardwoods
CP-15	Early Successional Hardwoods-White Pine	CP-73	Red Oak-Northern Hardwoods
CP-16	White Pine	CP-74	White Pine-Oak-Hardwoods
CP-17	Early Successional	CP-75	White Pine-Oak-Hardwoods
CP-18	Early Successional Hardwoods-White Pine	CP-76	Early Successional Hardwoods
CP-19	White Pine-Hemlock-Hardwoods	CP-77	Oak-Hardwoods
CP-20	White Pine-Oak-Hardwoods	CP-78	White Pine-Hemlock-Hardwoods
CP-21	Oak-Hardwoods	CP-79	White Pine
CP-22	White Pine-Oak-Hardwoods	CP-80	Oak-Hardwoods-Hemlock
CP-23	Marsh	CP-81	Beaver Meadow
CP-24	Alder	CP-82	Pond
CP-25	Oak-Hardwoods-Hemlock	CP-83	White Pine
CP-26	Red Oak-Northern Hardwoods	CP-84	Beaver Meadow
CP-27	Oak-Hardwoods-Hemlock	CP-85	Oak-Hardwoods
CP-28	Oak-Hardwoods	CP-86	White Pine-Oak
CP-29	Oak-Hardwoods	CP-87	Oak-Hardwoods
CP-30	Oak-Hardwoods	CP-88	Oak-Hardwoods-Hemlock
CP-31	White Pine-Oak-Hardwoods	CP-89	White Pine-Oak
CP-32	White Pine-Oak	CP-90	Hardwood Swamp
CP-33	Oak-Hardwoods	CP-91	Beaver Meadow
CP-34	Oak-Hardwoods-Hemlock	CP-92	Pond
CP-35	Oak-Hardwoods-Hemlock	CP-93	White Pine-Hemlock-Hardwoods
CP-36	Red Oak-Northern Hardwoods	CP-94	White Pine-Oak
CP-37	Oak-Hardwoods	CP-95	Red Oak-Northern Hardwoods
CP-38	White Pine-Oak-Hardwoods	CP-96	White Pine-Oak-Hardwoods
CP-39	White Pine-Oak	CP-97	White Pine-Northern Hardwoods
CP-40	White Pine-Hemlock-Hardwoods	CP-98	Early Successional Hardwoods-White Pine
CP-41	Northern Hardwoods	CP-99	Field
CP-42	Oak-Hardwoods-Hemlock	CP-100	Shrub and Sapling Thicket
CP-43	White Pine-Oak-Hardwoods	CP-101	Alder
CP-44	Beaver Meadow	CP-102	White Pine
CP-45	Pond	CP-103	Cattail Marsh
CP-46	Pond	CP-104	Early Successional
CP-47	Pond	CP-105	Field
CP-48	Pond	CP-106	Shrub and Sapling Thicket
CP-49	Pond	CP-107	Oak-Hardwoods
CP-50	Northern Hardwoods	CP-108	Early Successional Hardwoods
CP-51	Beaver Meadow	CP-109	Field
CP-52	Pond	CP-110	Shrub and Sapling Thicket
CP-53	Beaver Meadow	CP-111	Early Successional
CP-54	Pond	CP-112	Pond
CP-55	White Pine-Oak	CP-113	Alder
CP-56	White Pine-Oak	CP-114	Early Successional & White Pine
CP-57	Beaver Meadow	CP-115	Cattail Marsh
CP-58	Northern Hardwoods	CP-116	Pond

DELTA PARK

DP-1	Lawn	DP-7	Sandy Shore
DP-2	Early Successional	DP-8	Muddy Shore
DP-3	Muddy Shore	DP-9	Marsh
DP-4	Floodplain Forest	DP-10	Cattail Marsh
DP-5	Buttonbush	DP-11	Pond
DP-6	Marsh		

MAYES LANDING

ML-1	Lawn	ML-2	Cattail Marsh
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DERWAY ISLAND

DI-1	Floodplain Forest	DI-12	Grassy Shore
DI-2	Pond	DI-13	Early Successional
DI-3	Pond	DI-14	Grassy Shore
DI-4	Hardwood Swamp	DI-15	Pond
DI-5	Pond	DI-16	Buttonbush
DI-6	Pond	DI-17	Pond
DI-7	Grassy Shore	DI-18	Grassy Shore
DI-8	Early Successional	DI-19	Cattail Marsh
DI-9	Early Successional	DI-20	Grassy Shore
DI-10	Grassy Shore	DI-21	Pond
DI-11	Marsh		

DONOHUE SEA CAVES

DSC-1	Lawn	DSC-5	Pond
DSC-2	Early Successional	DSC-6	Boxelder-Cottonwood-Willow
DSC-3	Cattail Marsh	DSC-7	Early Successional
DSC-4	Marsh	DSC-8	Marsh

ESSEX OVERLOOK PARK

EO-1	Black Locust	EO-5	Pitch Pine-Oak
EO-2	Early Successional	EO-6	Lawn
EO-3	Lawn	EO-7	Oak-Hardwoods
EO-4	Lawn		

WOODSIDE PARK

WP-1	Boxelder-Cottonwood-Willow	WP-6	Northern Hardwoods
WP-2	Early Successional Hardwoods	WP-7	Oak-Hardwoods
WP-3	Beaver Meadow, Cattail Marsh, Pond	WP-8	Hardwood Swamp
WP-4	Lawn	WP-9	Red Oak-Northern Hardwoods
WP-5	Boxelder-Cottonwood-Willow		

ETHAN ALLEN HOMESTEAD PARK

EAH-1	Field	EAH-28	Marsh
EAH-2	Early Successional	EAH-29	Reed Canary Grass
EAH-3	Floodplain Forest	EAH-30	Floodplain Forest
EAH-4	Muddy Shore	EAH-31	Early Successional
EAH-5	Early Successional & Muddy Shore	EAH-32	Cultivated
EAH-6	Floodplain Forest	EAH-33	Floodplain Forest
EAH-7	Early Successional	EAH-34	Field
EAH-8	Floodplain Forest	EAH-35	Early Successional
EAH-9	Pond	EAH-36	Early Successional
EAH-10	Field	EAH-37	Cattail Marsh
EAH-11	Early Successional	EAH-38	Cattail Marsh
EAH-12	Pond	EAH-39	Hardwood Swamp
EAH-13	Floodplain Forest	EAH-40	Floodplain Forest
EAH-14	Early Successional	EAH-41	Pond
EAH-15	Early Successional	EAH-42	Pond
EAH-16	Lawn	EAH-43	Pond
EAH-17	Early Successional Hardwoods	EAH-44	Floodplain Forest
EAH-18	Early Successional	EAH-45	Reed Canary Grass
EAH-19	Lawn	EAH-46	Marsh
EAH-20	Field	EAH-47	Cattail Marsh
EAH-21	White Pine	EAH-48	Pond
EAH-22	Lawn	EAH-49	Buttonbush
EAH-23	Field	EAH-50	Cattail Marsh
EAH-24	Field	EAH-51	Pond
EAH-25	Pond	EAH-52	Pond
EAH-26	Red Oak-Northern Hardwoods	EAH-53	Reed Canary Grass
EAH-27	Hardwood Swamp		

MACRAE FARM PARK

MF-1	Early Successional	MF-20	Field
MF-2	Marsh	MF-21	Floodplain Forest
MF-3	Floodplain Forest	MF-22	Reed Canary Grass
MF-4	Pond	MF-23	Hardwood Swamp
MF-5	Marsh	MF-24	Marsh
MF-6	Floodplain Forest	MF-25	Reed Canary Grass
MF-7	Pond	MF-26	Marsh
MF-8	Pond	MF-27	Early Successional
MF-9	Pond	MF-28	Early Successional
MF-10	Floodplain Forest	MF-29	White Pine-Oak-Hardwoods
MF-11	Field	MF-30	Red Pine
MF-12	Floodplain Forest	MF-31	Red Pine
MF-13	Floodplain Forest	MF-32	Oak-Hardwoods
MF-14	Field	MF-33	Hardwood Swamp
MF-15	Pond	MF-34	Hemlock-Northern Hardwoods-White Pine
MF-16	Floodplain Forest	MF-35	Hardwood Swamp
MF-17	Field	MF-36	Pond
MF-18	Floodplain Forest	MF-37	Beaver Meadow
MF-19	Early Successional	MF-38	Oak-Hardwoods

HEINEBURG WETLANDS

HW-1	Early Successional	HW-8	Alder
HW-2	Floodplain Forest	HW-9	Buttonbush
HW-3	Pond	HW-10	Cattail Marsh
HW-4	Grassy Shore	HW-11	Early Successional Hardwoods
HW-5	Hardwood Swamp	HW-12	Hardwood Swamp
HW-6	Early Successional	HW-13	Pond
HW-7	Floodplain Forest	HW-14	Pond

MUDDY BROOK PARK

MB-1	Boxelder-Cottonwood-Willow	MB-10	Boxelder-Cottonwood-Willow
MB-2	Lawn	MB-11	Northern Hardwoods
MB-3	Grassy Shore	MB-12	Early Successional
MB-4	Early Successional	MB-13	Early Successional
MB-5	Early Successional Hardwoods	MB-14	Lawn
MB-6	Floodplain Forest	MB-15	Red Oak-Northern Hardwoods
MB-7	Grassy Shore	MB-16	Early Successional Hardwoods
MB-8	Red Oak-Northern Hardwoods	MB-17	Cultivated
MB-9	Field		

OLD MILL PARK

OMP-1	Beaver Meadow	OMP-6	White Pine-Northern Hardwoods
OMP-2	White Pine	OMP-7	Hemlock-Northern Hardwoods-White Pine
OMP-3	Hemlock-Northern Hardwoods-White Pine	OMP-8	Hemlock-Northern Hardwoods-White Pine
OMP-4	Northern Hardwoods	OMP-9	White Pine
OMP-5	Early Successional Hardwoods		

RIVERWALK

RW-1	Field	RW-3	Floodplain Forest
RW-2	Early Successional	RW-4	Field

SALMON HOLE PARK & MILLYARD CANOE ACCESS

SH-1	Lawn	SH-13	Grassy Shore
SH-2	Lawn	SH-14	Boxelder-Cottonwood-Willow
SH-3	Early Successional Hardwoods	SH-15	Early Successional
SH-4	Lawn	SH-16	Early Successional
SH-5	Rock Outcrop	SH-17	Boxelder-Cottonwood-Willow
SH-6	Boxelder-Cottonwood-Willow	SH-18	Early Successional
SH-7	Rock Outcrop	SH-19	Sandy Shore
SH-8	Shrub and Sapling Thicket	SH-20	Floodplain Forest
SH-9	Shrub and Sapling Thicket	SH-21	Sandy Shore
SH-10	Grassy Shore	SH-22	Early Successional
SH-11	Early Successional	SH-23	Grassy Shore
SH-12	Gravel Shore	MCA	Shrub and Sapling Thicket

VALLEY RIDGE

VR-1	Early Successional	VR-7	Phragmites
VR-2	Red Oak-Northern Hardwoods	VR-8	Beaver Meadow
VR-3	Shrub and Sapling Thicket	VR-9	Phragmites
VR-4	Floodplain Forest	VR-10	Oak-Hardwoods-Hemlock
VR-5	Hardwood Swamp	VR-11	Marsh
VR-6	Oak-Hardwoods		

WINOOSKI GORGE

WG-1	Early Successional Hardwoods-Cedar	WG-6	Muddy Shore
WG-2	Cliff	WG-7	White Pine-Hemlock-Hardwoods
WG-3	Oak-Hardwoods	WG-8	Cliff
WG-4	Early Successional	WG-9	Early Successional
WG-5	Grassy Shore		

WINOOSKI NATURE TRAIL & CATLIN ISLAND

WNT-1	Boxelder-Cottonwood-Willow	WNT-25	Shrub and Sapling Thicket
WNT-2	Early Successional Hardwoods	WNT-26	Cattail Marsh
WNT-3	Early Successional	WNT-27	Hardwood Swamp
WNT-4	Boxelder-Cottonwood-Willow	WNT-28	Phragmites
WNT-5	Red Oak-Northern Hardwoods	WNT-29	Shrub and Sapling Thicket
WNT-6	Early Successional Hardwoods	WNT-30	Shrub and Sapling Thicket
WNT-7	Early Successional	WNT-31	Phragmites
WNT-8	Early Successional	WNT-32	Pond
WNT-9	Floodplain Forest	WNT-33	Reed Canary Grass
WNT-10	Early Successional	WNT-34	Cattail Marsh
WNT-11	Pond	WNT-35	Pond
WNT-12	Early Successional	WNT-36	Reed Canary Grass
WNT-13	Boxelder-Cottonwood-Willow	WNT-37	Pond
WNT-14	Early Successional	WNT-38	Pond
WNT-15	Reed Canary Grass	WNT-39	Early Successional Hardwoods
WNT-16	Cattail Marsh	WNT-40	Oak-Hardwoods
WNT-17	Phragmites	WNT-41	Grassy Shore
WNT-18	Phragmites	WNT-42	Cliff
WNT-19	Cattail Marsh	WNT-43	White Pine-Oak
WNT-20	Shrub and Sapling Thicket	WNT-44	Early Successional
WNT-21	Hardwood Swamp	CI-1	Grassy Shore
WNT-22	Pond	CI-2	Floodplain Forest
WNT-23	Pond	CI-3	Early Successional & Floodplain Forest
WNT-24	Cattail Marsh	CI-4	Early Successional

CODES USED IN THE BLACK-AND-WHITE NATURAL COMMUNITY MAPS

AS	Alder Swamp
BS	Buttonbush Swamp
BW	Beaver Wetland
CM	Cattail Marsh
DBM	Deep Bulrush Marsh
DOF	Dry Oak Forest
DOHFF	Dry Oak-Hickory-Hophornbeam Forest
HF	Hemlock Forest
LBCPF	Limestone Bluff Cedar-Pine Forest
LFF	Lakeside Floodplain Forest
LSB	Lake Sand Beach
MMAHO	Mesic Maple-Ash-Hickory-Oak Forest
MRONH	Mesic Red Oak-Northern Hardwood Forest
NHF	Northern Hardwood Forest
NHTW	Northern Hardwood Talus Woodland
POHSF	Pine-Oak-Heath Sandplain Forest
POND	Pond
RG	Rivershore Grassland
RO	Riverside Outcrop
RMBAS	Red Maple-Black Ash Swamp
RMS	River Mud Shore
RNHF	Rich Northern Hardwood Forest
RSGS	River Sand or Gravel Shore
SEM	Shallow Emergent Marsh
SiOFF	Silver Maple-Ostrich Fern Riverine Floodplain Forest
SiSFF	Silver Maple-Sensitive Fern Riverine Floodplain Forest
SMGAS	Red or Silver Maple-Green Ash Swamp
SuOFF	Sugar Maple-Ostrich Fern Riverine Floodplain Forest
TAC	Temperate Acidic Cliff
TAO	Temperate Acidic Outcrop
TCC	Temperate Calcareous Cliff