Stewardship & Management Plan
Acknowledgements. This Plan has been prepared by the Land Conservation – Stewardship committee of the Huyck Preserve Board of Directors: Tom Lyons, Bill Logan, Anne Rhoads, Will Eldridge, Rebecca Platel. Preparation of this plan would not have been possible without the assistance of many individuals including members of the Board of Directors for the Huyck Preserve and the Scientific Advisory Committee (SAC), staff of the Huyck Preserve under the leadership of Dawn O’Neal Ph.D Director of the Preserve, in particular Adam Caprio, Dennis Hostash, Emileigh Tanner, Christina McLaughlin, Carolyn Barker and Leah Waldron, Linda London, consultant to the Land Trust Alliance, Mark King Director of the Mohawk Hudson Land Trust, Seth McKee of Scenic Hudson, Susan Antenon of Rockefeller State Park Preserve, staff of the Environmental Management Bureau in the NYS Office of Parks, Recreation and Historic Preservation, Erik Kiviat, Gretchen Stevens, Laura Heady and Steve Posner of Hudsonia, Dr. George Robinson, member of the Huyck Preserve SAC and professor at SUNY Albany, Gareth Crawford and Carey center and Ginny Carter coordinator of Com.En.Art and past member of the Board of Director of Huyck Preserve, Dan Driscoll former chair of the Huyck Preserve Conservation Committee and the NYS DEC Hudson River Estuary Program. The input and interest of these and other persons are gratefully acknowledged and appreciated.

This plan was adopted by the Huyck Board of Directors at its April 16, 2016 meeting.
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Appendix A: Guidance from Strategic Plan re: Conservation (pages 7 and 8)
Executive Summary

This Stewardship and management plan for the Huyck Preserve is based on a set of goals found in the Preserve’s mission, vision and guidance within its Strategic Plan. The Preserve’s mission is to preserve the natural beauty of the Rensselaerville Falls, the watershed of Lake Myosotis and surrounding lands, to conduct long-term research on natural systems… and to appreciate this effort through innovative, field-based educational programs for students, teachers and the community. The Preserve strives to be a nationally recognized organization committed to long-term protection of the Earth’s regional and global biodiversity. The Strategic Plan directs the Preserve’s Board of Directors to prepare this Stewardship Plan through the Preserve’s Land Conservation – Stewardship committee and the Scientific Advisory Committee.

Preserve and Biological Research Station

Edmund Huyck’s wife, Jessie Van Antwerp, established the Preserve in 1931. In 1938, in cooperation with Cornell University, the Preserve Board established the Preserve as a Biological Research Station.

Location, Size and Legal Description

The Preserve is located in the Town of Rensselaerville, Albany County, New York. Its size is approximately 2055 acres consisting of 27 parcels. Most of the Preserve land is situated above the Rensselaerville Falls.

Governance and Staffing

A 15 to 21 member Board of Directors governs the Preserve. There are 4 full time staff and 2 part-time permanent staff who oversee day-to-day operations of the Preserve. In addition to Preserve staff, the Biological Research Station is used by education programs and researchers. The Preserve also provides grants programs for interns. Summer education programs allow for short term independent research by high school students.

Infrastructure and Capital Needs

The Preserve has 7 developed areas in the vicinity of the Falls and the two lakes. Capital needs are assessed on an annual basis and addressed as funds allow.

Land Trust and Conservation Easements

The Preserve is a land trust. It does not, however, hold any conservation easements. A conservation easement is a voluntary legal agreement between a landowner and a land trust or governmental agency that permanently limits uses of the land in order to protect its conservation value.

Public Water Supply

Lake Myosotis is a public water supply and its operation as such is through an agreement between the Town of Rensselaerville and the Preserve.
Habitat Types

The Preserve consists of 14 different habitat types. Most of the Preserve (70%) consists of three types of forest – Hardwoods, Conifers, and Mixed Forest.

Water Resources

The primary water resources are Myosotis Lake, Lincoln Pond and Tem Mile Creek. These resources together with wetlands provide for a diversity of habitat and species in the Preserve.

Plant and Animal Species Listings

There are 681 plant species listed within the Preserve 514 of which are native species. Ten of these plant species are listed as protected by the New York Heritage Program. There are 280 species of vertebrates in the Preserve 193 of which are birds. The Preserve has 7 known invasive species the primary species are Oriental Bittersweet and Japanese knotweed.

Preserve Uses

There are a variety of recreational uses including hiking, cross-country skiing, swimming, fishing, birding and natural photography. Several special events are run throughout the year. The Preserve has an extensive trail system that connects to the NYS owned Partridge Run in the north. Lake Myosotis is used as a public water supply. The Preserve has also been used as a biological research station since 1938. Education and outreach are a significant element with the mix of Preserve uses.

Management of Preserve land is essentially passive at this time. Invasive species can be removed manually. Also, the Preserve has established modest parking facilities allowing for trail access and special events. Monitoring of indices of habitat quality is performed and listing of species are updated on a periodic basis.

Conservation Targets

The core of this Stewardship Plan is the listing of the following conservation targets and action steps.

Native Species Protection

1. Update, through a scientific inventory, information native species especially endangered, threatened and species of special concern.
2. Conduct annual assessments of the state of native species in the Preserve.

Invasive Species

1. Develop an invasive species control plan.
2. Identify how volunteers can help in control efforts.
3. Convene a workshop on invasive species control.
4. Coordinate invasives control through partnerships such as PRISM and iMapInvasives.
5. Enhance knowledge of aquatic invasives and establish cleaning program for Preserve launch site.

Management Area Plans

Identify and map significant areas that are particularly sensitive to change and establish measures to assure their protection. Assure that corridors are identified and protected.

Water Quality

Obtain and prepare a report on the baseline information of Lake Myosotis and Lincoln Pond. Periodically conduct surveys to update information and determine if any significant shifts in water quality. Identify potential pollution sources and establish a program to manage these sources.

Forested Areas

1. Identify and map plantation areas and develop approaches to management of these areas.
2. Assess the impacts of deer through the deer exclosure program.
3. Address monitoring and control of forest pests such as emerald ash borer, and the hemlock wooly adelgid.

Climate Change

Work together with partners in monitoring programs. Continue and improve upon weather monitoring at the Preserve.

Scenic Areas

Conduct an inventory and map important scenic areas and access areas. Develop strategies to assure their protection.

Digital Archiving of Data

Assess current capabilities of the Preserve with respect to GIS spatial data management. Prepare a plan for archiving and management of data.

Nearby Protected Lands

Identify how the Preserve can improve connectivity with nearby protected lands.

Stewardship Implementation: People, Resources and Funding.

Implementation of this plan will require participation of Board Directors, Preserve Staff, the Scientific Advisory Committee, interns and volunteers. The Land Conservation committee will serve in the role of its overall implementation. Other committees of the Board however are critical to the implementation of this plan

Preserve staff will identify responsibilities for implementation amongst themselves.
An annual work plan will be prepared by the Land Conservation – Stewardship committee that outlines the actions steps for the upcoming year. The Preserve under the guidance from the Land Conservation Stewardship committee will conduct outreach to land owners especially those in the 10-mile creek watershed.
Introduction

This Stewardship & Management Plan provides concise overviews of all aspects of the Edmund Niles Huyck and Biological Research Station (The Preserve). The areas reviewed include buildings and grounds, education, and recreation. Its focus however is on the conservation of natural resources, threats to those resources and ways in which the threats can be, if not eliminated, then minimized. Stewardship implies a plan, which is based on desired goal or set of goals. The goals for this plan are found in the Preserve’s mission and vision statements and its Strategic Plan. Both the mission and vision are built upon the purpose of the Preserve identified in the 1931 Certificate of Incorporation.

Mission Statement

The mission of the Huyck Preserve is to preserve the natural beauty of the Rensselaerville Falls, the watershed of Lake Myosotis and surrounding lands, to conduct long-term research on natural systems as part of a global effort to understand and protect the Earth’s biodiversity, and to increase appreciation of this effort through innovative, field-based educational programs for students, teachers, and the community.

Vision Statement

The Huyck Preserve strives to be a nationally recognized organization committed to the long-term protection of the Earth’s regional and global biodiversity. This will be accomplished through high-quality land preservation efforts, biological research, and environmental education programs.

A Strategic Plan (Huyck Preserve Board of Directors. 2011) for the Huyck Preserve and Biological Research Station has been completed by the Board of Directors. The Strategic Plan provides a general framework for the Preserve’s activities and management.

The Strategic Plan addresses conservation, research, education, and recreation. Each section was addressed by individual task forces. The Strategic Plan contains a section on Conservation/Preservation (see Appendix A of this plan). The Conservation Task Force identified 6 goals, which were incorporated within the Strategic Plan. Goal # 3 called for engagement in active and passive stewardship of the land. Under Goal #3, the Strategic Plan directed the Board’s Land Conservation Committee to “develop a stewardship plan in cooperation with the Scientific Advisory Committee [of the Preserve] and a local committee comprised of people with some training and interest in conservation”.

The Strategic Plan provides guidance as to the scope and content of the Stewardship Plan--

A stewardship/management plan is needed to address several important elements related to stewardship of resources within the Huyck Preserve including protection of listed species of plants and wildlife, invasive species control, water quality protection, and scenic and biodiversity protection.

The plan should include methods for communicating our conservation goals and objectives to landowners in the three zones of interest, and methods for improving our relationship with landowners so as to broaden support for our conservation goals.

The plan should clarify the various options (particularly our preferred approach) for handling the legal aspect of land transactions where it is not just a simple acquisition or donation (e.g.
Finally, it seems clear from the [Conservation] Task Force discussions that management and conservation of Huyck land (as opposed to the buildings and historic resources) requires a separate committee from the committee that is concerned with facility maintenance and historic preservation. The 2001 Strategic Plan recommended that separate Buildings and Grounds and Land Conservation committees be created. Both of these committees would work in close consultation”. (Fm Strategic Plan, Conservation Task Force Report, page 30)

Also within the Strategic Plan and of particular importance to conservation of the Preserve is the identification of “Zones of Interest”. There are three zones with the primary one consisting of lands that fall within the Lake Myosotis watershed. This section of the plan outlines steps that can be taken to protect this area through acquisition by the Preserve or conservation easements done in cooperation with other land trusts.

This Strategic Plan also outlines the following primary goals for Conservation:

- Improve/secure legal protection of Preserve lands in perpetuity
  - complete a study to assure legal protection of Preserve
- Protect at least 2/3 of the Lake Myosotis watershed
- Engage in active and passive stewardship of the land
  - develop a stewardship plan
- Build capacity and expertise to protect the land
- Engage in outreach activities with nearby landowners
- Build partnerships and develop strategic alliances

The Strategic Plan and other documents available in the Preserve Office provide considerable information on the Preserve itself, its history, size, programs and so forth. This information will be summarized as appropriate in this Stewardship Plan. This Stewardship Plan will not, however, be repeating the detail of the Strategic Plan. It is recognizing that the Strategic Plan is available as a prime reference tool (on the Preserve’s website) to those interested. Another important source of assistance in the preparation of this Stewardship Plan is the Land Trust Alliance (LTA). The Huyck Preserve has undertaken a comprehensive accreditation process through the LTA. This process is outlined in detail with a manual prepared by the Land Trust Accreditation Commission (2015).

The Huyck Preserve intends that its Land Stewardship and Management Plan conform to all requirements of law, the Land Trust Alliance Standards and Practices, and all other Preserve policies. The purpose of this effort is to document the Preserve’s policies and guidelines for land stewardship and related Preserve practices.

Preserve and Biological Research Station: Overview

Establishment of the Preserve and Biological Research Station

Edmund Niles Huyck had a deep love for the natural beauty of Rensselaerville and it was his wish that about 500 acres of his property be set aside for the enjoyment of the people forever. (1935. Edmund Niles

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Legal Name: The Edmund Niles Huyck Preserve, Inc.
Huyck autobiography). Edmund’s wife, Jessie Van Antwerp Huyck, fulfilled his wish by establishing the Huyck Preserve in 1931. The Preserve was created “to preserve the natural beauty of the Rensselaerville Falls, Lake Myosotis, Lincoln Pond, and the lands around them . . . and to increase the general and scientific knowledge and love of nature, particularly that of trees and wildlife . . .” (Preserve By-Laws 1931) After a recommendation by Dr. Hamilton of Cornell University, the Preserve Board organized, in 1938, the Preserve as a biological research station. The Station remains in operation to this day under the guidance of the Preserve Director, the Board’s Research Committee and the Preserve’s Scientific Advisory Committee (SAC). The Huyck Preserve and Biological Research Station is in the unique position to apply research-directed management. The SAC welcomes suggestions and recommendations from Board members and staff regarding research related to the quality of and threats to the natural resources of the Preserve.

In 1960, the E.N. Huyck Foundation was established (consistent with the wishes of the Huycks) “to promote research, scientific study and education in any and all kinds of fauna and flora, either directly or through qualified individuals or organizations”.

Location, Size and Legal Description

The Preserve is located in the Town of Rensselaerville in Albany County, New York. The Preserve contains 2055 acres consisting of 27 parcels ranging in size from the original gift by the Huyck family in 1931 of 507 acres to two parcels of 0.1 acres each (Figure 1). Most of this Preserve land is contiguous and situated in close proximity to the Falls, Lake Myosotis and Lincoln Pond. Approximately 90% of the Preserve land falls within the Ten Mile Creek watershed (see appendix A). The northern boundary of the Preserve adjoins the Partridge Run Forest area, which is owned and managed by the State of New York through the Department of Environmental Conservation. A preliminary estimate of acreage within the watershed above the falls indicates that 70 % is under the jurisdiction of Huyck Preserve or Partridge Run. The remaining 30% of the land within this watershed is in private ownership.

Governance and Staffing

The Preserve is a membership organization that is governed by a Board of Directors consisting of 15 to 21 directors. There are three standing committees: the Executive Committee, The Scientific Advisory Committee, and the Nominating Committee. The Executive Committee carries out, between meetings of the Board, those duties of the Board of Directors that are not specifically required by law or by the by-laws to be exercised by the Board. The Scientific Advisory Committee is charged with the selection of recipients of grants and advises the board on educational programs, research activities and management of the natural resources of the Preserve. The Nominating committee nominates the slate of Directors for election by the membership and the slate of officers for election by the Board. In addition there are various other board committees to help with governance and operation including Administration and Governance, Advancement, Land Conservation –
Stewardship, Land Conservation – Easements and Land Acquisition, Recreation, Science, Audit, Facilities and Dams, and Education.

The Preserve’s Director oversees day-to-day operation and management of the Preserve. The Director is responsible for both the Preserve and the Biological Research Station, and supervises 3 full time and 2 part-time permanent staff. Seasonal staff are overseen by the Director and permanent staff. The Preserve also works closely with wildlife rehabilitators as well naturalists in implementing programs to advance its mission, in particular that related to education.

In addition to Preserve staff, the Biological Research Station is used by individuals associated with education programming and research of interest to the Preserve. Grant recipients from the Huyck Grants program as well as independent scientists from research institutions (academia, museums and other organizations) conduct field research at the Preserve. Most of this research is preserved in reports from grant awardees, in collections, or in published scientific literature. Undergraduates in the Odum internship program, from colleges around the country, conduct research studies throughout the summer. They are under the supervision of the Summer Research Fellow. Summer education programs, primarily the Wildlife Ecology Research Program for high school students, conduct short-term independent research projects as part of the program as well. The Preserve publishes the Myosotis Messenger (which provides an overview of events at the Preserve and its operation) as well as a summary of research conducted by interns, high school students and research scientists.

In addition to paid staff, interns, and visiting researchers, the Preserve is growing its volunteer program to include trail maintenance, citizen science projects, and other programs related to Preserve operations.

During the summer the Preserve operates the beach at Myosotis Lake by providing lifeguards certified by New York State.

The Preserve also oversees Com.En.Art, which is a unique residency for natural history artists and is a partnership program between NYS museum and the Preserve. The artist residency seeks to serve the community and to assist in public education about the rich biota protected within its varied habitat types. The residency provides a two-week stay at the Preserve in exchange for original artwork that should provide a record of change over time.

**Infrastructure and Capital needs**

The Preserve has 6 built areas:

1. Eldridge Research Center
2. Lincoln Pond Millhouse
3. Ordway House and Barn
4. Visitor Center
5. Bull Frog residences
6. Beach

In addition the Preserve owns and maintains the two dam areas in the Preserve: one is the spillway from Lincoln Pond and the other the spillway from Myosotis Lake. The Myosotis Spillway is cared for in partnership with the Town of Rensselaer. The Preserve also has an extensive network of trails (12+ miles), which are used by the public and maintained by the Preserve.
The condition of buildings and grounds is assessed by staff on an annual basis and findings presented to the Board in the form of a report. Building condition and projects to address needs are also kept on spreadsheets to facilitate the ranking of projects and associated costs. Projects are factored into the overall budget for the Preserve, which is reviewed and approved by the Board on an annual basis.

**Land Trust and Conservation Easements**

The Preserve is a land trust based on its Certificate of Incorporation and definitions contained in Environmental Conservation Law and Internal Revenue Code (Sterthous, M 2015). The lands within the Preserve are under fee ownership by the Edmund Niles Huyck Preserve, Inc. One parcel (Hannacroix Wetland area) recently transferred from the Open Space Institute (OSI) to the Preserve is also under a conservation easement retained by OSI. The Preserve itself does not hold any conservation easements; all the Preserve land is held in fee.

While there is strong wording in the By-Laws and Strategic Plan regarding the purpose of the Preserve in protection of resources, concerns remain regarding liability and land use changes that could adversely affect resource protection and management within the Preserve. A conservation easement is a voluntary legal agreement between a landowner and a land trust or governmental agency that permanently limits uses of the land in order to protect its conservation value. Conservation easements offer flexibility while imposing limits on the activities that can occur on the property (www.landtrustalliance.org/what-you-can-do/conserve-your-your-land/benefits-land/benefits-landowners). The Board of Directors through the Land Conservation easements committee is currently evaluating the use of conservation easements on Preserve property for additional protection of its own resources.

The Preserve is presently going through an accreditation process in partnership with the Land Trust Alliance. As a Land Trust the Preserve works with adjacent property owners in the protection of resources. The Preserve partners with other land trusts such as the Mohawk Hudson Land Conservancy (mohawkhudson.org) and Open Space Institute to help secure conservation easements on properties within the Ten Mile Creek watershed. In 2013, the Preserve helped defray some of the stewardship and transaction cost that had been incurred by OSI on a conservation easement acquisition of a 148.6-acre property.

**Zones of Interest.**

Of particular importance to conservation of the Preserve is the delineation of three Zones of Interest (see Appendix A). These Zones are meant as a guide for the Preserve in working with interested parties toward the conservation of resources.

The Primary Zone of Interest includes lands that fall within the Lake Myosotis watershed, which measures approximately six square miles (4,000 acres). The Huyck Preserve encompasses 2,000 acres, the majority of which (1,700 acres) lie within this watershed. One of the Huyck Preserve’s long-term goals is to protect, through acquisition or conservation easement, at least two-thirds of the watershed of Lake Myosotis.

The Secondary Zone of Interest includes the Ten-Mile Creek watershed below the hamlet of Rensselaerville as well as lands adjoining the Huyck Preserve’s core property that are outside the Ten-Mile Creek watershed. The Huyck Preserve would like to selectively expand into these areas, through acquisition or conservation easements, in order to provide a buffer zone that will protect the core property from encroachment, provide additional wildlife habitat, or allow access to unique research areas.
The Tertiary Zone of Interest includes areas outside the primary and secondary zones. The Huyck Preserve would accept donations of property outside the primary and secondary zones if there were compelling reasons that are consistent with the objectives of preservation, research, and education.

**Public water supply**

Lake Myosotis is a public water supply and an agreement exists between the Town of Rensselaerville and the Preserve that provides for the operation and maintenance of water supply infrastructure by the Town. The Board’s Building and Grounds committee in consultation with the DEC and the Town of Rensselaerville is evaluating the dam, which maintains Lake Myosotis.

**Conservation Value**

The Preserve habitat map (Figure 2) contains important information on the type and extent of habitat within the Preserve. Table 1 contains a listing of the habitat types and their estimated percentage of area coverage. Preparation of the map was coordinated by Preserve staff (Audrey Kropp) under the guidance of Hudsonia (Kiviat and Stevens 2005; Heady and Stevens 2005; hudsonia.org). This original work was part of a larger study (Hilltowns Natural Areas Alliance, draft report undated). Unfortunately, the final report for the habitat work could not be found in Preserve files. Thus the percent area estimates in Table 1 must be viewed a preliminary.

<table>
<thead>
<tr>
<th>Habitat Type</th>
<th>Estimated % area within the Preserve</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upland Hardwood Forest</td>
<td>30</td>
</tr>
<tr>
<td>Upland Conifer Forest</td>
<td>20</td>
</tr>
<tr>
<td>Upland Mixed Forest</td>
<td>20</td>
</tr>
<tr>
<td>Upland Shrubland</td>
<td>5</td>
</tr>
<tr>
<td>Upland Meadow</td>
<td>4</td>
</tr>
<tr>
<td>Crest, Ledge and Talus</td>
<td>1</td>
</tr>
<tr>
<td>Cool Ravine</td>
<td>1</td>
</tr>
<tr>
<td>Hardwood and Shrub Swamp</td>
<td>3</td>
</tr>
<tr>
<td>Conifer Swamp</td>
<td>2</td>
</tr>
<tr>
<td>Intermittent Woodland pool</td>
<td>1</td>
</tr>
<tr>
<td>Marsh</td>
<td>2</td>
</tr>
<tr>
<td>Wet Meadow</td>
<td>2</td>
</tr>
</tbody>
</table>
Open Water 8
Spring and seeps 1

The Preserve consists primarily of upland forested areas, Lake Myosotis, Lincoln Pond, the
Rensselaerville falls, streams and wetlands. Much of the Preserve and its watershed of 10-mile creek was
once farmland as documented by historic aerial photographs and the many stone fences crisscrossing the
forested areas. As a result of the work of Civilian Conservation Corps and private property owners, forest
plantations can be seen throughout the watershed. These plantations however were not maintained over
several decades and are now subject to blowdown and significant changes in structure and biodiversity.

Water Resources

The aquatic resources within the Preserve and those adjacent to the Preserve but within the Ten Mile
Creek watershed are important in terms of their recreation and water supply contributions and also to the
myriad of species, aquatic and terrestrial, that depend on their quality. Lake Myosotis and Lincoln Pond
are both artificial impoundments to Ten Mile Creek. Samples to measure water quality are taken from
Lake Myosotis by the Town as required for operation of the bathing beach and also for the use of the lake
as a public water supply. There has been, however, no baseline limnological monitoring conducted on
either Lincoln Pond or Myosotis Lake in recent years. Such monitoring is important to not only detecting
changes associated with nutrient or pollutant input to the pond and/or lake but to establishing
(scientifically) that such changes have indeed occurred. Ten Mile Creek has been the location of research
conducted through the Biological Research Station.

Of particular importance is the Rensselaerville Falls which, due in a large part to its unique geology and
microhabitat conditions, harbors rare species.

Plant and Animal Species Listings

The Preserve has listing of vertebrate and vascular plant species (www.huyckpreserve.org/species-
lists.html). The Preserve’s listing of vascular plants has been prepared and updated by Dr. George
Robinson, SUNY Albany. There are a total of 681 vascular plant species on the list with 514 species
identified as native (Mitchell, 1997) to NY state. Ten of the species listed are also listed for protection
under the NY Natural Heritage Program. In addition there are 7 species (Table 2) within the list that are
identified as invasive and represent a significant threat to the native species within the Preserve.

The vertebrate listing consists of 280 species in the following general categories: birds 193 species,
mammals 40 species, fish 20 species, amphibians 18 species and reptiles 9 species. Other listing of
species, such as insects, are not found in a central location but may be found in research studies conducted
by various scientists and interns conducting work on the Preserve.

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Celastrus orbiculata</td>
<td>Oriental bittersweet</td>
</tr>
<tr>
<td>Fallopia japonica</td>
<td>Japanese knotweed</td>
</tr>
<tr>
<td>Lonicera morrowii</td>
<td>Fly honeysuckle</td>
</tr>
<tr>
<td>Lonicera tatarica</td>
<td>Tartaria honeysuckle</td>
</tr>
<tr>
<td>Phalaris arundinacea</td>
<td>Reed canary grass</td>
</tr>
</tbody>
</table>
Preserve Uses

Recreation

The Preserve allows passive recreational activities consistent with the guidance in its Certificate of Incorporation (1931). Allowed recreational uses include hiking (pets must be on leash), snowshoeing, cross-country skiing, swimming, fishing including ice fishing, boating (non-motorized), birding and nature photography. During the summer the Preserve operates a small bathing beach facility on Lake Myosotis. Lifeguards certified through New York State are on duty at the beach.

The Preserve has an extensive trail network (Figure 3), which connects to Partridge Run. Trails are inspected on an annual basis and as part of ongoing work within the Preserve. Hazardous tree inspections are conducted on a monthly basis and information on hazardous trees is complied as part of patron observations. Spreadsheets and reports on inspections are kept in the Preserve office.

The Huyck Preserve does have a listing of activities that are not allowed. These include but are not limited to: climbing on cliff areas especially on the Rensselaerville Falls area, playing in the falls itself, bushwhacking, equestrian uses, motor biking, motorized vehicles, geocaching, and hunting/trapping.

Research

The Biological Research Station has been in operation nearly 80 years. Indeed, in its first year of operation Eugene Odum, known as the father of ecology, was a resident at the Station and conducted some of the initial biological diversity studies within the Preserve. Many other scientists have conducted studies at the Preserve both long and short term (www.huyckpreserve.org/published-papers.html).

The Board’s science committee works closely with the scientific advisory committee to oversee and implement the research mission. Research conducted at the Preserve is low intensity with respect to changes to the environment. Any collections of natural resources by the Preserve is done under appropriate permits issued by the State of New York. Collections are not allowed by the general public or school groups. Research scientists, as part of their work at the Preserve, provide time and resources to enhance environmental education opportunities.

Research at the Preserve is conducted by independent scientists from research institutions (academia, museums and so forth) and by the Preserve’s own staff. The Huyck Preserve also offers funds to outside...
researchers. The Huyck Grant program provides funds for field research conducted at the Preserve in the summer. The Preserve also offers funding for a Science Research Fellowship each year. The Science Research Fellow works closely with the Preserve Director. Most of the research conducted at the Preserve is preserved in reports from grant awardees, in collections, and in published scientific literature.

The Preserve is also a collaborative site for regional conservation and research projects (EMMA, PRISM), the Monitoring Avian Productivity and Survivorship or MAPS program.

Education & Outreach

There are a number of education programs at the Preserve. The Odum interns consist of usually of 4 college students from around the country who are supervised by the Science Research Fellow. Another program is the Wildlife Ecology Research Program, which consists of up to 4 high school students in each of 2 three-week sessions for a total of 8 students. This is a residential program overseen by 2 paid Residential Coordinators and Teaching Assistants.

The Preserve also sponsors several special events during the year such as the winter festival and the forest/bird festival. These attract the public especially families with children to the Preserve. These events are closely monitored to assure that impacts to the environment are minimal. Some recreational uses such as ice-skating are only allowed as part of a special event.

As mentioned previously, the Preserve also oversees Com.En.Art. In addition the Preserve works closely with wildlife rehabilitators and naturalists as part of their educational programming.

Land Acquisition Policy. The Preserve has a land acquisition procedure, which includes an initial property evaluation report. The report requires 11 points to be addressed such as current or past uses, public benefit, stewardship considerations and photos. This report serves as one basis for conceptual approval or disapproval of a land acquisition action by the Board of Directors.

Management Practices

Currently management of the resources within the Preserve is considered mostly passive. The following is a listing of more active management activities currently allowed in the Preserve. These actions have been and may be used in the future to increase diversity and to meet the goals of the Preserve as identified in its Certificate of Incorporation and within this plan. Other active forms of management may be considered on a case-by-case basis with full consideration by the Board of Directors.

- Removing exotics and/or invasives by hand and cuttings. Minor use of chemical controls to prevent resprouting of invasives choking out native species will be considered on a case-by-case basis.
- Restoration of scenic views through shrub cutting and mowing will be considered following an inventory of past scenic access areas.
- Restoration of old field habitat will be dependent on the findings from a scientific study.
- Establishing and maintaining parking, trails, and boardwalks for public access.
- Monitoring indices of habitat quality, e.g., water quality, and species diversity.
- Preparing and periodically updating species lists and descriptive brochures for the preserves.
Conservation Targets, Issues and Action Steps

At the core of this Stewardship Plan is the listing of 9 conservation targets or focus areas. These focus areas and actions steps were prepared through brainstorming by the Conservation committee followed by review and input by the entire Board of Directors, Preserve staff, and representatives of the Scientific Advisory Committee and reviewers of draft plans. The Huyck Preserve and Biological Research Station is in the unique position to apply research-directed management. The SAC welcomes suggestions and recommendations from Board members and staff regarding research related to the quality of and threats to the natural resources of the Preserve.

The following listing includes a preliminary budget line. This estimate is for 2016. It is recognized that additional funding may be required for each of the following targets and set of action steps. However, budgeting of these action steps must take into account limited funding available. The Land Conservation – Stewardship committee in consultation with the Preserve Director will conduct budgeting on an annual basis. Budgeting requires the approval of the full Board.

1. Native Species Inventory.

All sources of natural resource data are in need of continual updating. This includes a comprehensive effort to review listings and to conduct inventories with the primary purpose of identifying endangered, threatened species or species of special concern. There is also a need to identify those areas within the Preserve, which are especially sensitive/significant with respect to protection of biodiversity. These areas are particularly vulnerable to impacts from uses both within and outside the Preserve. Findings from such inventory efforts will considerably sharpen the Preserve’s ability to focus on those areas of greatest conservation need and more importantly to identify and implement action steps for management.

Action Steps

- Research of existing information on resources within the Preserve
- Conduct an Inventory of natural resources with focus on native species especially endangered, threatened and species of special concern. This includes 10 NY listed plant species listed as in need of protection by the NY Natural Heritage Program. Inventory to include those areas with significant amounts of invasive species. Determine if there are any records of species or communities within the Natural Heritage Program database. Conduct survey and determine in consultation with NHP if any significant communities can be added to their database.
- Inventory during Spring/Summer/Fall 2016
- Inventory included in update to the Stewardship Plan Jan 2017
- Conduct annual assessments on the state of the Preserve’s natural resources. Identify those issues or problem areas that require steps to protect resources under threat.

Budget $30,000

Currently $5000 has been identified for use in the natural resource inventory. Grant applications have been submitted with the hope of raising the additional funding needed.

It is anticipated that the annual assessment of the condition of natural resources in the Preserve can be accomplished through intern and work conducted by the members of the SAC. While the uses of the Preserve are, more or less, passive there is a need to be vigilant with respect to adverse impacts from Preserve users. It is important to establish limits of acceptable impact and, through monitoring and
operation protocol assure that those limits are not exceeded.

2. Invasive Species

**Action Steps**

- Identify invasive species that are significantly impacting the Preserve or identify important habitats that are impacted by invasive species. Approaches to defining “significance” could be size of area(s) impacted, rates of spread (or potential rates), or declines in co-occurring native species such as crayfish and viburnums.
- Development of an invasive species management plan. Plan to be completed in June 2017 and included as update to Stewardship Plan. Include approaches to control/eliminate an invasive species before they become significant.
- Identification of control steps to be taken by volunteers and through education program
- Convene workshop of representatives of adjacent lands to include DEC and Carey Center for Global Good to discuss regional approaches to invasive species control
- Convene conference on invasive species as follow-up to conference coordinated by Huyck Preserve several years ago.
- Continue coordination with other groups focusing on control of invasive species and their adverse impacts such as iMapInvasives and the regional PRISM organizations.
- Enhance our knowledge/inventory of aquatic invasive plants. This is critical for recreation management (e.g. boat and boot cleaning) in the watershed.

**Budget:** $5,000

The threat to our native species within the Preserve is substantial. This threat comes from not only invasive species such as the oriental bittersweet but also non-native species, which may not be invasive, but nonetheless are replacing native species such as the change in wildflowers from native to non-native along trails.

The $5000 estimate is for an invasive species-specific survey and ancillary costs associated with a more specific invasive species management plan.

3. Area Specific Management Plans.

As suggested by the Board of Directors, management of natural resources in the Preserve should be area specific. This would allow for better focus on the resources in most need of management and allocation of funds for management in accordance with priorities. One priority is the identification of those areas (perhaps by habitat), which are significant and/or sensitive to impacts associated with Preserve uses. For example, the water quality of Lincoln pond can be considered sensitive to excessive nutrient inputs from sources upstream and within the 10-mile creek watershed. Thus there is a need to identify management areas, significant/sensitive resources within those areas and most importantly the steps needed to protect resources from adverse impacts.

**Action Steps**

- Identification of criteria for delineation of management areas
- Delineation of management areas to include wetlands, stream corridors, and diverse forest areas.
Old-field habitat type can contribute to Preserve’s overall biodiversity and should be included in this assessment.
- Development of area specific management plans for each of the areas identified
- Identify important corridors that provide connections with adjacent protected areas. Work with representatives of these protected areas to assure satisfactory management of these corridor areas.

**Budget:** Inventory to be addressed with the natural resource inventory identified in #1

4. Water quality Lake Myosotis and Lincoln Pond

These resources and adjacent wetland areas are important not only to biodiversity within the Preserve but also to uses important to people such as swimming and fishing. Significant research was conducted in the 1980s by Dr. Clifford Siegfreid. There is, however, a need to document current baseline limnological information on the lakes, which can be used to identify and interpret changes in water quality.

**Action Steps**
- Prepare a report on the baseline water quality for each water resource
- Based on existing data bases including DOH records for beach and water supply monitoring over the years.
- Develop and implement a water quality monitoring program based on efforts of education program, interns and other resources.
- Identify any potential pollution sources within the watershed of ten-mile creek within and outside the Preserve. Conduct a risk assessment on those potential pollution sources with respect to the water quality of Myosotis Lake and Lincoln Pond.
- For possible short term impacts of pollutants on water quality, assess results of monitoring at least every three years to determine if there has been a significant shift in water quality in either water body. The frequency of monitoring may vary depending on assessment of the annual threats to water quality especially within the 10-mile creek watershed. With respect to long term impacts sample and test sediments for pollutants.

**Budget:** $500.

This would be for costs associated with equipment and supplies for lake monitoring. Monitoring it to be coordinated with Preserve Staff, interns. SAC members and volunteers.

5. Forested areas

**Action Steps**
- Identify and map forest plantation areas.
- Develop approach to management of plantation areas. Note: Most plantations are already mapped and at least two are monitored. Overall, they need to be assessed for conservation and research value. Some important questions to be addressed are: 1. What are other NE preserves doing with respect to management of plantations? Benign neglect seems to be the rule but there are exceptions. 2. Can plantations be “managed” back into native forest, and how aggressive does that need to be? 3. How do plantations affect densities and behaviors of white tail deer? Plantations have higher deer scat densities compared to hardwood forests, but this need to be
confirmed.
● Assess the impact of deer on the biodiversity of the Preserve. Continue the work being done with
derer exclosures.
● Coordinate with DEC in control of deer in region.
● Specifically address the monitoring for and control of invasive forest pest species (emerald ash
borer, hemlock wooly adelgid, and others) within the forests of the Preserve. Determine how
arrival, tracking and control will be managed. What native species are most at risk now and how
will we react when new invasives arrive?

Budget: $500

For supplies and documentation needed in connection with continued forest monitoring within the
Preserve.

6. Climate Change

Action Steps
● Work together with representatives of other natural areas under the Phenology portion of the
EMMA program. Consider broadening this monitoring to include additional targets such as
invasives, native species composition, sensitive area changes, and the importance of corridors.
● Note: In addition to longer seasons and effects on phenology, the two most anticipated effects are
heavier precipitation events and occasional summer droughts. Larger storms are already more
common, but ocean current oscillations have been keeping recent summer temperatures low, and
those could increase quickly. These combined extremes offer new conservation challenges that
argue for maintaining diverse, resilient ecosystems.
● Monitor weather changes. What are the longer-term changes in temperature, precipitation,
frequency and intensity of storms and so forth? Upgrade monitoring equipment as necessary.

Budget: $500

This would be for equipment and supplies needed for monitoring programs with the Preserve’s various
partners. In particular assess the need for upgrading weather monitoring equipment.

7. Scenic Areas

Protection of the beauty of the Rensselaerville Falls and other resources with the Preserve is identified as
a purpose within the Preserve’s Certificate of Incorporation as well as other important guidance
documents such as the Strategic Plan. There is a need, however, to identify those areas within the
Preserve that have significant scenic value and viewing access points to those areas. Such an inventory
and mapping will provide for protection of scenic resources and access points to those same resources.

Action Steps
● Conduct a preliminary inventory of the most scenic areas and vantage points in the Preserve.
This will require identification of criteria for scenic value.
● Develop strategies to assure the protection and even enhancement of those resources.
Budget: $500 for equipment in documenting scenic value.

8. Digital archiving of data.

This stewardship plan identifies a variety of data and record keeping needs including habitats, invasive species locations, rare species, water quality data, interim reports, field notes, photos and other such records. This information will document existing conditions and management needs, and help with future analysis of the effectiveness of management actions. It is recognized that GIS spatial data capabilities will substantially contribute to the ability of the Preserve and Biological Research Station to implement stewardship plans. There is a need, however, to evaluate staffing and funding resources (and their limitations) in this regard.

Actions Steps:
- Inventory and assess the current capabilities of the Preserve with respect to GIS spatial data management. This effort to be undertaken by Conservation committee, SAC and staff.
- Identify alternatives for data management and archiving.
- Prepare a plan and budget for archiving and management of data.

Budget: None at this time.

9. Nearby Protected Lands

Preserve staff continue to evaluate ways in which connectivity to other protected lands (Figure 4) can be improved.

Budget: TBD

As a Land Trust the Preserve works with adjacent property owners in the protection of resources. The Preserve partners with other land trusts such as the Mohawk Hudson Land Conservancy (mohawkhudson.org) and Open Space Institute to help secure conservation easements on properties within the Ten Mile Creek watershed. In 2013, it helped defray some of the stewardship and transaction cost that had been incurred by OSI on a conservation easement acquisition of a 148.6-acre property.

Of particular importance to conservation of the Preserve is the delineation of three “Zones of Interest”. The Primary Zone of Interest includes lands that fall within the Lake Myosotis watershed, which measures approximately six square miles (4,000 acres). The Huyck Preserve encompasses...
2,000 acres. Most of this acreage (1,700 acres) lies within this watershed. One of the Huyck Preserve’s long-term goals is to protect, through acquisition or conservation easement, at least two-thirds of the watershed of Lake Myosotis.

The Secondary Zone of Interest includes the Ten-Mile Creek watershed below the hamlet of Rensselaerville as well as lands adjoining the Huyck Preserve’s core property that are outside the Ten-Mile Creek watershed. The Huyck Preserve would like to selectively expand into these areas, through acquisition or conservation easements, in order to provide a buffer zone that will protect the core property from encroachment, provide additional wildlife habitat, or allow access to unique research areas.

The Tertiary Zone of Interest includes areas outside the primary and secondary zones. The Huyck Preserve would accept donations of property outside the primary and secondary zones if there were compelling reasons that are consistent with the objectives of preservation, research, and education.

**Stewardship Implementation: People, Resources and Funding**

Implementation of this plan will require participation of Board Directors, Preserve Staff, Scientists of the Scientific Advisory Committee, interns and volunteers. The Land Conservation committee – stewardship has coordinated the preparation of this plan and will serve in the role of its overall implementation. The Conservation committee will review the content of the plan and action steps at each of their meetings/conference calls and take appropriate action to assure the action steps are advancing. Other committees of the Board however are important to the implementation of this plan especially the Executive Committee, Science, Land Conservation – easement/land acquisition committees and Advancement committees.

Preserve staff will identify responsibilities for implementation amongst themselves for example the lead in research and lead in conservation programs (such as deer exclosures) and assure that time and resources are provided in this regard.

The Land Conservation – Stewardship committee outlines the actions steps for the upcoming year and those responsible for those steps. It will also prepare an annual work plan. This plan will be submitted to the full board for approval at each January meeting of the Board.

The Preserve under the guidance from the Land Conservation Stewardship committee will conduct outreach to land owners especially those in the 10-mile creek watershed. This outreach will consist of the progress made in the stewardship of the Preserve’s resources as identified in the annual plan for conservation as well as serve as a forum for feedback from land owners regarding their concerns and recommendations.
Literature Cited


Kiviat, Erik and Gretchen Stevens. 2005. Biodiversity Assessment Manual for the Hudson River Estuary Corridor. Hudsonia Ltd. 30 Campus Road, PO Box 5000, Annadale, NY 12504


Land Trust Accreditation Commission. 2015. Accreditation Requirements Manual. 36 Phila Street, Suite 2, Saratoga Springs NY 12866


1931 Edmund Huyck autobiography
Appendix A: Guidance from Strategic Plan re: Conservation (extracts of pages 7 and 8)

A primary purpose of the Huyck Preserve is to protect the Ten Mile Creek watershed, including Lincoln Pond, Lake Myosotis, and the Rensselaerville Falls. The Preserve recognizes the value of preservation because it protects natural and cultural resources and provides an undisturbed area for scientific research, environmental education, and recreation. The Preserve is also a contributing partner to the quality of life in the local and regional community.

In this report “conservation” means the protection of Huyck Preserve resources that relate to historic and ongoing research; monitoring ecological communities to protect natural processes; and minimizing or eliminating threats to those communities when possible. Conservation activities are consistent with the Land Trust Alliance Standards and practices adopted by the Huyck Preserve’s Board of Directors in 2008, and reflect the education and recreation missions. Efforts may include, for example, the maintenance and/ or restoration of scenic vistas and other open areas.

Conservation is critical for protecting the Huyck Preserve’s research, educational, and recreational programs as well as the surrounding landscape and communities. Conservation efforts often lead to enhanced property values, contribute to rural land- scape protection, provide access to natural areas, and protect areas that can serve as outdoor classrooms.

As part of stewardship, the Board recognizes the concept of management zones that are passively or actively managed. For example, wetland areas may be passively managed for research, watershed protection, and light recreation (hiking, bird watching). Other areas may be actively managed—such as hay fields being mowed—to maintain habitat diversity. The Scientific Advisory Committee evaluates research proposals and prohibits large-scale projects that could negatively impact any ecosystem. Other examples of stewardship include ecological restoration, invasive species control, as well as the protection of rare species, ecological communities, water quality, and cultural resources.

The Board further recognizes the difference between the Huyck Preserve’s natural areas and the man-made features (Lake Myosotis, Lincoln Pond, conifer plantations, trails, and roads) and will take that into consideration when determining whether manipulating certain areas would be appropriate.

The Huyck Preserve encourages recreational activities that are consistent with its overall objectives. Permitted activities include light hiking, snowshoeing, and cross-country skiing on trails; bird watching; picnicking in designated picnic areas; as well as fishing, non-motorized boating and swimming in Lake Myosotis.

**ZONES OF INTEREST**

The Board of Directors has established criteria for three “Zones of Interest” to provide a structure for making decisions concerning the expansion of the Huyck Preserve including accepting donations of land; acquiring land; or protecting land through conservation easements.

In addition, it is desirable for ecological reasons to create connections between protected lands. With the guidance of the Land Conservation Committee, staff will actively pursue acquisition and property easement opportunities to protect property and to foster connectivity within the Zones of Interest.

The Primary Zone of Interest includes lands that fall within the Lake Myosotis watershed, which measures approximately six square miles (4,000 acres). The Huyck Preserve encompasses 2,000 acres, the majority of which (1,700 acres) lie within this watershed. One of the Huyck Preserve’s long-term goals is to protect, through acquisition or conservation easement, at least two-thirds of the watershed of Lake Myosotis.

The Secondary Zone of Interest includes the Ten-Mile Creek watershed below the hamlet of Rensselaerville as well as lands adjoining the Huyck Preserve’s core property that are outside the Ten-Mile Creek watershed. The Huyck
Preserve would like to selectively expand into these areas, through acquisition or conservation easements, in order to provide a buffer zone that will protect the core property from encroachment, provide additional wildlife habitat, or allow access to unique research areas.

The Tertiary Zone of Interest includes areas outside the primary and secondary zones. The Huyck Preserve would accept donations of property outside the primary and secondary zones if there were compelling reasons that are consistent with the objectives of preservation, research, and education.

It is also important to promote connectivity between Preserve properties as well as between the Preserve and nearby protected lands such as the Partridge Run State Forest. Connectivity enhances the Preserve’s research, education, and recreation potential by providing wildlife corridors and buffering important ecological communities. The Preserve should consider protecting lands that provide connectivity whether they are inside or outside the primary or secondary zones of interest.

Recognizing its resource limitations, the Board will seek to cooperate with other like-minded organizations, private and public, as a means to achieving its stewardship objectives. For example, partnering with a land trust would be ideal when the Preserve is considering conservation easements; land trusts have the specialized skill sets needed to acquire and steward easements.

CONSERVATION GOALS AND STRATEGIC PRIORITIES

A primary purpose is to protect the Ten-Mile Creek watershed (with a focus on the Lake Myosotis watershed) in recognition of the value of preservation, and to provide an undisturbed, undeveloped area for scientific research, environmental education, and recreation. The following goals are consistent with Land Trust Alliance Standards and Practices adopted by the Board in 2008.

CONSERVATION GOAL 1:
Improve/secure legal protection of Preserve lands in perpetuity.

STRATEGIC PRIORITIES:
The Land Conservation Committee will complete a study to assure adequate legal protection of Huyck Preserve lands. Consider possible strategies including consolidating parcels, updating bylaws to clarify preservation goals, and creating a simple conservation easement to be held by a land trust partner.

CONSERVATION GOAL 2:
Increase/secure protection of surrounding land and promote regional connectivity. Protect, through acquisition or conservation easement, at least two-thirds of the 4,000-acre Lake Myosotis watershed (primary zone of interest). The Huyck Preserve owns 2,000 acres; approximately 1,700 acres are within the watershed.

STRATEGIC PRIORITIES:
The Land Conservation Committee will establish a land acquisition/easement plan, prioritizing properties within the Primary Zone of Interest. Be alert for opportunities for land acquisition/protection within the Primary Zone and improve regional connectivity. Selectively expand into the Secondary Zone of Interest: Ten Mile Creek watershed below the hamlet of Rensselaerville; and lands connected to core property outside the Ten-Mile Creek watershed. Accept donations of land in the Tertiary Zone of Interest only for purposes consistent with the Huyck
Preserve’s mission.
Promote regional connectivity with other public conservation and recreation areas; partner/coordinate the use of adjacent and nearby public land for research, education, and recreation.

CONSERVATION GOAL 3:
Engage in active and passive stewardship of the land.

STRATEGIC PRIORITIES:
The Land Conservation Committee will develop a stewardship plan in cooperation with the Scientific Advisory Committee and a local committee comprised of people with some training and interest in conservation.
Staff will begin active stewardship including engaging with nearby landowners.

CONSERVATION GOAL 4:
Build the capacity and expertise to protect the land.
STRATEGIC PRIORITIES:
Identify tools and resources needed.
Ensure that staff gains technical expertise—through training or by adding new staff positions—to accomplish conservation goals.

CONSERVATION GOAL 5:
Engage in outreach activities with nearby landowners.
STRATEGIC PRIORITY:
Broaden support of the Huyck Preserve’s conservation goals and objectives by communicating them to nearby landowners.

CONSERVATION GOAL 6:
Build partnerships and develop strategic alliances.
STRATEGIC PRIORITIES:
Cooperate/collaborate with like-minded organizations to achieve preservation and stewardship objectives and to promote regional connectivity.
Be involved with planning and zoning boards regarding development issues and larger watershed conservation efforts.

Appendix B. Strategic Plan

A complete copy of the Strategic Plan for the Preserve (2011) can be obtained through the Preserve Office.