

**THE VILLAGE OF RIDGEWOOD**  
**131 North Maple Avenue, Ridgewood, NJ 07450**

**SITE DEVELOPMENT STUDY**

**FOR**

**460 WEST SADDLE RIVER ROAD**  
**A.K.A.**

**LOTS 9, 10, 11, AND 12, BLOCK 4704**

**IN THE VILLAGE OF RIDGEWOOD**

**October 7, 2015**

**File No. 15030**

# TABLE OF CONTENTS

- 1.0 INTRODUCTION
- 2.0 EXISTING CONDITIONS
- 3.0 SITE DEVELOPMENT STUDIES
- 4.0 PROPOSED SITE DESIGN FEATURES
- 5.0 GOING FORWARD

## APPENDIX

- A. NATURAL HERITAGE PROGRAM DATA SEARCH
- B. VILLAGE POLICE DEPARTMENT TRAFFIC STUDY
- C. SITE SOUND SURVEY
- D. RIDGEWOOD WATER DEPARTMENT FIRE HYDRANT FLOW TEST
- E. HISTORIC PRESERVATION OFFICE CERTIFICATION OF ELIGIBILITY

## 1.0 INTRODUCTION

The Village of Ridgewood acquired the land known as the Schedler and General Energy Properties in the Village for open space purposes. The property is also known as Block 4704, containing Lots 9, 10, 11, and 12. The property is located along the east side of State Highway Route 17 (northbound direction) between the highway and West Saddle River Road. The property's southern terminus is the confluence of West Saddle River Road and State Highway Route 17. The northern boundary abuts residential properties.

## 2.0 EXISTING CONDITIONS

The subject property is relatively flat. There is a slight elevation change from the highway's eastern edge to the site. The property also has a slight elevation change from north to south.

The site is wooded with deciduous trees about the lots. An unoccupied single family house and detached garage are on Lot 10 that front onto West Saddle River Road, surrounded by overgrown lawn area and trees. There is also an old garden shed in the center of the property. The stone driveway to the garage enters the property from West Saddle River Road. The site has an old potable water well that is no longer operable.

The property's eastern boundary is West Saddle River Road, a municipal roadway. The property frontage is curbed with concrete curb along West Saddle River Road. The site's western boundary is northbound New Jersey State Highway Route 17, with no curbing but four inlets.

## 3.0 SITE DEVELOPMENT STUDIES

To help assist the Village in developing passive and active recreational uses for the site, consistent with goals of the property's purchase, numerous studies and investigations of the site were conducted by the Village. Those reports and studies are listed following.

### **Preliminary Assessment Report (PAR)**

The first studies of the site were the Preliminary Assessment Reports (one report for Lots 9, 10, and 11 dated October 28, 2010, with a separate report for Lot 12 dated June 8, 2012). The Preliminary Assessment Report (PAR) was required as part of the purchase of the various lots that make up the site.

### **Site Survey**

A detailed boundary and topographic survey was prepared by a New Jersey Licensed Land Surveyor, Daniel M. Dunn, P.L.S. The survey defines the site limits and shows a

level site with little vertical change. In conjunction with the survey a Title Search was also done.

### **Environmental Constraints**

An important part of the development of any site is the identification of any and all environmental constraints. Field investigations had not shown any of the typical environmental constraints many of the Village's recreational properties have (wetlands, being in the Flood Hazard Area, flooding issues, steep slopes, bodies of water, etc.). The lack of field observations has been confirmed via a search of the Natural Heritage Database and the Landscape Project (Version 3.1). The search was performed by the State of New Jersey Department of Environmental Protection, State Forestry Services for the Village. Please refer to **Appendix A** for the report.

The Village's New Jersey Certified Tree Expert, Declan Madden, examined the trees about the site on September 29, 2015. He recommended that the damaged, toppled, and dead trees about the property be removed for the safety of visitors to the property.

### **Traffic Studies**

During project development discussions, several concerns regarding traffic volume and speeds on West Saddle River Road were raised. The Village's Police Department conducted two studies of West Saddle River Road over multiple days. The first was from June 20, 2015 through June 25, 2015. The second was from August 10, 2015 through August 15, 2015. For the first study, the average vehicle speed recorded was 31 mph. For the second study, the average speed recorded was 33 mph. West Saddle River Road is a 25 mph posted street.

The peak volume counts developed by the study were 128 vehicles between the hours of 1:00 pm and 2:00 pm on June 20, 2015 (which translates to approximately one vehicle on the street every 30 seconds). Peak traffic volume times in both studies were 10:00 am and 4:00 pm.

Detailed peak vehicle counts, speeds, peak travel times, etc. are in the attached report prepared by Sgt. John Chuck of the Ridgewood Police Department in **Appendix B**.

The results of the traffic studies indicate the proposed roundabout on West Saddle River Road at Kingsbridge Lane is not warranted, due to the volumes and speeds measured. The proposed site design now incorporates a dedicated left turn lane from north bound West Saddle River Road into the site's parking lot.

During project development, a discussion was undertaken with the Police Department on providing additional protection to the site from wayward vehicles from the northbound traffic on Route 17 just west of the site. A 6.5-foot tall, 17-foot wide earthen berm topped with large trees was designed to run along the site's western boundary adjacent to the highway. This berm will act to mitigate wayward vehicles, as well as provide screening

of the facility. The berm will run from the southern tip of the proposed parking lot north along Route 17 to past the proposed baseball field home plate.

The traffic conditions on West Saddle River Road have been discussed with the Chairman of the Village's Citizen's Safety Advisory Committee (CSAC), Charles Demarco. A full discussion is plan for an upcoming CSAC meeting.

### **Sound Survey**

On August 20 and 21, 2015, a representative from the Engineering Division conducted sound readings along the west curb line and east curb line of West Saddle River Road at 50 paced intervals along the site's frontage to the road using the Village's sound meter. Measured sound ranged from 57.5 dB to 72.8 dB on August 20, 2015. Sound readings ranged from 58.1 dB to 73 dB on August 21, 2015. Many of the readings were in the 60 dB range. The Sound Survey report, with details can be found in **Appendix C**.

While the existing conditions noise level measured often exceed the 65 dB permissible level in N.J.A.C. 7:29-1.2, (a), i. (also known Chapter 29 Noise Control, promulgated by the State of New Jersey), one needs to remember that N.J.A.C. 7:29-1.5 Exceptions, (a), No.'s 8 and 11, exempt traffic from public roadways and the unamplified human voice from the cited performance standards.

### **Fire Safety**

Fire Department response for the existing house has been addressed. James Van Goor, Chief, Ridgewood Fire Department, was given a tour of the house from attic to basement, with the various egress locations, to enable his department to formulate a proper response in the event one is required. Tour was on August 20, 2015 at 9:00 am.

In an effort to develop an adequate fire fighting response to events on the proposed fields and the park, hydrant flow tests were conducted by the Ridgewood Water Company on adjacent hydrants. Please refer to **Appendix D** for the flow data. Test results indicate 1,100 gpm is available to the field area.

The proposed site design calls for two fire hydrants. One will be near the two handicap motorist parking spots in the parking lot and the concession stand/bathrooms. This hydrant, combined with the existing ones along West Saddle River Road will give satisfactory coverage for the proposed facility. The second hydrant will be extended from the site hydrant to the highway, to provide water for emergency situations along Route 17, where there is currently very limited water availability.

### **Historic Preservation**

The old home on the site is often referred to as the Zabriskie-Schedler House. The home is currently unoccupied, and hasn't been occupied for approximately 10 years. The home is in a state of disrepair.

The NJDEP Natural and Historic Resources, Historic Preservation Office issued a Certification of Eligibility for the home on May 2, 2014. Please refer to **Appendix E**.

The old home has a leaking roof, mold contamination, a crumbling chimney, asbestos containing materials (both friable and non-friable), and issues with lead based paints. The home has been secured, and frequent observations have not noted any wildlife or human incursions.

### **Property Deed of Restrictions**

As that the property was purchased with the assistance of funding from the Bergen County Open Space Trust Fund, it has a Deed of Conservation Easement applicable to it. Among the many requirements in the easement are that the Village provide access for all to the site/facility/park. Other restrictions include no motorized recreation, no billboards, no cellular communications towers, etc. The Conservation Easement does not delineate the percentages of use the facility must have (active recreation versus passive uses).

## **4.0 PROPOSED SITE DESIGN FEATURES**

Utilizing the above information, in consideration with the recreation needs of the Village, the Engineering Division has developed the proposed site plan that incorporates the following features.

- A multi-purpose grass recreational field suitable for use by Village soccer, football, and lacrosse teams for both games and practice.
- Potential preservation of the old home at the site.
- Construction of onsite restrooms for users of the facility.
- A concession stand for use during games and activities.
- A fully ADA accessible playground for all children. A design similar to the one at Habernickel is being envisioned.
- A 90-foot grass and clay baseball diamond.
- Treed passive areas with a fully ADA accessible sidewalk wide enough to be able to be plowed of snow in the winter to provide year 'round use. The sidewalk is proposed to be wide enough so that emergency vehicles will be able to circulate through the park at all times.
- In areas designated for passive use, the existing topography will be maintained as best as possible, as well as any viable existing trees. Passive areas where toppled trees have to be removed, the Village proposes to have trees planted as in-fill trees.
- The southern tip of the site will have parking for approximately 74 spaces. The parking lot will have a drop off/pickup next to the sidewalk that navigates the site. Site lighting for the parking lot will be with shoebox fixtures in accordance with the Village's light standards.

- Alongside the first base line of the baseball field, a 60-foot tall protective netting is proposed to protect the highway from errant balls.
- Spectator seating for the baseball field.
- All site storm water runoff will be managed by the proposed onsite rain gardens. No storm water runoff is proposed to leave the site.
- A passive field is proposed just west of the old home and south of the sports field. This can be used for informal recreation.
- The walking path is stubbed out to the northwest corner of the site for possible connection to the pedestrian bridge crossing Route 17.
- Trees and fencing are proposed along West Saddle River Road and the multi-purpose field.
- The site topography provides the ability to provide very gentle grades for the multi-purpose field.
- A fire hydrant near the concession stand in the parking lot.
- Closure and sealing of the inoperable potable water well.
- Construction of a earth landscaping berm planted with trees to screen and separate the of the field from the highway.

The following features are not included as part of the planning of the park:

- Field lighting.
- Synthetic turf

## **5.0 GOING FORWARD**

Once the proposed field design has been finalized, and is accepted via a Title 59 resolution from the Village Council, the drawings will be finalized, signed, and sealed.

Submittals will then be made to the following entities for permits and/or approvals.

- New Jersey Department of Transportation (NJDOT). Courtesy review as that we are not seeking a highway access permit.
- Bergen County Planning Board. Initial discussions have occurred with the reviewer for the Village.
- Bergen County Soil Conservation District.
- Submittal of well closure permit to the New Jersey Department of Environmental Protection (NJDEP).
- Courtesy review by the Village Planning Board.
- Courtesy review by the Bergen County Open Space Division of the Bergen County Department of Planning and Economic Development.



# APPENDIX A



State of New Jersey

CHRIS CHRISTIE  
Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
State Forestry Services  
Mail Code 501-04  
ONLM -Natural Heritage Program  
P.O. Box 420  
Trenton, NJ 08625-0420  
Tel. #609-984-1339  
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BOB MARTIN  
Commissioner

KIM GUADAGNO  
Lt. Governor

October 6, 2015

Christopher J. Rutishauser  
Village of Ridgewood  
131 North Maple Avenue  
Ridgewood, NJ 07450

Re: Recreational Fields, 460 West Saddle River Road  
Block(s) - 4704, Lot(s) - 9, 10, 11 and 12  
Ridgewood Village, Bergen County

Dear Mr. Rutishauser:

Thank you for your data request regarding rare species information for the above referenced project site in Ridgewood Village, Bergen County.

Searches of the Natural Heritage Database and the Landscape Project (Version 3.1) are based on a representation of the boundaries of your project site in our Geographic Information System (GIS). We make every effort to accurately transfer your project bounds from the topographic map(s) submitted with the Request for Data into our Geographic Information System. We do not typically verify that your project bounds are accurate, or check them against other sources.

We have checked the Landscape Project habitat mapping and the Biotics Database for occurrences of any rare wildlife species or wildlife habitat on the referenced site. The Natural Heritage Database was searched for occurrences of rare plant species or ecological communities that may be on the project site. Please refer to Table 1 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented on site. A detailed report is provided for each category coded as 'Yes' in Table 1.

We have also checked the Landscape Project habitat mapping and Biotics Database for occurrences of rare wildlife species or wildlife habitat in the immediate vicinity (within ¼ mile) of the referenced site. Additionally, the Natural Heritage Database was checked for occurrences of rare plant species or ecological communities within ¼ mile of the site. Please refer to Table 2 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented within the immediate vicinity of the site. Detailed reports are provided for all categories coded as 'Yes' in Table 2. These reports may include species that have also been documented on the project site.

The Natural Heritage Program reviews its data periodically to identify priority sites for natural diversity in the State. Included as priority sites are some of the State's best habitats for rare and endangered species and ecological communities. Please refer to Tables 1 and 2 (attached) to determine if any priority sites are located on or in the vicinity of the site.

A list of rare plant species and ecological communities that have been documented from the project site, referenced above, can be downloaded from <http://www.state.nj.us/dep/parksandforests/natural/heritage/countylist.html>. If suitable habitat is present at the project site, the species in that list have potential to be present.

Status and rank codes used in the tables and lists are defined in EXPLANATION OF CODES USED IN NATURAL HERITAGE REPORTS, which can be downloaded from [http://www.state.nj.us/dep/parksandforests/natural/heritage/nhpcodes\\_2010.pdf](http://www.state.nj.us/dep/parksandforests/natural/heritage/nhpcodes_2010.pdf).

NHP File No. 15-4007481-8500

If you have questions concerning the wildlife records or wildlife species mentioned in this response, we recommend that you visit the interactive NJ-GeoWeb website at the following URL, <http://www.state.nj.us/dep/gis/geoweb splash.htm> or contact the Division of Fish and Wildlife, Endangered and Nongame Species Program at (609) 292-9400.

PLEASE SEE 'CAUTIONS AND RESTRICTIONS ON NHP DATA', which can be downloaded from <http://www.state.nj.us/dep/parksandforests/natural/heritage/newcaution2008.pdf>.

Thank you for consulting the Natural Heritage Program. The attached invoice details the payment due for processing this data request. Feel free to contact us again regarding any future data requests.

Sincerely,

A handwritten signature in blue ink, appearing to read 'R. Cartica', with a horizontal line extending to the right.

Robert J. Cartica  
Administrator

c: NHP File No. 15-4007481-8500

***Table 1: On Site Data Request Search Results (7 Possible Reports)***

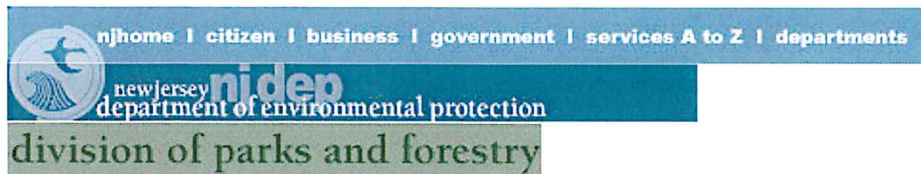
<b><u>Report Name</u></b>	<b><u>Included</u></b>	<b><u>Number of Pages</u></b>
1. Possibly on Project Site Based on Search of Natural Heritage Database: Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database	No	0 pages included
2. On or In the Immediate Vicinity of the Project Site Based on Search of the Natural Heritage Database: Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database	No	0 pages included
3. Natural Heritage Priority Sites On Site	No	0 pages included
4. Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.1 Species Based Patches	No	0 pages included
5. Vernal Pool Habitat on the Project Site Based on Search of Landscape Project 3.1	No	0 pages included
6. Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.1 Stream Habitat File	No	0 pages included
7. Other Animal Species On the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	No	0 pages included

**Table 2: Vicinity Data Request Search Results (6 possible reports)**

<b><u>Report Name</u></b>	<b><u>Included</u></b>	<b><u>Number of Pages</u></b>
1. Immediate Vicinity of the Project Site Based on Search of Natural Heritage Database Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites within the Vicinity	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.1 Species Based Patches	Yes	1 page(s) included
4. Vernal Pool Habitat In the Immediate Vicinity of Project Site Based on Search of Landscape Project 3.1	No	0 pages included
5. Rare Wildlife Species or Wildlife Habitat In the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.1 Stream Habitat File	No	0 pages included
6. Other Animal Species In the Immediate Vicinity of the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	No	0 pages included

**Rare Wildlife Species or Wildlife Habitat Within the  
Immediate Vicinity of the Project Site Based on Search of  
Landscape Project 3.1 Species Based Patches**

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
Aves	Bald Eagle	Haliaeetus leucocephalus	Foraging	4	NA	State Endangered	G5	S1B,S2N
	Black-crowned Night-heron	Nycticorax nycticorax	Foraging	3	NA	State Threatened	G5	S2B,S3N



## Special Plants of NJ - Appendix I - Categories & Definitions

### Contents

- [Federal Status Codes](#)
- [State Status Codes](#)
- [Other Status Codes](#)
- [Global Element Ranks](#)
- [State Element Ranks](#)

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### FEDERAL STATUS CODES

The following U.S. Fish and Wildlife Service categories and their definitions of endangered and threatened plants and animals have been modified from the U.S. Fish and Wildlife Service (F.R. Vol. 50 No. 188; Vol. 61, No. 40; F.R. 50 CFR Part 17). Federal Status codes reported for species follow the most recent listing.

LE Taxa formally listed as endangered.

LT Taxa formally listed as threatened.

PE Taxa already proposed to be formally listed as endangered.

PT Taxa already proposed to be formally listed as threatened.

C Candidate Taxa for which the Service currently has on file sufficient information on biological vulnerability and threat(s) to support proposals to list them as endangered or threatened species.

S/A Similarity of appearance species

### STATE STATUS CODES

#### Animals:

Two animal lists provide state status codes after the Endangered and Nongame Species Conservation Act of 1973 (NSSA 23:2A-13 et. seq.): the list of endangered species (N.J.A.C. 7:25-4.13) and the list defining status of indigenous, nongame wildlife species of New Jersey (N.J.A.C. 7:25-4.17(a)). The status of animal species is determined by the Endangered and Nongame Species Program (ENSP), with the review and approval of the Endangered and Nongame Species Advisory Committee.

The state status codes and definitions provided reflect the most recent lists that were revised in the New Jersey Register, Monday, June 3, 1991.

EX -- Extirpated species-a species that formerly occurred in New Jersey, but is not now known to exist within the state.

E -- Endangered species-an endangered species is one whose prospects for survival within the state are in immediate danger due to one or many factors - a loss of habitat, over exploitation, predation, competition, disease. An endangered species requires immediate assistance or extinction will probably follow.

T -- Threatened species-a species that may become endangered if conditions surrounding the species begin to or continue to deteriorate.

D -- Declining species-a species which has exhibited a continued decline in population numbers over the years.

S -- Stable species-a species whose population is not undergoing any long-term increase/decrease within its natural cycle.

INC -- Increasing species-a species whose population has exhibited a significant increase, beyond the normal range of its life cycle, over a long term period.

P -- Peripheral species-a species whose occurrence in New Jersey is at the extreme edge of its present natural range.

U -- Undetermined species-a species about which there is not enough information available to determine the status.

I -- Introduced species-a species not native to New Jersey that could not have established itself here without the assistance of man.

Status for animals separated by a slash(/) indicate a dual status. First status refers to the state breeding population, and the second status refers to the migratory or winter population.

SC – Special Concern – applies to animal species that warrant special attention because of some evidence of decline, inherent vulnerability to environmental deterioration, or habitat modification that would result in their becoming a Threatened species. This category would also be applied to species that meet the foregoing criteria and for which there is little understanding of their current population status in the state.

#### **Plants:**

Plant taxa listed as endangered are from New Jersey's official Endangered Plant Species List (N.J.A.C. 7:5C – 5.1).

E Native New Jersey plant species whose survival in the State or nation is in jeopardy.

#### **REGIONAL STATUS CODES FOR PLANTS AND ECOLOGICAL COMMUNITIES**

LP Indicates taxa listed by the Pinelands Commission as endangered or threatened within their legal jurisdiction. Not all species currently tracked by the Pinelands Commission are tracked by the Natural Heritage Program. A complete list of endangered and threatened Pineland species is included in the New Jersey Pinelands Comprehensive Management Plan.

HL Indicates taxa or ecological communities protected by the Highlands Water Protection and Planning Act within the jurisdiction of the Highlands Preservation Area.

#### **EXPLANATION OF GLOBAL AND STATE ELEMENT RANKS**

The Nature Conservancy developed a ranking system for use in identifying elements (rare species and ecological communities) of natural diversity most endangered with extinction. Each element is ranked according to its global, national, and state (or subnational in other countries) rarity. These ranks are used to prioritize conservation work so that the most endangered elements receive attention first. Definitions for element ranks are after The Nature Conservancy (1982: Chapter 4, 4.1-1 through 4.4.1.3-3).

**GLOBAL ELEMENT RANKS**

G1 Critically imperiled globally because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extinction.

G2 Imperiled globally because of rarity (6 to 20 occurrences or few remaining individuals or acres) or because of some factor(s) making it very vulnerable to extinction throughout its range.

G3 Either very rare and local throughout its range or found locally (even abundantly at some of its locations) in a restricted range (e.g., a single western state, a physiographic region in the East) or because of other factors making it vulnerable to extinction throughout its range; with the number of occurrences in the range of 21 to 100.

G4 Apparently secure globally; although it may be quite rare in parts of its range, especially at the periphery.

G5 Demonstrably secure globally; although it may be quite rare in parts of its range, especially at the periphery.

GH Of historical occurrence throughout its range i.e., formerly part of the established biota, with the expectation that it may be rediscovered.

GU Possibly in peril range-wide but status uncertain; more information needed.

GX Believed to be extinct throughout range (e.g., passenger pigeon) with virtually no likelihood that it will be rediscovered.

G? Species has not yet been ranked.

GNR Species has not yet been ranked.

**STATE ELEMENT RANKS**

S1 Critically imperiled in New Jersey because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres). Elements so ranked are often restricted to very specialized conditions or habitats and/or restricted to an extremely small geographical area of the state. Also included are elements which were formerly more abundant, but because of habitat destruction or some other critical factor of its biology, they have been demonstrably reduced in abundance. In essence, these are elements for which, even with intensive searching, sizable additional occurrences are unlikely to be discovered.

S2 Imperiled in New Jersey because of rarity (6 to 20 occurrences). Historically many of these elements may have been more frequent but are now known from very few extant occurrences, primarily because of habitat destruction. Diligent searching may yield additional occurrences.

S3 Rare in state with 21 to 100 occurrences (plant species and ecological communities in this category have only 21 to 50 occurrences). Includes elements which are widely distributed in the state but with small populations/acreage or elements with restricted distribution, but locally abundant. Not yet imperiled in state but may soon be if current trends continue. Searching often yields additional occurrences.

S4 Apparently secure in state, with many occurrences.

S5 Demonstrably secure in state and essentially ineradicable under present conditions.

SA Accidental in state, including species (usually birds or butterflies) recorded once or twice or only at very great intervals, hundreds or even thousands of miles outside their usual range; a few of these

species may even have bred on the one or two occasions they were recorded; examples include European strays or western birds on the East Coast and vice-versa.

SE Elements that are clearly exotic in New Jersey including those taxa not native to North America (introduced taxa) or taxa deliberately or accidentally introduced into the State from other parts of North America (adventive taxa). Taxa ranked SE are not a conservation priority (viable introduced occurrences of G1 or G2 elements may be exceptions).

SH Elements of historical occurrence in New Jersey. Despite some searching of historical occurrences and/or potential habitat, no extant occurrences are known. Since not all of the historical occurrences have been field surveyed, and unsearched potential habitat remains, historically ranked taxa are considered possibly extant, and remain a conservation priority for continued field work with the expectation they may be rediscovered.

SP Element has potential to occur in New Jersey, but no occurrences have been reported.

SR Elements reported from New Jersey, but without persuasive documentation which would provide a basis for either accepting or rejecting the report. In some instances documentation may exist, but as of yet, its source or location has not been determined.

SRF Elements erroneously reported from New Jersey, but this error persists in the literature.

SU Elements believed to be in peril but the degree of rarity uncertain. Also included are rare taxa of uncertain taxonomical standing. More information is needed to resolve rank.

SX Elements that have been determined or are presumed to be extirpated from New Jersey. All historical occurrences have been searched and a reasonable search of potential habitat has been completed. Extirpated taxa are not a current conservation priority.

SXC Elements presumed extirpated from New Jersey, but native populations collected from the wild exist in cultivation.

SZ Not of practical conservation concern in New Jersey, because there are no definable occurrences, although the taxon is native and appears regularly in the state. An SZ rank will generally be used for long distance migrants whose occurrences during their migrations are too irregular (in terms of repeated visitation to the same locations), transitory, and dispersed to be reliably identified, mapped and protected. In other words, the migrant regularly passes through the state, but enduring, mappable element occurrences cannot be defined.

Typically, the SZ rank applies to a non-breeding population (N) in the state - for example, birds on migration. An SZ rank may in a few instances also apply to a breeding population (B), for example certain lepidoptera which regularly die out every year with no significant return migration.

Although the SZ rank typically applies to migrants, it should not be used indiscriminately. Just because a species is on migration does not mean it receives an SZ rank. SZ will only apply when the migrants occur in an irregular, transitory and dispersed manner.

B Refers to the breeding population of the element in the state.

N Refers to the non-breeding population of the element in the state.

T Element ranks containing a "T" indicate that the infraspecific taxon is being ranked differently than the full species. For example *Stachys palustris* var. *homotricha* is ranked "G5T? SH" meaning the full species is globally secure but the global rarity of the var. *homotricha* has not been determined; in New Jersey the variety is ranked historic.

Q Elements containing a "Q" in the global portion of its rank indicates that the taxon is of questionable, or uncertain taxonomical standing, e.g., some authors regard it as a full species, while others treat it at the subspecific level.

.1 Elements only, ever documented from a single location.

Note: To express uncertainty, the most likely rank is assigned and a question mark added (e.g., G2?). A range is indicated by combining two ranks (e.g., G1G2, S1S3).

## IDENTIFICATION CODES

These codes refer to whether the identification of the species or community has been checked by a reliable individual and is indicative of significant habitat. These codes are not included on all Natural Heritage Reports.

**Y** Identification has been verified and is indicative of significant habitat.

**BLANK** Identification has not been verified but there is no reason to believe it is not indicative of significant habitat.

**?** Either it has not been determined if the record is indicative of significant habitat or the identification of the species or community may be confusing or disputed.

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Department of Environmental Protection  
P. O. Box 402  
Trenton, NJ 08625-0402

Last Updated: March 22, 2010

Rare Plant Species and Ecological Communities Presently  
Recorded in the NJ Natural Heritage Database

Scientific Name	Common Name	Federal Status	State Status	Regional Status	G Rank	S Rank
<b>Nonvascular Plant</b>						
<i>Sphagnum angustifolium</i>	Sphagnum		E	LP, HL	G5	S1
<i>Sphagnum contortum</i>	Sphagnum		E	LP, HL	G5	S1
<i>Sphagnum majus ssp. norvegicum</i>	Sphagnum		E	LP, HL	G5?TNR	S1.1
<i>Sphagnum platyphyllum</i>	Sphagnum			HL	G5	SX.1
<i>Sphagnum subsecundum</i>	Sphagnum		E	LP, HL	G5	S1
<i>Sphagnum subtile</i>	Sphagnum			HL	G5?Q	S2
<i>Sphagnum teres</i>	Sphagnum			HL	G5	S2
<b>Vascular Plant</b>						
<i>Acorus americanus</i>	American Sweetflag			HL	G5	S1?
<i>Adlumia fungosa</i>	Climbing Fumitory			HL	G4	S2
<i>Agastache nepetoides</i>	Yellow Giant-hyssop			HL	G5	S2
<i>Agastache scrophulariifolia</i>	Purple Giant-hyssop			HL	G4	S2
<i>Alopecurus aequalis var. aequalis</i>	Short-awn Meadow-foxtail			HL	G5T5?	S2
<i>Amelanchier humilis</i>	Low Service-berry			HL	G5	S1S2
<i>Ammannia latifolia</i>	Koehn's Toothcup		E	LP, HL	G5	S1
<i>Anemone canadensis</i>	Canada Anemone			HL	G5	SX
<i>Aplectrum hyemale</i>	Puttyroot		E	LP, HL	G5	S1

County: Bergen

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<i>Arabis hirsuta</i> var. <i>pyncocarpa</i>	Western Hairy Rockcress			HL	G5T5	S1
<i>Asclepias verticillata</i>	Whorled Milkweed			HL	G5	S2
<i>Betula papyrifera</i> var. <i>papyrifera</i>	Paper Birch			HL	G5T5	S2
<i>Botrychium oneidense</i>	Blunt-lobed Grape Fern			HL	G4	S2
<i>Bouteloua curtipendula</i> var. <i>curtipendula</i>	Side-oats Grama Grass	E		LP, HL	G5T5	S1
<i>Callitriche palustris</i>	Marsh Water-starwort			HL	G5	S2
<i>Carex albursina</i>	White Bear Lake Sedge			HL	G5	S2
<i>Carex bicknellii</i> var. <i>bicknellii</i>	Bicknell's Sedge			HL	G5T5	S2
<i>Carex deweyana</i> var. <i>deweyana</i>	Dewey's Sedge	E		LP, HL	G5T5	S1
<i>Carex disperma</i>	Soft-leaf Sedge			HL	G5	S1S2
<i>Carex haydenii</i>	Cloud Sedge	E		LP, HL	G5	S1
<i>Carex pallescens</i>	Pale Sedge			HL	G5	S2
<i>Carex pseudocyperus</i>	Cyperus-like Sedge	E		LP, HL	G5	S1
<i>Carex siccata</i>	Hillside Sedge	E		LP, HL	G5	S1
<i>Carex tuckermanii</i>	Tuckerman's Sedge	E		LP, HL	G4	S1
<i>Carex utriculata</i>	Bottle-shaped Sedge			HL	G5	S2
<i>Castilleja coccinea</i>	Scarlet Indian-paintbrush			HL	G5	S2
<i>Cercis canadensis</i> var. <i>canadensis</i>	Redbud	E		LP, HL	G5T5	S1
<i>Chenopodium rubrum</i>	Red Goosefoot	E		LP, HL	G5	S1
<i>Chenopodium simplex</i>	Maple-leaf Goosefoot			HL	G5	S2

County: Bergen

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<i>Corallorhiza wisteriana</i>	Spring Coralroot			HL	G5	SX
<i>Coreopsis rosea</i>	Rose-color Coreopsis			LP, HL	G3	S2
<i>Cornus canadensis</i>	Bunchberry			HL	G5	S1S2
<i>Crataegus chrysoarpa</i> var. <i>chrysoarpa</i>	Fireberry Hawthorn			HL	G5T5	S2
<i>Cryptogramma stelleri</i>	Slender Rockbrake	E		LP, HL	G5	SH.1
<i>Cuphea viscosissima</i>	Blue Waxweed			HL	G5?	S3
<i>Cynoglossum virginianum</i> var. <i>virginianum</i>	Wild Comfrey			HL	G5T5	S2
<i>Cypripedium reginae</i>	Showy Lady's-slipper	E		LP, HL	G4	S1
<i>Desmodium cuspidatum</i> var. <i>cuspidatum</i>	Toothed Tick-trefoil			HL	G5T5?	S2
<i>Diplazium pycnocarpon</i>	Glade Fern	E		LP, HL	G5	S1
<i>Dirca palustris</i>	Leatherwood			HL	G4	S2
<i>Doellingeria infirma</i>	Cornel-leaf Aster			HL	G5	S2
<i>Dryopteris celsa</i>	Log Fern	E		LP, HL	G4	S1
<i>Elatine americana</i>	American Waterwort			HL	G4	S2
<i>Eleocharis halophila</i>	Salt-marsh Spike-rush			HL	G4	S2
<i>Epilobium angustifolium</i> ssp. <i>circumvagum</i>	Narrow-leaf Fireweed			HL	G5T5	S1S2
<i>Equisetum pratense</i>	Meadow Horsetail	E		LP, HL	G5	S1
<i>Eriophorum gracile</i> var. <i>gracile</i>	Slender Cotton-grass	E		LP, HL	G5T4T5	SH
<i>Eriophorum viridicarinatum</i>	Thin-leaf Cotton-grass			HL	G5	S3
<i>Gaultheria hispidula</i>	Creeping-snowberry	E		LP, HL	G5	S1

County: Bergen

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<i>Gnaphalium macounii</i>	Winged Cudweed		E	LP, HL	G5	SH
<i>Gymnocarpium dryopteris</i>	Oak Fern			HL	G5	S1S2
<i>Hieracium kalmii</i> var. <i>fasciculatum</i>	Canada Hawkweed		E	LP, HL	G5T3T5	S1
<i>Hottonia inflata</i>	Featherfoil		E	LP, HL	G4	S1
<i>Hydrocotyle ranunculoides</i>	Floating Marsh-pennywort		E	LP, HL	G5	S1
<i>Hypericum adpressum</i>	Barton's St. John's-wort		E	LP, HL	G3	S2
<i>Hypericum majus</i>	Larger Canadian St. John's Wort		E	LP, HL	G5	S1
<i>Isotria medeoloides</i>	Small Whorled Pogonia	LT	E	LP, HL	G2	S1
<i>Juncus brevicaudatus</i>	Narrow-panicle Rush			HL	G5	S2
<i>Lemna perpusilla</i>	Minute Duckweed		E	LP, HL	G5	S1
<i>Lemna trisulca</i>	Star Duckweed			HL	G5	S2
<i>Lemna valdiviana</i>	Pale Duckweed		E	LP, HL	G5	S1
<i>Leptochloa fascicularis</i> var. <i>maritima</i>	Long-awn Sprangletop			HL	G5T3T4Q	S2
<i>Limosella australis</i>	Awl-leaf Mudwort		E	LP, HL	G4G5	S1
<i>Linnaea borealis</i> var. <i>americana</i>	Twinflower		E	LP, HL	G5T5	SH
<i>Linum sulcatum</i> var. <i>sulcatum</i>	Grooved Yellow Flax		E	LP, HL	G5T5	S1
<i>Lipocarpha micrantha</i>	Small-flower Halfchaff Sedge		E	LP, HL	G5	S1
<i>Luzula acuminata</i> var. <i>acuminata</i>	Hairy Wood-rush		E	LP, HL	G5T5	S1
<i>Lycopodiella inundata</i>	Northern Bog Club-moss			HL	G5	S1S2
<i>Lysimachia hybrida</i>	Lowland Loosestrife			HL	G5	S3

County: Bergen

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<i>Malaxis unifolia</i>	Green Adder's-mouth		E	LP, HL	G5	SH
<i>Melanthium virginicum</i>	Virginia Bunchflower		E	LP, HL	G5	S1
<i>Menyanthes trifoliata</i>	Buck-bean			HL	G5	S2
<i>Monarda clinopodia</i>	Basil Beebalm		E	LP, HL	G5	SH
<i>Muhlenbergia glomerata</i>	Eastern Smoke Grass			HL	G5	S2
<i>Nuphar lutea ssp. pumila</i>	Small Yellow Pond-lily		E	LP, HL	G5T4T5	SH
<i>Obolaria virginica</i>	Virginia Pennywort			HL	G5	S2
<i>Onosmodium virginianum</i>	Virginia False-gromwell		E	LP, HL	G4	S1
<i>Panicum boreale</i>	Northern Panic Grass		E	LP, HL	G5	S1
<i>Phaseolus polystachios var. polystachios</i>	Wild Kidney Bean			HL	G5T5?	S2
<i>Phlox pilosa var. pilosa</i>	Downy Phlox		E	LP, HL	G5T5	SH
<i>Physalis grisea</i>	Strawberry-tomato			HL	G5?	SH
<i>Plantago maritima var. juncooides</i>	Seaside Plantain			HL	G5T5	S2
<i>Platanthera hyperborea var. huronensis</i>	Leafy Northern Green Orchid			HL	G5T5?	SX
<i>Poa autumnalis</i>	Flexuous Spear Grass		E	LP, HL	G5	SH.1
<i>Potamogeton oakesianus</i>	Oakes' Pondweed			HL	G4	S2
<i>Prenanthes racemosa var. racemosa</i>	Smooth Rattlesnake-root		E	LP, HL	G5T4	SH
<i>Ptelea trifoliata var. trifoliata</i>	Wafer-ash		E	LP, HL	G5T5	S1
<i>Puccinellia fasciculata</i>	Saltmarsh Alkali Grass			HL	G3G5	S1S2
<i>Pycnanthemum clinopodioides</i>	Basil Mountain-mint		E	LP, HL	G1G2	S1
<i>Pycnanthemum torrei</i>	Torrey's Mountain-mint		E	LP, HL	G2	S1

County: Bergen

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<i>Ranunculus ambigens</i>	Water-plantain Spearwort			HL	G4	S2
<i>Ranunculus flabellaris</i>	Yellow Water Buttercup			HL	G5	S3
<i>Ranunculus micranthus</i>	Rock Buttercup			HL	G5	S2
<i>Ranunculus pusillus</i> var. <i>pusillus</i>	Low Spearwort			HL	G5T4?	S2
<i>Ranunculus trichophyllus</i> var. <i>trichophyllus</i>	Thread-leaf Water Buttercup			HL	G5T5	S2
<i>Rotala ramosior</i>	Toothcup			HL	G5	S3
<i>Sabatia dodecandra</i> var. <i>dodecandra</i>	Large Marsh-pink			HL	G5T4T5	S2
<i>Saccharum alopecuroidum</i>	Silver Plume Grass	E	LP, HL		G5	SH
<i>Sagittaria filiformis</i>	Narrow-leaf Arrowhead	E	LP, HL		G4G5	SH
<i>Sagittaria subulata</i>	Awl-leaf Arrowhead			HL	G4	S2
<i>Salix candida</i>	Hoary Willow			HL	G5	S2
<i>Salix lucida</i> ssp. <i>lucida</i>	Shining Willow			HL	G5T5	S1?
<i>Salix pedicellaris</i>	Bog Willow	E	LP, HL		G5	S1
<i>Schoenoplectus maritimus</i>	Saltmarsh Bulrush	E	LP, HL		G5	S1
<i>Schoenoplectus torreyi</i>	Torrey's Bulrush	E	LP, HL		G5?	S1
<i>Scirpus atrocinctus</i>	Black-girdle Woolgrass			HL	G5	S2
<i>Scleria verticillata</i>	Whorled Nut-rush	E	LP, HL		G5	S1
<i>Scutellaria nervosa</i>	Veined Skullcap			HL	G5	S2
<i>Silene caroliniana</i> var. <i>pennsylvanica</i>	Wild-pink			HL	G5T4T5	S3
<i>Smallanthus uvedatius</i>	Bear's-foot	E	LP, HL		G4G5	S1

County: Bergen

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<i>Solidago rigida</i> var. <i>rigida</i>	Prairie Goldenrod		E	LP, HL	G5T5	S1
<i>Sphenopholis pensylvanica</i>	Swamp Oats			HL	G4	S2
<i>Sporobolus compositus</i> var. <i>compositus</i>	Long-leaf Rush-grass			HL	G5T5	S2
<i>Stachys hyssopifolia</i>	Hyssop Hedge-nettle			HL	G4G5	S2
<i>Thuja occidentalis</i>	Arborvitae	E		LP, HL	G5	S1
<i>Tiarella cordifolia</i> var. <i>cordifolia</i>	Foamflower	E		LP, HL	G5T5	S1
<i>Triglochin maritima</i>	Seaside Arrow-grass	E		LP, HL	G5	S1
<i>Triphora trianthophora</i>	Three Birds Orchid	E		LP, HL	G3G4	S1
<i>Trollius laxus</i> ssp. <i>laxus</i>	Spreading Globe Flower	E		LP, HL	G5T3	S1
<i>Utricularia intermedia</i>	Flat-leaf Bladderwort			HL	G5	S3
<i>Verbena simplex</i>	Narrow-leaf Vervain	E		LP, HL	G5	S1
<i>Viola canadensis</i> var. <i>canadensis</i>	Canadian Violet	E		LP, HL	G5T5	S1
<i>Viola septentrionalis</i>	Northern Blue Violet	E		LP, HL	G5	S1

County: Bergen