



August 6, 2015
Timothy B. Cassidy, CEO
Senior Consulting, LLC
823 West Park Avenue, #256
Ocean, NJ 07712

Re: **Endangered Species Screening Report and Wetland Delineation
Senior Living Management Facility - 145 New Karner Road site
Town of Guilderland, Albany County, NY**

Dear Mr. Cassidy:

This summary report presents the findings of Bagdon Environmental's endangered species assessment and wetland delineation on the 12± acre area of the 51± acre site proposed for development. The assessment focused on the proposed development portion of the site with a cursory review of the land to be conveyed to the Albany Pine Bush as a conservation set-aside.

Bagdon Environmental conducted field surveys to document existing habitats, plants and wildlife within the study area. An initial site assessment was conducted on October 17, 2014. Follow-up surveys were conducted on May 13th, 21st and June 29th 2015. Vegetation cover types and plant species composition were documented on the site along with observed wildlife species and associated sign. Existing conditions were noted on site including structures and disturbances. Site navigation and photo locations were tracked using a DeLorme PN-60 hand-held Global Positioning System (GPS), WAAS enabled with sub-3 meter accuracy. Wetland delineation location was completed using a Trimble sub-meter GPS unit.

Resources reviewed prior to conducting the fieldwork include the following:

- Proposed Site Plan (dated 9-13-13 with revisions through 8/5/14).
- NYSDEC Environmental Mapper with New York Natural Heritage Program records of rare wildlife, plants, and significant habitats in the vicinity of the site.
- Albany Co. list of Federally-listed Endangered, Threatened and Candidate Species.
- Albany County Soil Survey.
- National Wetland Inventory map.
- NYSDEC Freshwater Wetland map.
- U.S.G.S. topographic map.
- New York State Breeding Bird Atlas data.
- Endangered, Threatened, and Special Concern Species of NYS (ECL Section 11-0535).
- Federal Endangered and Threatened Wildlife and Plants (50 CFR 17.11 and 17.12).

Site Description

The NYSDEC Environmental Mapper (attached) shows part of the proposed development site is mapped as a significant ecological community (Pitch-pine scrub oak – typical of the Albany Pine bush proper). However, this area contains relatively few living pitch pines and is being shaded out by the surrounding white pines. Many of the pitch pines are now dead. The remaining live pitch pines were located to determine if the community mapping was still appropriate. Given the dominance of white pines and existing conditions, we feel that the mapping of this area as a pitch pine-scrub oak community is not warranted.

Most of the site is forested with conifers dominating except in the south and western portions of the site near the ravines and wetlands. These areas contain larger oaks (*Quercus velutina*, *Q. rubra*, *Q. coccinea* and *Q. alba*) and other mature forest species. White pine (*Pinus strobus*) is predominant in the northern portion of the site with a stand of scotch pine closer to Rt. 155.

The successional upland forest contains a number of common representative species such as black locust (*Robinia pseudoacacia*), trembling aspen, cottonwood (*Populus deltoides*), black cherry (*Prunus serotina*), tree-of-heaven (*Ailanthus altissima*), gray birch (*Betula populifolia*) and red maple (*Acer rubrum*).

There are several small areas of open sandy soils (see attached photos and map) that are conducive to blue lupine, the host plant for the Federal/State endangered Karner blue butterfly. We could not assess the presence of the lupine during the October 2014 survey so we conducted follow-up surveys in May and June 2015 when lupine is most visible. Given the proximity to the pine bush and historical records of rare plants in the area, the site also warranted additional searches for rare plants during the lupine assessment.

The wooded ravines containing wetlands are steeply sloped with numerous seepage areas relatively high on the slopes. Remnants of building debris, asphalt drive, concrete and related debris were present along the property line in this area. These wetlands originate from groundwater discharge (seeps) and flow to the Kaikout Kill.

Wetland Delineation

Bagdon Environmental conducted the wetland delineation in the proposed development area to determine the extent of waters of the U.S. (including wetlands) subject to federal jurisdiction under Section 404 of the Clean Water Act and wetlands subject to Article 24 of the New York State Environmental Conservation Law. Waters of the U.S. include wetlands, intermittent streams, natural drainage courses, lakes and ponds.

The wetland delineation was conducted using the routine level, on-site determination method. This method utilizes the three-parameter approach (hydrophytic vegetation, hydric soils, and wetland hydrology) outlined in the 1987 *Corps of Engineers Wetlands Delineation Manual* and the *Northeast Regional Supplement*. Bagdon Environmental also assessed the potential presence of isolated wetlands (not subject to Section 404 jurisdiction) pursuant to the recent supreme court ruling (*Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.*, No. 99-1178 (January 9, 2001)).

In summary, wetlands in the proposed development area are limited to the seepage areas and small ravines that form the headwaters of the Kaikout Kill. The delineated wetlands are shown on the attached wetland delineation map. No NYSDEC mapped wetlands are present in the immediate site vicinity.

Endangered/Threatened Species Screening

The focus of the endangered/threatened species screening entailed assessing the potential for habitat of listed species including Karner Blue Butterfly, Frosted Elfin and Northern Long-eared Bat. The potential for rare plants to occur onsite was also assessed.

Bagdon Environmental reviewed the NYSDEC Mapper for preliminary information on endangered species in the site vicinity. In addition, we submitted an information request on June 19, 2015 to the New York Natural Heritage Program (NYNHP) for records of rare species in the area. According to the NYNHP response letter (attached) date July 21, 2015, the rare species listed in the site vicinity are associated with typical pitch pine scrub oak barrens. The NYNHP letter also mentions part of the site being mapped as Pitch Pine-Oak Forest. As described in the "Site Description" above, the existing conditions do not merit this classification.

No rare (Endangered/Threatened) wildlife species were observed during Bagdon Environmental's field surveys. According to the NYSDEC Environmental Mapper, there are no records of rare wildlife species in the immediate vicinity of the site. Most of the observed and expected wildlife is typical of urban-suburban species such as white-tailed deer (*Odocoileus virginianus*), raccoon (*Procyon lotor*), red-bellied wood pecker (*Melanerpes carolinus*) common crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), blue jay (*Cyanocitta cristata*) and black-capped chickadee (*Poecile atricapillus*). Only three species of amphibians were observed including red-backed salamander (*Plethodon cinereus*), three-lined salamander (*Eurycea guttolineata*) and spring peeper (*Pseudacris crucifer*). A Cooper's hawk (*Accipiter cooperii*), listed as "Special Concern" by the NYSDEC, was observed onsite. This species is fairly common throughout the area in many forested habitats.

The U.S. Fish and Wildlife Service (USFWS) website was reviewed for Federal listed species in Albany County. The only documented federally endangered species in the area is the Karner Blue Butterfly (*Lycaeides melissa samuelis*).

The Karner blue butterfly (*Lycaeides melissa samuelis*) is listed as "Endangered" by NYSDEC and U.S. Fish and Wildlife Service (USFWS). Frosted elfins (*Callophrys irus*) are listed as "Threatened" in New York by NYSDEC and are unlisted by USFWS. Both butterfly species are known to occur in the area based on information from the New York State Department of Environmental Conservation (NYSDEC) and previous Bagdon Environmental surveys.

The Northern Long-eared Bat (*Myotis septentrionalis*) is a newly listed threatened species (as of May 4, 2015) by the USFWS and is unlisted by NYSDEC. There is currently very little available information on the location of northern long-eared bats in NYS due to the decimation of populations by the fungal infection known as "White-nosed Syndrome".

The principal task for determining Karner blue butterfly and frosted elfin habitat was to survey the site and determine if blue lupine (*Lupinus perennis*) occurs onsite. Blue lupine is the host plant for the larval stage of both Karner blue butterflies and frosted elfins. The absence of blue lupine on and in the immediate vicinity indicates that appropriate habitat is not present. Bagdon Environmental traversed the site on May 13, 2015 at the peak bloom period for blue lupine when it is most visible. No lupine was observed on or near the site, hence site development would have no impact on either listed butterfly species.

An assessment was done concurrently to determine if suitable summer-time maternal roost site habitat was present for the Northern Long-eared Bat. The assessment entailed documenting

the presence of suitable roost trees over 3" DBH such as snags (dead trees/tree sections) and trees with ex-foliating bark.

The successional forested habitats onsite are not optimal habitat for the northern long-eared bat due to the extensive areas of conifers and density of the canopy. However, if records of summertime roosts are documented in the area (pending NYNHP report) the current FWS guidance should be utilized to ensure conformance with the federal Endangered Species Act.

Plant surveys conducted on the site did not reveal any rare or endangered/threatened species. A list of observed species is attached.

Based on the review of available information and site surveys, the probability for endangered/rare species inhabiting or using the portion of the site proposed for development is relatively low. Consequently, it is unlikely that any rare species would be impacted by the proposed site development.

If you have any questions regarding this report of findings, please contact me.

Sincerely,

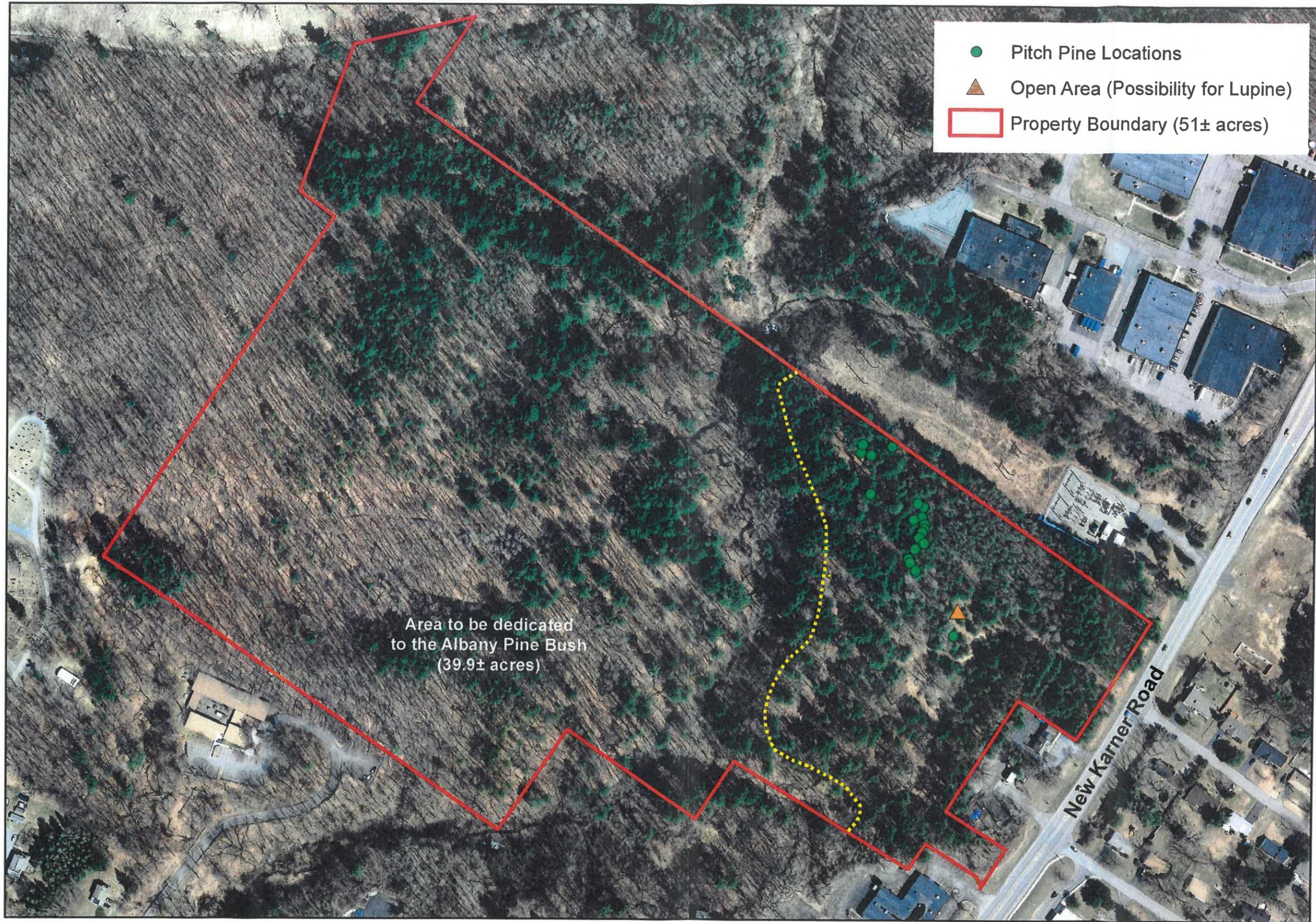


Norbert Quenzer Jr., PWS, CWB, CE
Vice President/Senior Ecologist

CC: Daniel R. Hershberg, PE & LS - HERSHBERG & HERSHBERG

Attachments:

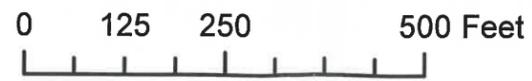
- Pitch Pine and photo locations shown on aerial
- Wetland delineation map
- NYSDEC Environmental Mapper
- List of historical rare species from the NYSDEC Environmental Mapper
- NYNHP letter dated July 21, 2015
- Photographs of site
- Plant species list



- Pitch Pine Locations
- ▲ Open Area (Possibility for Lupine)
- Property Boundary (51± acres)

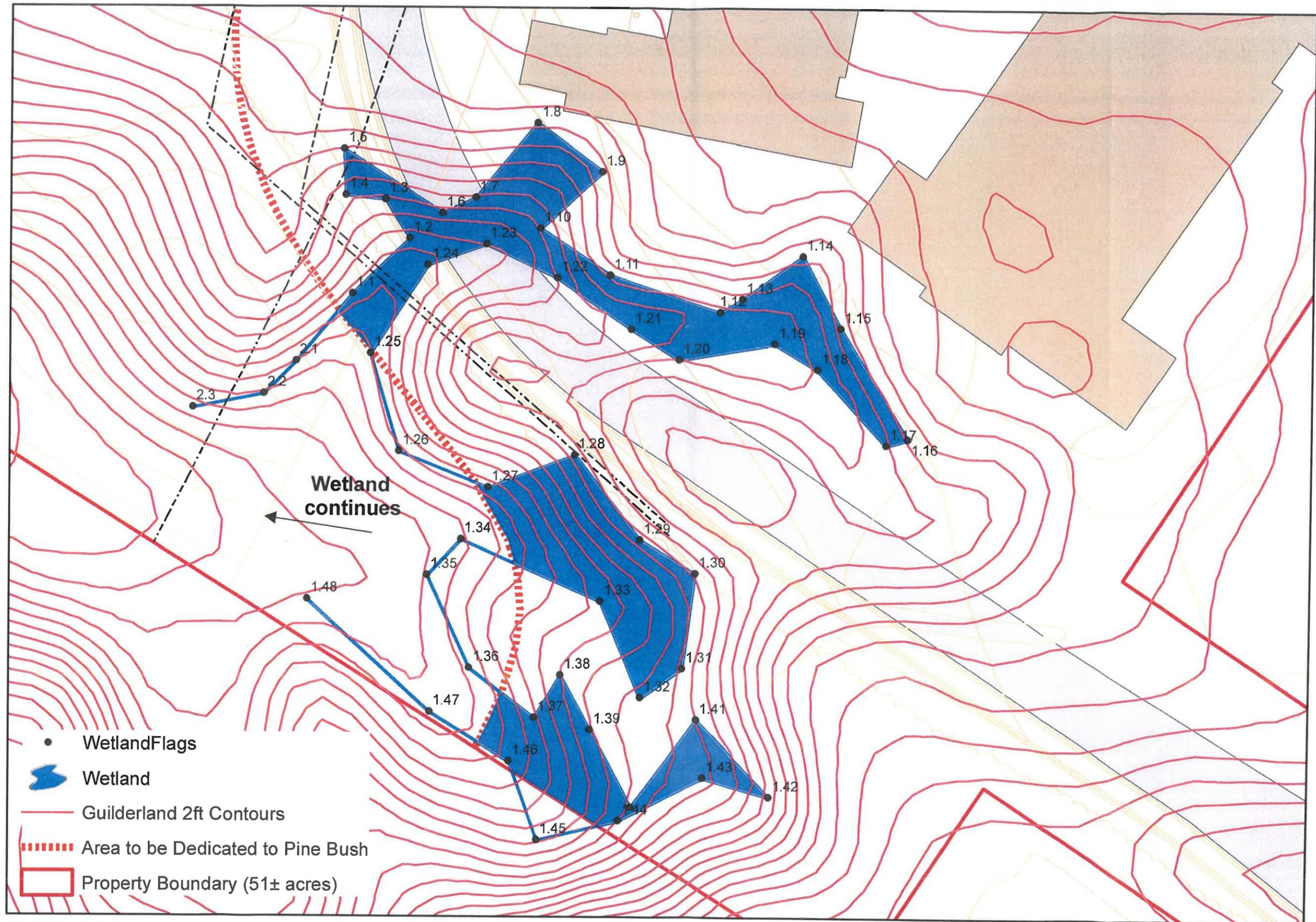


BAGDON Environmental
 25 Delaware Avenue
 Delmar, New York 12054
 (518) 439-8588



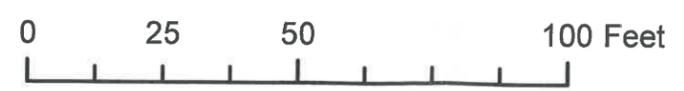
Pitch Pine Locations
 New Karner Road
 Town of Guilderland, Albany County NY
 2011 6-inch Orthoimagery





- WetlandFlags
- Wetland
- Guilderland 2ft Contours
- ▤ Area to be Dedicated to Pine Bush
- Property Boundary (51± acres)

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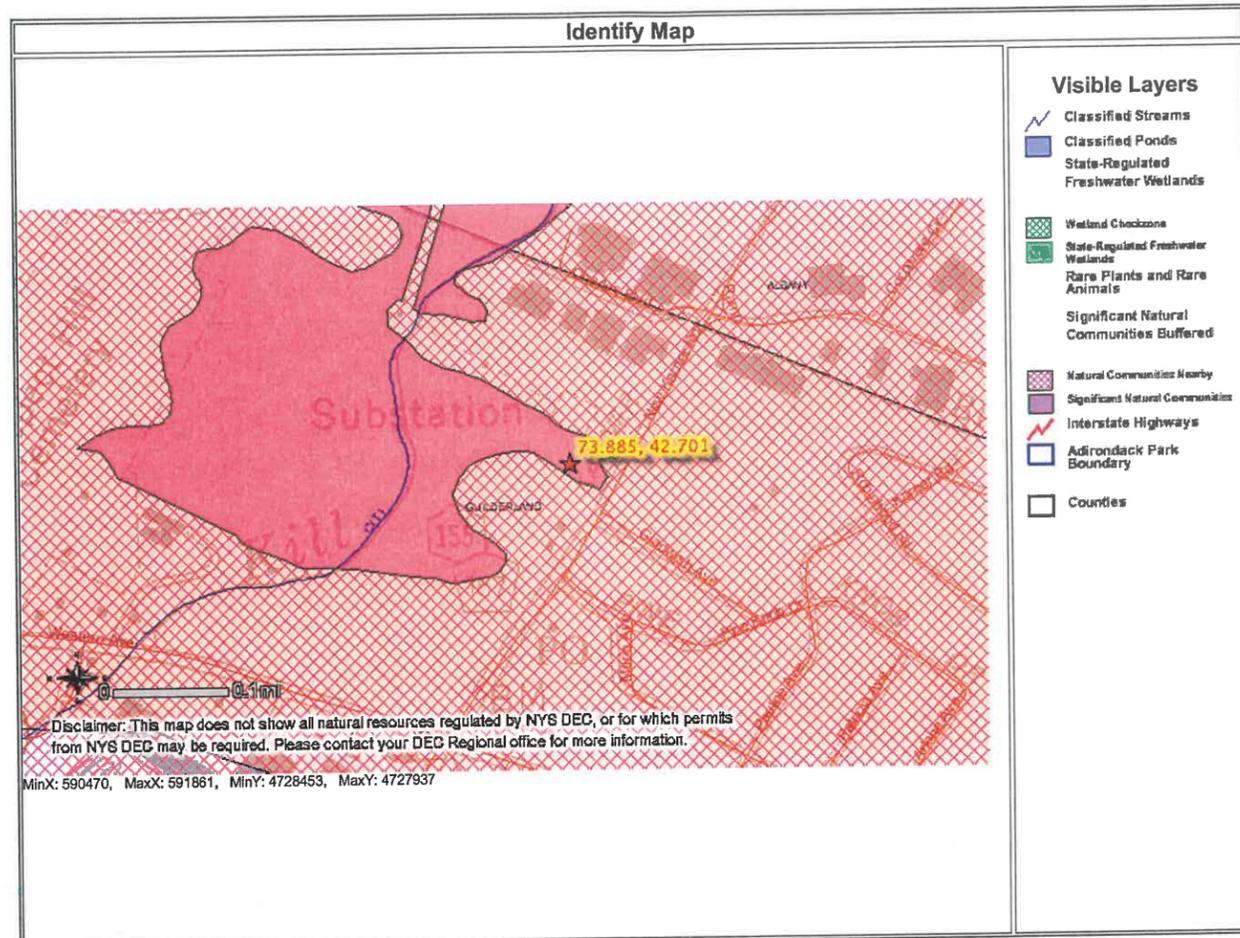


Wetland Flags (5/13 and 5/21/2015)
 New Karner Road
 Town of Guilderland, Albany County NY
 Site Plan Provided by Hershberg and Hershberg



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Please set your printer orientation to "Landscape".



Disclaimer: This map was prepared by the New York State Department of Environmental Conservation using the most current data available. It is deemed accurate but is not guaranteed. NYS DEC is not responsible for any inaccuracies in the data and does not necessarily endorse any interpretations or products derived from the data.

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The Coordinates of the point you clicked on are:

NYTM	E : 591262	Longitude/Latitude	W : 73.885
	N : 4728227		N : 42.701

Rare Plants and Rare Animals

This location is in the vicinity of one or more :
Rare Animals and/or Rare Plants

Significant Natural Communities

Natural Community Name	Location	Ecological System
Pitch pine-oak forest	Albany Pine Bush	Uplands

Old or Potential Records (these records are not displayed on the map)

Common Name	Scientific Name	Date Last Documented	Location	Habitat Where Last Seen	Animal, Plant, or other	NYS Protected Status
Troublesome Sedge	Carex molesta	1940-07-09	North Albany	Waste land.	Rare Plant	Threatened
Hooker's Orchid	Platanthera hookeri	1910-pre	Karner Albany		Rare Plant	Endangered
Dune Sandspur	Cenchrus tribuloides	no date	Albany		Rare Plant	Threatened
Husk-tomato	Physalis pubescens var. integrifolia	1932-07-14	Karner Albany	1924: Waste ground. 1923: garden weed.	Rare Plant	Endangered
Carey's Smartweed	Persicaria careyi	1937-08-30	Loudonville	Thickets. Border of swamp.	Rare Plant	Threatened
Woodland Agrimony	Agrimonia rostellata	1927-09-04	Guilderland	Specimen label: Woods.	Rare Plant	Threatened
Large Twayblade	Liparis liliifolia	no date	Albany		Rare Plant	Endangered
Blunt-lobed Grape Fern	Botrychium oneidense	1929-10-16	Guilderland		Rare Plant	Endangered
Purple Everlasting	Gamochaeta purpurea	1867	Albany		Rare Plant	Endangered

USGS Quadrangle

USGS Quadrangle Name
VOORHEESVILLE

If your project or action is within or near an area with a rare animal, a permit may be required if the species is listed as endangered or threatened and the department determines the action may be harmful to the species or its habitat.

If your project or action is within or near an area with rare plants and/or significant natural communities, the environmental impacts may need to be addressed.

The presence of a unique geological feature or landform near a project, unto itself, does not trigger a requirement for a NYS DEC permit. Readers are advised, however, that there is the chance that a unique feature may also show in another data layer (ie. a wetland) and thus be subject to permit jurisdiction.

Please refer to the "Need a Permit?" tab for permit information or other authorizations regarding these natural resources.

Disclaimer: If you are considering a project or action in, or near, a wetland or a stream, a NYS DEC permit may be required. The Environmental Resources Mapper does not show all natural resources which are regulated by NYS DEC, and for which permits from NYS DEC are required. For example, Regulated Tidal Wetlands, and Wild, Scenic, and Recreational Rivers, are currently not included on the maps.

SLM – Guilderland – Species List

Site Visits on October 16, 2014, May 13, 2015, and June 26, 2015

Scientific Name	Common Name
<i>Acalypha rhomboidea</i>	three-seed mercury
<i>Acer negundo</i>	box elder maple
<i>Acer platanoides</i>	norway maple
<i>Acer rubrum</i>	red maple
<i>Achillea millefolium</i>	common yarrow
<i>Actaea rubra</i>	red baneberry
<i>Ageratina altissima</i>	white snakeroot
<i>Alliaria petiolata</i>	garlic mustard
<i>Amphicarpaea bracteata</i>	hog peanut
<i>Aralia nudicaulis</i>	wild sarsaparilla
<i>Arisaema triphyllum</i>	jack-in-the-pulpit
<i>Asclepias syriaca</i>	milkweed
<i>Athyrium filix-femina</i>	lady fern
<i>Berberis thunbergii</i>	Japanese barberry
<i>Betula alleghaniensis</i>	yellow birch
<i>Betula papyrifera</i>	paper birch
<i>Brachyelytrum erectum</i>	bearded shorthusk
<i>Carex pensylvanica</i>	Pennsylvania sedge
<i>Carpinus caroliniana</i>	musclewood
<i>Catalpa</i> sp.	catalpa
<i>Celastrus orbiculatus</i>	oriental bittersweet
<i>Centaurea maculosa</i>	spotted knapweed
<i>Convallaria majalis</i>	lily of the valley
<i>Cornus racemosa</i>	gray dogwood
<i>Corylus</i> sp.	hazlenut
<i>Dryopteris carthusiana</i>	spinulose woodfern
<i>Dryopteris cristata</i>	crested woodfern
<i>Dryopteris marginalis</i>	marginal wood fern
<i>Elaeagnus umbellata</i>	autumn olive
<i>Eragrostis spectabilis</i>	purple lovegrass
<i>Erigeron annuus</i>	eastern daisy fleabane
<i>Eurybia divaricata</i>	white wood aster
<i>Fagus grandifolia</i>	American beech
<i>Fraxinus americana</i>	white ash
<i>Galium</i> sp.	bedstraw species
<i>Geum canadense</i>	white avens
<i>Hieracium caespitosum</i>	field hawk weed
<i>Impatiens capensis</i>	jewelweed
<i>Juncus effusus</i>	soft rush

Lechea sp.	pinweed
Leonurus cardiaca	motherwort
Lespedeza capitata	bush clover
Lonicera morrowii	Morrow's honeysuckle
Lysimachia quadrifolia	whorled loosestrife
Maianthemum canadense	Canada mayflower
Mitchella repens	partridge berry
Monotropa uniflora	indian pipe
Morus alba	white mulberry
Oenothera biennis	evening primrose
Onoclea sensibilis	sensitive fern
Osmunda claytoniana	interrupted fern
Osmundastrum cinnamomeum	cinnamon fern
Oxalis stricta	yellow wood sorrel
Parthenocissus sp.	creeper
Phragmites australis	common reed
Phryma leptostachya	American lopseed
Pinus rigida	pitch pine
Pinus strobus	white pine
Pinus sylvestris	scotch pine
Podophyllum peltatum	may apple
Polygonum sp.	smartweed
Polystichum acrostichoides	christmas fern
Populus deltoides	eastern cottonwood
Populus grandidentata	big toothed aspen
Populus tremuloides	quaking-aspen
Prunus serotina	black cherry
Pteridium aquilinum	bracken fern
Pterospora andromedea	pinedrops
Pyrola elliptica	waxflower shinleaf
Quercus alba	white oak
Quercus coccinea	scarlet oak
Quercus rubra	red oak
Quercus velutina	black oak
Rhamnus cathartica	common buckthorn
Rhus typhina	staghorn sumac
Robinia pseudoacacia	black locust
Rosa multiflora	multiflora rose
Rubus allegheniensis	Allegheny blackberry
Rubus hispidus	swamp dewberry
Rubus occidentalis	black cap
Schizachyrium scoparium	little bluestem
Solidago gigantea	giant goldenrod

Solidago patula	round leaf goldenrod
Solidago rugosa	wrinkle leaved goldenrod
Symphyotrichum lateriflorum	calico aster
Symplocarpus foetidus	skunk cabbage
Taraxacum officinale	common dandelion
Toxicodendron radicans	poison ivy
Trientalis borealis	star flower
Ulmus americana	American elm
Verbascum thapsus	common mullien
Veronica officinalis	common speedwell
Vitis sp.	grape species



Photo 1. SLM Guilderland (October 7, 2014)



Photo 2. SLM Guilderland (October 7, 2014)



Photo 3. SLM Guilderland (October 7, 2014)



Photo 4. SLM Guilderland (October 7, 2014)



Photo 5. SLM Guilderland (October 7, 2014)



Photo 6. SLM Guilderland (October 7, 2014)



Photo 7. SLM Guilderland (October 7, 2014)



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Photo 9. SLM Guilderland (October 7, 2014)



Photo 10. SLM Guilderland (October 7, 2014)



Photo 11. SLM Guilderland (October 7, 2014)



Photo 12. SLM Guilderland (October 7, 2014)



Photo 13. SLM Guilderland (October 7, 2014)



Photo 14. SLM Guilderland (October 7, 2014)



Photo 15. SLM Guilderland (October 7, 2014)



Photo 16. SLM Guilderland (October 7, 2014)



Photo 17. SLM Guilderland (October 7, 2014)



Photo 18. SLM Guilderland (October 7, 2014)



Photo 19. SLM Guilderland (October 7, 2014)



Photo 20. SLM Guilderland (October 7, 2014)



Photo 21. SLM Guilderland (October 7, 2014)



Photo 22. SLM Guilderland (October 7, 2014)



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Photo 30. SLM Guilderland (October 7, 2014)



Photo 31. SLM Guilderland (October 7, 2014)



Photo 32. SLM Guilderland (October 7, 2014)



Photo 33. SLM Guilderland (October 7, 2014)



Photo 34. SLM Guilderland (October 7, 2014)



Photo 35. SLM Guilderland (October 7, 2014)



Photo 36. SLM Guilderland (May 13, 2015)



Photo 37. SLM Guilderland (May 13, 2015)



Photo 38. SLM Guilderland (May 13, 2015)



Photo 39. SLM Guilderland (May 13, 2015)



Photo 40. SLM Guilderland (May 13, 2015)



Photo 41. SLM Guilderland (May 13, 2015)



Photo 42. SLM Guilderland (May 13, 2015)



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Photo 49. SLM Guilderland (May 13, 2015)



Photo 50. SLM Guilderland (May 13, 2015)



Photo 51. SLM Guilderland (May 13, 2015)



Photo 52. SLM Guilderland (May 13, 2015)



Photo 53. SLM Guilderland (May 13, 2015)



Photo 54. SLM Guilderland (May 13, 2015)