

NORTH SALEM DRAFT OPEN SPACE INVENTORY



MARCH 2021



NORTH SALEM
OPEN LAND FOUNDATION

ACKNOWLEDGEMENTS:

A grant from New York State Department of Agriculture and Markets funded this open space inventory and the subsequent outreach to North Salem landowners. This inventory builds upon previous open space inventorying work done by the North Salem Open Space Committee as part of the North Salem Open Space Plan completed in 2009 and the 2000 Open Space Inventory done by the North Salem Land Preservation Alliance.

Matching contributions to this grant have been made by the Town of North Salem and by North Salem Open Land Foundation (NSOLF).

This inventory received letters of support from: New York State Senator Peter Harckham; New York State Assemblyman David Buchwald; Westchester County Legislator Kitley S. Covill, and Patty Peckham, Chair, Westchester County Agriculture and Farmland Protection Board.

Contributors to this draft Open Space Inventory include the staff of North Salem Open Land Foundation and members of the North Salem Conservation Advisory Council and Planning Board in unofficial, advisory roles.

**Note that this is a draft for review and revision; that landowner information is confidential and is only used for outreach to those landowners and not for any other purpose; that this information is only advisory and no warranties are made about its accuracy, though all efforts are made to be as objective and factual as possible; that features and data are approximate and contain no authoritative data and are intended for planning purposes only and that the location and extent of features are based on GPS data and observations and are approximate only.*

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New York State General Municipal Law Section 239-x authorizes municipalities, through their Conservation Advisory Councils to "keep an inventory and map . . . of all open areas within the municipality with the plan of obtaining information pertinent to proper utilization of such open lands". Section 239-y defines "Conservation open areas inventory" as "an inventory of open areas within the municipality with each such area identified, described and listed according the priority of acquisition or preservation".

This draft inventory can be used in several ways: to be the basis of an updated Town of North Salem open space inventory; to indentify viable farmland soils in order to protect farmland in North Salem and to be used by the NSOLF as they do outreach to landowners to encourage land preservation.

Once properties have been prioritized and identified in the inventory the bulk of the grant funds will be used for outreach and education to North Salem landowners about land conservation. Topics will include: the value of the Town's natural resources and open space; the tax advantages of land conservation through easements and fee donations; recent tax law changes for standard deductions, deductions of property taxes and charitable contributions; the types of revenue needed to qualify for agriculture assessments; changes in carry-over periods for conservation easement tax deductions and state tax credits for conservation easements and farm building restoration, among others topics. Remaining funds will be used for consultations with tax and estate planning experts with the goal of increasing the amount of land protected in North Salem.

In addition to prioritizing properties for protection and pursuing conservation in a proactive and strategic manner, the inventory can also be useful in educating individual landowners about the environmental values of their properties and steps they can take, in addition to preservation, to protect and enhance those natural resources. And since funders--including local, state and federal governments, foundations and individuals--want to be confident that conservation is well planned and based on science and citizen input, the inventory can be helpful when applying for land preservation funding.

Using GIS-software, protected open space was mapped using data on preserves and conservation easements from: NSOLF, Bedford Audubon Society, Westchester Land Trust and the Town of North Salem (see North Salem Protected Open Space Map page 10). The remaining private parcels larger than 40 acres were then mapped and considered vulnerable to development (see Vulnerable Land Map page 11). In the process, parcels owned by a common owner but smaller than the 40 acre threshold were combined into single properties. These parcels were identified from the publicly available data, which includes owner name and mailing address, obtained from New York State GIS Clearinghouse using information provided by each municipality (landowner information is treated confidentially and only for internal use). Combining parcels shows the extent of acreage owned by single landowners. This resulted in 43 properties with 38 different owners. The 40 acre threshold is arbitrary and more properties can be included or excluded, depending on the goals of the Town and the NSOLF. Seven Springs Farms, 407 Mills Road, 646 Grant Road, Grand Central and Salem Golf Club have since been added.

Maps were made of each of the 43 properties, including maps of: satellite photographs, wetland soils, steep slopes and farmland soils. In order to determine if a property has conservation values each satellite photograph was examined to determine if the property was built upon or vacant. If vacant, fee purchase or donation of the entire property is an option. If already built upon, a conservation easement would be more appropriate. If fully developed, then conservation is not possible. The size of wetland soils and steep slopes (slopes greater than 25%) was calculated in acres and percentages of the entire property (see Wetlands & Steep Slopes Map page 18). This figure is used to try to determine if a property has development constraints including wetlands and steep slopes. Properties that are mostly wetlands and steep slopes may not be as easily developed as properties without these features. If more difficult to develop, such a property may not be a priority for conservation (with the caveat that nearly every property can, with enough economic incentive and

engineering, be built upon). Landowner succession is also a determinant of vulnerability, dependent of a given landowner's plans for the land, age, family succession, profitability of the land's current enterprise and other factors. This is best determined by community members with local knowledge of landowners.

Once at risk properties were determined, properties were screened based upon conservation values. Conservation values were based on open space criteria listed in the 2009 Town of North Salem Open Space Report, pages 1-2 and from the 2020 NSOLF Strategic Plan. These criteria overlapped considerably, as expected, with the following common elements prioritized for conservation:

- Scenic lands
- Lands adjacent to existing open space
- Ecologically significant lands including wetlands, vernal pools, forests
- Fields and farms
- Wildlife and plant habitats
- Trails
- Climate resilient lands
- Biodiversity corridors/greenway/connections

Maps were made of Vulnerable Land & Scenic Roads, page 12; Vulnerable Land Adjacent to Open Space, page 13; Vulnerable Land & Vernal Pools, page 16; Vulnerable Land & Forest Blocks page 17; Vulnerable Lands, Wetlands & Steep Slopes page 18 and Vulnerable Land & Farmland Soils page 19. Screening by biotic corridors (see Vulnerable Land and Habitat Blocks/Wildlife Corridors, page 15) is based on reviewing satellite imagery of unfragmented blocks of 250 acres or more.

Prioritizing each of the selected properties allows the Town and NSOLF to use scarce financial resources most prudently, focusing on those vulnerable properties that have the greatest conservation values as defined by the Town and the NSOLF. Points were assigned for each conservation value for each of the 43 properties, ranging from '1' to '3'. For a complete discussion of how these points are determined see Appendix C. These ranking are a first iteration and are subjective. The Excel spread sheets found in Appendix B can be manipulated any number of ways to give greater or lesser emphasis to any of the open space criteria. For example, scenic characteristics may be very important to one group

while another group may put greater emphasis on protecting biodiversity. These are value judgments beyond the purview of this draft report. A value of this report is that it allows anyone or group to change inputs based on their conservation priorities and then see which properties meet those open space criteria.

RESULTS & DISCUSSION:

NSOLF's 2020 Strategic Plan sets an ambitious goal of protecting 150 additional acres of land by 2023 and states that NSOLF will be successful if by then fields such as those along Mills Road and Vail Lane are still intact. The fields along Mills Road have been built upon as have fields and farms along Hardscrabble Road, Turkey Hill-Crook Brook, Titicus Road and Peach Lake Road (Route 121), all just in the last few decades. Since 1990, satellite photographs show the extent that farms and fields have been converted to estates (see Development Since 1990 Map page 20). Most of the fields remaining in these developments have been built upon or turned into lawn with little ecological value. This points to the urgent need to conserve the most important lands in North Salem soon.

Of the 43 largest properties in North Salem, only Finch Farm and portions of the property at 15 Turkey Hill Road are protected with conservation easements, leaving many opportunities for land protection via conservation easements.

Forty three large properties are screened at least four ways in the tables in Appendix C. Initially, the highest priority properties based on those screens are familiar names and include: Snow Hill Farm, Ice Pond Farm, NSJE LLC and Monomoy Farm fields on Vail Lane and Route 121, Highfields on Keeler, Nash Road Holdings' woods and wetlands on Nash Road, Outhouse Orchard, the former North Salem Vineyards (now an alpaca farm), Hardscrabble Farms and the wooded land at the southeast corner of Mountain Lakes Camp. These results

are preliminary and the Town and NSOLF's Board and staff should adjust the inputs based on their own agreed upon priorities.¹

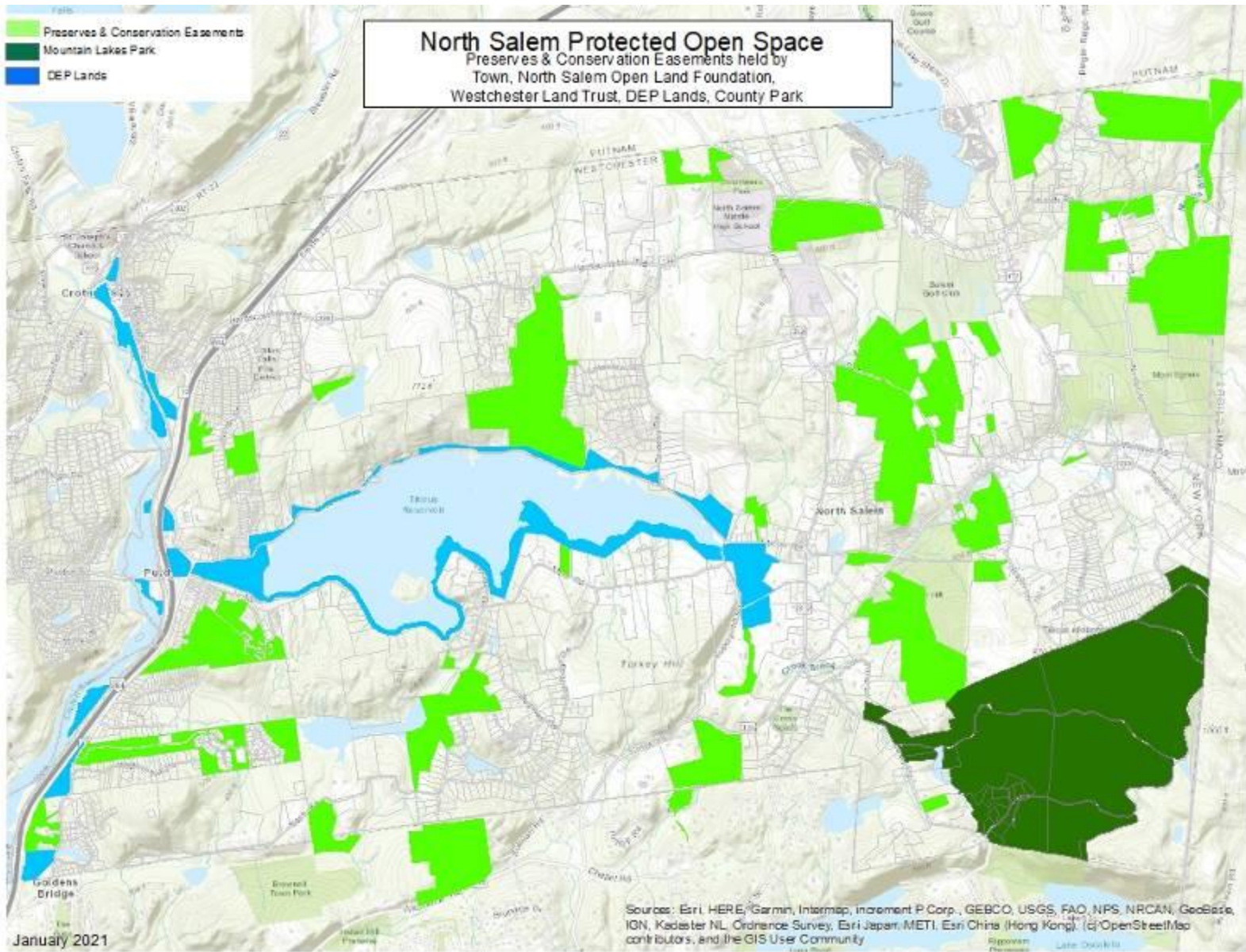
Portions of this grant are provided by New York State Farmland Department of Agriculture and Markets to "assist counties and municipalities with their agricultural and farmland protection efforts. State funding will support local agricultural and farmland protection goals by informing owners of viable agricultural land of the mechanisms and programs available to protect their lands from conversion to non-farm uses." Since North Salem has the highest number of farms in the County and because so many of the vulnerable properties in North Salem are farms or farmland, screening for farmland soils overlaps with the other open space screening criteria used by the Town and NSOLF.

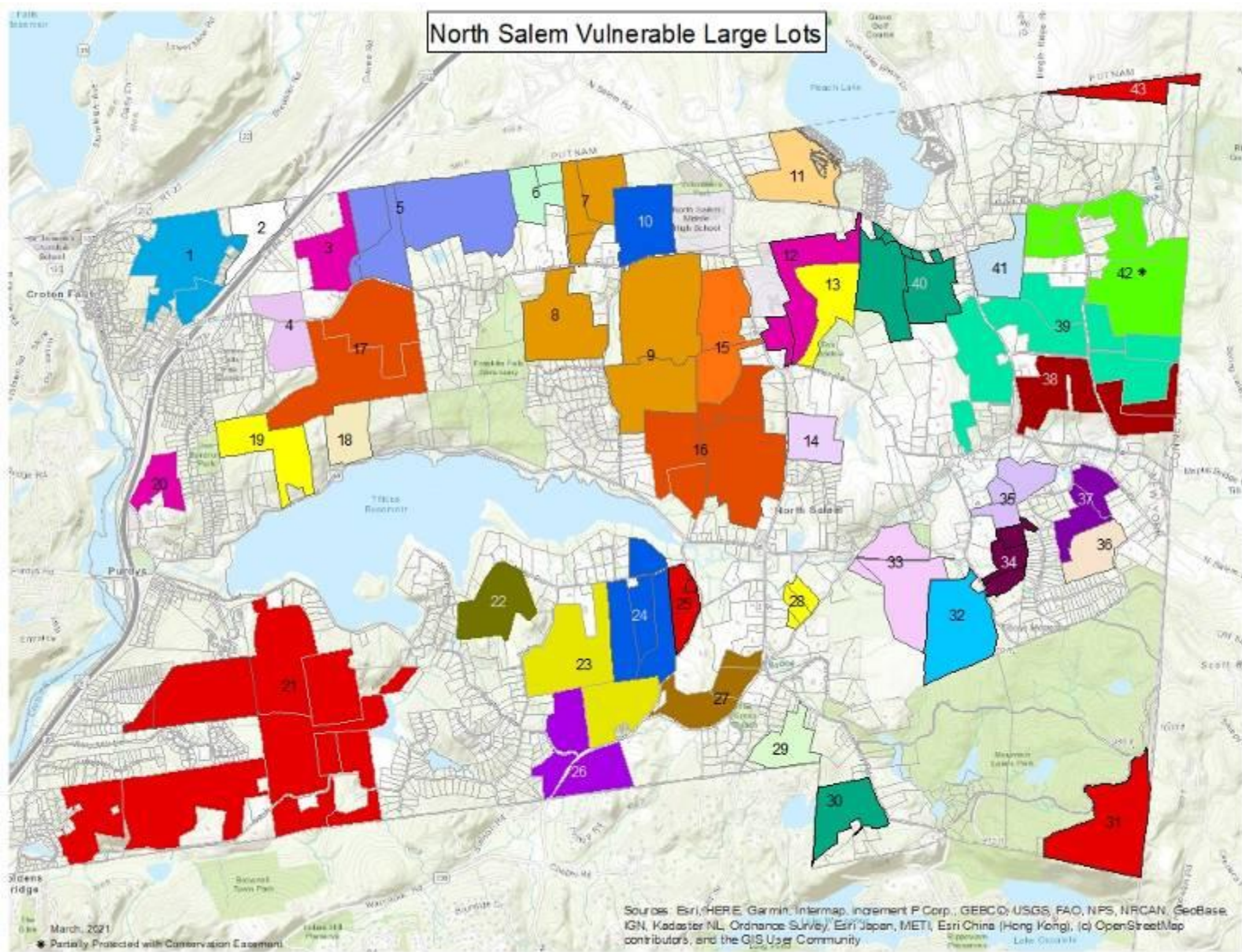
Screening for parcels with viable farmland soils (that is, farmland soils that have not been built upon) is complimentary to the open space criteria used by the Town and NSOLF since farmland soils are at a higher risk of development because farmland soils, by definition, are not wetlands or steep slopes. Also, these soils tend to be found in existing fields, meadows, paddocks, orchards, vineyards and nurseries and as such contribute to the scenic quality of the Town. These fields are also ecologically significant as they provide habitat for grassland birds, small mammals, reptiles, amphibians and pollinators all of which are in decline. The pervious surfaces of fields also serve to protect water quality. Finally, farmland soils, whether farmed now or not, can be important in the Town's goal of increasing climate resiliency since climate change will shift agriculture from areas that will be too warm and/or too dry to farm to other more hospitable areas, including the northeast. All of these are priority conservation values articulated by the Town in their Comprehensive Plan and by the NSOLF in their 2020 Strategic Plan and make screening for farmland soils complimentary to the conservation goals of the Town and the NSOLF.

When screened just for the amount of farmland soil acres, a few parcels' rankings rose quite a bit, including Hardscrabble Farms, a nursery and the former North Salem Vineyards, now an alpaca farm. This is not surprising since

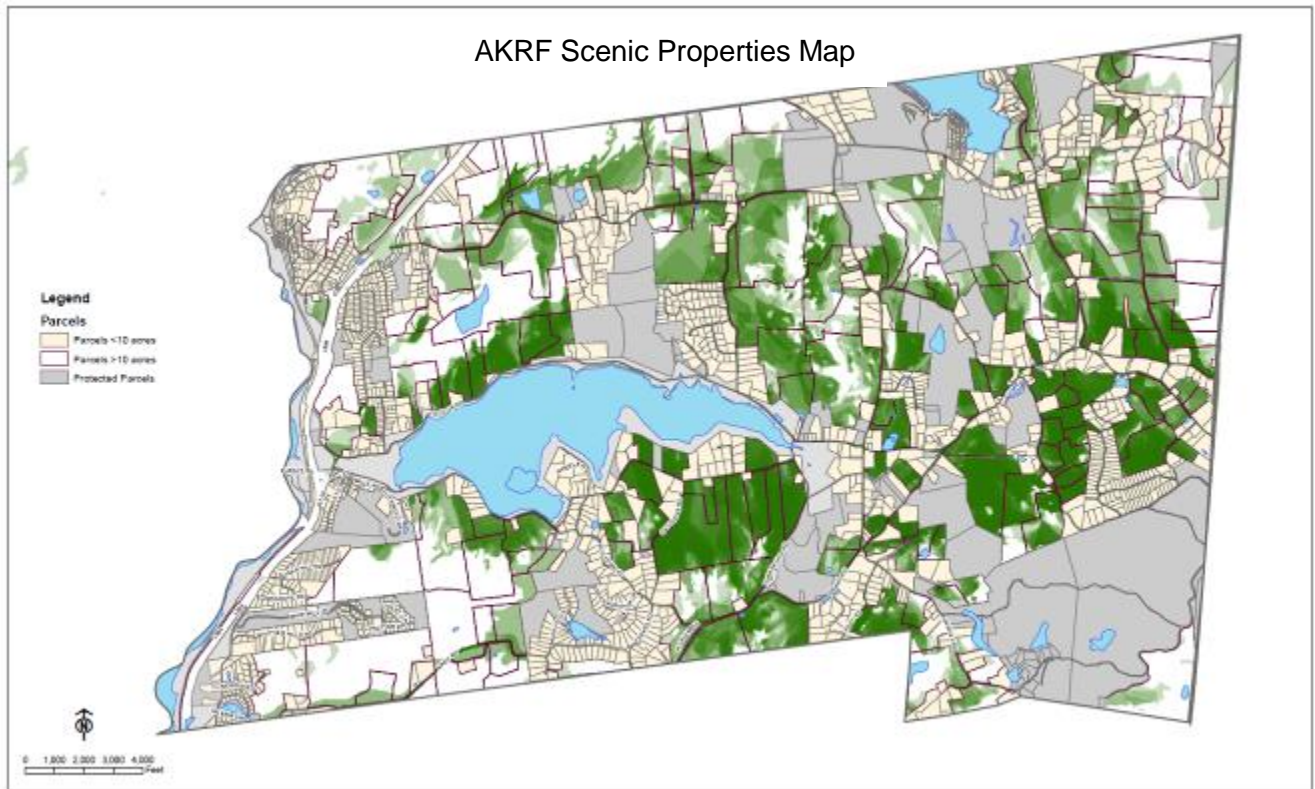
¹ Landowner names are confidential and for internal use only.

these are nurseries and farms. Parcels that dropped in rankings were the lands southeast of Mountain Lakes Camp and the Harlem Children's property since both are steep and wooded without farm soil. Beyond that, rankings remained mostly unchanged from those rankings that consider just open space criteria.



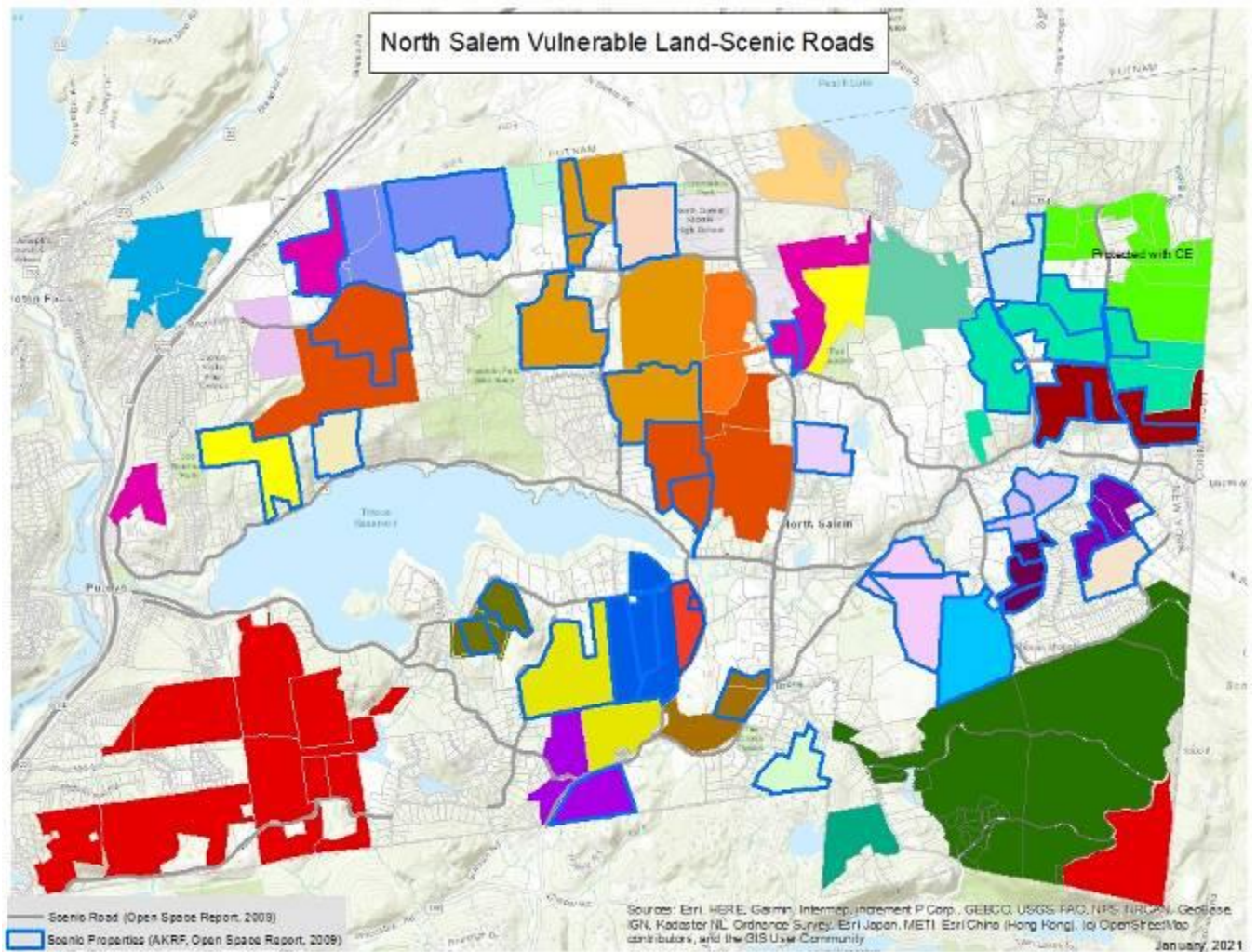


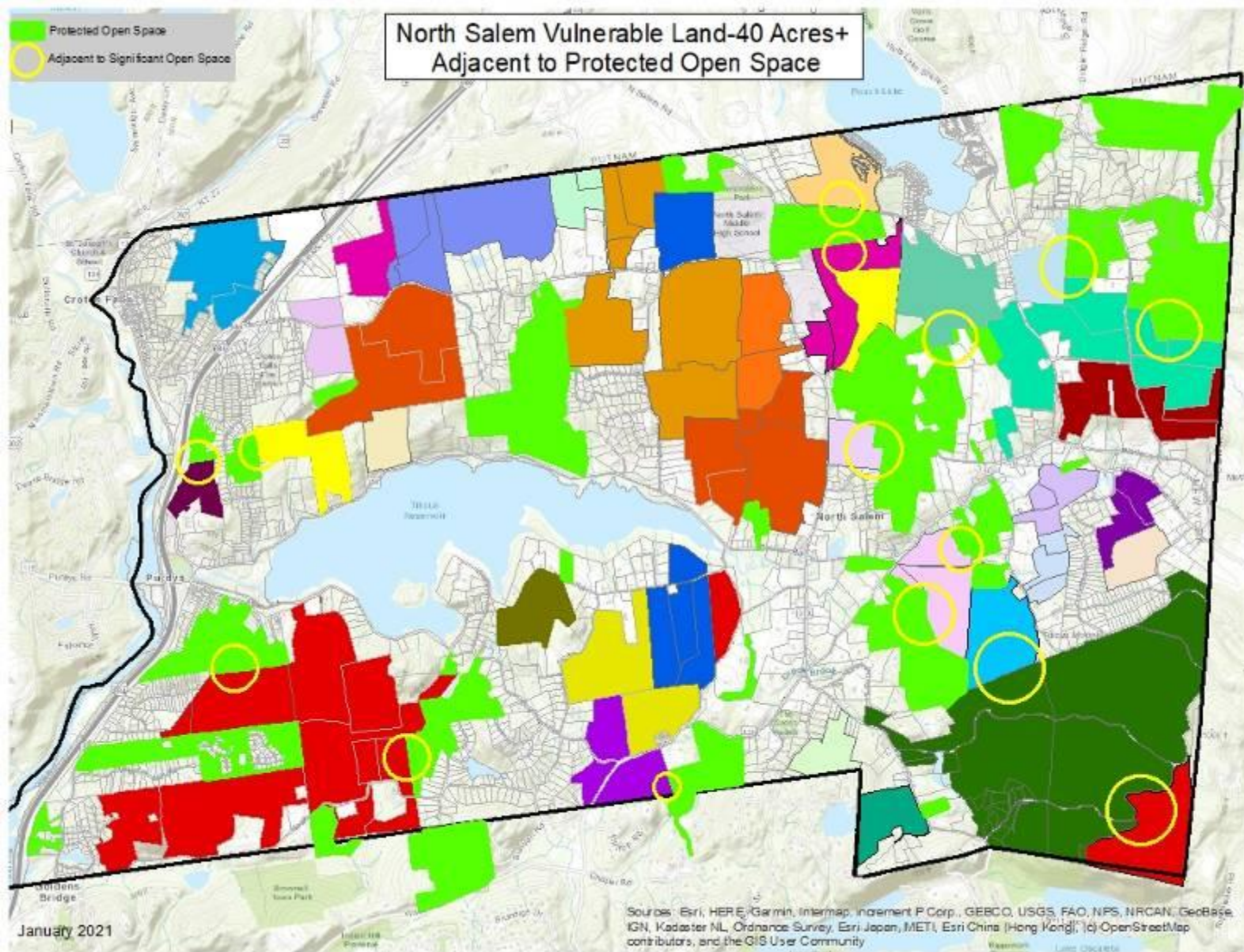
AKRF Scenic Properties Map

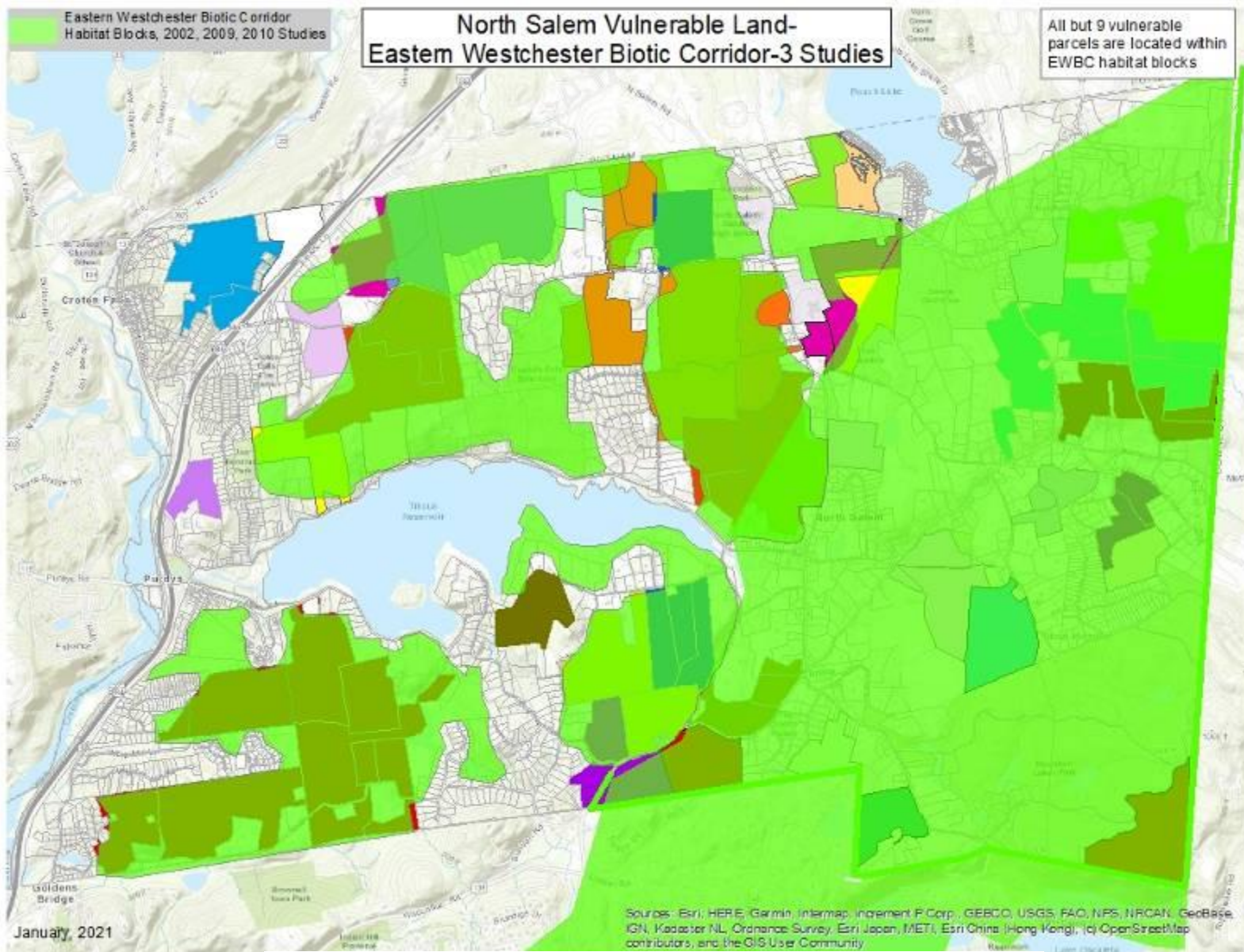


TOWN OF NORTH SALEM
Open Space Plan

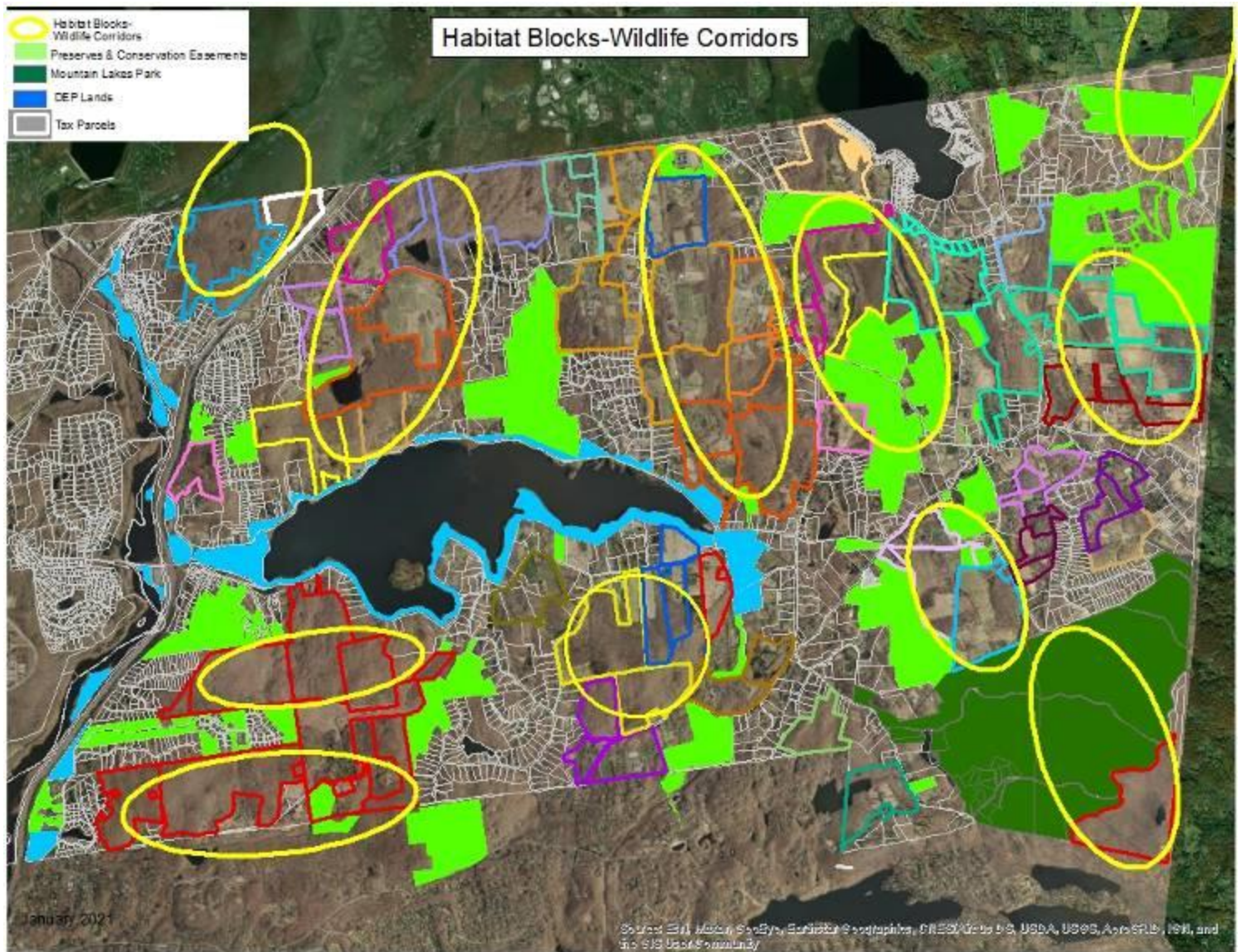
Scenic Inventory







3 Biotic Corridors were mapped
Since most of North Salem is in one of the corridors
it is not useful as a screening tool

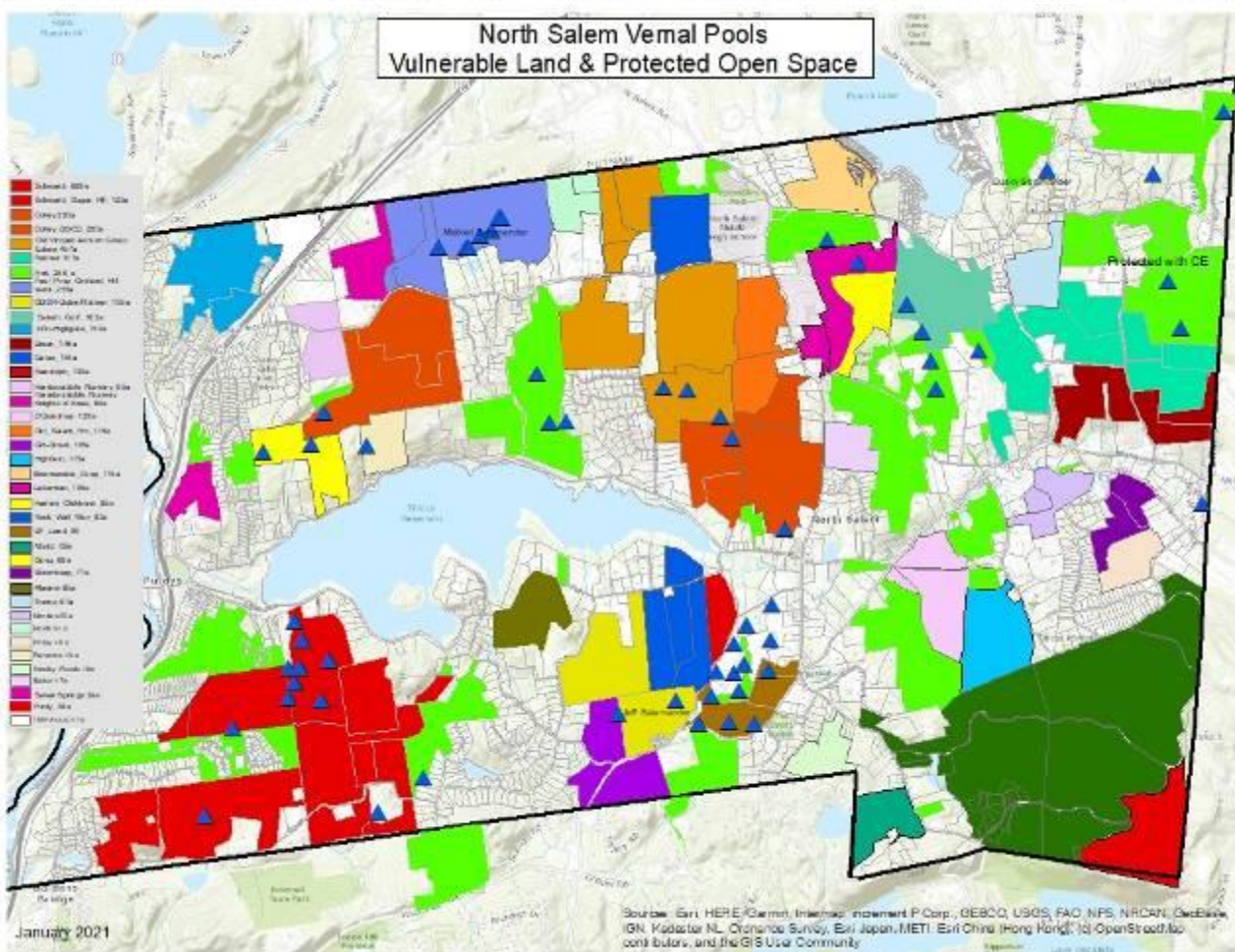


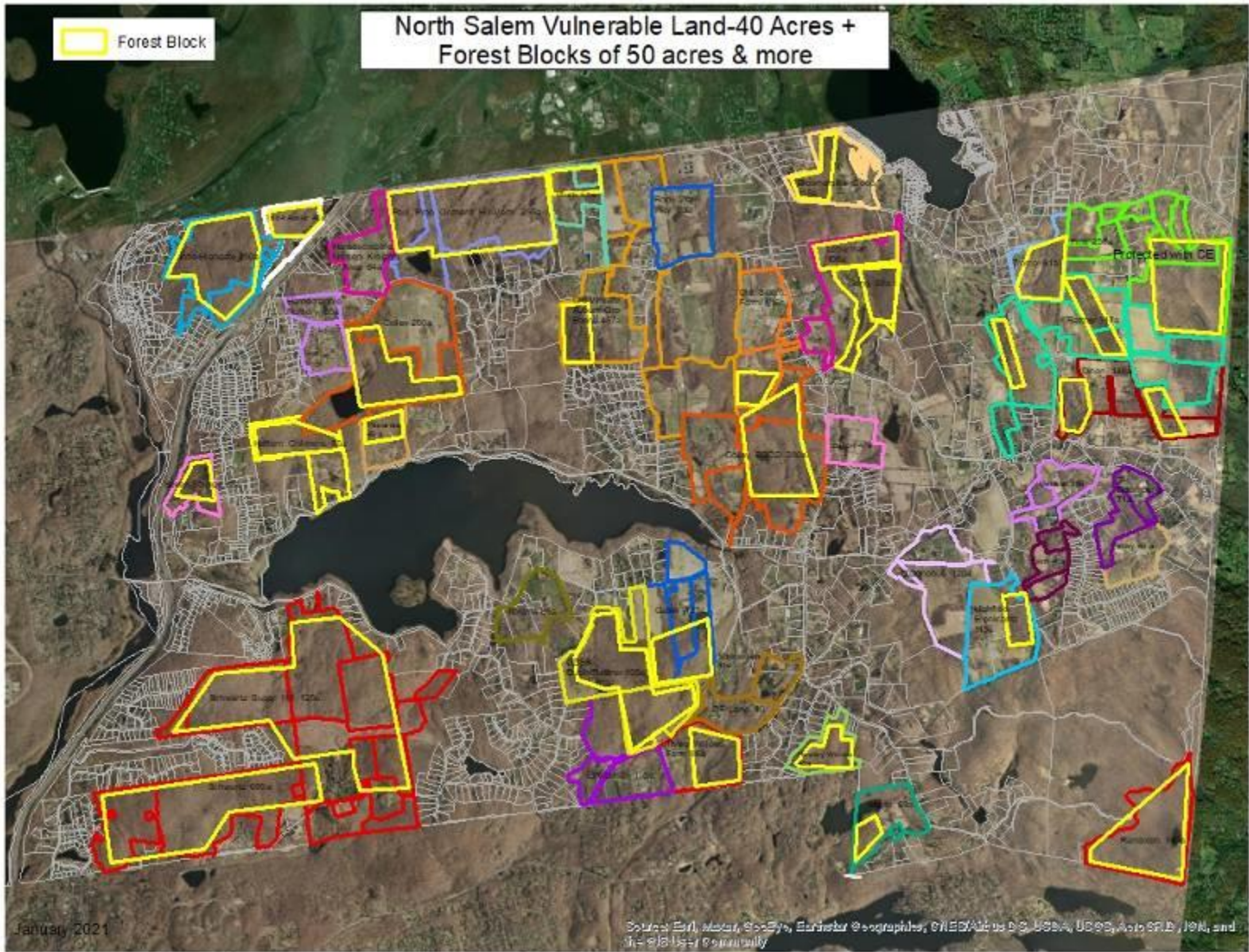
These habitat blocks have at least 250 acres of forests and fields not fragmented by major roads or developments

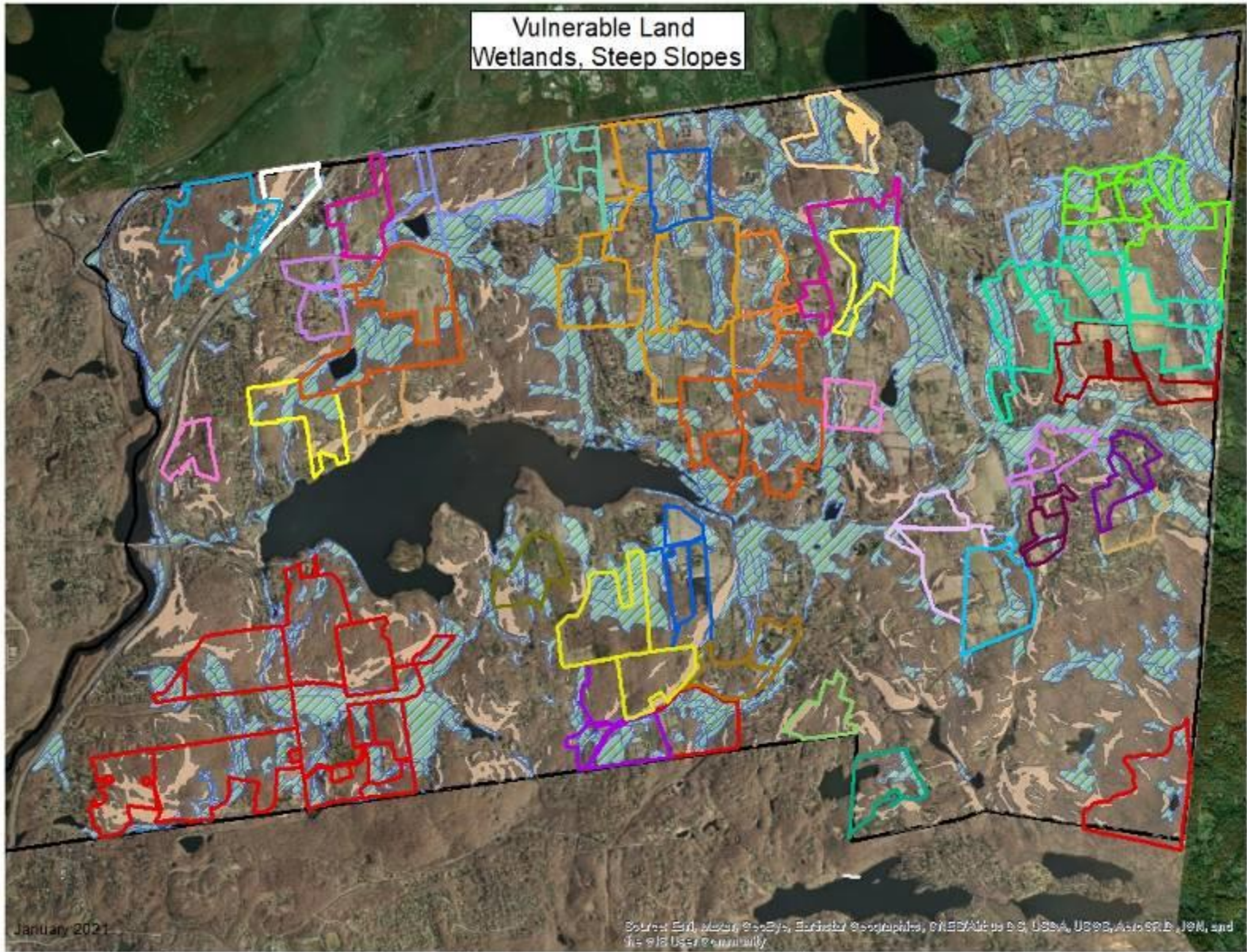
Vernal Pool Locations, Klemens

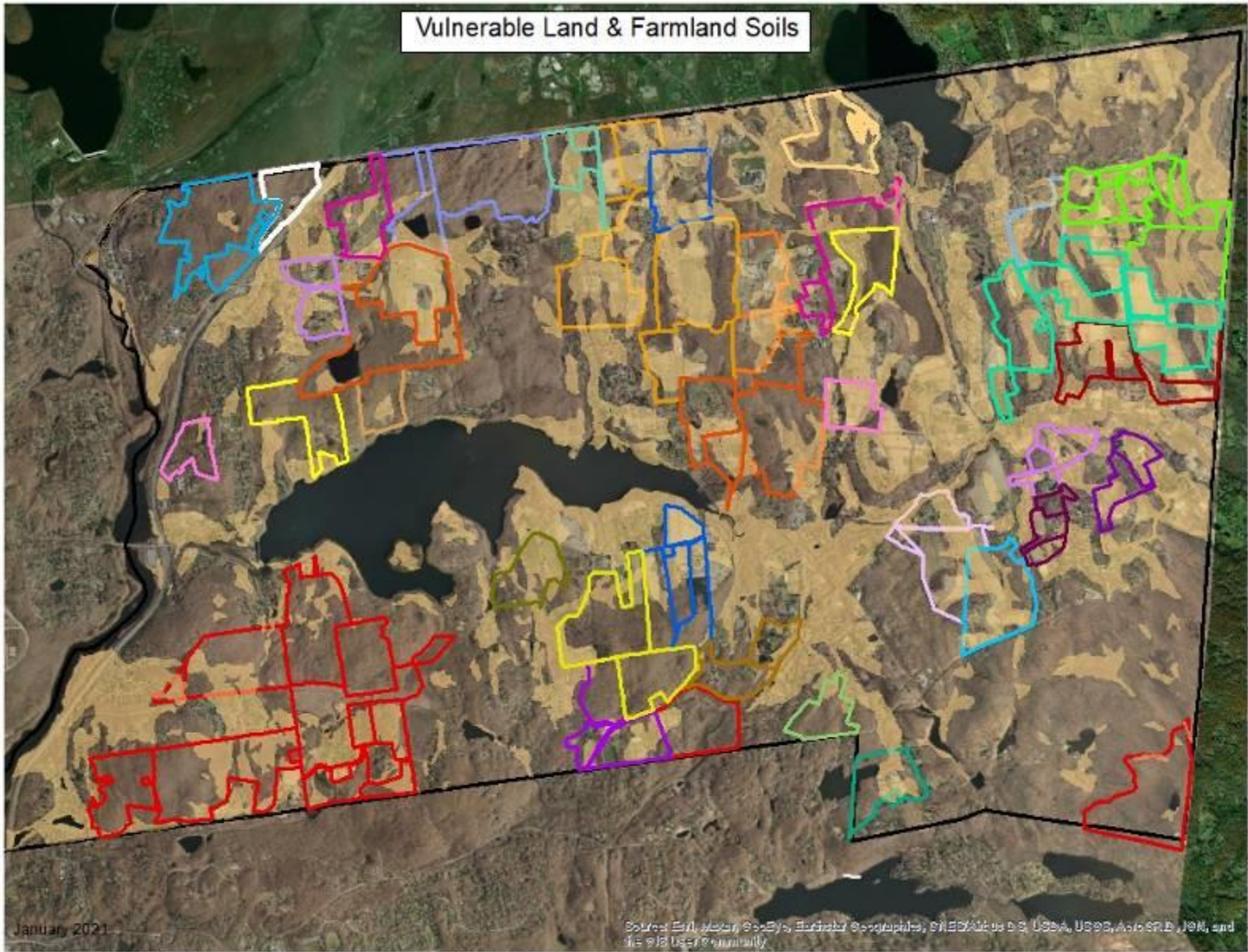
▲ Vernal Pools Klemens 2009
 ▲ Vernal Pools Klemens 2010
 ▲ Vernal Pools Klemens 2000

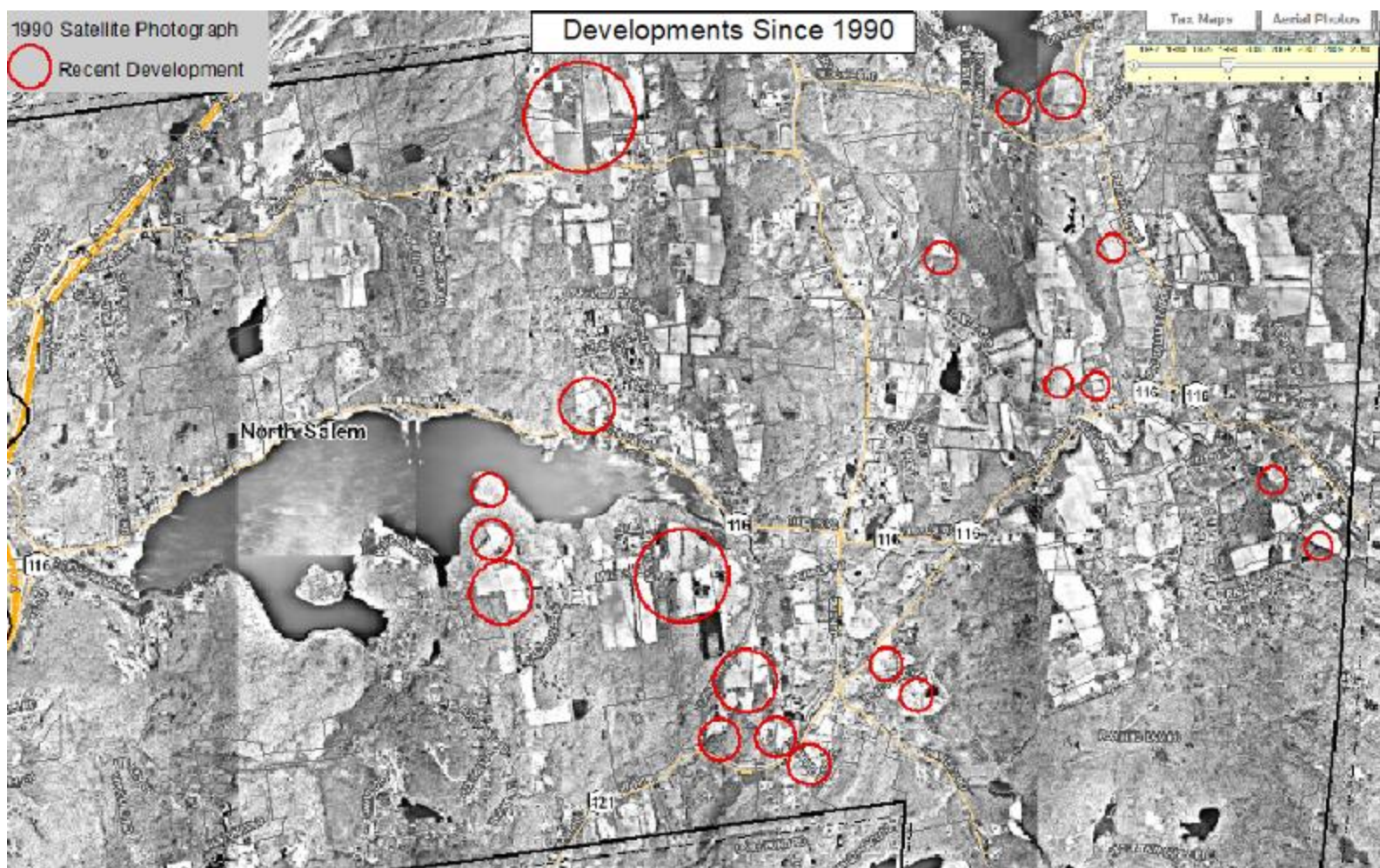
Source: USGS, National Wetlands Inventory, 2000; USGS, National Wetlands Inventory, 2009; USGS, National Wetlands Inventory, 2010











Prioritized by all open space criteria

(does not include Env Constraints, Sales Risk or Farm soils)

1	SCREENING WITH OPEN	TOTAL							
2	SPACE CRITERIA	SCORE							
3	LOT #:		ACRES	SCENIC	ADJACENT	FOREST	FIELDS	V POOLS	CORRIDORS
4	33	11	156	3	3		3/40a		2
5	21	11	814		3	3/500a		3	2
6	39	11	317	3	2	1/60a	3/100a		2
7	5	10	255	2		3/200a		3	2
8	32	10	115	3	2	20a	3/25a		2
9	23	10	195	3		3/150a		2	2
10	14	9	47	3	2		2/22a		2
11	16	9	280	2		3/150a		2	2
12	17	8	260	3		2/100a		1	2
13	38	8	168	3		1/50a	2/30a		2
14	9	8	260				3/80a	3	2
15	41	8	61	3	2	1/50a			2
16	13	8	108	1	2	1/50a		2	2
17	27	8	80	3				3	2
18	19	7	85	2		1/65a		2	2
19	10	7	83	3			2/35a		2
20	26	7	116	2		1/28a		2	2
21	25	7	38	3			2/20a		2
22	31	6	130		2	2/130a			2
23	24	6	145	3		1/50a			2
24	1	5	150			3/150a			2
25	18	5	49	2		25a		1	2
26	40	5	163		2			2	0
27	36	4	49	2			2/16a		0
28	34	4	46	3			1/10a		0
29	42	4	258			2/140a		2	0
30	3	4	65	2					2
31	20	3	38		2	1/30-90a			0
32	35	3	49	3					0
33	2	3	41			1/35a			2
34	6	3	54			1/25a			2
35	13	3	68			1/30a			2
36	29	2	48	2		30a			0
37	37	2	65	2					0
38	8	2	108	2		0/30a			0
39	4	2	65						2
40	11	1	115			1/32a			0
41	15	1	116			1/25a			0
42	7	1	89	1					0
43	30	0	69			20a			0
44	22	0	65						0
45	43	6	44		2	1/32a	1/15a		2
46	28	2	22	1		1/40a			0
47	*Lot # 42 is partially								
48	protected with c.e.								
49									
50									

Note: Lot #'s are used for privacy reasons and are shown on the Vulnerable Land Map page 11.
Maps of each lot are found beginning on page 32, in numeric order.

Prioritized by Wildlife Attributes

(does not include Scenic or Adjacent to Open Space)

1	SCREENING WITH WILDLIFE	SCORE	ACRES	SCENIC	ADJACENT	FOREST	FIELDS	V POOLS	CORRIDOR	WILDLIFE
2	LOT #:	TOTAL								TOTAL
3	9	8	260				3/80a	3	2	8
4	21	11	814		3	3/500a		3	2	8
5	5	10	255	2		3/200a		3	2	8
6	16	9	280	2		3/150a		2	2	7
7	23	10	195	3		3/150a		2	2	7
8	39	11	317	3	2	1/60a	3/100a		2	6
9	17	8	260	3		2/100a		1	2	5
10	38	8	168	3		1/50a	2/30a		2	5
11	33	11	156	3	3		3/40a		2	5
12	19	7	85	2		1/65a		2	2	5
13	32	10	115	3	2	20a	3/25a		2	5
14	12	8	108	1	2	1/50a		2	2	5
15	1	5	150			3/150a			2	5
16	26	7	116	2		1/28a		2	2	5
17	42	4	258			2/140a		2	0	4
18	10	7	83	3			2/35a		2	4
19	14	9	47	3	2		2/22a		2	4
20	31	6	130		2	2/130a			2	4
21	25	7	38	3			2/20a		2	4
22	27	8	80	3				3	2	3
23	41	8	61	3	2	1/50a			2	3
24	18	5	49	2		25a		1	2	3
25	6	3	54			1/25a			2	3
26	13	3	68			1/30a			2	3
27	2	3	41			1/35a			2	3
28	24	6	145	3		1/50a			2	3
29	36	4	49	2			2/16a		0	2
30	3	4	65	2					2	2
31	4	2	65						2	2
32	40	4	163		2			2	0	2
33	34	4	46	3			1/10a		0	1
34	11	1	115			1/32a			0	1
35	15	1	116			1/25a			0	1
36	20	3	38	2		1/30-90a			0	1
37	30	0	69			20a			0	0
38	35	3	49	3					0	0
39	37	2	65	2					0	0
40	29	2	48	2		30a			0	0
41	8	2	108	2		0/30a			0	0
42	7	1	89	1					0	0
43	22	0	65						0	0
44	43	6	44		2	1/32a	1/15a		2	4
45	28	2	22	1		1/40a			0	1
46	*Lot # 42 is partially protected									
47	with c.e.									
48										
49										

Note: Lot #'s are used for privacy reasons and are shown on the Vulnerable Land Map page 11.
Maps of each lot are found beginning on page 32, in numeric order.

Prioritized by Environmental Constraints only

1	SCREENING WITH ENV. CONSTR.	SCORE	ACRES	SCENIC	ADJACENT	FOREST	FIELDS	V POOLS	CORRIDORS	ENVIR CONSTRAINTS	
2	LOT #:	TOTAL								%WETLANDS/SLOPES	ENV CONSTR SCORE
3	33	14	156	3	3		3/40a		2	10%	3
4	32	13	115	3	2	20a	3/25a		2	10%	3
5	3	10	65	2					2	10%	3
6	20	6	38			1/30a			2	10%	3
7	38	11	168	3		1/50a	2/30a		2	15%	3
8	36	9	49	2			2/16a		2	15%	3
9	31	12	130		2	2/130a			2	15%	3
10	4	3	65						0	15%	3
11	7	6	89	1					2	15%	3
12	14	15	47	3	2		2/22a		2	20%	3
13	12	11	108	1	2	1/50a		2	2	20%	3
14	1	11	150			3/150a			2	20%	3
15	35	8	49	3					2	20%	3
16	34	9	46	3			1/10a		2	25%	3
17	18	8	49	2		25a		1	2	25%	3
18	5	16	255	2		3/200a		3	2	30%	3
19	26	10	116	2		1/28a		2	2	30%	3
20	15	4	116			1/25a			0	30%	3
21	30	3	69			20a			0	30%	3
22	29	10	48	2		30a			2	30%	3
23	40	8	163					1	2	30%	3
24	6	4	54			1/25a			0	33%	3
25	24	8	145	3		1/50a			2	34%	2
26	23	12	195	3		3/150a		2	2	40%	2
27	39	11	317	3	2	1/60a	3/100a		0	40%	2
28	17	10	260	3		2/100a		1	0	40%	2
29	8	6	108	2		0/30a			2	40%	2
30	22	4	65						0	40%	2
31	25	11	38	3			2/20a		2	40%	2
32	9	10	260				3/80a	3	2	45%	2
33	21	13	814		3	3/500a		3	2	45%	2
34	16	9	280	2		3/150a		2	0	45%	2
35	10	7	83	3			2/35a		0	45%	2
36	11	6	115			1/32a			0	45%	2
37	42	8	258			2/140a		2	2	50%	2
38	19	9	85	2		1/65a		2	0	50%	2
39	2	6	41			1/35a			0	55%	2
40	41	10	61	3	2	1/50a			2	60%	2
41	13	2	68			1/30a			0	75%	1
42	37	5	65	2					0	(Fully developed) 15%	3
43	27	11	80	3				3	2	(Fully Developed) 20%	3
44	43	6	44		2	1/32a	1/15a		2	68%	1
45	28	5	22	1		1/40a			0	(property has 3 buildable lots) 50%	3
46	*Lot # 42 is partially protected with c.e.										
47											
48											

Note: Lot #'s are used for privacy reasons and are shown on the Vulnerable Land Map page 11.
 Maps of each lot are found beginning on page 32, in numeric order.

Prioritized by all open space criteria for properties with farmland soil of 20 acres or more

1	SCREENING WITH 20+ ACRES FARMSOIL	TOTAL		UNBUILT FARM
2	LOT #:	SCORE	ACRES	SOIL ACRES
3	9	10	260	164
4	21	13	814	140
5	42	13	317	137
6	17	12	260	108
7	16	11	280	81
8	3	10	65	64
9	4	5	65	64
10	32	13	115	60
11	38	11	168	60
12	8	4	108	60
13	40	6	163	60
14	33	14	156	52
15	42	6	258	45
16	11	6	115	38
17	10	9	83	33
18	7	4	89	32
19	41	8	61	29
20	15	4	116	27
21	14	15	47	25
22	23	12	195	25
23	5	14	255	24
24	43	7	44	24
25	30	3	69	23
26	35	8	49	22
27	28	5	22	22
28	24	6	145	20
29	22	4	65	20
30	*Lot # 42 is partially protected with c.e.			
31				
32				

Note: Lot #'s are used for privacy reasons and are shown on the Vulnerable Land Map page 11. Maps of each lot are found beginning on page 32, in numeric order.

LOTS RANKED USING ALL 4 CATEGORIES: OPEN SPACE, WILDLIFE,
ENVIRONMENTAL CONSTRAINTS AND FARMLAND SOILS:

<u>LOT#:</u>	<u>TIMES IN TOP 10 OF A CATEGORY</u>
38	4
33	3
21	3
39	3
32	3
16	3
17	3
14	2
5	2
9	2
4	2
23	2
3	1

A ranking system was developed to objectively prioritize each property to remove any subjective bias. Rankings are based upon the following:

1. ACREAGE: Acreage as well as ownership and mailing addresses are taken from publically available information derived from parcel data files from New York State GIS Clearinghouse using information provided by each municipality. Acreage was used to determine which parcels would be screened, those 40 acres or larger. Acreage was not used to prioritize those properties. The minimum size to be included in the inventory can be adjusted up or down to screen fewer or more parcels.

2. SCENIC LANDS: The list of scenic roads is from North Salem's 2009 Open Space Report which itself is based on the 2006 North Salem Open Space Committee's determinations. The properties that contribute to scenic views include not only properties along the scenic roads but in some cases the properties higher in elevation that are visible from scenic roads. To determine which parcels are scenic, AKRF used 3-D analysis to identify the parcels that contribute to the scenic character of a road. This study is included in the 2009 Open Space Report, Map 9. Vulnerable parcels were overlaid with scenic parcels (see Vulnerable Land, Scenic Roads Map, page 11) and were given a grade of '1' through '3' based on the amount of acreage deemed scenic and no grade if not scenic.

3. ADJACENCY: Properties adjacent to protected open space are conservation priorities because, based on landscape ecology studies, expanding existing open space creates more plant and wildlife habitat than two separate parcels do. Parcels separated by roads from open space or from parcels adjacent to conservation easement open space that does not have large areas of open space were excluded because roads, buildings and pavement fragment habitat.

Vulnerable properties and existing open space were mapped together and adjacent properties are circled in yellow and shown on the Vulnerable Land Adjacent to Protected Open Space Map, page 12. Adjacent properties were graded '2' while properties adjacent to more than one protected open space were graded '3'.

4. WILDLIFE CORRIDORS (HABITAT BLOCKS): The wildlife corridors (habitat blocks) are based on a review of satellite imagery to find unfragmented forests and fields of 250 acres and larger. 9 corridors were identified. This replaces the EWBC corridors based on three studies by Michael Klemens of the Metropolitan Conservation Alliance done in North Salem. First, the original EWBC boundaries of eastern North Salem were overly broad, including many areas surrounded by development. Secondly, properties west of I-684 were not studied because the highway was viewed as a barrier to wildlife even though a 350 acre corridor lies west of I-684 and thirdly, some properties were excluded only because they did not grant permission for surveys. Consequently, the EWBC corridors penalized the JOFLO, I-684 and Hardscrabble Farms properties while including the following fragmented properties:

Wellington Trust, 235 Mills Road, GDSR, DF Land, GR LLC, 260 Hunt Lane, 126 Keeler Lane, 46 Keeler Lane, Gotham Enterprises, Auburn Group, Hawley Woods, 280 Hawley Road, Seven Springs Farm, Finch Farm and Old Salem Farm all of which are either surrounded by development or new development or have themselves been built out. Grades are either '2' if in or '0' if out of a wildlife corridor.

5. FORESTS: Certain bird and wildlife species can only live in large forest blocks that have interior forests that are not fragmented by roads or development. Interior forests are considered those at least 50 acres in size.² While 50 acres is

² A Guide to the Conservation of Forest Interior Dwelling Birds in the Chesapeake Bay Critical Area June 2000, p. 11.
mde.maryland.gov/programs/Water/WetlandsandWaterways/Documents/Solar/Conservation_Forest_dwelling_birds_2000.pdf

considered the minimum for long term survival of forest interior birds, smaller patches at 30 acres can support wood thrush at least in the short term so a 30 acre block is valuable. Birds requiring large forest blocks are termed Forest Interior Dwelling Species (FIDS) and include: Red-shouldered hawk, Broad-winged hawk, Barred owl, Whip-poor-will, Hairy woodpecker, Pileated woodpecker, Acadian flycatcher, Brown creeper, Wood thrush, Yellow-throated vireo, Red-eyed vireo, Black-throated green warbler, Cerulean warbler, Black-and-white warbler, Redstart, Prothonotary warbler, Worm-eating warbler, Ovenbird, Louisiana waterthrush, Kentucky warbler, Hooded warbler and Scarlet tanager.

Satellite photographs of each of the 39 properties were examined and the size of contiguous forest was measured in acres (see Vulnerable Land Forest Blocks Map page 15). Forest blocks greater than the 30 acre minimum but less than 100 acres were graded '1'. Forest blocks of 100 to 149 acres were graded '2' and forest blocks greater than 150 acres were graded '3'. Some properties contained several forest blocks but because they are physically separated, are given a lower grade (e.g. Monomoy Farm, 2 separate blocks of 20 and 40 acres totaling 60 acres are not as valuable ecologically as 1, 60 acre block). Smaller forest blocks, if next to a large forest block on another property and not separated by a road, get a higher grade (e.g. GR LLC is only 28 acres of forest but is next to a large block so it gets '1' instead of '0'. 196 Titicus Road gets a '1' even though it is only 25 acres because it is surrounded by forest on three sides). Auburn Group (south of Hardscrabble Road) gets '0' despite 30 acres because it is separated from the second Audubon Group property by a road which is somewhat of a barrier to amphibians, to forest birds and allows predation along the forest edge by predators and parasitic birds such as cowbird. Hawley Woods at 30 acres gets '0' because it is surrounded by dense development.

6. FIELDS and FARMS: A property's open fields were measured using satellite photographs and assigned a grade of '1' through '3' depending on the size of the fields. Fields larger than 25 acres received the highest grade '3' because, in

addition to their size, fields of 25 acres or greater are habitat for declining grassland birds including bobolink and meadowlark which cannot breed in fields smaller than 25 acres.³ Some properties such as Ice Pond Farm were graded '3' because the fields were all contiguous AND adjacent to other protected fields. Others such as NSJE LLC graded '2' even though their acres of fields was large because they consisted of several separate fields and so not as good habitat for grassland birds like bobolink and meadowlark but still valuable for birds such as prairie warbler and fields sparrow and for pollinators, reptiles and small mammals.

7. VERNAL POOLS: Vernal, or 'seasonal' pools are small, temporary wetland pools that do not support fish and so are hospitable to amphibians and reptiles. Many amphibians and reptiles (termed 'obligate species') can only breed in vernal pools and as vernal pools are filled for development, these species are in steep decline. The rare Jefferson salamanders observed in vernal pool 12 spanning 2 properties (GDSR GR LLC) is the only large population of the species found in Westchester County. Because obligate vernal pool species migrate to and from vernal pools, it is recommended that a 750 foot buffer (approximately 50 acres) be protected from development around vernal pools.⁴ The three reports done by Michael Klemens in North Salem identified vernal pools. These were overlaid onto a map of vulnerable properties and those that had vernal pools were graded '1' for one vernal pool; '2' for two vernal pools and '3' if the property had three or more vernal pools (see Vernal Pool Locations Map and Vernal Pools, Vulnerable Land & Protected Open Space Maps, page 14).

³ 'Bobolink Recovery Project' Bedford Audubon Society, May 2010, p. 1. A field survey of 14 large grasslands in Westchester County found bobolink only in fields of 25 acres and larger.

⁴ "Conserving pool-breeding amphibians in human-dominated landscapes through local implementation of Best Development Practices", Aram J. K. Calhoun, Nicholas A. Miller & Michael W. Klemens, 2005

8. ENVIRONMENTAL CONSTRAINTS: Wetlands (DEC wetlands and wetlands soils) and slopes over 25% were overlayed on top of each of the parcels and the acreage was calculated and computed as a percentage of the property's total acreage (see Wetland & Steep Slopes Map page 16). Wetlands and slopes over 25% were used because they are assumed to be more difficult to develop with the caveat that, given high enough land values, nearly any property can be engineered so that it can be developed. Slopes greater than 25% were identified and not slopes of 15% to 25% which are considered steep slopes in some towns because the North Salem building code only considers slopes over 25% when excluding 50% to 75% of slopes (depending on zoning classification) from the minimum lot area calculations. Properties with a large percentage of wet and steep land are still valuable conservation properties but if they cannot be as easily developed as other properties then they may not be as high a priority as other properties that can be developed easily. Properties with 25% slopes and wetland soils constituting over 67% of the property were deemed more difficult to build (with caveats) and graded '1'; properties with 33%-67% wetland and 25% slopes graded a '2' and properties with 0-33% wetlands and slopes graded a '3'. The higher the score, the fewer environmentally constraints to developing the property and therefore the higher it ranks as a priority.

9. BUILDINGS: Satellite photographs of all 39 parcels were reviewed and those with residences (as opposed to farm buildings) are labeled 'Yes' and conservation easements are possible. Vacant land is termed 'No' and fee land protection is possible. Some very large properties that have residences also have very large vacant areas and are deemed 'One half' and may possibly be separated and protected as fee land if the landowner so desires.

10. SALE RISK: This is a subjective ranking and constantly changing based on the unique situation of each landowner including age, family succession, stated plans to develop, economics of the enterprise and other considerations. Properties were graded '1' through '3' with '3' being the greatest risk of sale and

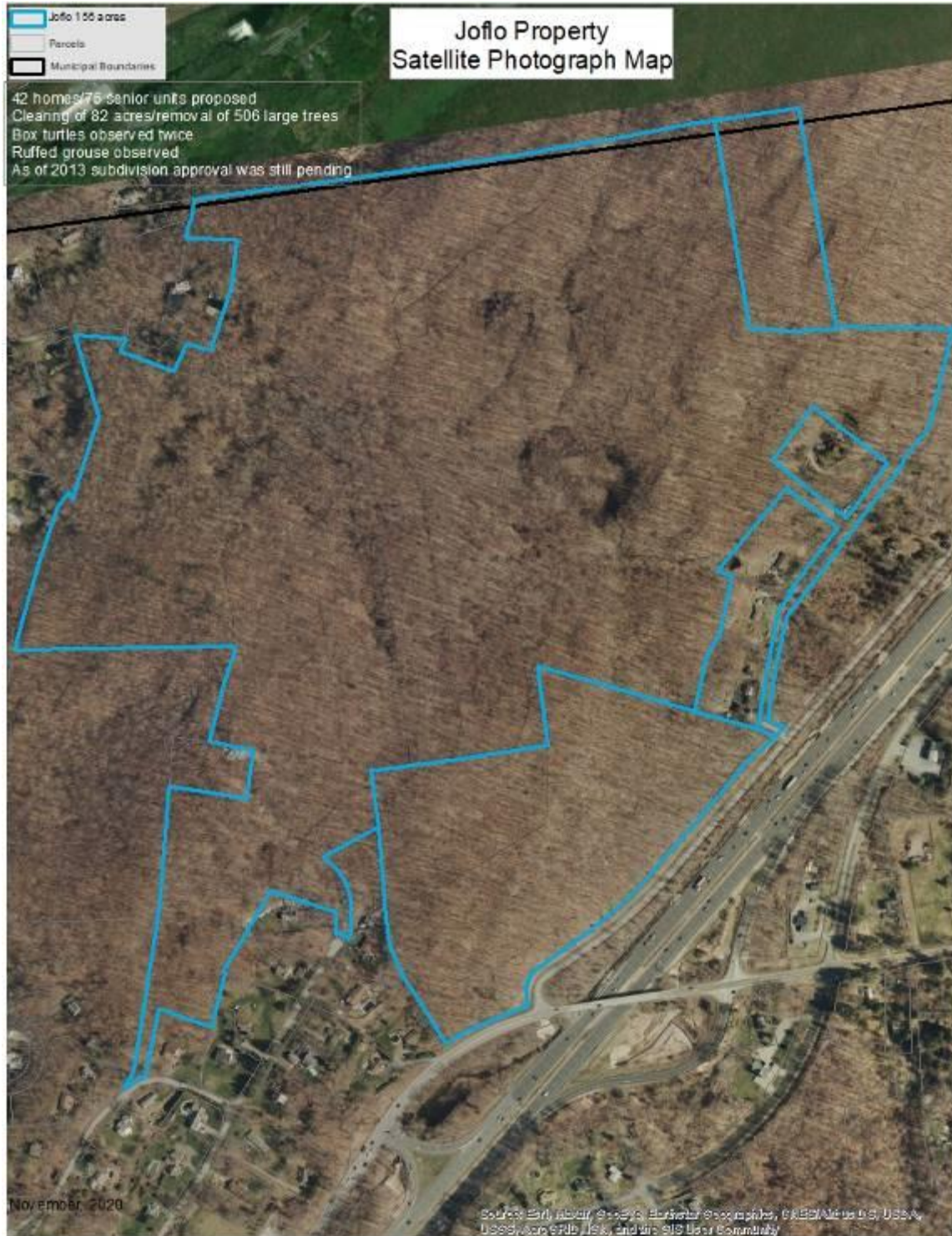
therefore, other things being equal, a high priority for conservation. It is only partially filled in; citizens with local knowledge of each situation are better equipped to grade this section.

11. UNBUILT FARMLAND SOIL: Prime farmland soils and soils of statewide importance ('farmland soil') are soil classifications developed by New York State to identify land that is important now or in the future for agriculture. They are rich soils that are neither too wet nor too dry, not rocky and not steeply sloped. Farmland soils were overlayed with satellite photographs of vulnerable properties and those properties with buildings were deemed built upon farmland soils while those with farmland soils and no buildings were deemed 'unbuilt farm soils' (see Vulnerable Land Farmland Soil Map page 17). The distinction is made because farmland soils that are built upon cannot, obviously, be used for agriculture. Unbuilt farm soils were ranked by size '1' - '3' with '3' having the most unbuilt farmland soil acreage.

12. TRAILS: No data was available at this time from North Salem Bridle Trails Association. Trails are an open space criteria for both the Town and the NSOLF. Identifying vulnerable land with trails is important to keep the trails from being fragmented, as is happening in some parts of North Salem. Also, by mapping trails and vulnerable land, it may be possible to re-connect former trails or re-route trails that have been fragmented. We are awaiting information from NSBTA.

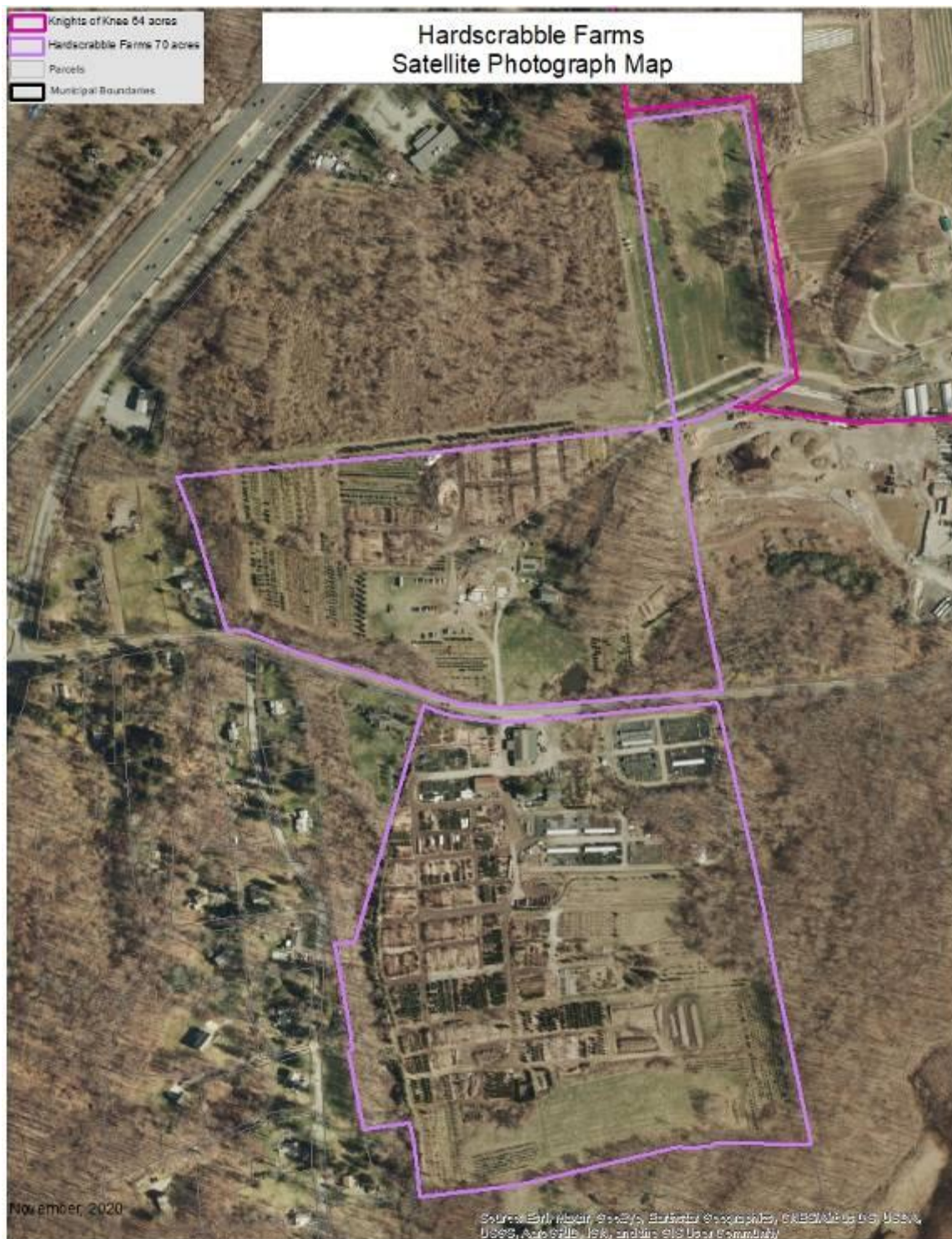
MAPS OF PROPERTIES:

Lot 1:

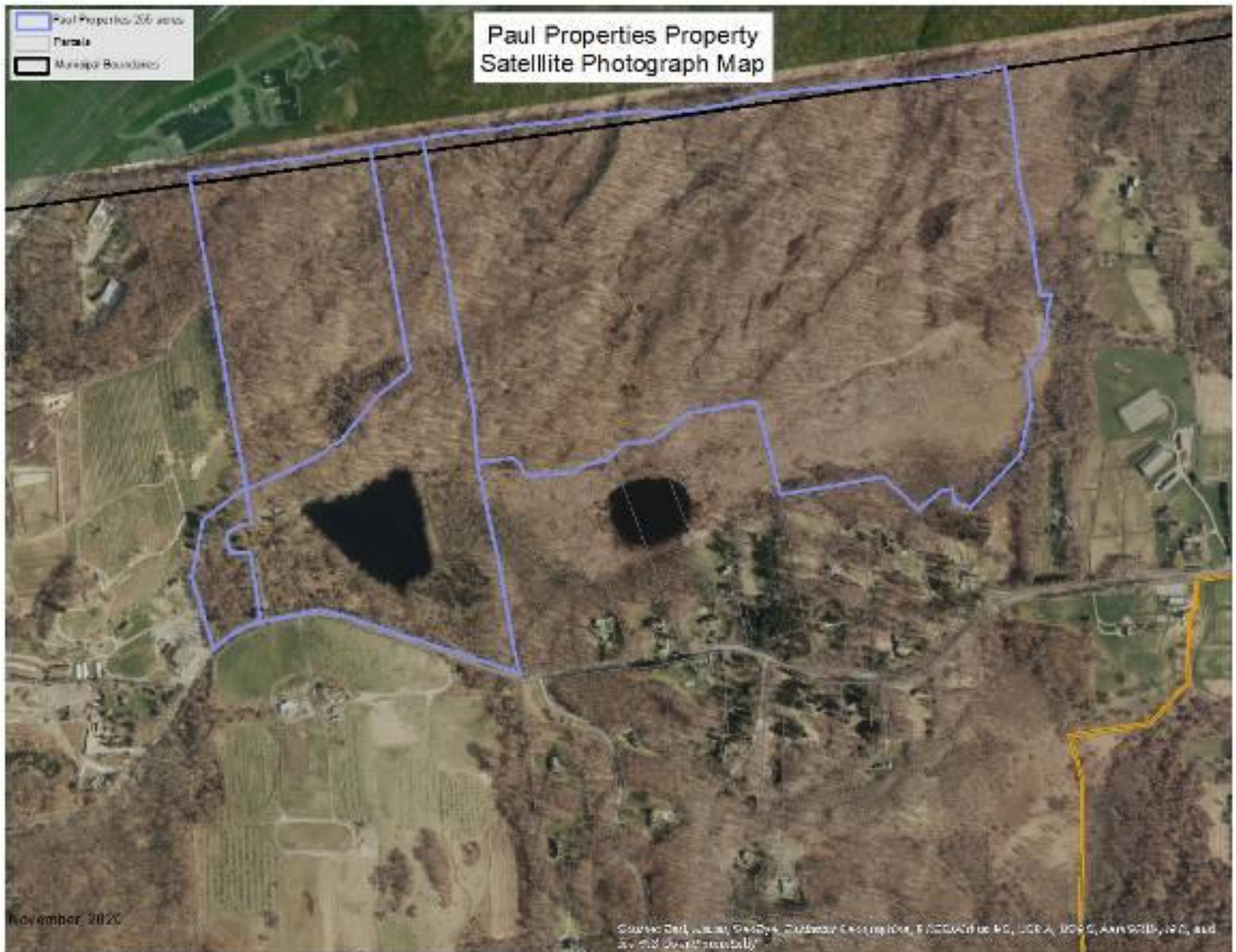








Lot 5:























Lot 17:





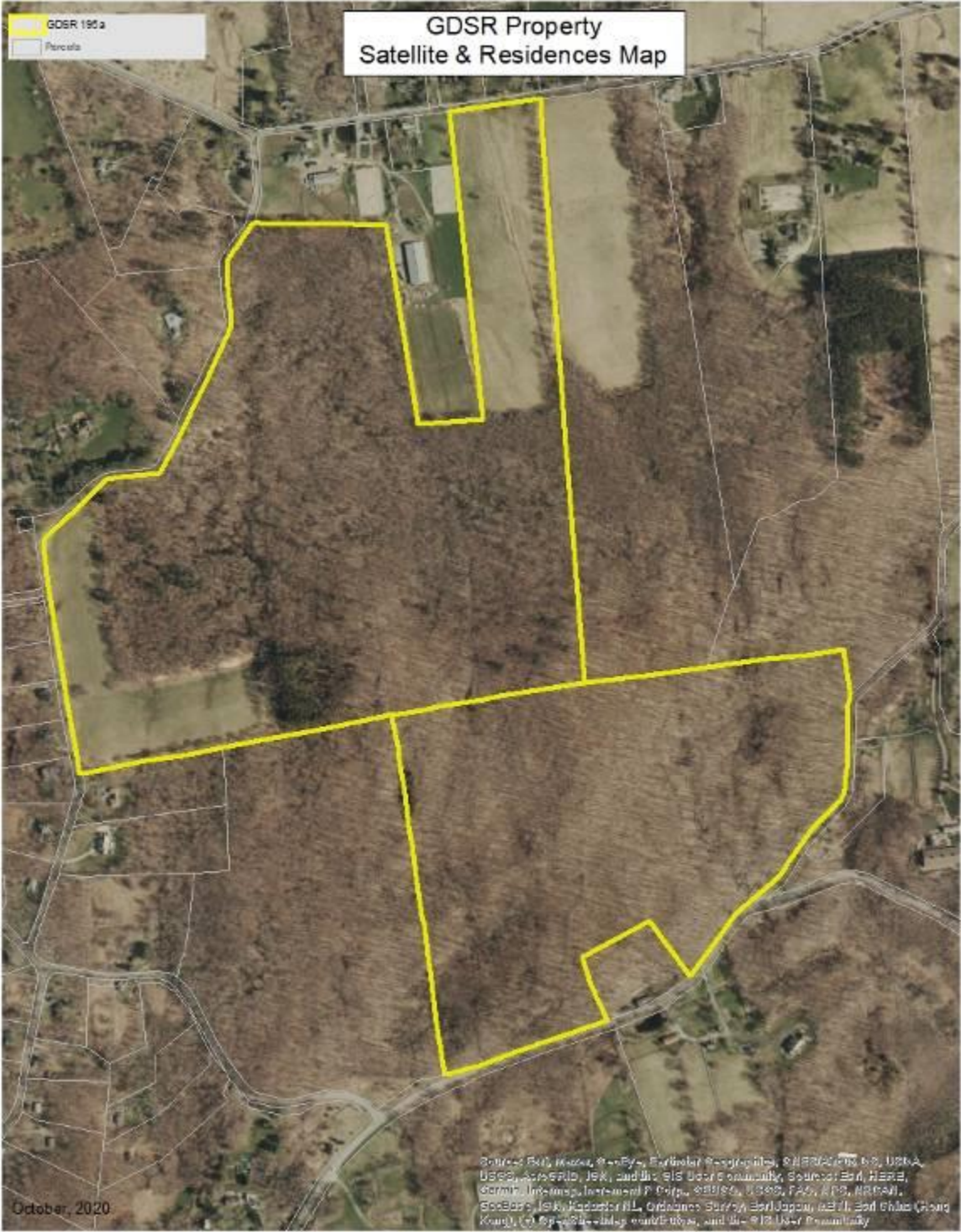




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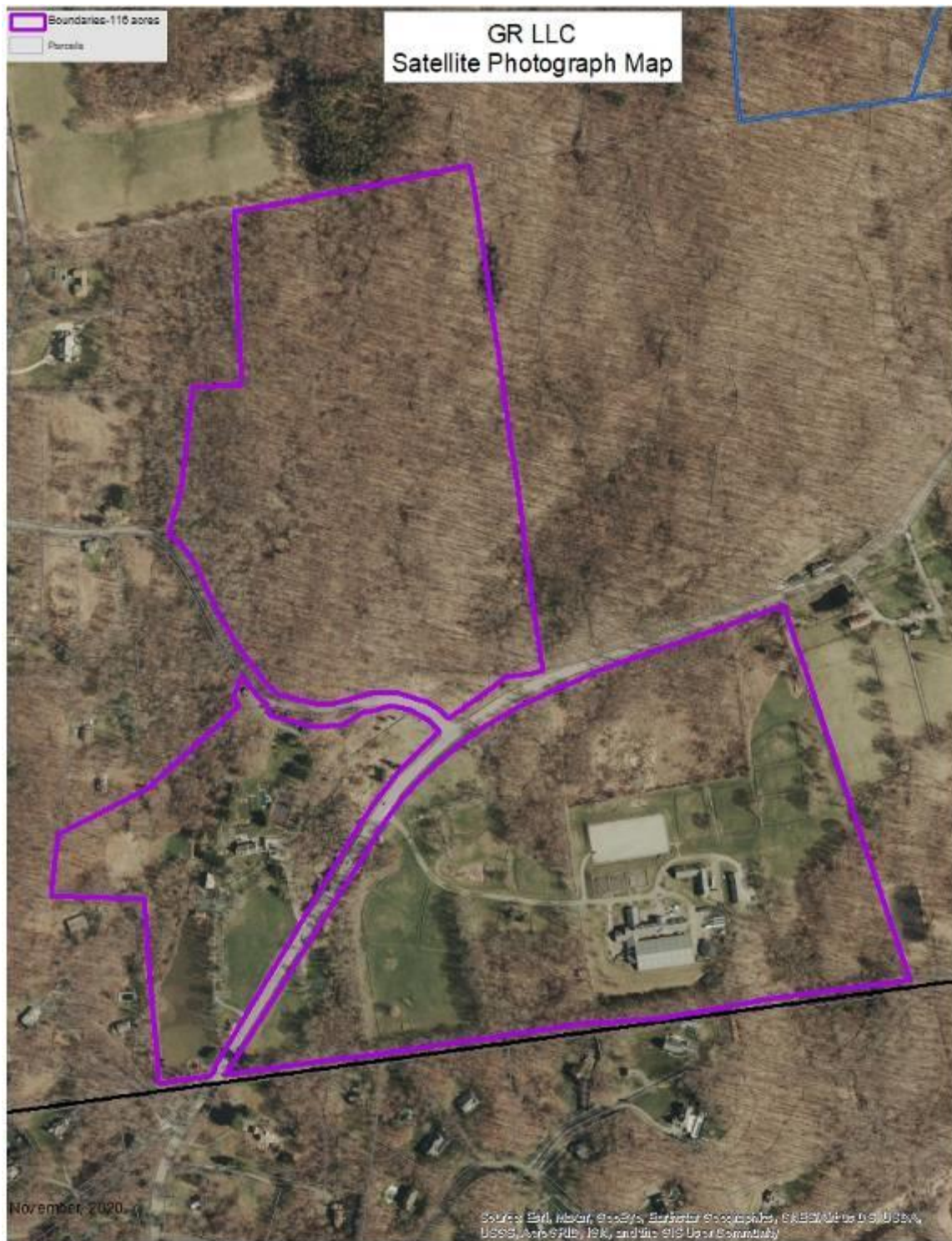


















Lot 30:







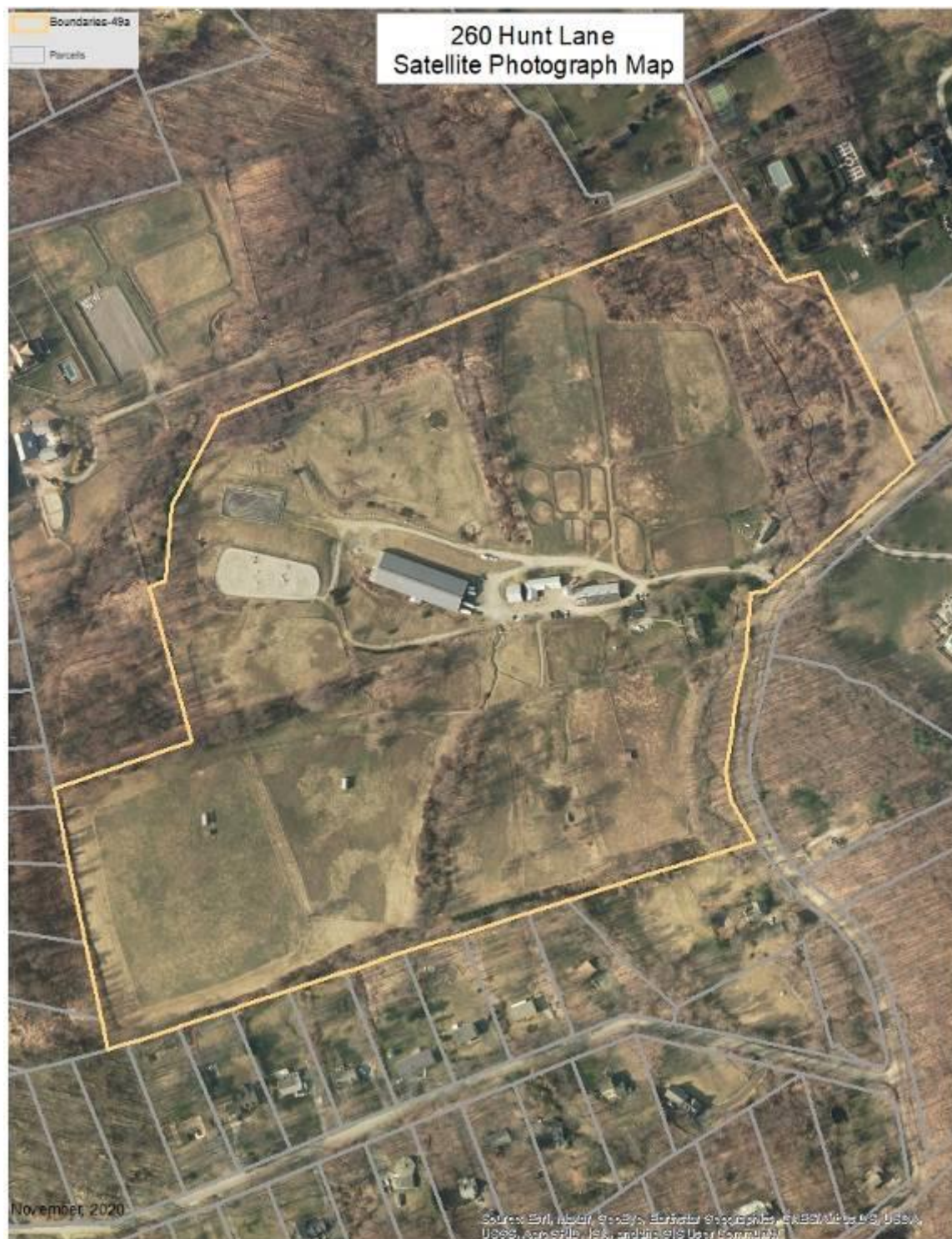


Lot 34:



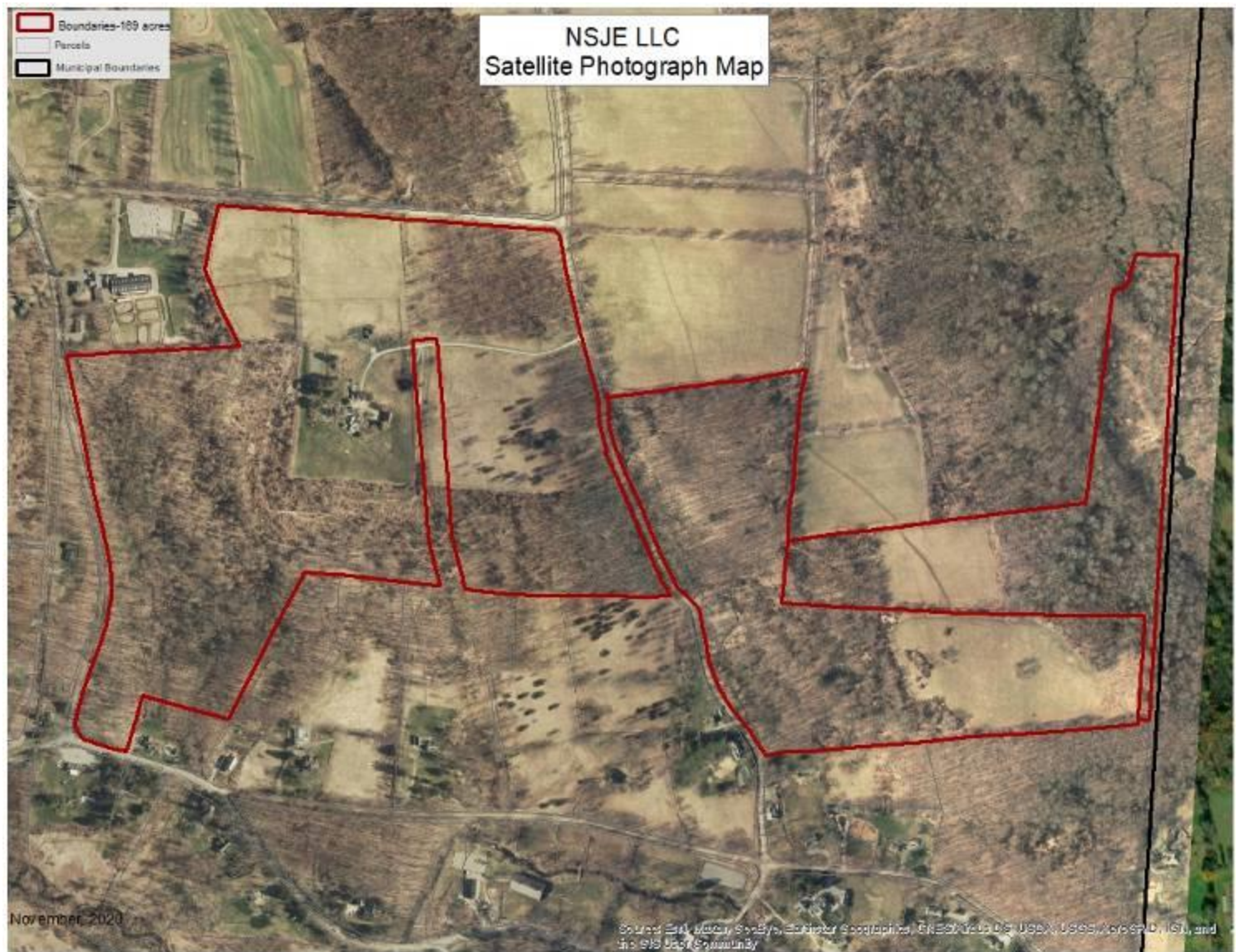


Lot 36:

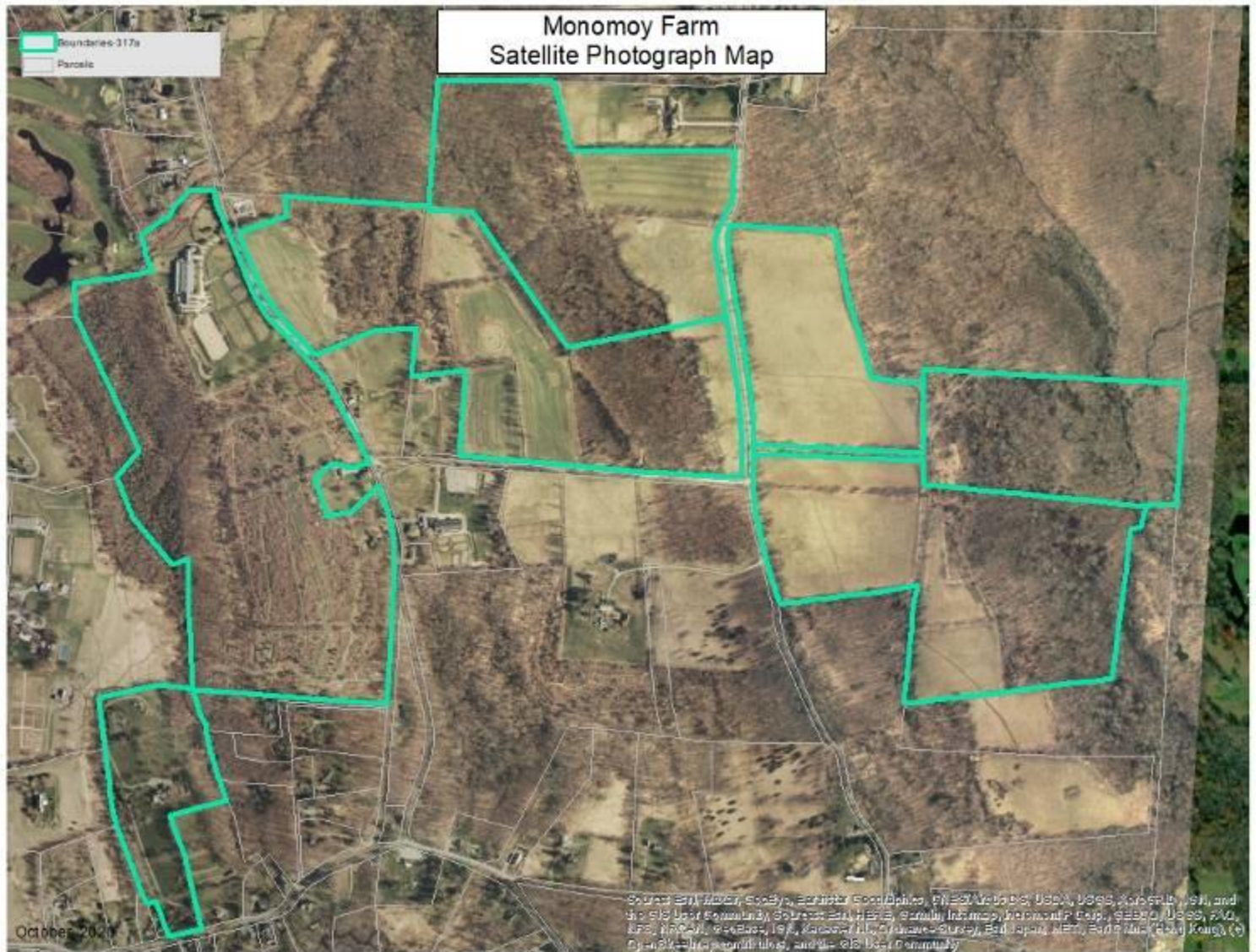




Lot 38:



Lot 39:

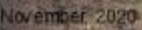




Lot 41:



Lot 42:





GIS maps used in this inventory use the following shape files and base maps:

Satellite Imagery: Environmental Systems Research Institute
(ESRI), 380 New York Street, Redlands, CA

Parcel Data: New York State GIS Clearinghouse using information
provided by each municipality

Freshwater Wetlands: New York State Department of
Environmental Conservation

Wetland Soils: U.S. Department of Agriculture, 2006 Westchester
County Soil Survey

Farmland Soils: US Dept of Agriculture, 2006 Westchester
County Soil Survey

Vernal Pools, Habitat Blocks: M. Klemens, Eastern Westchester Biotic
Corridor Reports. Metropolitan Conservation Alliance, Cary
Institute of Ecosystem Studies, Millbrook, NY

Slopes/Contours/Elevations: USGS and New York State Department of
Environmental Conservation

Scenic analysis: AKRF Engineering/North Salem Open Space Report, 2009

Habitat blocks, vernal pool locations: M. Klemens, Eastern Westchester
Biotic Corridor Reports. Metropolitan Conservation Alliance, Cary
Institute of Ecosystem Studies, Millbrook, NY

Open Space Criteria from the North Salem Open Space Committee include⁵:

Protecting visible field/meadow/woods lands including active
agricultural uses; preserving scenic character, including the
viewsheds along scenic roadways;

Providing trails for recreational uses;

Protecting ecologically significant lands such as steep slopes, wetlands
and contiguous forest areas;

⁵ North Salem Open Space Report, 2009, pages 1-2

Preserving and enhancing animal and plant habitats and corridors;
Protecting water resources;
Protecting connections between ecologically important parcels and
between existing open space areas;
Expanding protected land area contiguous with existing protected open
spaces.

Open Space Criteria from the North Salem Open Land Foundation include⁶:

Scenic fields and roads;
Plant and wildlife habitat and corridors;
Ecologically significant land;
Healthy ecosystems;
Biodiversity corridors;
Climate resilient land;
Land adjacent to preserves.

⁶ North Salem Open Land Foundation Strategic Plan 2020-2023