

Southeast Ulster County Agriculture: Land Use Changes in Agricultural District #1 from 2013 to 2019/2020

Agricultural District #1 covers southeastern Ulster County. It's a region bounded by the New York State Thruway to the west, the Hudson River to the east, the Wallkill River and Rondout Creek to the north, and Orange County to the south. This area encompasses Marlborough, Lloyd, most of Esopus, half of Plattekill and the northeastern section of New Paltz. Technically, Agricultural District #1 is all the tax parcels included in the New York State Certified Agricultural District Program in this area.

An analysis and comparison of cropland between 2013 and 2019 shows a region that saw more land used for agriculture during this period.¹ The last review of Agricultural District #1 was completed in 2013, which is why that year was chosen as a starting point. As for 2019, it is the latest year available with data on where crops grew. This seven-year period saw substantial changes.

USDA's CropScape provided the data used to identify land with crop production i.e. cropland. In identifying land most likely in commercial farm operations, this analysis focuses on cropland located in agricultural district parcels and/or parcels classified as agriculture by local tax assessors. Most tax parcels classified as agriculture are already in an agricultural district, but not all (see maps in Appendices 1a and 1b). Commercial agriculture is considered as taking place in these two groups of parcels for the land-use analysis of Agricultural District #1.

CropScape provides raster data files, which are maps of crop locations and other land uses. An example for Ulster County is in Appendix 2. A 2013 map of tax parcels with commercial agriculture was overlaid on a raster file and used to isolate areas with cropland (see map in Appendix 3a). However, tax parcels from 2020 were used to analyze 2019 raster data (see map in Appendix 3b). A raster file for 2020 won't be ready until later in 2021, and any land use changes between 2019 and 2020 shouldn't impact the accuracy of the analysis from what the Ulster County Planning Department can gauge of development activity in southeastern Ulster County.

When taking into consideration the USDA land-use category called Grassland/Pasture, tax parcels with commercial agriculture show a decrease in cropland, going from 7,265.17 acres to 6,377.50 acres. But the biggest driver in this loss centers on Grassland/Pasture, which saw a steep decrease in land area from 2013 to 2019. This was a decrease from 2,630.92 acres to 607.48 acres or a net loss of 2,023.44 acres. Grassland is not necessarily hayed, though, and hence often not part of an agricultural operation. Less pasture suggests fewer livestock operations, but that doesn't appear to be the case from a review of tax assessment rolls. Instead, part of the

¹ Southeastern Ulster County had more land classified as Grassland/Pasture by the USDA in 2013 than in 2019. Including Grassland/Pasture in an analysis of all southeastern Ulster County results in cropped acreage decreasing from 13,099.90 acres in 2013 to 9,640.34 in 2019. This land-use category is not necessarily farmland, however.

explanation can be attributed to non-agricultural development. The Town of Lloyd saw 164 acres that were in an agricultural district join with neighboring lands and become a park. CropScape data shows an increase of about 250 acres in non-agricultural developed land from 2013 to 2019, which also partly explains what became of grassland and pasture in the area. This increase doesn't include the park in Lloyd.

Just looking at Grassland/Pasture and non-agricultural development only tells part of the story. Overall crop production provides further insight into what happened in the District since 2013. More land is used to grow crops other than pasture. The acreage devoted to growing different types of grains, fruits and vegetables increased. Table 1 shows the increases in acreage used for crop production in agricultural district parcels and ones classified as agriculture by tax assessors in 2013 and 2019. Table 1 shows an increase in acreage used for different crops.

**Table 1: Acreage Increases of Cropland, Selected Crops
2013 and 2019**

	2013 Acreage	2019 Acreage	Percentage Change
Corn	35.58	86.96	144.38%
Soybeans	0.89	16.68	1,775.00%
Sweet Corn	4.67	10.23	119.05%
Alfalfa	54.49	59.38	8.98%
Other Hay/ Non-Alfalfa	203.94	337.82	65.65%
Cherries	7.34	8.45	15.15%
Peaches	2.00	10.45	422.22%
Apples	3,984.19	4,657.82	16.91%
Pears	12.45	31.80	155.36%

These are very sizable increases on a percentage basis, for crops like corn, peaches and pears. Barley and potatoes had around 4 acres each in 2019 and didn't appear in 2013 CropScape data. Christmas trees had close to 9 acres in 2019 and also wasn't found in 2013 data. Triticale's acreage increased fourfold, close to 4 acres. Blueberries, strawberries and nectarines appeared in the 2013 data, but not 2019. Overall, CropScape data show an increase of 1,135.77 acres of cropland in agricultural districts and/or in parcels classified as agriculture. This includes 25 different crops and Fallow/Idle Cropland but excludes Grassland/Pasture. The data suggest farm operations are trying different crops and diversifying what they grow.

**Table 2: Change in the Number of Tax Parcels with Property Class Code for
Agriculture - 2013 and 2020**

<u>Code</u>	<u>Property Class Description</u>	<u>2013</u>	<u>2019</u>	<u>Change</u>
105	Agricultural vacant land (productive)	4	4	0
110	Livestock and products	1	1	0
113	Cattle, calves, hogs	3	3	0
117	Horse farms	5	4	-1
120	Field crops	6	8	2
140	Truck crops – not mucklands	2	2	0
150	Orchard crops	2	3	1
151	Apples, pears, peaches, cherries, etc. ²	249	253	4
152	Vineyards	3	3	0
170	Nursery and greenhouse	8	8	0
241	Primary residential, also used in agricultural production	32	34	2

Table 2 looks at tax parcels, dividing them into different property class categories. Tax assessment data corresponds with the increase in the amount of cropland. In Agricultural District #1, the acreage of all the parcels assessed as agriculture increased from 9,931.38 acres in 2013 to 10,298.66 in 2020. This translates into 315 parcels in 2013 to 323 in 2020, which is 8 more parcels assessed as agricultural properties. Five of these parcels received real property classification codes 150 for orchards or 151 for apples, pears, peaches, cherries, etc.

Parcels with property class code 446, which is Cold Storage, can be found throughout southeastern Ulster County, particularly in Marlborough, and sometimes have commercial orchards. Using aerial photographs with tax parcel boundaries from 2020, it's estimated that an additional 140 acres over six parcels in Marlborough and one small parcel in Plattekill are classified as Cold Storage and have orchards. Another parcel with 12 acres in Marlborough and property class code 446 appears to be growing vegetables. There is one more Cold Storage parcel with cropped acreage in 2020 than in 2013.

² Property Class 151 or Apples, pears, peaches, cherries, etc. will also be referred to as Stone Fruit.

**Table 3: Change in the Acreage of Tax Parcels with Property Class Code for Agriculture
2013 and 2020**

<u>Code</u>	<u>Property Class Description</u>	<u>2013</u>	<u>2020</u>	<u>Change</u>
105	Agricultural vacant land (productive)	544.11	544.11	0
110	Livestock and products	32.41	32.41	0
113	Cattle, calves, hogs	311.17	311.17	0
117	Horse farms	71.74	54.39	-17.35
120	Field crops	205.03	301.42	96.39
140	Truck crops – not mucklands	89.46	89.46	0
150	Orchard crops	37.23	164.23	127
151	Apples, pears, peaches, cherries, etc.	7,365.08	7,550.16	185.08
152	Vineyards	33.81	33.81	0
170	Nursery and greenhouse	94.87	94.87	0
241	Primary residential, also used in agricultural production	1,146.47	1,122.63	-23.84

Table 3 looks at the acreage of tax parcels with property class codes for agriculture. It shows a net increase of 367.28 acres, which corresponds with the increase of 8 tax parcels classified as agriculture.³ The number of tax parcels classified as Field Crops, Orchard Crops and Stone Fruit increased. Historically, these are the leading crops in the area, and help establish Ulster County as a strong agricultural producer, ranking statewide and nationally for certain crops.

Based on this analysis, land use changes in Agricultural District #1 reflect increased farming activity. More land is cropped than at the end of the last review, about 1,136 acres more, when not considering Grassland/Pasture. The increased acreage devoted to cropland, especially Field Crops, Orchard Crops and Stone Fruit, along with over 400 acres in non-agricultural development, appears to have replaced some, if not most, of the lost grassland and pasture. Agricultural District #1 even sees a more diverse array of crops, too. Agricultural District #1 continues to meet its original objectives when it was established in February 1973, because it can still host commercial farm operations and help maintain an environment where farms can adjust and meet demand.

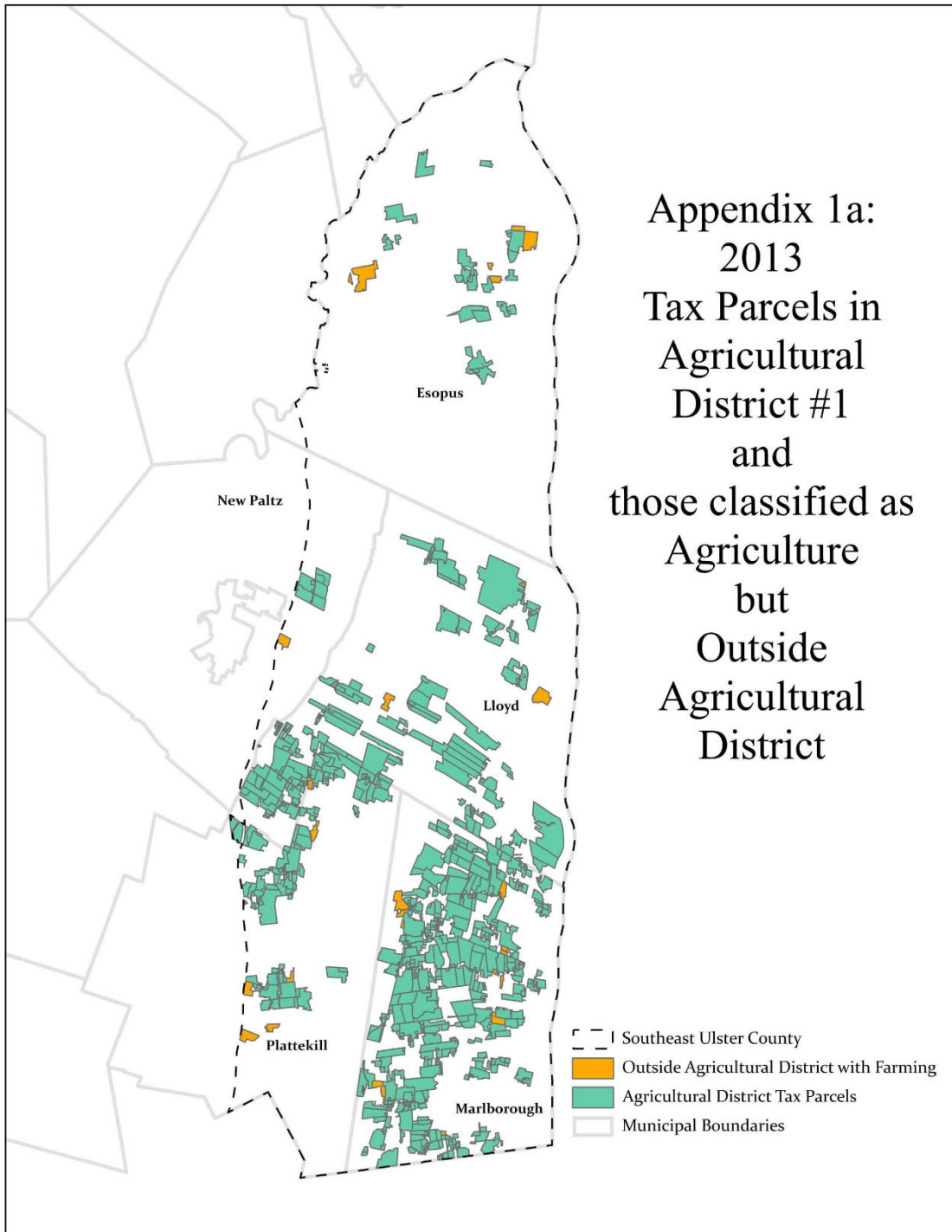
Note:

This analysis was taken from a report dated 2/23/2021. It was prepared for the review required by the New York State Department of Agriculture and Markets completed in July 2021.

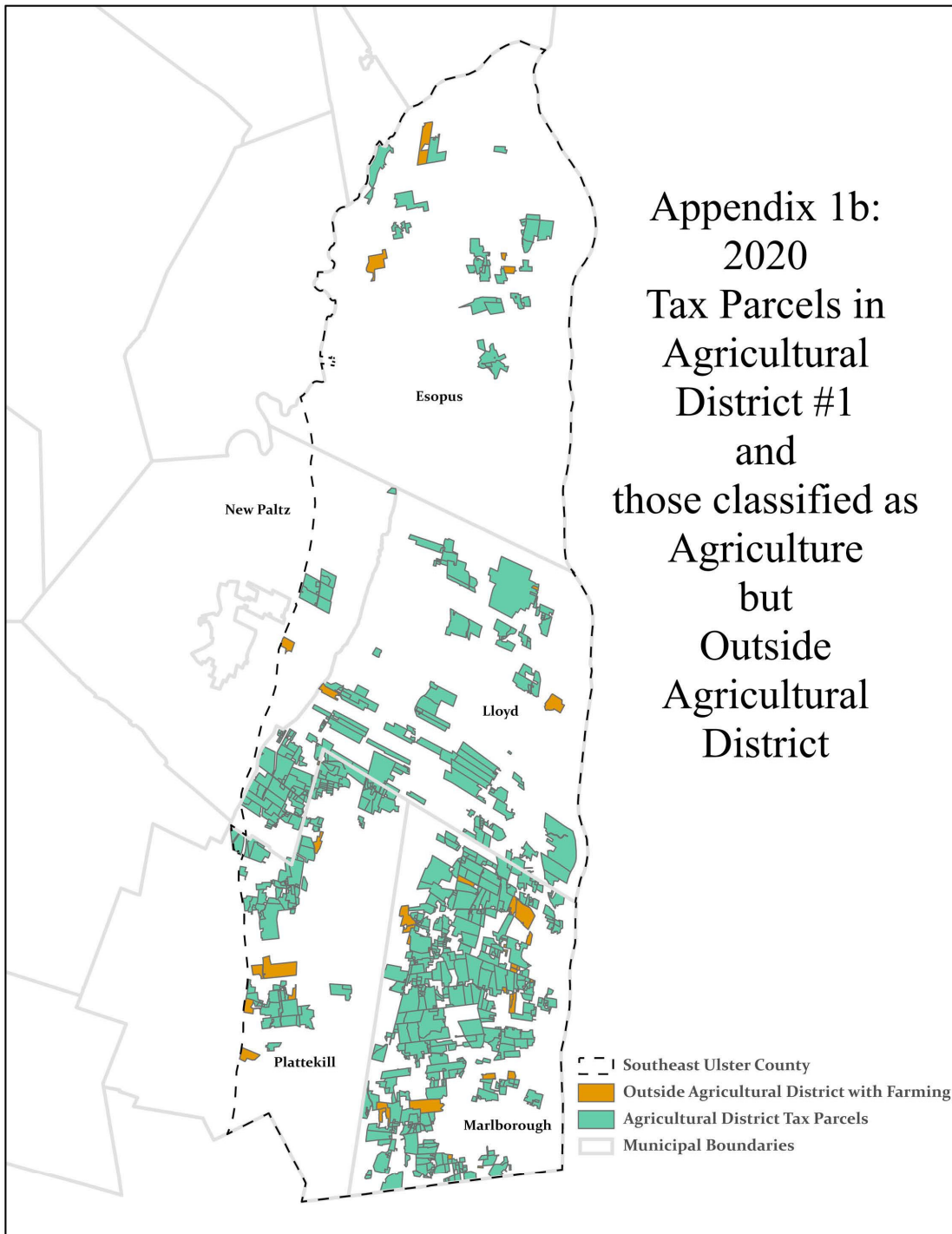
Burt Samuelson, July 28, 2021

³ Tax parcels classified as Primary Residential with Agriculture increased from 32 in 2013 to 34 in 2020. Even with a net increase of two parcels, the amount of acreage decreased by 23.84 acres. The likely explanation lies with subdivision activity. Certain properties would have been subdivided, creating multiple new parcels from a single parcel. This likely created a few more parcels classified as agriculture, but also created more parcels, with more acreage, that fell out of agricultural production.

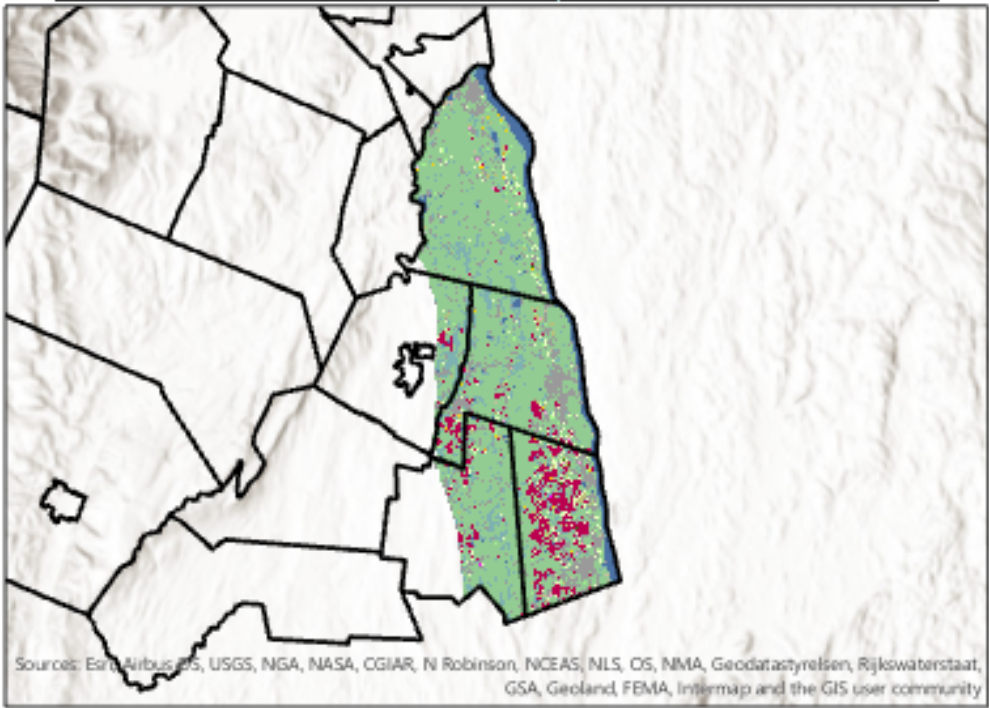
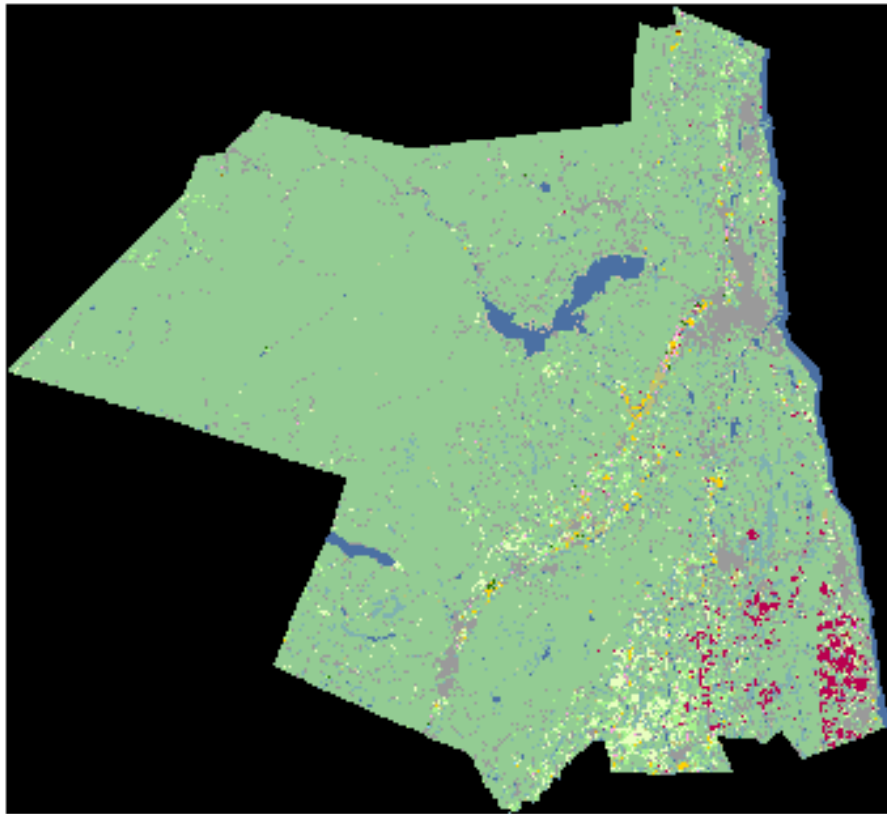
Appendix 1a:
2013
Tax Parcels in
Agricultural
District #1
and
those classified as
Agriculture
but
Outside
Agricultural
District



Appendix 1b:
2020
Tax Parcels in
Agricultural
District #1
and
those classified as
Agriculture
but
Outside
Agricultural
District

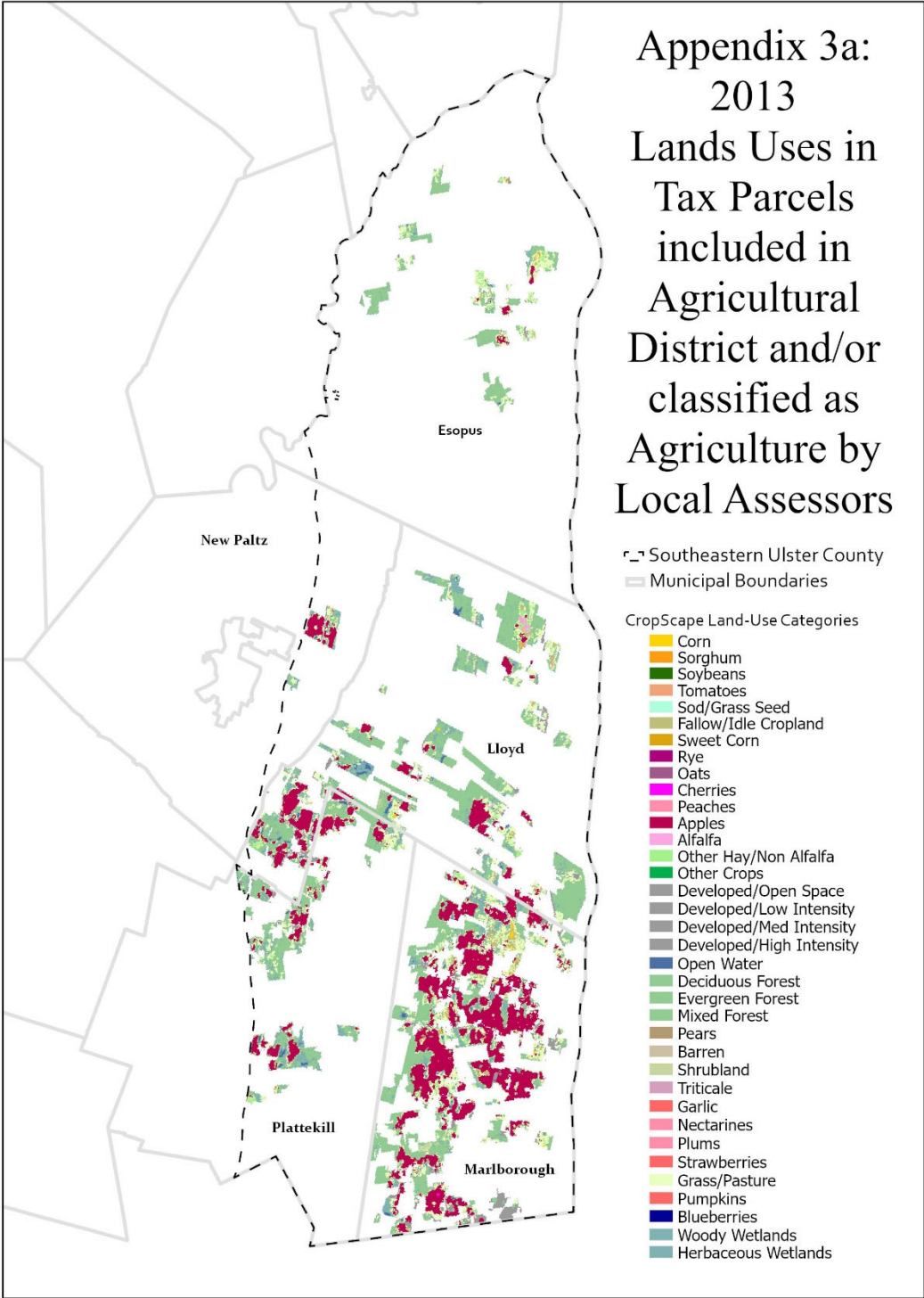


Appendix 2: USDA CropScape Data for Entire Ulster County and Southeast Area



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, MMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

Appendix 3a: 2013 Lands Uses in Tax Parcels included in Agricultural District and/or classified as Agriculture by Local Assessors



Appendix 3b: 2019 Lands Uses in Tax Parcels included in Agricultural District and/or classified as Agriculture by Local Assessors

