Northern Ulster County: Agricultural District #4, Sweet Corn, and the Hurley Flats

Agricultural District #4 covers northern Ulster County (see Appendix 1). The region served by Agricultural District #4 includes the Towns of Hurley, Kingston, Saugerties, Woodstock, Shandaken and Ulster. Parts of the Towns of Marbletown and Olive within the Esopus Creek Watershed are also served. A sizable tax parcel along the Esopus Creek in a mainly undeveloped part of the City of Kingston is included in the District. Technically, Agricultural District #4 is all the tax parcels in this area of the County included in the New York State Certified Agricultural District Program.

Varied Landscape

Agricultural District #4 has tax parcels located across widely different geographical areas (see Appendix 2). To the west, the District serves part of the Catskill Mountains in Ulster County within the Esopus Creek Watershed. Maple sugaring operations are found here, along with a number of small farms using flat areas with prime soils tucked away in mountainous terrain to grow crops. Compared to other parts of Ulster County, there are fewer agricultural district tax parcels here and they are scattered across the landscape.

As the Esopus Creek heads to lower ground, southeast of the Catskills, it cuts its way through an area with steep slopes on either side. When the Esopus Creek runs alongside Route 213, it enters the Hamlet of Stone Ridge. Here, parcels start to cluster together, and in this part of Marbletown, the Esopus Creek goes into an area with field crop and vegetable production.

The Esopus Creek then turns northeast and enters a wide plain known as the Hurley Flats. This area stretches from Marbletown through Hurley to Route 28 in the Town of Ulster. The Esopus Creek and Route 209 run alongside one another in the Hurley Flats. The Hurley Flats sees much of the agricultural activity in Agricultural District #4. Tax parcels in the District spread across this plain.

Past Route 28, the Esopus Creek heads due north. There's more of a mix of farmland between crops and livestock. Stretches of the Esopus Creek flow close to urban areas in the City of Kingston. In Lake Katrine, it is right alongside a residential area on its east banks and expansive farmland on its west banks. Residences are also found on either side of the Creek in some stretches here. By the time it flows to the Town of Saugerties, the landscape becomes all rural again. The Esopus Creek then enters the Village of Saugerties and turns east, heading into the Hudson River. Tax parcels in the District continue northward until they meet mountainous terrain or the boundary with Greene County.

Some History

Agricultural District #4 continues to achieve its objectives since its creation in March 1975. Northern Ulster County saw its first tax parcels with commercial farms included into the New York State Certified Agricultural District Program at that time. It remains an area with significant viable land for agriculture that contributes to the regional agricultural economy.

While farming takes place across Agricultural District #4, much of its history – early to recent – unfolded in the Hurley Flats. The Town of Hurley's Comprehensive Plan from 2006 summarizes the history of this area along the Esopus Creek in the following:

> For centuries, the Esopus Native Americans used the fertile soils deposited by the Esopus Creek to cultivate a rich and varied diet.
>
> Later, Dutch farmers introduced a two-crop system that worked well in the mud flats of the Rhine River Valley and was well suited for the Esopus plain. They harvested grain in September for personal use and planted winter wheat for an April cash crop they could sell in Albany.
>
> Then, the new French Huguenot and English settlers removed most of the trees in the [Lower Esopus] Valley so they could plow. Cultivated fields occupy much of the forest we see in the Valley today.

In time, the Hurley Flats helped make Ulster County a major producer of corn. Sweet corn and a few other crops like hay, came to dominate the landscape. The 2006 plan noted that "refrigerated trucks carry our outstanding sweet corn to distant markets." The plan also noted that farmers were at the "forefront of farming innovation by participating in experiments to find the best way to cultivate crops. Some reserve plots…grow heritage varieties to keep the gene pool widely available." Then, the 2010s came and marked a decade of significant change.

Fallow Fields

Over the last few years, the area identified as having commercial activity[1] for this land-use analysis saw its acreage of cropland increase. USDA CropScape data from 2015 has 4,424.75 acres of cropland.[2] In 2021, the area covered by cropland rose to 4,775.24 acres. A distinction needs to be

[1] The area with commercial activity for this land-use analysis are one or both of the following:

- Tax parcels in a New York State Certified Agricultural District
- Tax parcels outside a certified agricultural district but designated as agriculture by local tax assessors through a New York State property class code, which typically have around 30 parcels

Property class codes signifying agriculture are mostly in the 100 class. Property class code 120 (field crops) is seen often in Agricultural District #4. Property class code 241 (residential with agriculture) and 555 (riding stables) were incorporated in the area with commercial activity. Horse farms had been 555 but are now property class code 117.

[2] This land-use analysis compares 2015 and 2021 because 2015 is when the last review of Agricultural District #4 was completed and 2021 is most recent year CropScape data is available as of the writing of this report.

made, however, between cropland that is fallow and cropland that is actively farmed with fruits, grains, vegetables, or pasture growing on it.

For a few years, fallow fields were prevalent in the Hurley Flats. There was a spike in fallow acreage during the middle of the decade. The USDA land-use category, Fallow/Idle Cropland, sheds light on the level of farming activity seen a few years ago. In 2012, there were 243.52 acres of Fallow/Idle Cropland and 4,150.54 acres of actively farmed cropland. In 2015, Fallow/Idle Cropland increased greatly and covered 2,098.96 acres in Agricultural District #4, most of this in the Hurley Flats. By 2021, the amount of fallow cropland decreased to 139.66 acres, and the amount of cropland actively farmed went from 2,325.79 acres in 2015 to 4,635.58 acres. Actively farmed cropland started increasing a few years prior to 2021. This increase and decrease in fallow acreage marked the change seen over the last decade.[3]

As it had in previous eras, the Hurley Flats transitioned during the 2010s. The Hudson Valley Farm Hub purchased Gill Farms in 2013. Two years after this purchase, the Farm Hub was still developing the programs and partnerships that make this organization what it is now: a resource for agricultural education, demonstration, and research. So, for the first few years, including 2015, much of its farmland in Hurley was idle. But this does not account for all fallow farmland in the area. Further south, going into Marbletown, CropScape shows areas with Fallow/Idle Cropland during that time, too. These are areas where farmers have often grown corn, particularly sweet corn.

Sweet Corn

The Hudson Valley Farm Hub bought farmland that produced lots of corn when it purchased its property in 2013. Much of the farmland in this plain, which stretches from Marbletown through Hurley and up to Route 28 in the Town of Ulster, grew corn, particularly sweet corn. Hundreds of rows of corn along both sides of Route 209 were a common site every year. There also continues to be some pockets north of the Hurley Flats in Agricultural District #4 that grow corn. These are areas north of Route 28 in the Towns of Ulster and Saugerties.

Farms in these communities have been well positioned to sell truck crops. These communities in Agricultural District #4 have highly productive soils and good access to major roads. The well-drained and fertile soils, along with ample access to water, and exposure to the sun throughout the day, made sweet corn an ideal truck crop.

According to the USDA Economic Research Service, per capita consumption of fresh sweet corn in the United Stated decreased from 9.2 pounds in 2010 to 4.7 pounds in 2020.[4] "Sweet corn

[3] Appendices 3a, 3b, and 3c are maps of CropScape data from 2012, 2015, and 2021, respectively. Each are of Agricultural District #4 in its entirety.

[4] Bar chart titled "Per Capita Consumption of Sweet Corn in the United State from 2000 to 2002 (in pounds) from statista.com.

consumption overall has declined as less frozen and canned sweet corn is being consumed per person."[5] The total dollar value of processed sweet corn went from well over $350 million about a decade ago to about $190 million in 2021.[6] Farmers started receiving less for sweet corn. The price of field corn also plummeted around this time, taking away an option for those farmers looking to shift out of sweet corn. Recently, though, the price of field corn started increasing again as demand has risen.[7] Demand for sweet corn at the national level is still not as strong as it used to be.

Locally, sweet corn production continued. Farms in Agricultural District #4 contain most of the land used for sweet corn production in Ulster County. Historically, the District contained three-quarters, and at times more, of the land used for growing sweet corn in the County. In 2021, this was estimated at around 71%. Even after the sale of Gill Farms in 2013, hundreds of acres each year have been used to grow sweet corn in the District. This was upwards of 1,500 acres during the years leading up to the sale. Farmers continued to plant sweet corn with everything going on nationally and locally. Any changes in sweet corn production were part of broader changes happening in Agricultural District #4 at the time.

More Variety

When farmers in Agricultural District #4 started growing crops again on fields that had been fallow, the area didn't quite revert to what it was before. What emerged is a landscape with a greater variety of crop production. Properties operated by the Farm Hub, because of its mission, see a changing mix of all sorts of crops grown. Farms in the Hurley Flats that predate the Farm Hub grow a greater proportion of field corn than seen before 2014 since its price increased. More is also seen in the way of greens, alfalfa, rye, soybeans, and truck crops other than sweet corn. Newer, smaller farms grow all sorts of produce. Some of them are organic farms, but in general, they tend to emphasize sustainable farming practices. Farms old and new are erecting or even rehabilitating greenhouses and high tunnels across the District. This trend of crop diversification was noted in the District's last review eight years ago and has continued. Agricultural District #4 provides one example of how farmland is a working landscape that undergoes change.

Farmers found ways to bring what they produce to market. Area supermarkets make a concerted effort to sell products from local farms and elsewhere in Upstate New York. From time to time, certain stores have signs in the produce section that tell customers what farms particular fruits and

[5] Cheryl Kaiser and Matt Ernst. (July 2018). *Sweet Corn*. University of Kentucky, Center for Crop Diversification Crop Profile, CCD-CD122.

[6] USDA, National Agricultural Statistics Service, Quick Stats (Sweet Corn selected as commodity). Column titled Sweet Corn, Processing – Production, Measured in $ - Value.

[7] The price of corn in general dropped over the better part of a decade. The commodity price of corn in the United States is almost entirely made up of the price of field corn. The price of corn started dropping in 2012 from over $8 a bushel to hovering around $3.50 and $4 a bushel until prices started to rise in 2020. Recently, in 2022, corn prices reached levels seen back in 2012 because of numerous domestic and international factors increasing the demand for corn.

vegetable came from along with the hamlet, town, or village. Sometimes such signs indicate produce was grown in a nearby state. An area restaurateur in a radio ad several years back talked about how he used to have to go to New York City to get produce grown in the Hudson Valley. More restaurants source items from local farms now. Farmers markets, farm stands, and CSAs continue as important ways for direct sales. Some continue to sell wholesale. More farms have an online presence selling perishable goods, along with value-added, non-perishable items like soap. More farms integrate agritourism into their operations. Camps, concerts, and if enough out-of-towners show up, even goat yoga. At least one farm does affiliate marketing on its Instagram account, advertising a product for another business.[8] Farms adapt and live on. The fortunate ones, anyway. All this sheds light on why farmers continue to grow sweet corn in Agricultural District #4.

Figure 1: Photo taken May 29, 2022 in Lake Katrine

Even if the demand for sweet corn diminished over time at the national level, there is still demand for sweet corn. Large companies offer more varieties of canned sweet corn than before to cater to different tastes. Canned corn comes in "Summer Crisp", "Extra Crispy", and "Extra Sweet" varieties, in addition to plain old cans of sweet corn. Names for these varieties convey a sense of freshness. Frozen sweet corn is now available in butter sauce. Perhaps, a local farm has a contract with one of these companies. Certainly, fresh sweet corn grown in Ulster County makes its way to farm stands, supermarkets, and CSA packages delivered to households. The University of Kentucky's Center for Crop Diversification, in its research into sweet corn, found that

[8] Farmers in other parts of the country have YouTube channels. When monetized, these channels provide an income stream.

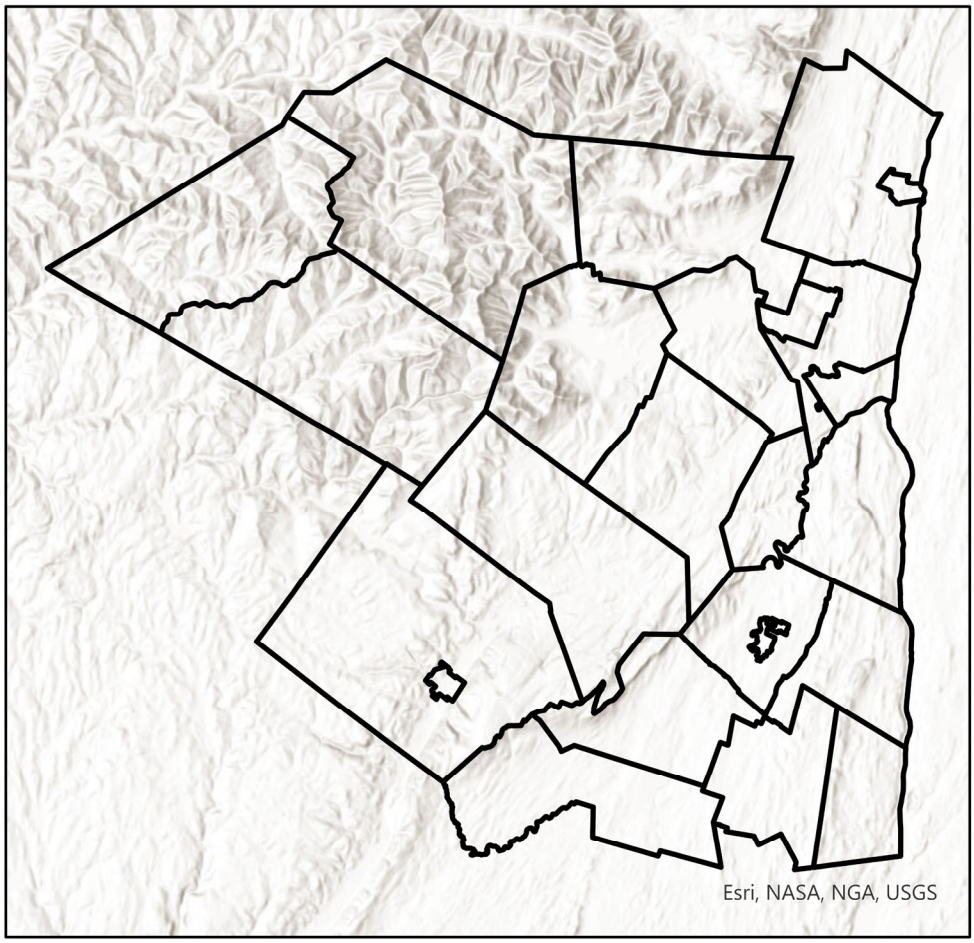
> Because [fresh] sweet corn is in high demand and in-season sweet corn is easy to sell per ear, it is often used to draw consumers to a retail outlet. Sweet corn is labor-intensive but can be a profitable venture, especially when a reputation for quality is established in a local market.

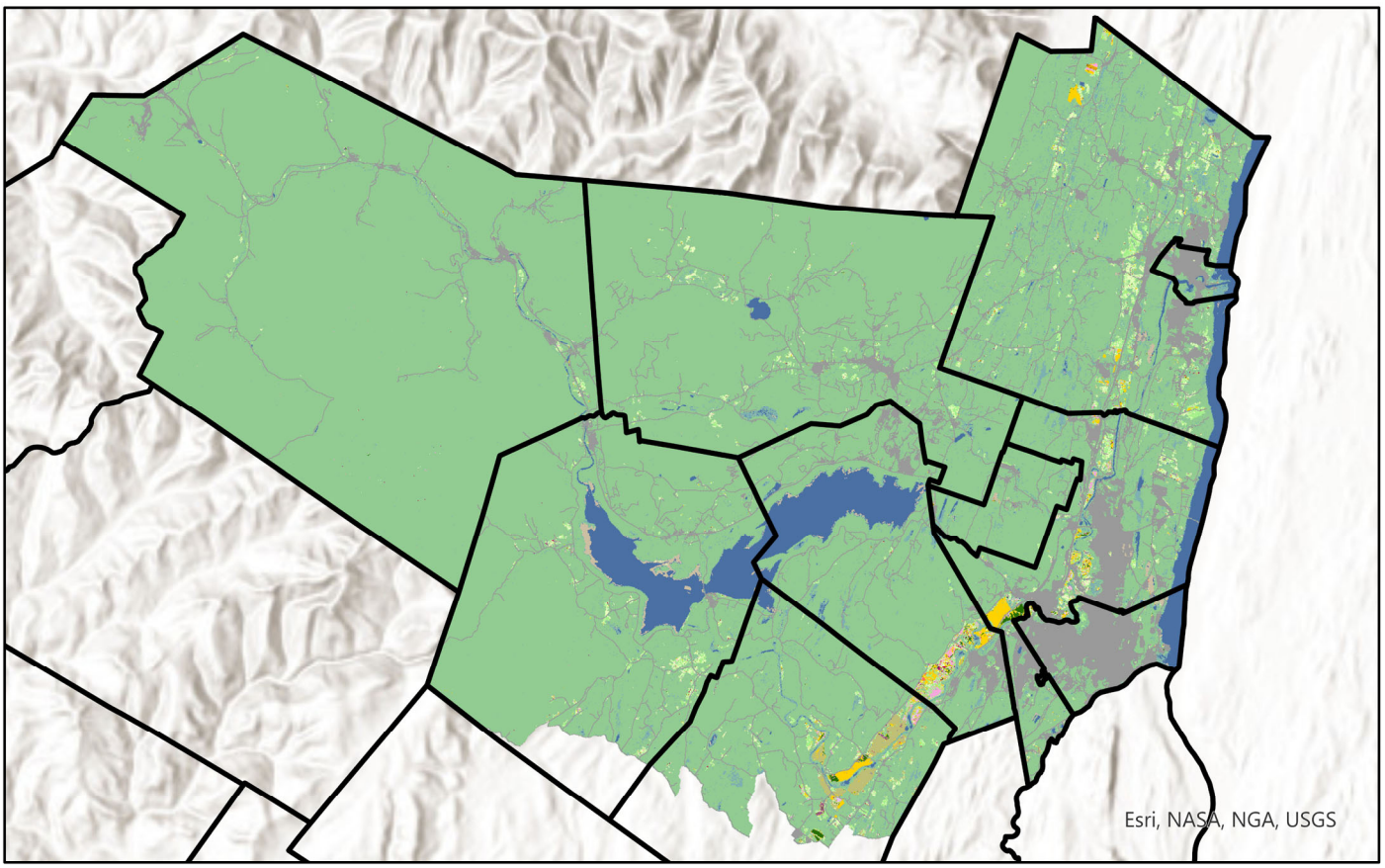
World-renowned musician and longtime Woodstock resident Levon Helm said, "Ulster County has the best sweet corn." Many would agree. It really tastes good. Fresh sweet corn, especially if it tastes really good, will make its way onto a dinner plate. But sometimes, for that to happen, some things changed back at the farm.

Note:
This analysis was taken from a report dated 10/6/2022. It was prepared for the review required by the New York State Department of Agriculture and Markets completed in February 2023.

Burt Samuelson, March 3, 2023

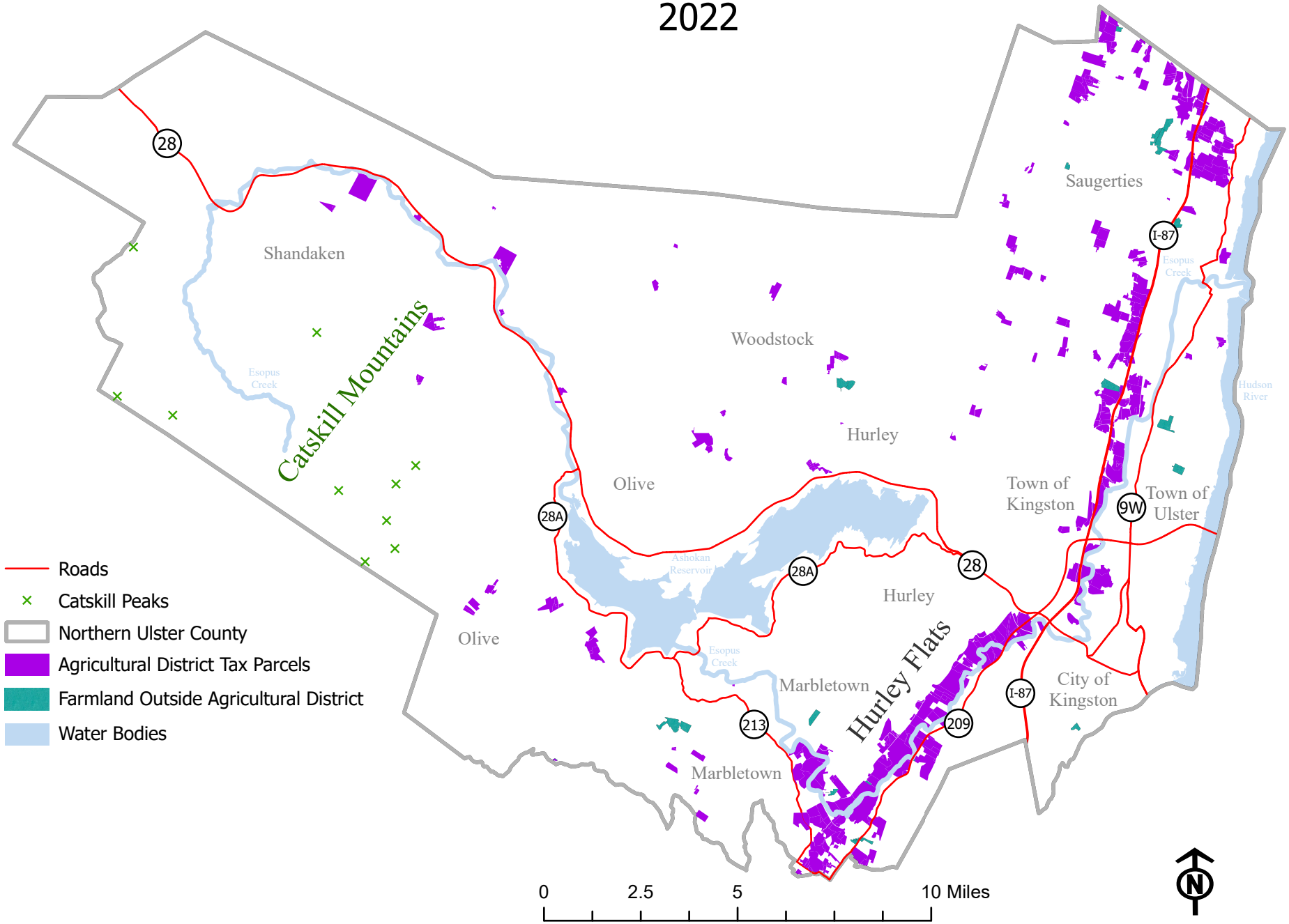
Appendix 1: Hillshade Map of Ulster County and USDA CropScape Data for Northern Ulster County





Map created at the Ulster County Planning Department by Burt Samuelson on August 2, 2022.
Data sources: Ulster County Information Services, Ulster County Planning Department, and USDA CropScape - Cropland Data Layer

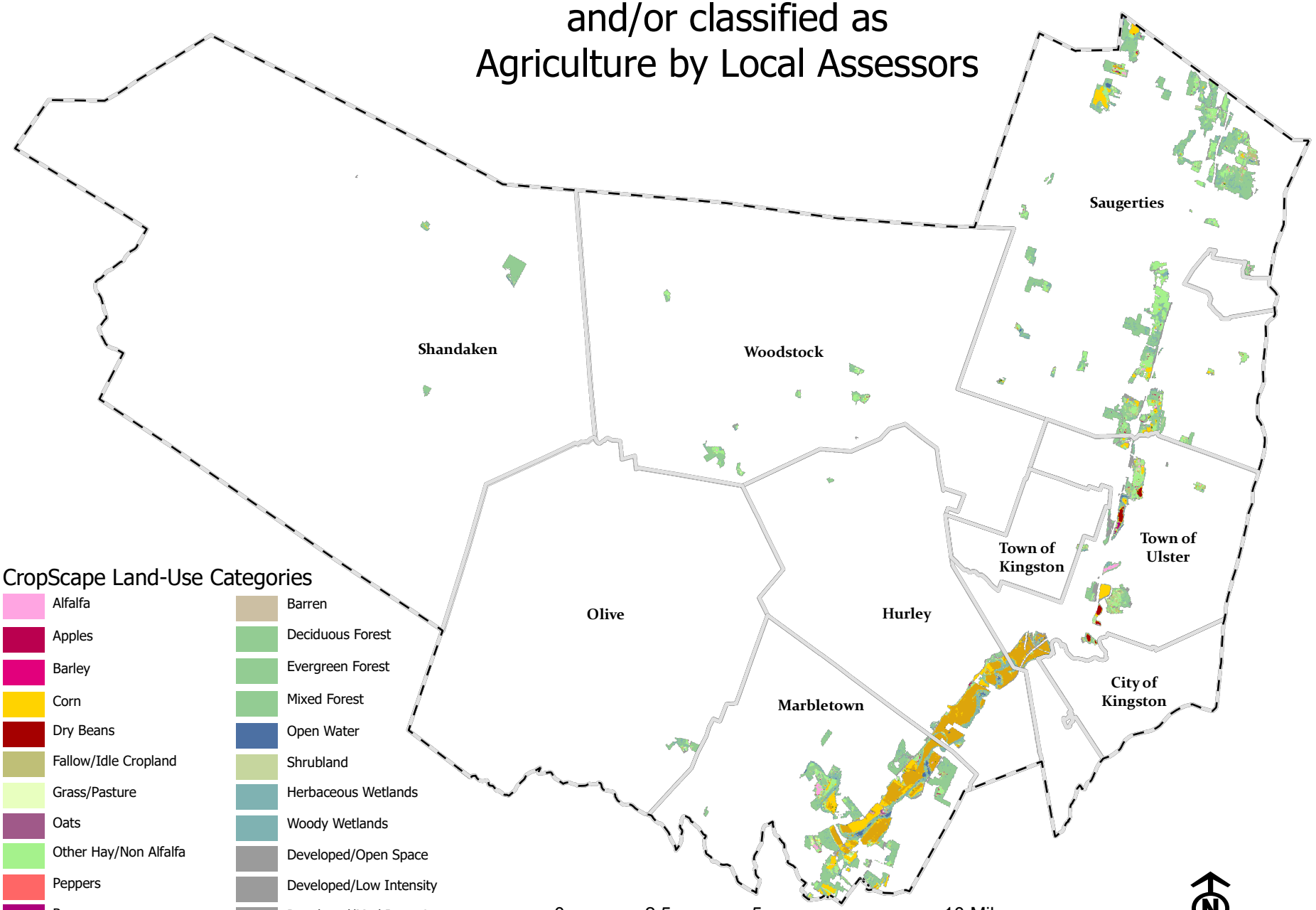
Appendix 2: Selected Geographic Features in Agricultural District #4
2022



Note: Farmland Outside Agricultural District are tax parcels with property class codes signifying agriculture.

Map created at the Ulster County Planning Department on July 26, 2022
Data sources: Ulster County Information Services, Ulster County Planning Department, and Catskill Center for Conservation and Development

Appendix 3a: 2012 Land Uses for Tax Parcels included in Agricultural District and/or classified as Agriculture by Local Assessors



CropScape Land-Use Categories

- Alfalfa
- Apples
- Barley
- Corn
- Dry Beans
- Fallow/Idle Cropland
- Grass/Pasture
- Oats
- Other Hay/Non Alfalfa
- Peppers
- Rye
- Soybeans
- Sweet Corn
- Triticale
- Winter Wheat
- Barren
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Open Water
- Shrubland
- Herbaceous Wetlands
- Woody Wetlands
- Developed/Open Space
- Developed/Low Intensity
- Developed/Med Intensity
- Developed/High Intensity

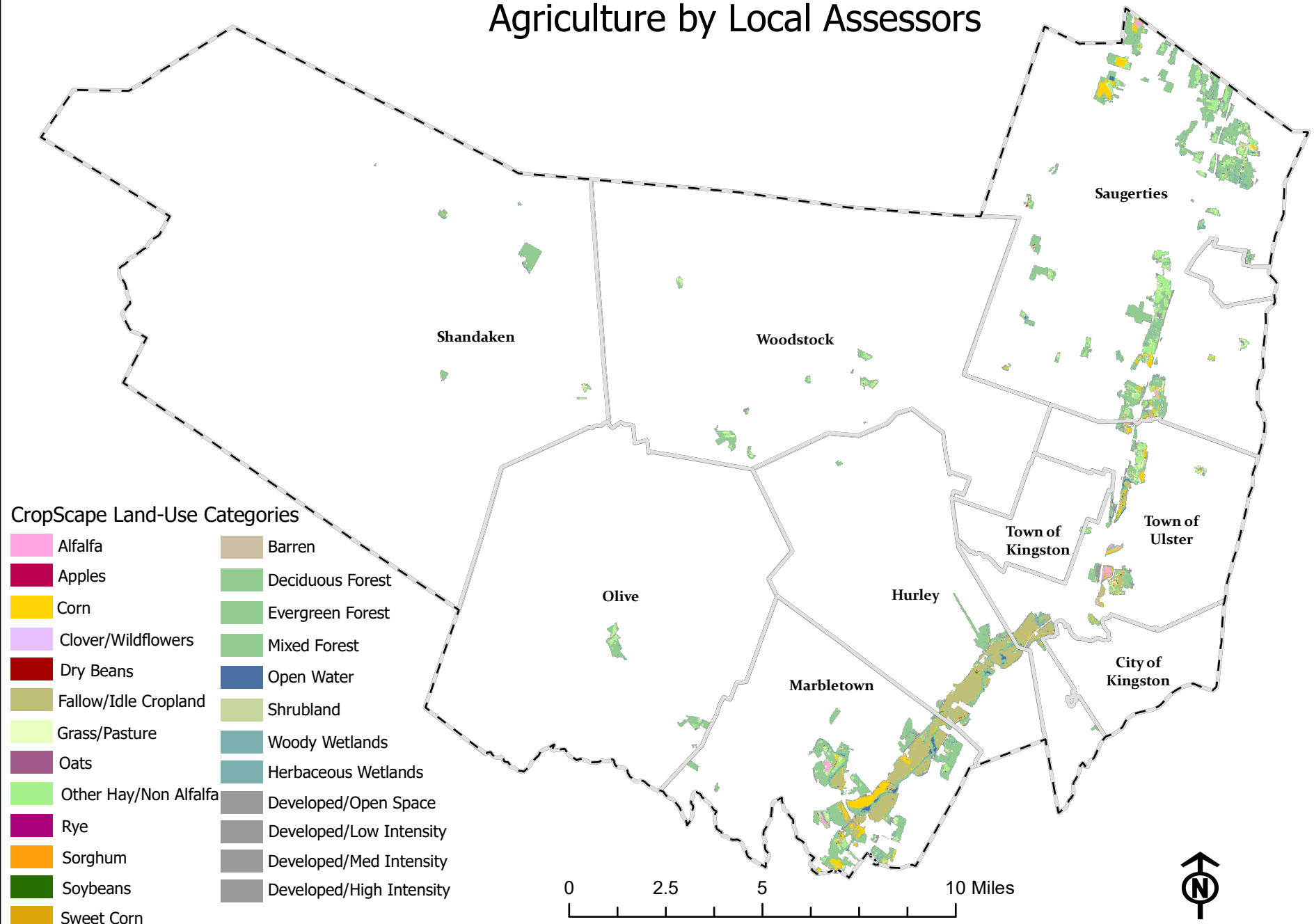
Ulster County

Municipal Boundaries

Note: The USDA CropScape category "Corn" is field corn.

Map created at the Ulster County Planning Department by Burt Samuelson on July 28, 2022.
Data sources: Ulster County Information Services, Ulster County Planning Department, and USDA CropScape - Cropland Data Layer

Appendix 3b: 2015 Land Uses for Tax Parcels included in Agricultural District and/or classified as Agriculture by Local Assessors



CropScape Land-Use Categories

- Alfalfa
- Apples
- Corn
- Clover/Wildflowers
- Dry Beans
- Fallow/Idle Cropland
- Grass/Pasture
- Oats
- Other Hay/Non Alfalfa
- Rye
- Sorghum
- Soybeans
- Sweet Corn
- Tomatoes
- Triticale
- Barren
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Open Water
- Shrubland
- Woody Wetlands
- Herbaceous Wetlands
- Developed/Open Space
- Developed/Low Intensity
- Developed/Med Intensity
- Developed/High Intensity

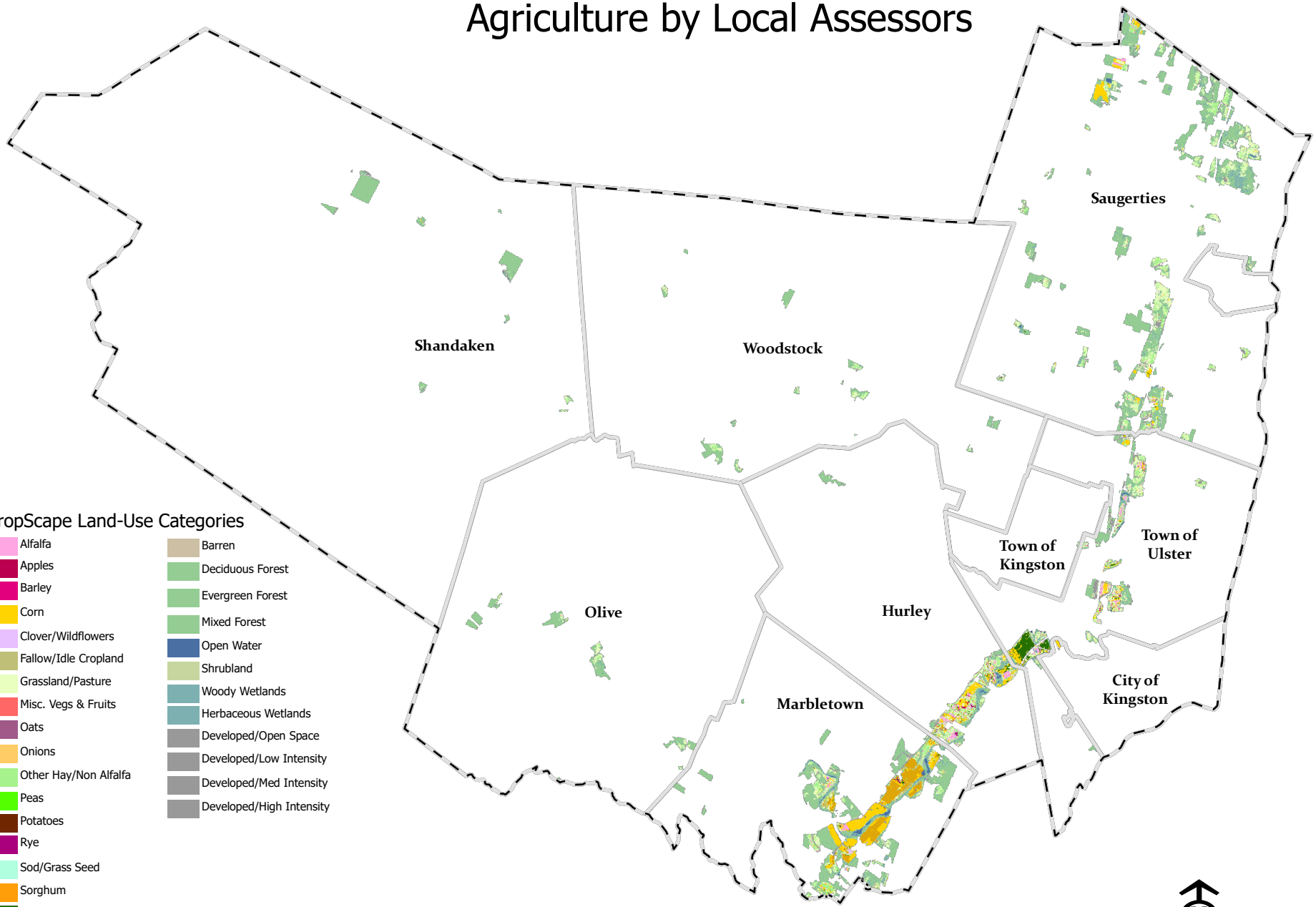
Northern Ulster County

Municipal Boundaries

Note: The USDA CropScape category "Corn" is field corn.

Map created at the Ulster County Planning Department by Burt Samuelson on July 19, 2022.
Data sources: Ulster County Information Services, Ulster County Planning Department, and USDA CropScape - Cropland Data Layer

Appendix 3c: 2021 Land Uses for Tax Parcels included in Agricultural District and/or classified as Agriculture by Local Assessors



CropScape Land-Use Categories

- Alfalfa
- Apples
- Barley
- Corn
- Clover/Wildflowers
- Fallow/Idle Cropland
- Grassland/Pasture
- Misc. Vegs & Fruits
- Oats
- Onions
- Other Hay/Non Alfalfa
- Peas
- Potatoes
- Rye
- Sod/Grass Seed
- Sorghum
- Soybeans
- Sunflower
- Sweet Corn
- Winter Wheat
- Triticale
- Barren
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Open Water
- Shrubland
- Woody Wetlands
- Herbaceous Wetlands
- Developed/Open Space
- Developed/Low Intensity
- Developed/Med Intensity
- Developed/High Intensity

Northern Ulster County

Municipal Boundaries

Note: The USDA CropScape category "Corn" is field corn.

Map created at the Ulster County Planning Department by Burt Samuelson on July 13, 2022.
Data sources: Ulster County Information Services, Ulster County Planning Department, and USDA CropScape - Cropland Data Layer