

*Catskill Watershed Corporation
West of the Hudson Watershed*

Developable Lands Analysis

Town of Olive, Ulster County, NY
October 12, 2017

Prepared for:

Catskill Watershed Corporation
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Prepared by:



Introduction

The Catskill Watershed Corporation conducted an independent evaluation of lands available for residential development for eight (8) communities in the West of the Hudson Watershed. This included the Towns of Ashland, Halcott, Hunter, Jewett, and Lexington in Greene County and the Towns of Denning, Olive, and Shandaken in Ulster County, New York. Portions of the Towns of Hunter, Denning, and Olive includes lands located outside of the watershed.

Methodology

Geographic Information System (GIS) data layers were obtained from Ulster and Greene County, NYC DEP, as well as other public data sources. The first step in the analysis was to identify lands not available for development by virtue of ownership, conservation (or protective) easement or use. These criteria were established by the Catskill Watershed Corporation (CWC) and generally consistent with the NYC DEP 2017 Town Level Assessment methodology. This included lands owned by New York State, NY City, easements held by land trusts, and land controlled by municipalities or owned public utilities. Lands receiving NYS 480a tax exemptions and parcels controlled by known active recreational use such hunting/fishing clubs or as determined by CWC staff were also removed from consideration.

The next step was to determine developable lands. Lands are considered developable if they are not protected, as defined above, and are free from environmental and physical constraints. The constraints considered were slopes greater than 15%, wetlands in the U S Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI), NYS DEC wetlands and their associated 100' buffer, 100' buffers from surface waters and stream centerlines, 300' buffer from NYC reservoirs and tributary stems, and soils determined to be poorly suitable for septic systems previously used by NYCDEP in their town assessments.

The final step was to determine the available developable lands. This step determined the overlap between the developable lands described above and parcels determined to have development potential, based upon size and local zoning. Parcels that are coded as agricultural (100 class codes), vacant (300 class codes), private forest (910 class code), non-coded, and residential (200 class codes) greater than 15 acres were evaluated. After identifying where the developable land and parcels overlapped, parcels that had less than 2,500 square feet of developable land were eliminated, as were residential parcels where the developable land was less than twice the minimum lot size and/or less than five acres. Five acres was subtracted from each remaining residential parcel to account for the existing development area. The balance that is left after these calculations is the available developable land.

Results of the analysis are presented in Table 1.

Table 1: Developable Lands Analysis- Summary

Town	A. Total Area (Acres)	B. Protected Land	C. Percent Land Protected	D. Non- Protected Land	E. Undevelopable Land	F. Percent Undevelopable	G. Developable Land (1)	H. Acres of Available Developable Land		I. Percent of Total Land Area (1)
								(1)	(2)	
Ashland	15,982	5,170	32%	10,812	7,913	73%	2,899	1791		11.2%
Halcott	14,489	6,917	48%	7,572	6,568	87%	1,004	660		4.6%
Hunter	57,510	39,483	69%	18,027	13,795	77%	4,232	2,508	2,273	4.0%
Jewett	32,279	15,316	47%	16,963	13,032	77%	3,931	2392		7.4%
Lexington	51,322	33,209	65%	18,113	15,154	84%	2,959	1650		3.2%
Denning	64,960	54,646	84%	10,314	9,072	88%	1,242	620	515	0.8%
Olive	42,065	22,305	53%	19,760	14,404	73%	5,356	2,548	871	2.1%
Shandaken	79,710	63,849	80%	15,861	14,862	94%	999	331		0.4%

Notes:

(1) Town-wide

(2) Watershed only

Column Descriptions

A. Land Area by Town, based on tax parcel boundaries.

B. Protected lands includes State, NYC and municipal owned land, land with conservation easements, Utility ROWs, and lands unlikely to be developed based on ownership.

C. Total protected lands as a percentage of total land area of the town.

D. This includes all lands “not protected” by ownership or easement. (Column A - Column B).

E. Land with environmental constraints located within the “non-protected” land listed in Column D. Constraints include the 100-year floodplain, NYSDEC Regulated (mapped) wetlands with a 100 foot buffer, USF&WS National Wetlands Inventory (NWI) mapped wetlands, NYC DEP watercourses with 100 foot buffer. A 300-foot buffer applies to DEP reservoirs. And tributary stems.

F. Percentage of “Non-Protected” lands that are undevelopable (i.e., constrained) (Column E divided by Column D.)

G. Developable lands (Column D- Column E) is presented townwide (includes lands outside the watershed in Towns of Hunter, Denning, and Olive.) This figure includes agricultural lands, residential lands >15 acres and some private forest lands.

H. Available Developable land. For residential parcels with a home on a lot greater than 15 acres, 5 acres was subtracted from the parcel area.

Table 2 Town of Olive

Town	Total Area	Protected Land	Undevelopable Land		Developable Land Town wide	Available Developable Land		
	Acres	Acres	Acres	%	Acres	Town Acres	Watershed Acres	% Town
Olive	42,065	22,305	14,404	73%	5,356	2,548	871	2.1%

Accompany this document are six (6) figures for each respective town as follows:

Figure 1: Protected Lands Map

Figure 2: Constraints- Soils Map

Figure 3: Constraints – Steep Slopes Map

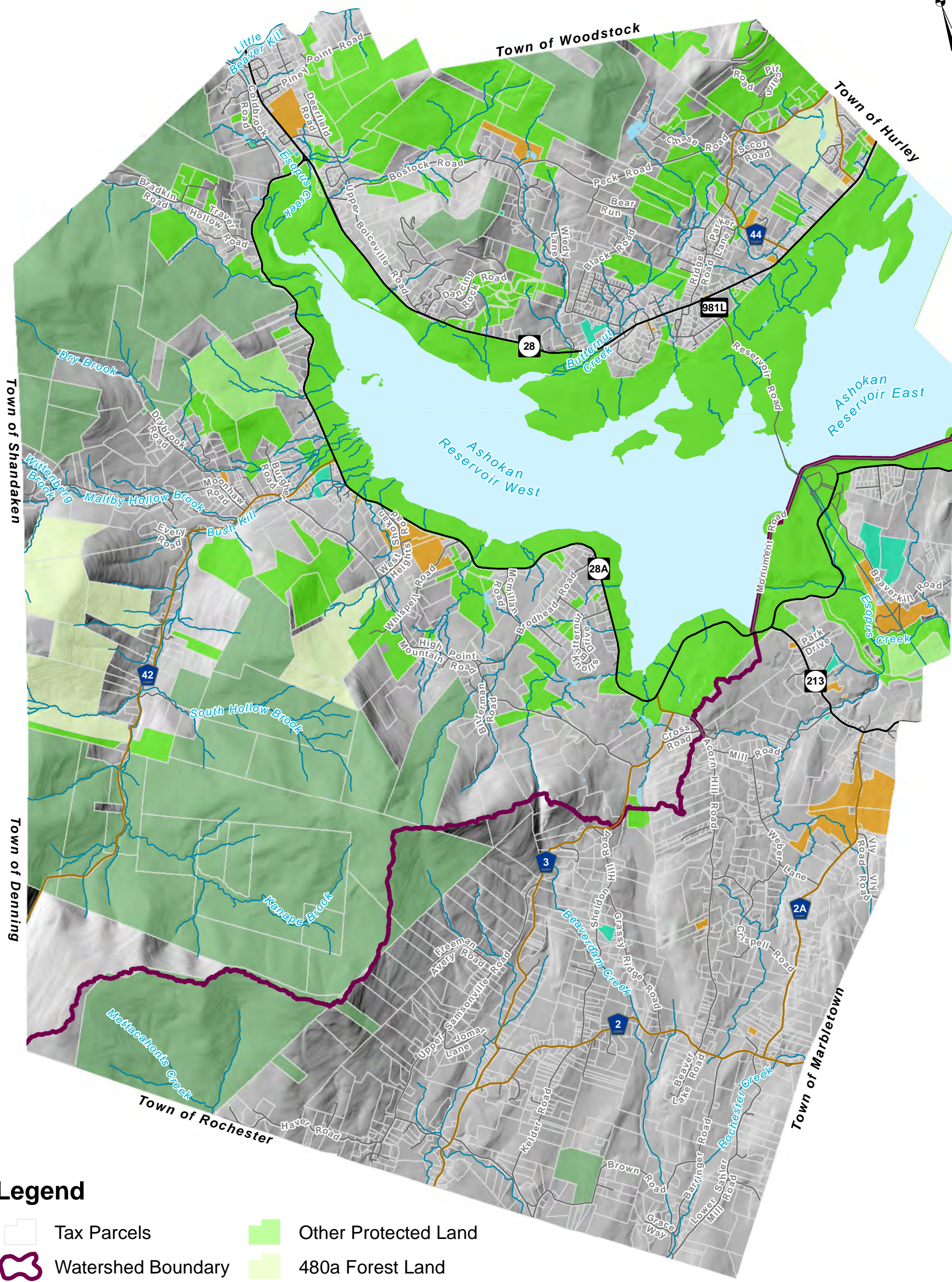
Figure 4: Constraints – Water Resources Map

Figure 5: Developable Lands Map









Figure 6: Available Developable Lands Map

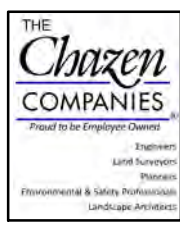
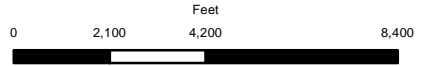
A brief description and explanation of the maps is provided.

Figures



Legend

-  Tax Parcels
-  Watershed Boundary
-  State Land
-  NYC Land
-  Other Protected Land
-  480a Forest Land
-  Other Publically Owned Land
-  Lands Unlikely to be Developed



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Catskill Watershed Corporation
Potentially Developable Lands Analysis




Constraints: Protected and Semi-Protected Lands

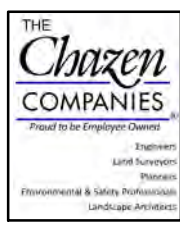
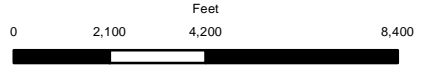
Town of Olive - Ulster County, New York

Drawn:	RL-B
Date:	10/06/2017
Scale:	1 inch = 4,200 feet
Project:	91744.00
Figure:	X



Legend

-  Tax Parcels
-  Watershed Boundary
-  Soil "Very Limited" for Septic
-  Protected Land



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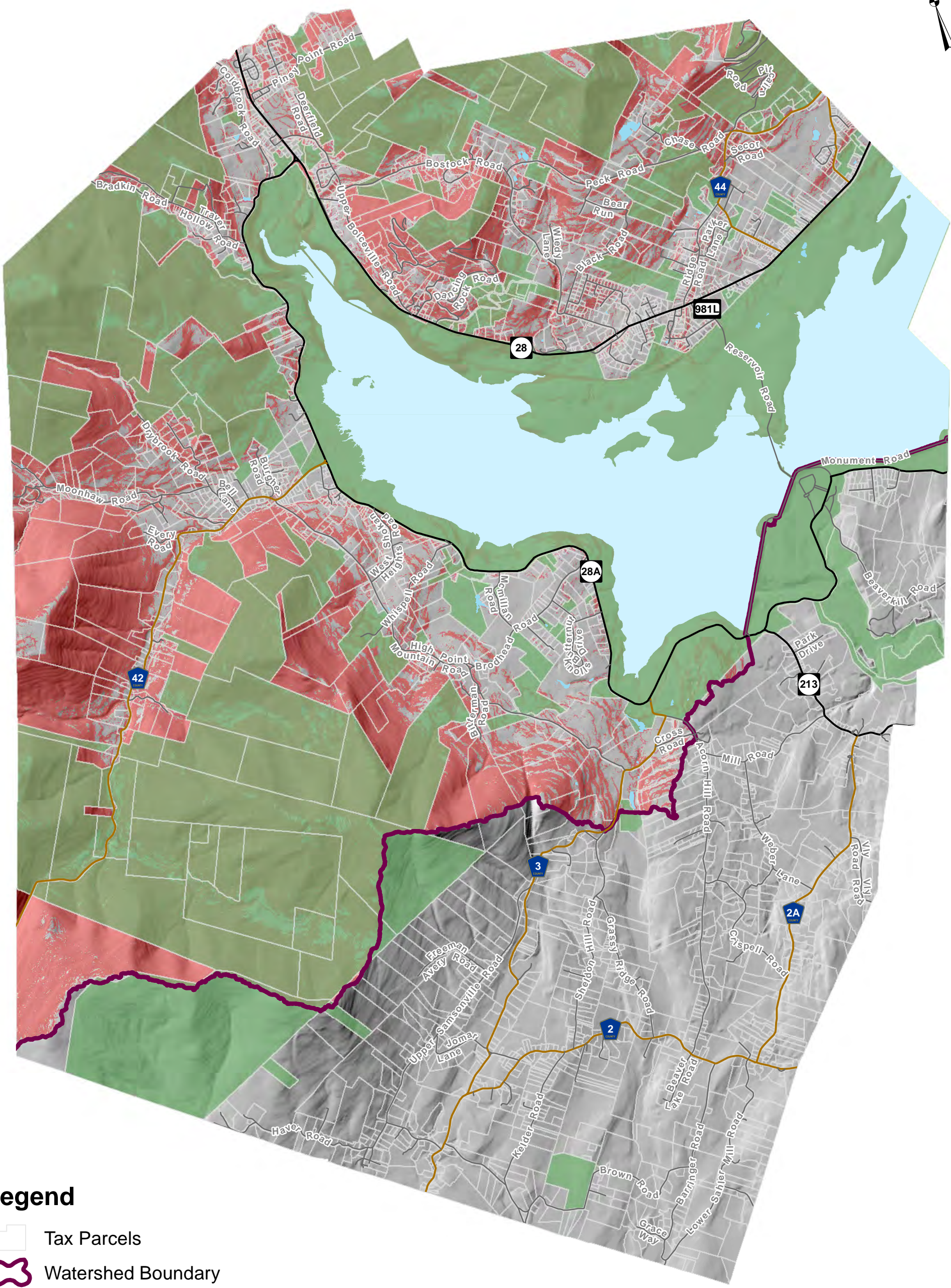
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Catskill Watershed Corporation
Potentially Developable Lands Analysis





Constraints: Soils

Town of Olive - Ulster County, New York

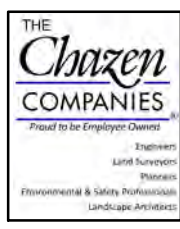
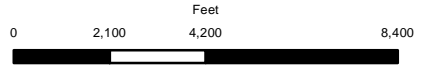
Drawn:	RL-B
Date:	10/06/2017
Scale:	1 inch = 4,200 feet
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Figure:	X



Legend

-  Tax Parcels
-  Watershed Boundary
-  Slope > 15%*
-  Protected Land*

*Primarily Watershed only



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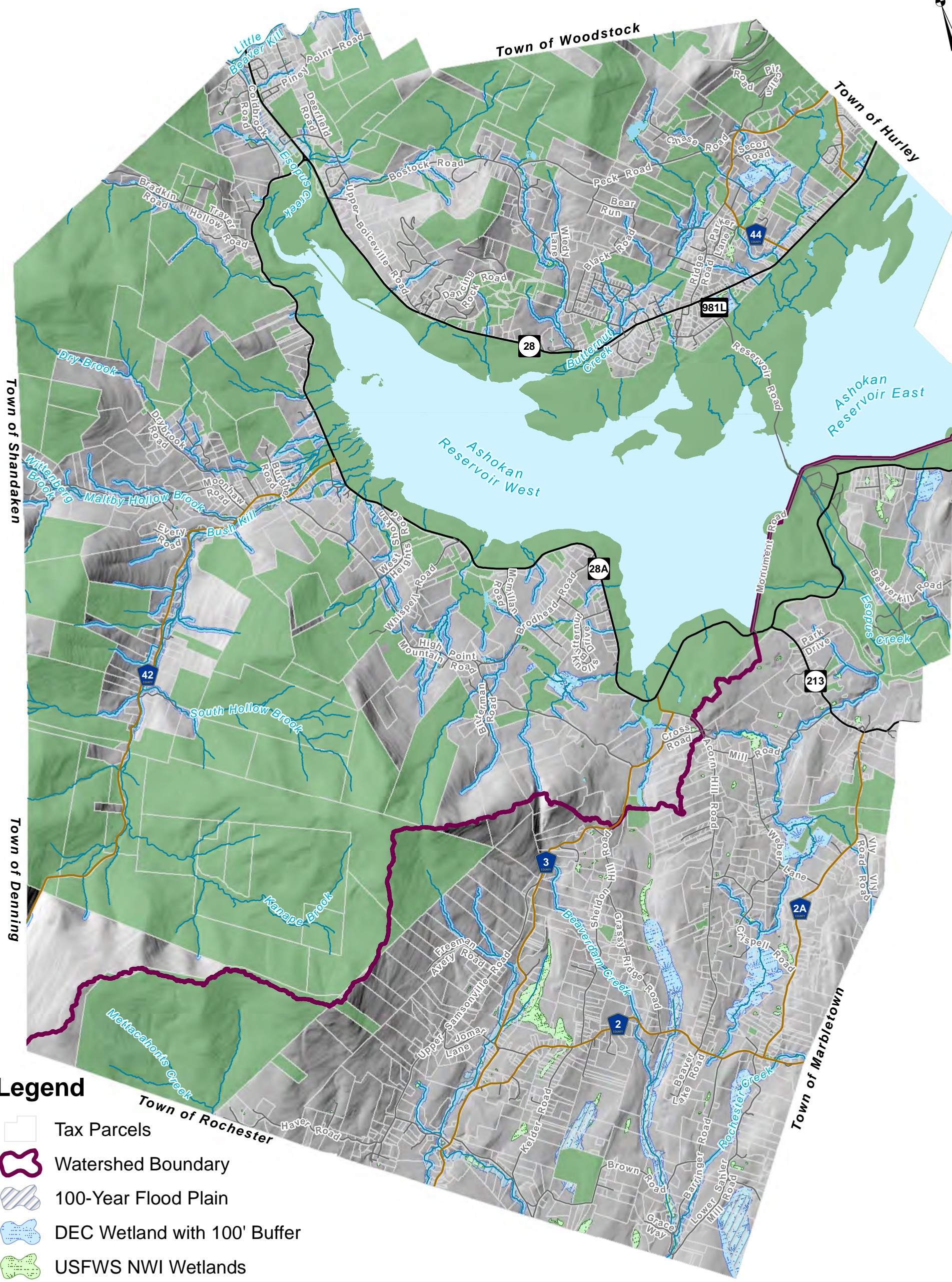
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Potentially Developable Lands Analysis







Constraints: Slopes

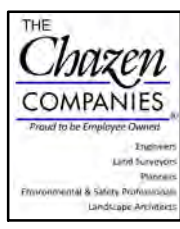
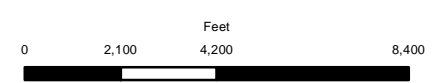
Town of Olive - Ulster County, New York

Drawn:	RL-B
Date:	08/28/2017
Scale:	1 inch = 4,200 feet
Project:	91744.00
Figure:	X



Legend

-  Tax Parcels
-  Watershed Boundary
-  100-Year Flood Plain
-  DEC Wetland with 100' Buffer
-  USFWS NWI Wetlands
-  Surface Water Buffer
-  Protected Land



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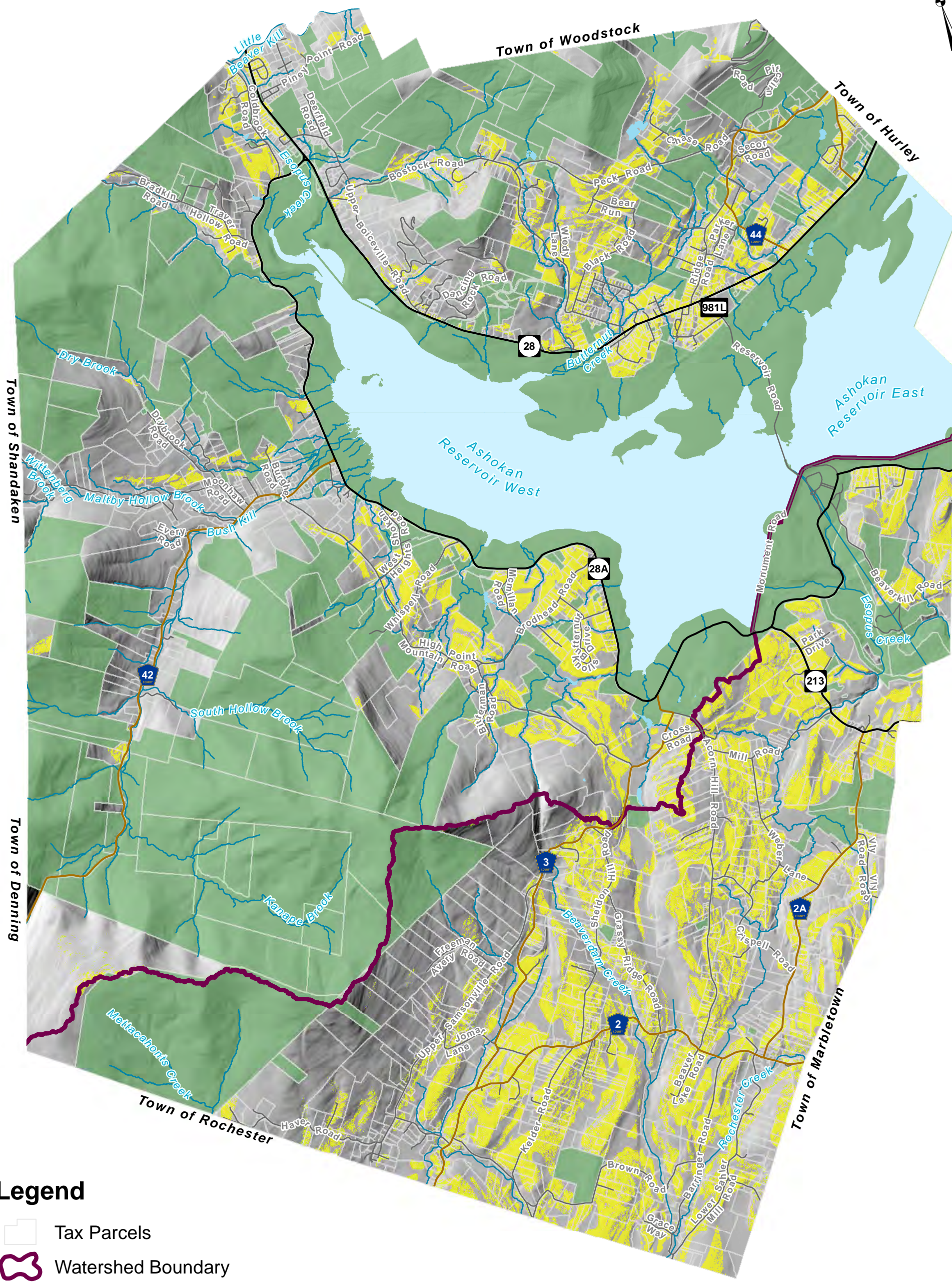
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Potentially Developable Lands Analysis





Constraints: Water Resources

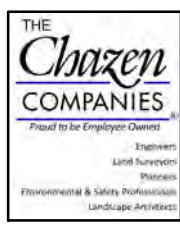
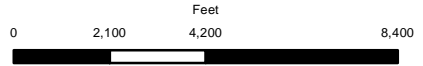
Town of Olive - Ulster County, New York

Drawn:	RL-B
Date:	10/06/2017
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Figure:	X



Legend

-  Tax Parcels
-  Watershed Boundary
-  Protected Land
-  Developable Land



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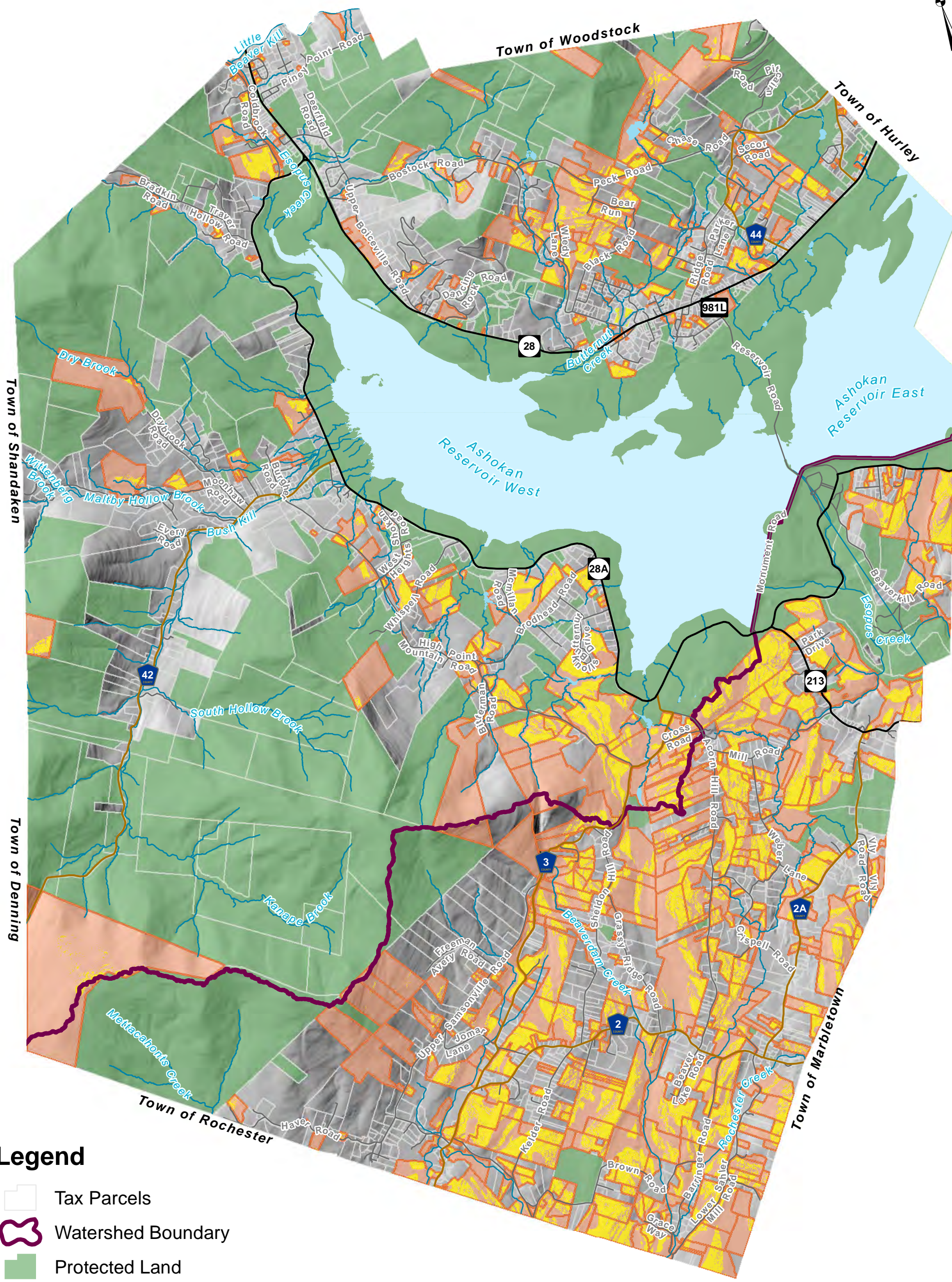
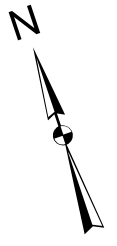
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Catskill Watershed Corporation
Potentially Developable Lands Analysis






Developable Land

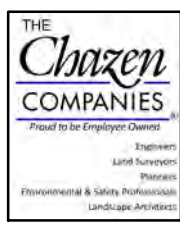
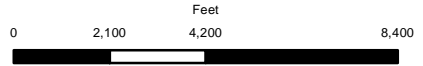
Town of Olive - Ulster County, New York

Drawn:	RL-B
Date:	10/06/2017
Scale:	1 inch = 4,200 feet
Project:	91744.00
Figure:	X



Legend

-  Tax Parcels
-  Watershed Boundary
-  Protected Land
-  Available Developable Land
-  Parcels with Development Potential



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Catskill Watershed Corporation
Potentially Developable Lands Analysis

Development Potential

Town of Olive - Ulster County, New York

Drawn:	RL-B
Date:	10/06/2017
Scale:	1 inch = 4,200 feet
Project:	91744.00
Figure:	X

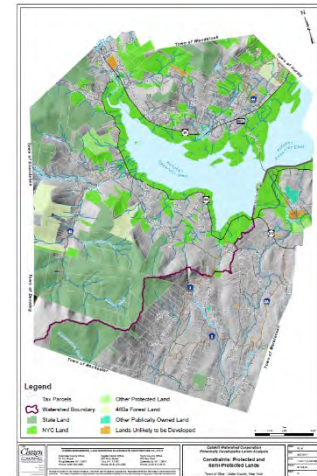
Guide to Maps

GUIDE TO THE MAPS

1. Protected Lands Map

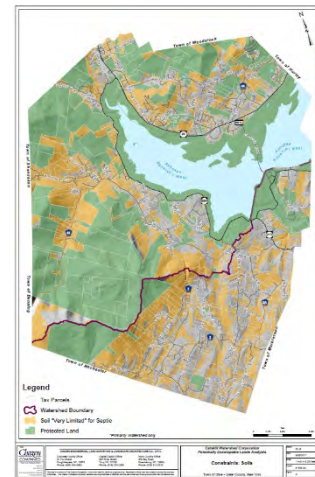
This map depicts lands that are either permanently protected or considered unlikely to be developed due to ownership/usage.

- **State Land**= Land owned by the State of New York
- **NYC Land**= Land owned or leased by NYC DEP
- **Other Protected Land**= Land with easements or held by land trusts (file provided by DEP)
- **480a Forest Land**= Parcels with Real Property Tax Law 480a Forest Management plans per DEC
- **Other Publicly Owned Land**= Parcels owned by a municipality or county
- **Land Unlikely to be Developed**= Lands determined to have little to no development potential due to ownership and/or usage.
- **Transmission Line ROWs**= Right-of-ways for large power line corridors that were able to be digitized from orthophotos (*these are not present in all maps*). Road ROWs were also included in the analysis, but not depicted as the line width of the roads obscures the ROW.



2. Constraints: Soils Map

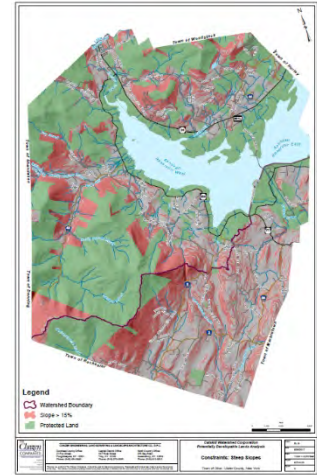
This map depicts soils determined to be “very limited” for on-site septic system use. This determination was based on data provided by NYC DEP. The “Protected Land” layer depicted on this map and all subsequent maps is a composite of the layers from the Protected Lands Map.



GUIDE TO THE MAPS

3. Constraints: Steep Slopes Map

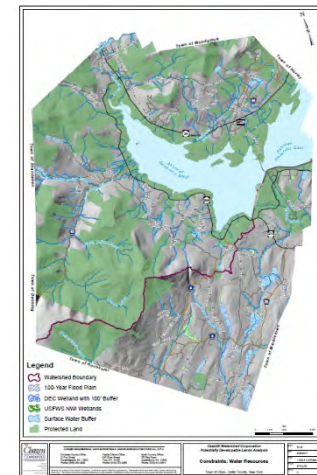
This map depicts slopes greater than 15%. Under State law, slopes greater than 15% cannot be used for an onsite septic leach field. Data within the watershed was provided by NYC DEP, slopes outside of the watershed were calculated using elevation data obtained from NYS GIS for Greene County and the USGS for Ulster County. Ulster County USGS elevation data is the same resolution as provided by NYC DEP (1m x 1m). However, the resolution of the Greene County data is 2m x 2m.



4. Constraints: Water Resources Map

This map depicts areas with surface water related development constraints.

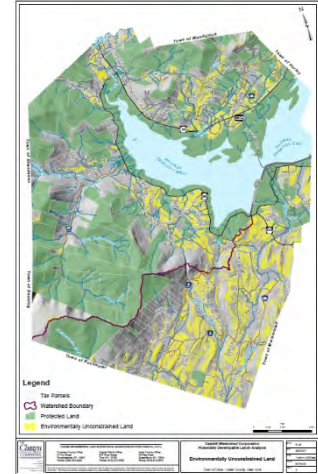
- **100-Year Flood Plain** = areas with a 1% chance of flooding, data provided by NYC DEP based on recent FEMA updates
- **DEC Wetlands with 100' Buffer** = NYS DEC classified wetlands (Class 1-4) obtained from Cornell University Geospatial Information Repository (CUGIR) and include a calculated 100' buffer area
- **USFWS NWI Wetlands** = National Wetland Inventory wetlands, obtained from the US National Map service, prepared by the US Fish and Wildlife Service
- **Surface Water Buffer** = 100' buffer on all streams and surface water features which were provided by NYC DEP. Additional streams and surface waters outside the watershed were obtained from the US National Map service as prepared by USGS and were also buffered by 100'. A 300' buffer was applied to DEP reservoirs.



GUIDE TO THE MAPS

5. Developable Lands Map

This map shows areas outside the protected lands that are free of any environmental constraints depicted in the previous maps (i.e., suitable soils, no steep slopes or no water resources requiring setbacks).



6. Available Developable Lands Map

This last map depicts parcels that have development potential as well as the areas within those parcels that are free of environmental constraints. Parcels were determined to have development potential in a series of steps:

- First a parcel must be a non-protected parcel, as defined previously, and be either undeveloped or greater than 15 acres with existing residential development.
- Second, if the parcel has existing residential development, then it must be at least twice the minimum lot size as determined by the local zoning code. For instance, in 5 acre zones, a developable parcel must have 10 or more acres. For municipalities without zoning the minimum lot size was set at 10,000 square feet to account for separation of new wells and septic systems.
- Finally, an undeveloped parcel must contain at least 2,500 square feet of unconstrained land (suitable soil, no steep slopes, not within boundaries of watercourses, etc) to allow for placement of a house and septic system (it is assumed a well could be placed in a “constrained” portion of the property if necessary)

