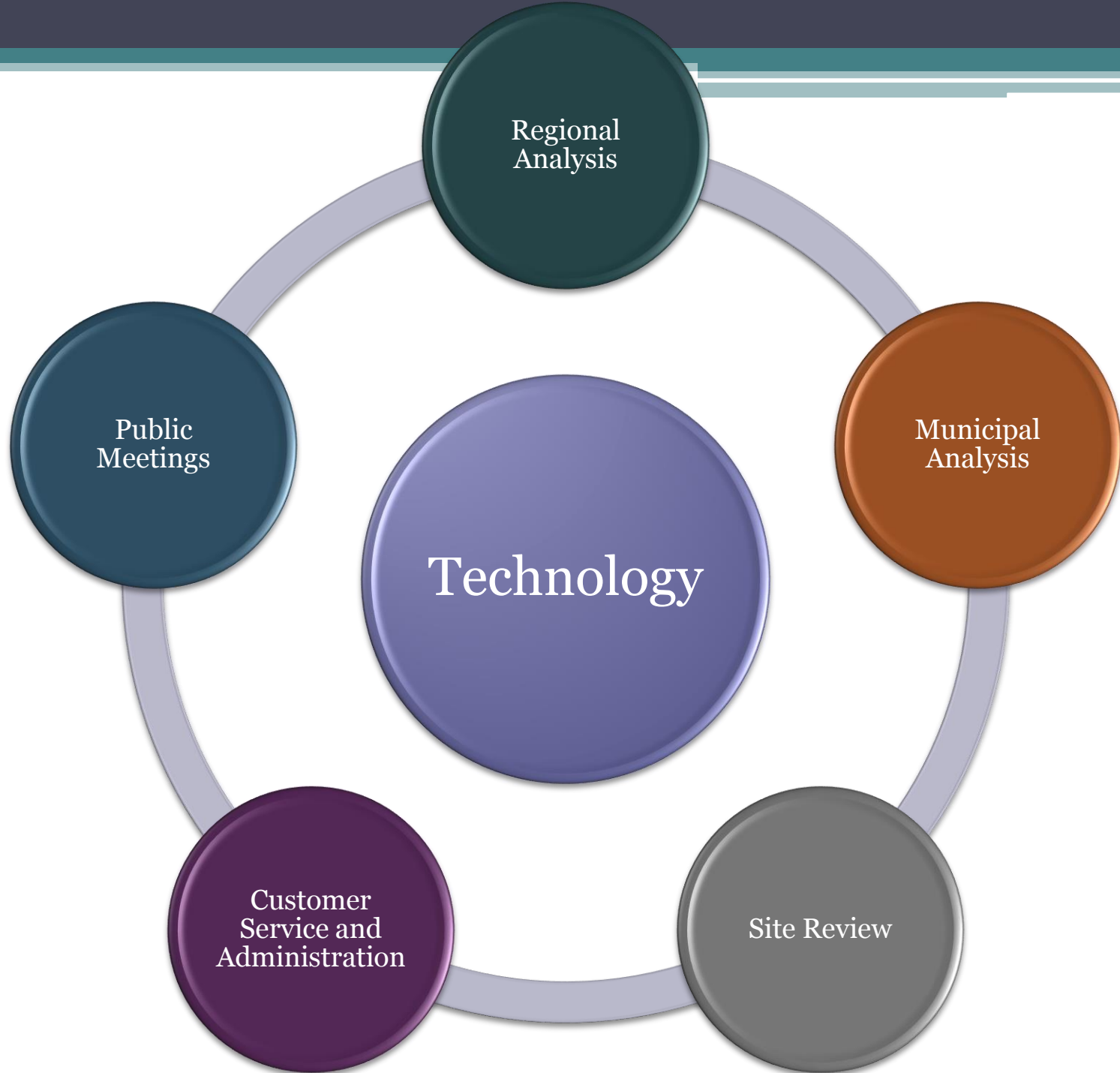


# Technology in Planning and Environmental Analysis

Thursday January 22<sup>nd</sup>, 2015

Presentation to:

Kingston Conservation Advisory Council &  
Kingston Planning Board



# Technology for Municipalities



Municipal-Wide  
Plans

Corridor or Area  
Planning

Site Planning

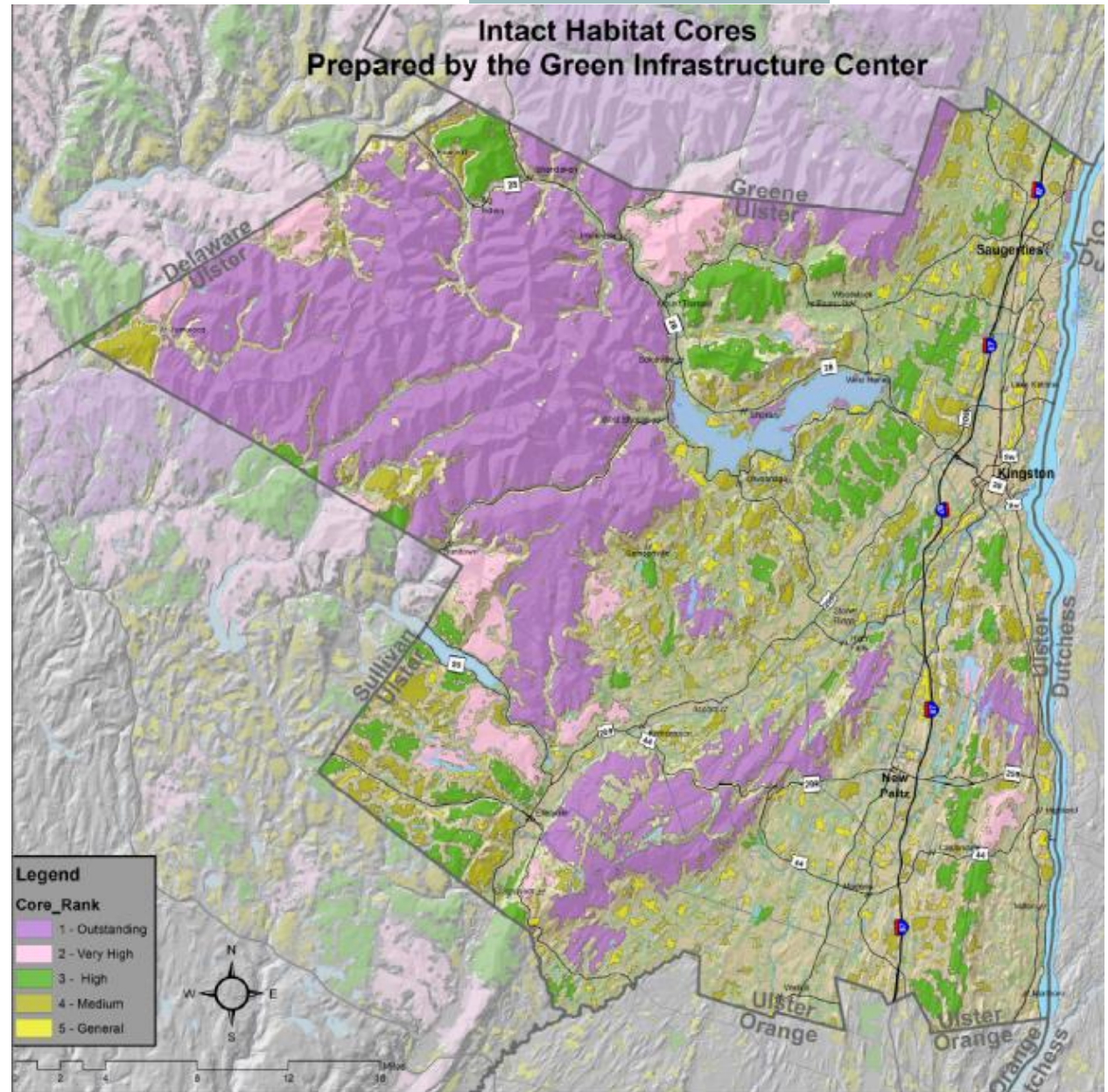
# Technology for the Region

- Ulster County Green Infrastructure Habit Cores
  - Creating the Maps
    - Unfragmented Habitat Layer
    - Ranked Cores
  - Using the Maps
    - Linking to Regional/County Level
    - Linking to Town/Site Scale



- + Size and shape
- + Rare, threatened and endangered species
- + Water quality, aquatic biodiversity
- + Water abundance

**= Habitat Core Ranking for Intact Landscape**



# Town of Saugerties Open Space Plan

## Vision Map

### Planning Concepts

#### Bristol Beach Plan

Develop a Master Plan to increase Access to Bristol Beach and Preserve Historic and Ecological Resources

#### Hudson River Trail

Develop a multi-modal trail to provide access to and between public parks, neighborhoods and farmers, and historic attractions

#### Esopus Creek Water Trail

Create a series of water access points to provide access to the Esopus Creek for kayaking between Glenane Falls and the Cantine Dam

#### Mountain Cloves Scenic Byway Connection

Work with the towns of Hunter and Catskill to develop a Saugerties connection to the Mountain Cloves Scenic Byway

### Core Farming Areas

#### Bakoven Valley-Saugerties Valley and the Saxton Flats

- Prime soils and areas of agricultural production
- Economic, scenic and environmental benefits to the community
- Local food and agricultural products



Bristol Beach Area

#### Bristol Beach



East Beach at Esopus



### Catskill Mountains

- Large, unbroken forests embedded with lakes, ponds, wetlands and vernal pools
- Headwater streams provide habitat for trout and cold water species
- Preservation of biodiversity and rare species, including the timber rattlesnake
- Maintaining drinking water quality



Blue Mountain Reservoir

### Important Waterways, Watersheds and Aquifers

Sawyerkill, Plattekill, Esopus Creek,  
Beaver Kill, Koaterskill

- Biodiversity benefits of riparian and upland habitat
- Water quality
- Flood protection and stormwater recharge
- Recreation and scenic qualities

### Limestone and Shale Ridges

- Scenic views and character of Saugerties
- Unique geology
- Rare animals and plants



Glenora Falls

### Hudson River Corridor

- The historic "landscape that defined America"
- Riverine and estuary habitats
- Freshwater wetlands and freshwater invertebrate mudflats
- Total area of the mouth of the Esopus
- Hudson River access and recreation opportunities



Where the Esopus Creek Meets the Hudson River



Saugerties Farmers Market



The Saxton Flats



WE HAVE PLANNING AND DESIGN

For Conceptual Planning Purposes Only





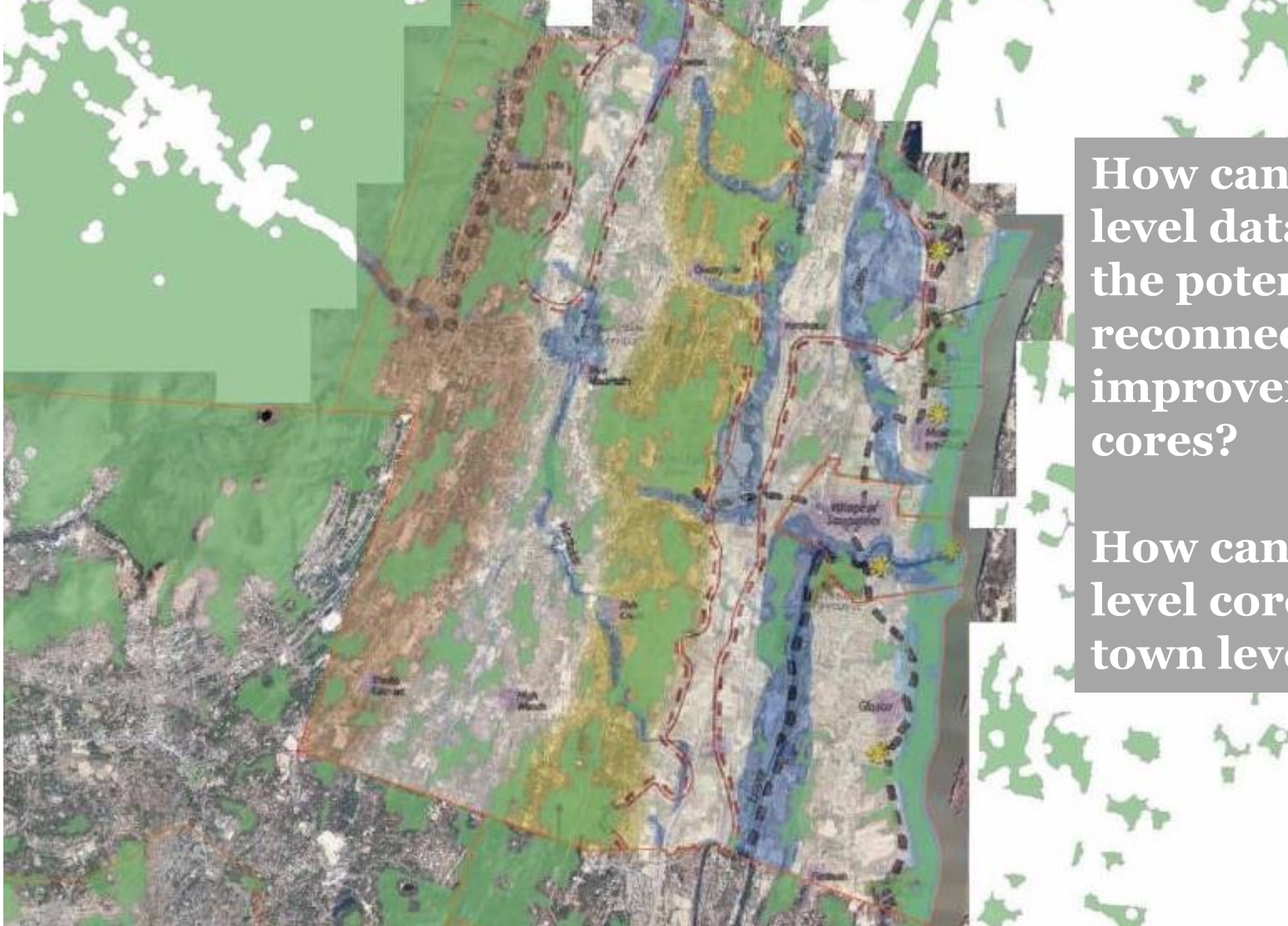
# Town of Saugerties- Open Space Vision Plan



# Town of Saugerties- Open Space Vision Plan



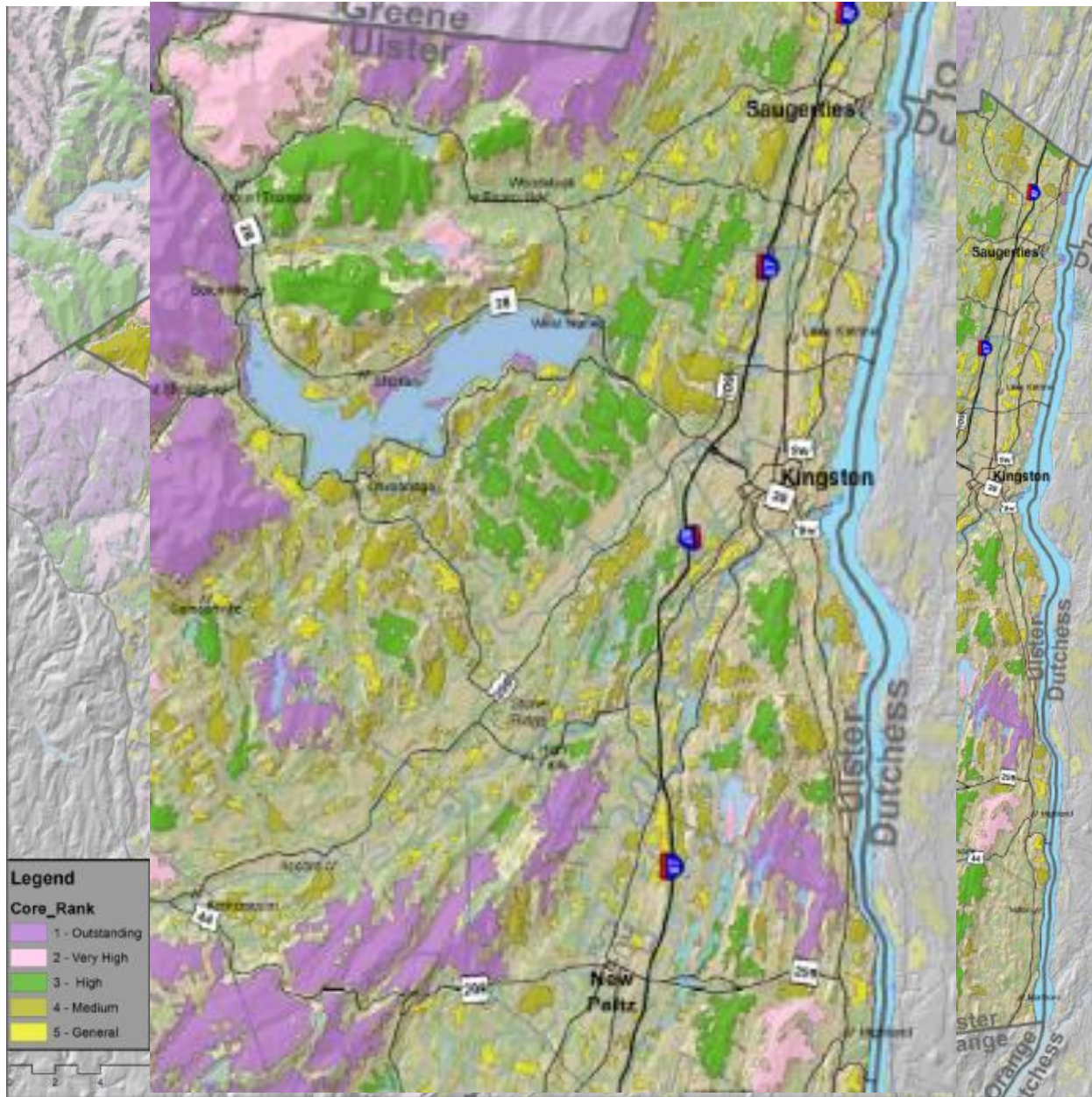
# Town of Saugerties- Open Space Vision Plan



**How can town level data inform the potential reconnection/ improvement of cores?**

**How can County level cores inform town level efforts?**





## Green Infrastructure Mapping in Ulster County is an opportunity to

- Link the County to the Region... and beyond
- Build on existing data and efforts at the municipal and area scale
- Inform and further efforts at the municipal and region scale





# Technology for Municipalities



Municipal-Wide  
Plans

Corridor or Area  
Planning

Site Planning

# U.S. ROUTE 9W CORRIDOR ENHANCEMENT PLAN

TOWN OF ULSTER, NEW YORK



PREPARED BY THE TOWN OF ULSTER COMPREHENSIVE PLAN IMPLEMENTATION COMMITTEE  
WITH PLANIT MAIN STREET, INC.  
ADOPTED BY THE TOWN OF ULSTER TOWN BOARD ON APRIL 24, 2014









**Proposal:**  
To install curbing and sidewalks along entire length of the east side of U.S. Route 9W to facilitate a pedestrian connection on this side of the corridor.  
  
Relocate the bulky telecommunications cables behind the buildings in the linear strip of green space, which exists between the buildings on Route 9W and the malls.

**Proposal:**  
Create a design vocabulary for the U.S. Route 9W corridor, which includes street trees, period style lighting and the installation of curbing and sidewalks on east side of corridor.  
  
Relocating telephone and cable lines behind buildings would substantially reduce the clutter of overhead utilities.

**Problem:**  
The U.S. Route 9W corridor is not pedestrian friendly and is visually unappealing. There are few sidewalks along the eastern side of the corridor and the combination of overhead utilities pole signs and billboards along the corridor create visual clutter that is unsightly. There is a need to soften the appearance of this important gateway into the Town of Ulster.

**Problem:**  
Having almost all the streetlights on one side of the street creates a lopsided appearance of the corridor. This is also not an effective means of evenly distributing light to both sides of the street.  
  
**Proposal.**  
Install streetlights on both sides of the street and stagger lighting poles to form an even distribution of lighting along the U.S. Route 9W corridor.



**LEGEND**  
 Existing Street Lamp  
 Existing MOU

Existing Conditions  
- Figure 1





**Above** (Left to Right): View of existing conditions on U.S. Route 9W corridor looking north from Kings Mall on east side of U.S. Route 9W; same view showing new period streetlights with banners, a new sidewalk, relocation of telephone and cable lines (see Appendix A) replacement of Verizon pole sign with monument sign and removal of billboard and pole signs on left side of photo; and same view with new period lighting with banner with the Verizon pole sign, but billboard on left side of photo removed. These illustrations show how streetlights, sidewalks and sign regulation affect the appearance of the corridor.







**TABLE 1: DIMENSIONAL STANDARDS, QM SUBDISTRICT**

**LOT STANDARDS**

	Min.	Max.	NOTE:
LOT AREA	NA	NA	(i) The minimum frontage occupancy requirement may be reduced by the Planning Board, (a) to the extent necessary to allow light and air into an adjacent building that has side windows, or (b) if the applicant provides a suitably surfaced and lighted pedestrian passageway between Route 9W and parking areas, public open spaces, outdoor dining area, or other streets, located behind the building.
LOT WIDTH	NA	NA	
a. LOT DEPTH	75'	NA	
b. LOT COVERAGE	NA	85%	
c. BUILDING COVERAGE	NA	65% <sup>(ii)</sup>	(ii) If underground parking is provided, then the maximum building coverage may be increased from 65% to 85%. Maximum lot coverage shall remain 85%.
d. LANDSCAPED AREA	10%	NA	
MINIMUM FRONTAGE OCCUPANCY <sup>(iii)</sup>	<b>Buildings that Front on 9W:</b> with a shared sidewall: 90% detached buildings: 75% <b>Buildings that Do Not Front on 9W: 70%</b>		

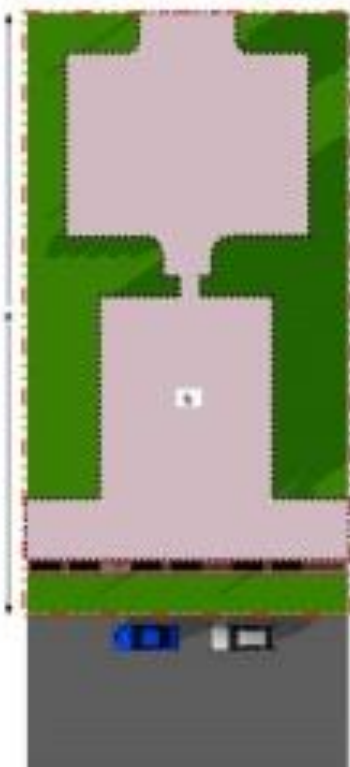


Figure 2: Minimum Lot Depth and Maximum Lot Coverage



Figure 3: Maximum Building Coverage



Figure 4: Minimum Landscaped Area

# Technology for Municipalities



Municipal-Wide  
Plans

Corridor or Area  
Planning

Site Planning





RENDERING

N.T.S.





RENDERING  
N.T.S.





# Viewshed Analysis

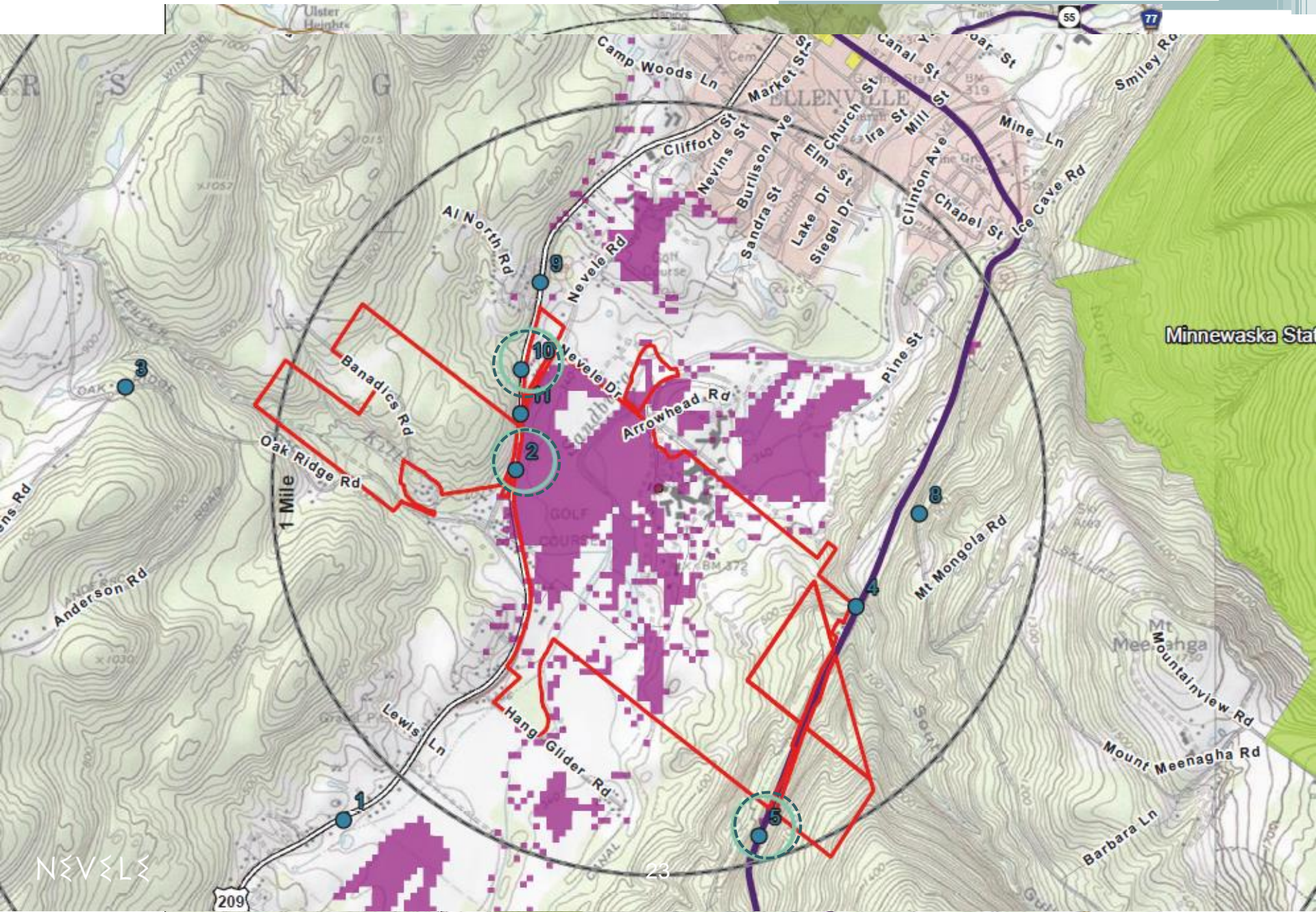






Figure 3.10.3 Photo Location 2 View 1





Figure 3.10.4 Photo Location 2 View 2





Figure 3.10.7 Photo Location 5 View 1





Figure 3.10.8 Photo Location 5 View 2





Figure 3.10.9 Photo Location 5 View 3





Figure 3.10.10 Photo Location 5 View 4



76.9-2-43

76.9-2-34

76.9-2-35

76.9-2-31

76.9-2-42

Sheldon Drive

76.9-3-12

76.9-2-30

76.9-2-29

76.9-2-28

76.9-2-36

76.9-2-37

76.9-2-41

3

Webster Avenue

76.13-3-25

76.9-2-38

76.13-3-43

76.9-2-39

US Highway 209

76.9-2-40

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76.13-3-24

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76.10-1-49

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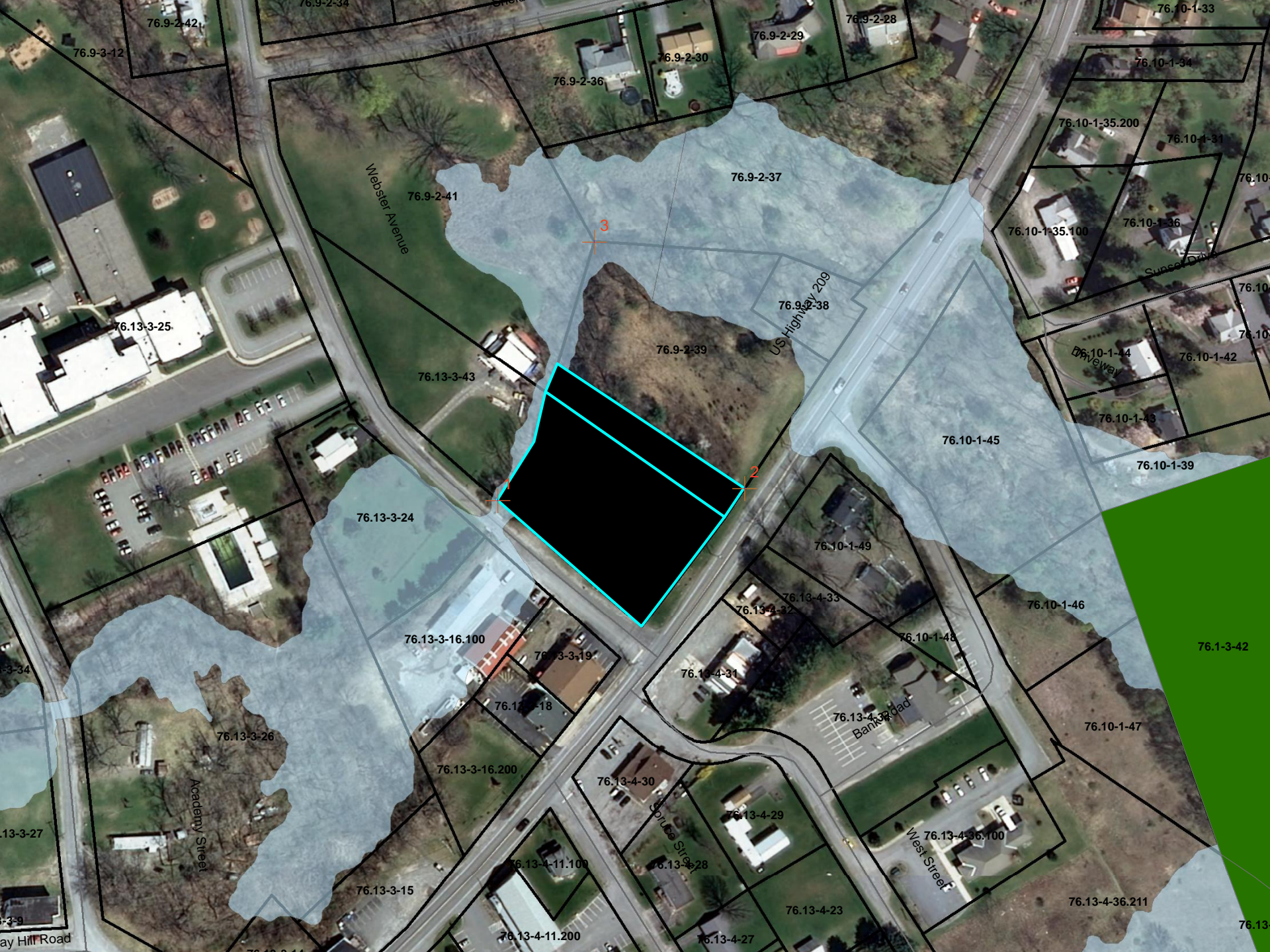
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76.10-1-35.200

76.10-1-31

Webster Avenue

76.9-2-41

76.9-2-37

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76.10-1-36

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76.9-2-38

US Highway 209

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Driveway

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76.10-1-43

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76.13-3-18

76.13-3-16.200

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76.13-4-36.100

76.13-3-27

Academy Street

Spruce Street

Banker Road

West Street

76.13-3-15

76.13-4-11.100

76.13-4-28

76.13-4-23

76.13-4-36.211

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Sheldon Drive

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76.13-3-25

US Highway 209

76.13-3-43

76.9-2-39

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692 PARKWAY

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US Highway 209

Bank Road

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76.13-3-18

76.13-4-34





76.9-2-41

76.9-2-38

76.9-2-25

76.13-3-43

76.9-2-39

Lot line Change Parcel  
#7,037 sq ft

US Highway 209

Bank Road

Bank Road

76.9-2-40

**DOLLAR GENERAL**  
3,124 SF RETAIL BUILDING  
30' X 120'

76.13-3-21

New York State Route 209

Mercury North  
PARKING LOT #2

76.13-3-24

76.10-1-49

Webster Avenue

Webster Avenue

76.13-4-33

76.13-3-16.100

76.13-4-32

76.13-3-26

76.13-3-19

76.13-4-31

76.13-4-34

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Lot line Change Parcel  
±7,037 sq ft

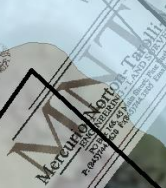
76.9-2-40

DOLLAR GENERAL  
3224 SF ESTIM. BUILDING  
76.13-3-21

US Highway 209

Bank Road

New York State Route 209



76.13-3-24

76.10-1-49

Webster Avenue

Webster Avenue

76.13-4-33

76.13-4-32

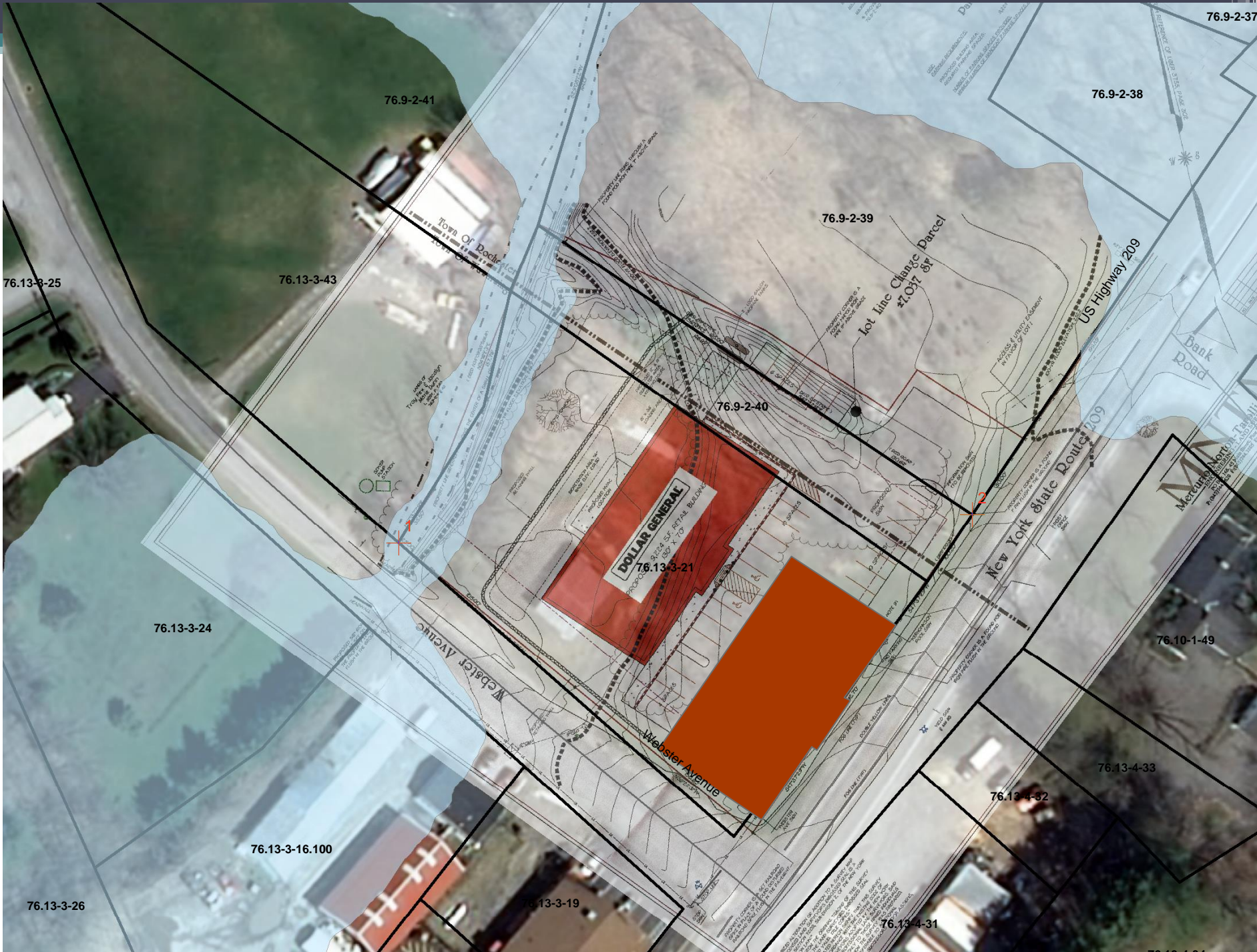
76.13-3-16.100

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76.13-3-19

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# Implementing GIS Mapping

- Software
  - ArcGIS for Home Use (\$100/Year)
  - ArcExplorer
  - Google Earth – Free
    - Shp2kml – transforms GIS layers to Google Earth
  - Quantum GIS (QGIS) – Free
- Data
  - Ulster County – <http://ulstercountyny.gov/ucis/gis-data>
  - Google
- Training Opportunities
  - See Handout



# Ulster County Parcel Viewer

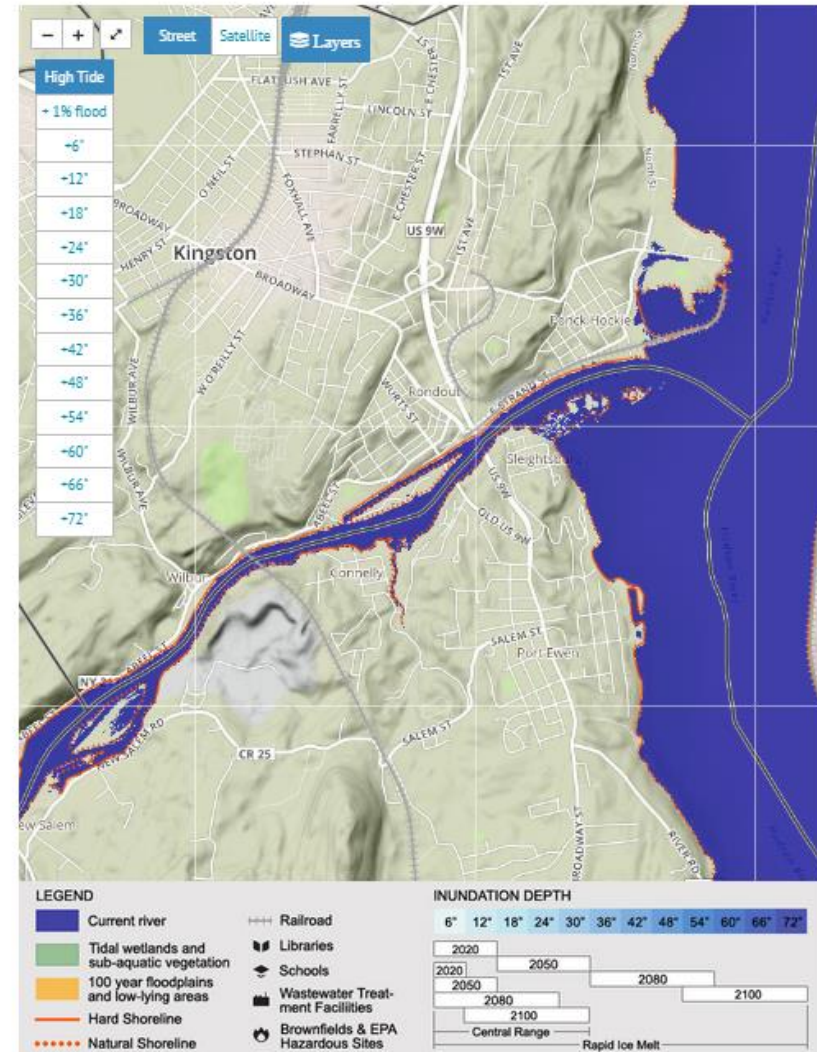
- Feature Overview
  - Basemaps and Layers
  - Measurements
  - PDF Creation
  - Sharing
  - Parcel Search and Identify
  - Buffer and Neighbor Identification

# Other online GIS mapping resources

- Scenic Hudson

[www.scenichudson.org/slr/mapper](http://www.scenichudson.org/slr/mapper)

## Sea Level Rise Mapper



# Other online GIS mapping resources

- Scenic Hudson
  - [www.scenichudson.org/slr/mapper](http://www.scenichudson.org/slr/mapper)
- Bing Maps
  - [www.bing.com/maps/](http://www.bing.com/maps/)
- Google Maps
  - [www.google.com/maps/](http://www.google.com/maps/)





Projection

Enhance  
Your  
Meeting

Analysis

Feedback









# Tools for Board Members

- Data Sharing
  - Cloud Storage
  - Cloud Collaboration
- Training
  - Planning
  - Environmental Science



Technology in Planning | X

ulstercountyny.gov/technology-planning-and-environmental-analysis-resource-page

English | Español

Ulster County advantage Click for Details!

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GOVERNMENT RESIDENTS BUSINESS VISITORS HOW DO I?




## Technology in Planning and Environmental Analysis Resource Page

The Ulster County Planning Department held it's seminar on "Technology in Planning and Environmental Analysis" on Monday June 9th, 2014 at Ulster Community College.

- [Presentation Materials](#)
- [Case Study Source Materials](#)
- [Web Tools](#)
- [Training Opportunities](#)
- [Social Media Tools](#)

### EXECUTIVE NEWS

**Ulster County Executive Mike Hein Delivers 2015 State Of The County Address**

*Posted on: January 15th, 2015*

The County Executive Continues To Focus On Government Reform, Taxpayer Protection, Environmental Stewardship, Infrastructure Investment and Fiscal & Social Responsibility [\[read more\]](#)

### Presentation Materials

- [Presentation - PDF Format](#)

### Case Study Materials

- [Ulster County Open Space Plan](#)
- [Town of Saugerites Open Space Vision Plan](#)
- [U.S. Route 9W Corridor Enhancement Plan](#) - Town of Ulster
- [Walkway/Gateway Area Overlay District](#) - Town of Lloyd

### Web Tools

- [Ulster County Parcel Viewer](#)
- [Sea Level Rise Mapper](#)
- [NYS DEC EAP Mapper](#)

https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CB4QFjAA&url=http%3A%2F%2Fulstercountyny.gov%2Ftechnology-planning-and-environmental-analysis-resource-page&ei=wWPAVK76LbDPsQ5k6oDYAw&usq=AFQjCNEODPVHQDGAs-WWTXCovCttYgHxwg...

http://ulstercountyny.gov/technology-planning-and-environmental-analysis-resource-page