

# Proposal for GIS Mapping Services for the Marbletown Community Preservation Plan



**Submitted by**  
**Upstate GIS, Rick Lederer-Barnes**

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To the attention of Dale Robbins:

Thank you for the opportunity to submit a proposal to the Town of Marbletown for GIS services pertaining to the town's Community Preservation Plan. I believe I offer a unique perspective for GIS services with my background in open space and farmland preservation planning and my familiarity with the project area through previous projects, including the 2008 Natural Heritage Plan. As I mentioned, I am currently working on two other Community Preservation Plans, and I have been completing similar projects for most of my career.

Prior to starting my sole proprietorship, d/b/a Upstate GIS, I worked with Behan Planning and Design for seven years and completed numerous open space, natural resource and farmland protection plans, many of which involving prioritizing land areas and/or parcels. I have worked on several projects within Ulster County; in addition to Marbletown's 2008 plan I was involved with plans in New Paltz, Rosendale, Gardiner, Marlborough and Saugerties, as well as the Shawangunk Mountains Regional Open Space Plan. In addition to providing the mapping and analysis for these projects, I was involved with research, writing and public outreach efforts.

More recently I have worked on several projects involving priority analyses for agricultural, ecologic, water, recreational and scenic, and/or other resources. Prioritization projects have ranged in scale from small towns to state-wide analyses. I have also recently completed the New Paltz Natural Resources Inventory which made use of many of the same datasets that would be applicable to the Marbletown Plan.

I look forward to the opportunity to work with you on this important project. I have included my resume, project examples and a proposed scope and cost estimate. Please reach out if you have any questions or require additional information. I look forward to hearing from you soon.

Sincerely,



Rick Lederer-Barnes

# Rick Lederer-Barnes

## GIS Specialist & Environmental Planner

### Summary of qualifications

Mr. Lederer-Barnes is the Sole Proprietor of Upstate GIS, located in Cambridge, NY. Mr. Lederer-Barnes is an Independent Geographic Information Systems (GIS) Specialist and Environmental Planner with 20 years of GIS experience. Mr. Lederer-Barnes provides contracted support to consulting firms in the Northeast, as well as direct services to organizations and municipalities. He specializes in cartographic design, data creation and analysis, watershed analysis and build-out analysis. He provides professional planning services in the areas of farmland and open space preservation, zoning, SEQR preparation and review, environmental review and analysis, fiscal analysis, and community visioning. In addition to his professional experience, Mr. Lederer-Barnes served on his local village board as a trustee for five years, two of which as the Deputy Mayor.

### Relevant Experience

**GIS Specialist / Environmental Planner, Upstate GIS**  
Cambridge, NY – April 2012 to Present.

Primary focus is on providing geospatial analyses and high-quality maps and graphics - whether the focus is a small neighborhood or a large region. Provides GIS and/or planning support for hundreds of projects and provides direct services to several organizations including land trusts, businesses, and municipalities.

**GIS Specialist / Environmental Planner, Behan Planning and Design** Saratoga Springs, NY – 2005-2012.

Managed several projects, including the Town of Charlton Farmland Protection Plan, the Town and Village of New Paltz Build-out and Fiscal Analysis, and the Mohawk Hudson Land Conservancy GIS Analysis for Strategic Land Acquisition Planning. Also served as a team member on over 60 planning and design projects for approximately 40 unique clients, with a significant focus on open space and farmland protection.

**Project Manager & Environmental Scientist, SAGE Environmental**  
Pawtucket, RI – 2000-2004.

Managed several soil and water impacted remedial sites in the Northeast. Responsible for the completion of Site Investigation Reports, Phase I through V reports for MA, and periodic status reports for submission to RI, MA and NY. Authored over 100 ASTM Phase I Environmental Site Assessment Reports, in addition to numerous Phase II Limited Subsurface Investigations for clients in the private sector. Also served as SAGE's GIS coordinator, involving preparation of GIS maps and presentations and training colleagues on the use of ArcView.



### Education:

BS, Geology, Union College,  
Schenectady, NY (1998)

MS, Geosciences, Brown  
University (2000)

Post-Baccalaureate Certificate  
in Geographic Information  
Systems, Pennsylvania State  
University (2005)

### Years of GIS Experience:

20 years

### Areas of Experience:

Cartography - including  
inventory and vision mapping

Spatial Analysis

Watershed Analysis

Zoning and Build-out Analysis

Agriculture and Farmland  
Protection Planning

Natural Resources Inventories

Web map creation and remote  
data collection

Story Maps

Analysis of Land Use  
Regulations

SEQRA

Comprehensive and Strategic  
Planning

Environmental Planning,  
including environmental  
assessment

Fiscal Analysis

Community Input Facilitation:  
focus groups, workshops,  
surveys, online technologies



## Example Projects Involving Site Suitability/Prioritization Analysis

Upstate GIS has assisted several land trusts and government entities in determining the most important areas to focus land conservation efforts. The following projects all involved creating a prioritization and/or site suitability analysis:

Agricultural Stewardship Association – **Farmland Conservation Plan**  
(2017 and in progress update)

Agricultural Stewardship Association – **Site Suitability Analysis for a Community Farm**

Connecticut Farmland Trust – **Statewide Farmland Conservation Plan - Suitability Analysis**  
(in progress)

Town of Ancram, NY – **Solar Suitability Analysis**

The Chazen Companies – **Lake George Septic Suitability Model**

Hudson Highlands Land Trust – **Eastern Highlands Green Corridors Plan**

Hudson Highlands Land Trust – **Philipstown Community Preservation Plan** (in progress)

Lewis County, NY – **Agricultural and Farmland Protection Plan**

Rensselaer Land Trust – **Rensselaer County Conservation Plan** (see more details below)

Seneca County, NY – **Agricultural and Farmland Enhancement Plan**

Tug Hill Tomorrow Land Trust – **Regional Farmland Protection Plan**

## Rensselaer County Conservation Plan

Upstate GIS helped the Rensselaer Land Trust (RLT) complete a Conservation Plan for the county in 2018. The plan's focus is to identify and map those lands and waters that are most critical to supporting Rensselaer County's quality of life. Upstate GIS inventoried, mapped, and assessed the natural resources and the

significant open spaces and landscape features of the county. Upstate GIS also assisted with public meeting facilitation, led by the NYS DEC Hudson River Estuary Program (HREP) staff, and subsequent digitizing of hundreds of comments annotated on workshop maps. Upstate GIS performed an extensive GIS inventory for the county –



both consolidating and editing existing datasets and creating several new datasets. These datasets were used to calculate priority areas for conservation. To complete the project an ArcGIS Online Story Map was created which summarizes the plan and provides interactive maps throughout. The full plan is available at: <https://www.renstrust.org/images/projects/ConservationPlanFinal/RLT-Conservation-Plan---Reduced-Quality.pdf> and the StoryMap is available at: <https://arcg.is/1KSH1e>

## Related Projects, not involving Prioritization Analyses

### Town and Village of New Paltz Natural Resources Inventory

Upstate GIS, with assistance from Community Planning and Environmental Associates, recently assisted the Town and Village of New Paltz, NY with completion of a Natural Resources Inventory

(NRI). New Paltz has a long history of open space and natural resource conservation planning and implementation. The NRI for New Paltz is unique as it is synthesizing all the town and village's past efforts while creating a unique document and set of maps that will be able to be used by landowners and town and village boards as they plan and review future projects in the community. An interactive web mapping application has also been developed by Upstate GIS for the project.

The web map is a resource for review boards and interested landowners to obtain detailed information at the property level and can be viewed here: <https://arcg.is/1Sf0nu>

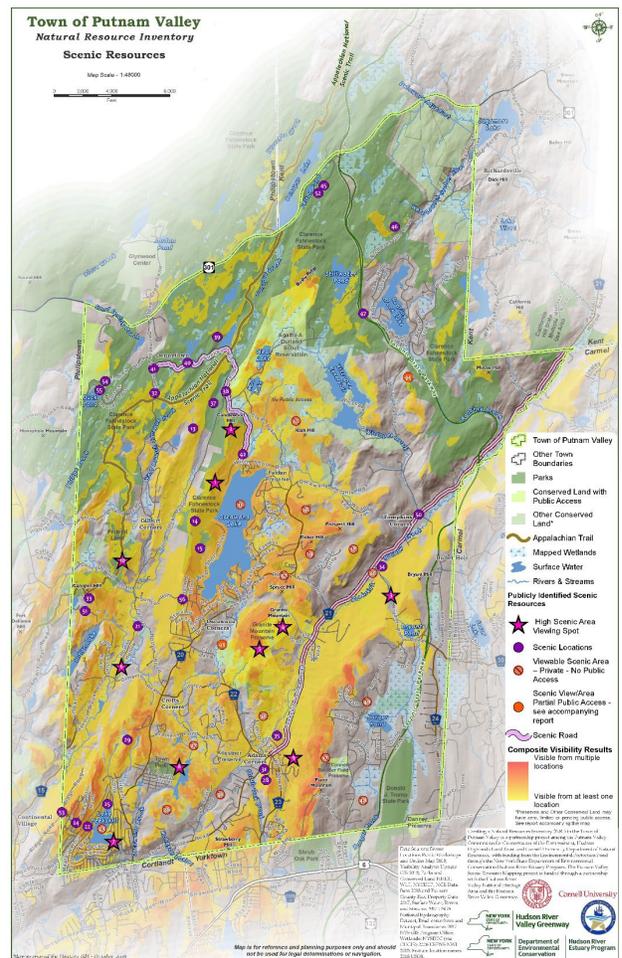
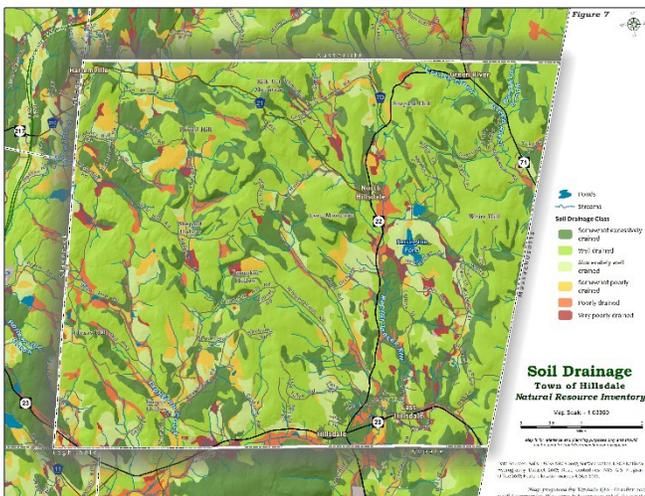


## Other NRI Mapping Projects

In 2018 Upstate GIS assisted the Hudson Highlands Land Trust with mapping and scenic viewshed analysis for the **Town of Putnam Valley, NY NRI**, and assisted Community Planning and Environmental Associates with mapping, writing, and meeting facilitation for the **Town of Hillsdale, NY NRI**.

In 2019 Upstate GIS prepared the maps for Rensselaer Land Trust's (RLT) **Town of Poestenkill, NY NRI**.

In 2020 Upstate GIS again assisted RLT in preparing mapping for the **City of Rensselaer, NY NRI**.



## Related Projects worked on while at Behan Planning and Design

Prior to starting Upstate GIS Rick Lederer-Barnes worked at Behan Planning and Design of Saratoga Springs, NY, specializing in open space and farmland protection planning. The following are related projects with which Rick was involved while employed by Behan Planning and Design:

Town of Charlton, NY - ***Farmland Protection Plan\****, ***Farmland Protection Implementation***  
Town of Gardiner, NY - ***Open Space Plan\****  
Town of Gorham, NY - ***Farmland Protection Grant Services***  
Greene County, NY - ***Hudson River Corridor Plan***  
Town of LaGrange, NY - ***Open Space Plan***  
Town of Lodi, NY - ***Farmland Protection Plan\****  
Town of Marbletown, NY - ***Natural Heritage Plan***  
Town of Marlborough, NY - ***Recreation Needs Assessment***  
Mohawk Hudson Land Conservancy - ***Land Acquisition Prioritization Services\****  
Town of Ogden, NY - ***Open Space Plan***  
Rensselaer Plateau Alliance, Rensselaer County, NY - ***Regional Conservation Plan\****  
City of Saratoga Springs, NY - ***Environmental, Parks, and Open Areas Protection Program***  
County of Saratoga, NY - ***Green Infrastructure Plan***  
Town of Saugerties, NY - ***Open Space Plan\****  
Shawangunk Mountains Regional Partnership, Ulster and Orange Counties, NY - ***Shawangunk Mountains Regional Open Space Plan***  
Town of New Paltz, NY - ***Open Space Plan, Open Space Plan Implementation***  
Town of Wallkill, NY - ***Farmland Protection Plan\****

*\*Projects which involved a prioritization analysis*

## Project References

### **Rensselaer Land Trust**

Nick Conrad, Past President  
415 River St, Troy, NY 12180  
nbconrad@msn.com  
518-659-5263

### **Hudson Highlands Land Trust**

Nicole Wooten, Director of Natural Resources  
P.O. Box 226 Garrison, NY 10524  
nicole.wooten@hhlt.org  
845-424-3358

### **Town and Village of New Paltz**

Amanda Gotto, Climate Smart Project Manager  
52 Clearwater Rd. PO Box 550, New Paltz, NY 12561  
doamgo@aol.com

## Project Scope and Budget

Based on experience with similar projects, it is estimated that 90 hours will be required to complete Upstate GIS's portion of the project. Tasks to be completed would include, but are not necessarily limited to:

- Attend project kick-off meeting to confirm project goals and previous efforts.
- Review of recent town documents and the Natural Heritage Plan to identify mapped data that would be beneficial for the project and provide a list of proposed datasets to be used in the CPP process.
- Identify and gather data from previous work products, where applicable, in addition to public sources. Work with project team to gather missing data as necessary.
- Obtain and/or create additional data as necessary.
- Work with the Task Force and/or the planning consultant to review and weight layers which will be combined to create scores for each parcel based on Task Force input on priorities. It is recommended that scoring criteria be based on groups of resources (e.g. water, habitats, recreation) as well as total parcel score based on all resources present.
- Set-up and run analyses which will assign scores to each parcel based on resource criteria as well as a total score which combines the individual resource scores.
- Draft maps and a prepare parcel spreadsheet, illustrating the draft parcel prioritization and scores. This spreadsheet would include every parcel eligible for CPP funding, regardless of priority ranking.
- Review results with Task Force via virtual meeting. Gather and incorporate any edits to the prioritization, then utilize additional Task Force feedback to refine the analysis and ranking rubric as necessary.
- Reweight the tax parcel scoring criteria and create a new score spreadsheet and summary maps for the Task Force's review.
- Provide spatial statistics for resources and/or priorities to the planning consultant for incorporation into final report.
- Create maps based on prioritized parcel spreadsheet which will be used to supplement the final CPP report. In addition to the map showing parcel priorities, resource maps illustrating the layers that were included in the analysis would also be provided. Two rounds of edits to the maps are anticipated.

It is anticipated that all meetings will be held online, due to both safety concerns and budget efficiency. No material expenses are anticipated as all deliverables will be electronic. Final deliverables would be maps in PDF format, priority parcel database in Excel format, and a Map Package containing all the maps and data in an ArcGIS Pro Map Package. Based on the estimated hours, total project cost is estimated to be \$9,000. Should additional services be requested beyond the proposed scope of work they would be provided at a rate of \$100/hour.

In addition to the above scope, there are two optional tasks the town may wish to consider.

*Optional #1. Create a map-based survey for the public to draw areas of importance/concern. Results of the mapping survey would be provided to the planning consultant for inclusion in the report and would factor into prioritization scoring as well. Estimated cost \$1,800*

*Optional #2. Create an online mapping application that includes the final parcel scoring results (by category and total) as well as resource layers to assist the Town in reviewing potential parcels of interest. Estimated cost of \$1,900 (includes hosting web application for three years).*