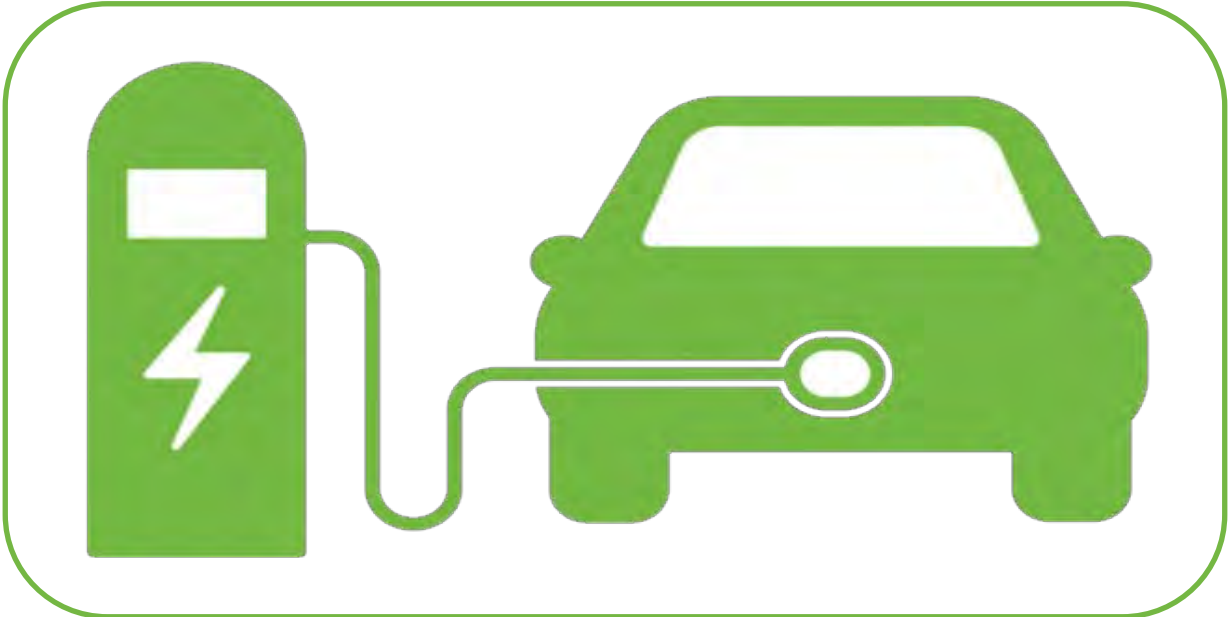


# Rural Electric Vehicle Charging Station Assessment



Prepared for: Warren County, NY  
Prepared by: A/GFTC  
April 11, 2023

1. Introduction and Overview .....	1
a. Project Goals.....	1
b. Project Study Area .....	1
c. Methodology .....	1
2. Overview of current technology.....	3
a. EV range.....	3
b. Charging station types.....	3
3. Analysis of current/projected needs .....	5
a. EV ownership trends .....	5
b. Existing EV Charging Stations .....	6
c. Range gap analysis.....	6
4. Recommendations.....	7
a. Best practices for site selection.....	7
b. Community profile assessments .....	8
5. Implementation/Next Steps .....	9
a. Funding .....	9
b. Permitting.....	11
Appendix 1: Resources and Links .....	13
Appendix 2: Community Profile Assessment Maps.....	14

# 1. Introduction and Overview

## a. Project Goals

Throughout the region, electric vehicles have grown in popularity as more consumers adopt this innovative technology. This trend is expected to increase further as efforts to reduce emissions ramp up to meet state and federal goals. However, despite the growth in popularity of electric vehicles, the deployment of charging stations throughout the rural areas of Warren County has not kept pace with the region. The investment required to install electric vehicle (EV) charging stations is significant, and the rapid evolution of technology and seemingly overwhelming amount of technical guidance may pose a further barrier to implementation.

This document provides a general overview of EV charging needs, gaps, opportunities, and challenges for the rural areas of Warren County, New York. The proposed analysis builds on the planning tools outlined in *Charging Forward: A Toolkit for Planning and Funding Rural Electric Mobility Infrastructure*, created by the US Department of Transportation<sup>1</sup>. As such, the intent is not to replicate existing guidance, but to provide an initial analysis to guide future policy and implementation efforts to establish EV charging stations throughout the rural areas of Warren County.

## b. Project Study Area

The Adirondack/Glens Falls Transportation Council (A/GFTC) is the designated Metropolitan Planning Organization for Warren, Washington, and northern Saratoga Counties in New York State. A/GFTC is a regional association of governments, public agencies, and transportation providers responsible for conducting a continuing, cooperative, and comprehensive transportation planning process. This analysis has been conducted by A/GFTC staff on behalf of the Warren County Planning Department as part of the 2022-2023 Unified Planning Work Program.

This analysis is focused on the rural areas of Warren County, namely, the portions of the county located outside the Urban Area as designated by the US Census. (See Figure 1). A/GFTC previously completed an EV charging station analysis for the Urban Area in 2015<sup>2</sup>.

## c. Methodology

There are a variety of factors which influence the location of EV charging stations. These include:

- Present and future demand
- Availability of required electrical infrastructure
- Distance from existing charging stations
- Land use
- Availability of incentives for installation
- Ongoing maintenance and operation costs

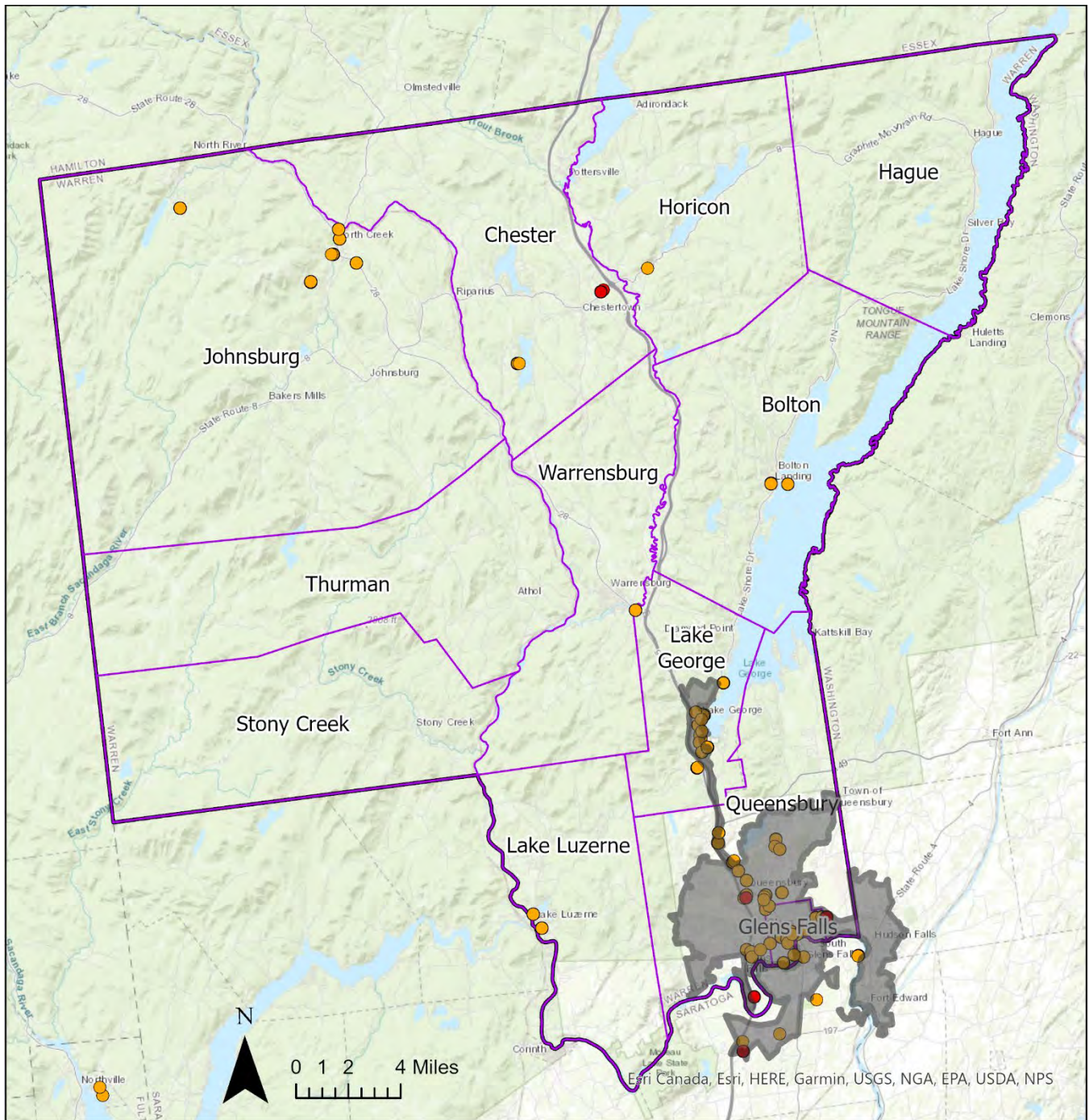
This analysis identifies geographic gaps and opportunities for future charging station locations on a community-wide scale as a way to provide guidance to local business owners and municipal officials. This plan will not identify specific parcels as future locations for EV charging stations, nor do the analysis results and/or recommendations constitute a mandate for public or private investment or construction.

---

<sup>1</sup> <https://www.transportation.gov/rural/ev/toolkit>

<sup>2</sup> <https://agftc.org/publications/electric-vehicle-charging-station-location-analysis/>

Figure 1 - Context Map



### Rural Warren County EV Charging Station Suitability Urban vs. Rural

Prepared by A/GFTC Staff using data from Warren County Planning, Adirondack Park Agency, and NYSDOT. Charging station locations derived from USDOE Alternative Fuels Data Center, accessed on 04/10/2023.

- EV Stations DCFC
- EV Stations Level 2
- Municipal Boundary
- Warren County
- A/GFTC Urban Area

## 2. Overview of current technology

### a. Charging station types

At first glance, the electric vehicle charging technology can seem daunting, given the wide variety of electric vehicles, connector types, and charging station providers. However, at the most basic level, all charging stations can be categorized according to the speed at which the vehicle is charged.

- **Level 1** equipment provides the slowest charge. These can operate from a common residential 120-volt (120V) AC outlet. Level 1 chargers can take 40-50 hours to charge a battery electric vehicle (BEV) from empty and 5-6 hours to charge a plug-in hybrid electric vehicle (PHEV) from empty. This type of charging equipment is suitable for residential use, usually to charge vehicles overnight. The estimated range per hour of charging is 2-5 miles.
- **Level 2** equipment operates on 240V or 280V service, which can be accommodated at both residential or commercial applications. Level 2 chargers can charge a BEV from empty in 4-10 hours and a PHEV from empty in 1-2 hours. The estimated range per hour of charging is 10-20 miles.
- **Direct Current Fast Charging (DCFC)** (also known as Level 3) enables the fastest charging rates, making it a favored choice for high-traffic corridors and rest stops. DCFC equipment can charge a BEV to 80 percent in just 20 minutes to 1 hour. It is important to note that most PHEVs currently on the market do not work with fast chargers. The estimated range per hour of charging is 180-240 miles.

#### *Stations vs. Ports: What's the difference?*

Just as an electric outlet has one or more receptacles, each EV charging station has one or more ports. Each port can accommodate one vehicle. The term *station* usually refers to the overall location and can include infrastructure such as parking spaces, bollards, and lighting, while the term *port* refers specifically to the individual terminal in which the electric vehicle is plugged in.

It should be noted that not all cars are compatible with all charging ports. Specifically, Tesla charging stations cannot be used by non-Tesla vehicles. However, Tesla vehicles can use an adapter to connect to non-Tesla charging ports.

### b. EV range

This document is focused on EV charging stations; as such, the discussion of electric vehicle range is limited to vehicles which are capable of being recharged from an external power source, namely battery electric vehicles (BEVs) and plug-in hybrid vehicles (PHEVs). Hybrid electric vehicles (HEVs) and fuel cell electric vehicles (FCEVs) cannot be plugged in and are therefore excluded from this discussion.

- **Battery electric vehicles** —also referred to as “all-electric vehicles”—run on electricity only and are recharged from an external power source. They are propelled by one or more electric motors powered by rechargeable battery packs. According to the US Department of Energy Alternative Fuels Data Center<sup>3</sup>, almost all BEVs can travel at least 100 miles on a charge, and many new vehicles coming on the market offer an all-electric range of 200-300 miles or more.

<sup>3</sup> <https://afdc.energy.gov/vehicles/search/>

- **Plug-In Hybrid Electric Vehicles** incorporate a small internal combustion engine that can recharge the battery as the vehicle travels; the total range with a full tank of gas averages about 300 to 550 miles or more. PHEVs can usually drive moderate distances in “EV mode” using only the battery, typically from 15 to 50 miles in current models, according to the Alternative Fuels Data Center.

i. Considerations for residents

Current vehicle registrations in Warren County indicate that PHEVs outnumber BEVs by a significant margin. (See Figure 2). PHEVs with a full tank of gas have a much larger range than conventional vehicles; in addition, even with a low charge, PHEV owners can simply stop at a gas station to top up the tank before driving home. In addition, residents already have a clear idea of their daily driving needs in terms of mileage; trips for work, school, and errands are often similar from day to day, allowing owners of PHEVs and BEVs to plan accordingly. As such, range anxiety may not be a significant consideration for Warren County residents seeking to drive within the county for day-to-day trips.

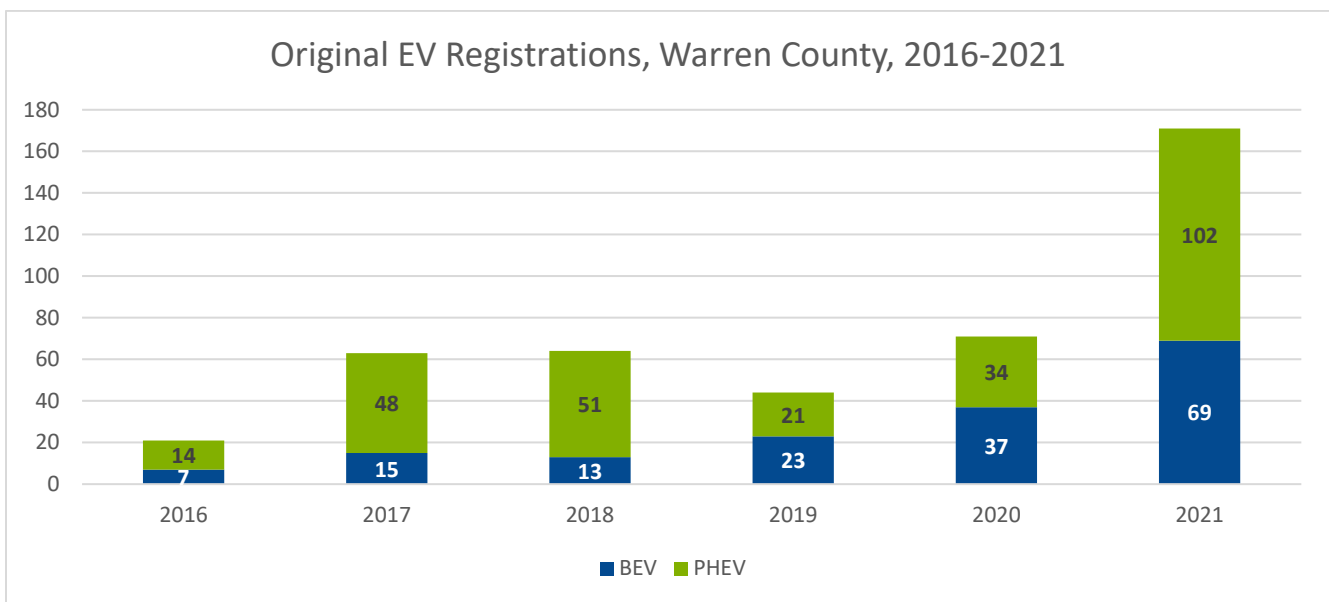


Figure 2 - EV Registrations in Warren County. Data courtesy of NYSERDA via EValueNY.

However, this is not to minimize the importance of expanding the network of available charging stations within the county. In particular, large employers should consider adding EV charging stations to their parking lots. Employment centers without significant customer activity (such as manufacturing or offices which do not provide customer service) would benefit from Level 2 chargers to allow employees to charge their vehicles while working. With gas prices fluctuating near historic high points and continuing competitiveness in the labor market, providing charging stations may be a critical factor in attracting and retaining employees. Employment centers with significant customer activity would benefit from providing either Level 2 or DCFC chargers, which may encourage people to patronize their business over a competitor. Finally, EV charging stations can also help businesses achieve sustainability goals, where applicable.

ii. Considerations for tourists

Although EV technology has made significant strides towards increased range in the last few years, “range anxiety<sup>4</sup>” is still a concern for many to many visitors, especially in rural areas. Access to Level 2 and DCFC charging stations is a key consideration for trip planning. Online mapping tools are widely available to assist BEV drivers to plan routes around available charging infrastructure. Tourists driving BEVs will also keep in mind what activities are available within walking distance while the vehicle is charging.

Another consideration for locations where EV charging options are limited is whether existing charging ports are available to use. Online mapping tools allow drivers to see which charging stations currently have vacant ports. In areas with a high density of chargers, this allows a driver to find an open port before or during their drive. However, in rural areas such as Warren County, traveling between one community and the next may take over an hour, with limited cell phone range in between. EV drivers must therefore weigh the odds that a charging port will still be available when they arrive at their destination. If there are only a handful of available charging stations, and those ports are full, visitors may face the prospect of having to wait 1-2 hours (or even more) for ports to open up. This may serve as a disincentive to visit outlying areas, especially if there are no nearby activities to pass the time.

### 3. Analysis of current/projected needs

a. EV ownership trends

As stated previously, EV ownership has expanded significantly in the last few years. According to NYSERDA’s EvaluateNY data portal, the number of EV registrations in Warren County increased over 700% between 2016 and 2021. In terms of the overall proportion of EVs to total vehicle registrations, Warren County lags slightly behind New York State and the Capital District as a whole. (See Figure 3). However, the overall share of EVs continues to increase. As additional incentives become available and more car manufacturers expand their offerings of EV vehicles, the trends of increased EV ownership are anticipated to continue.

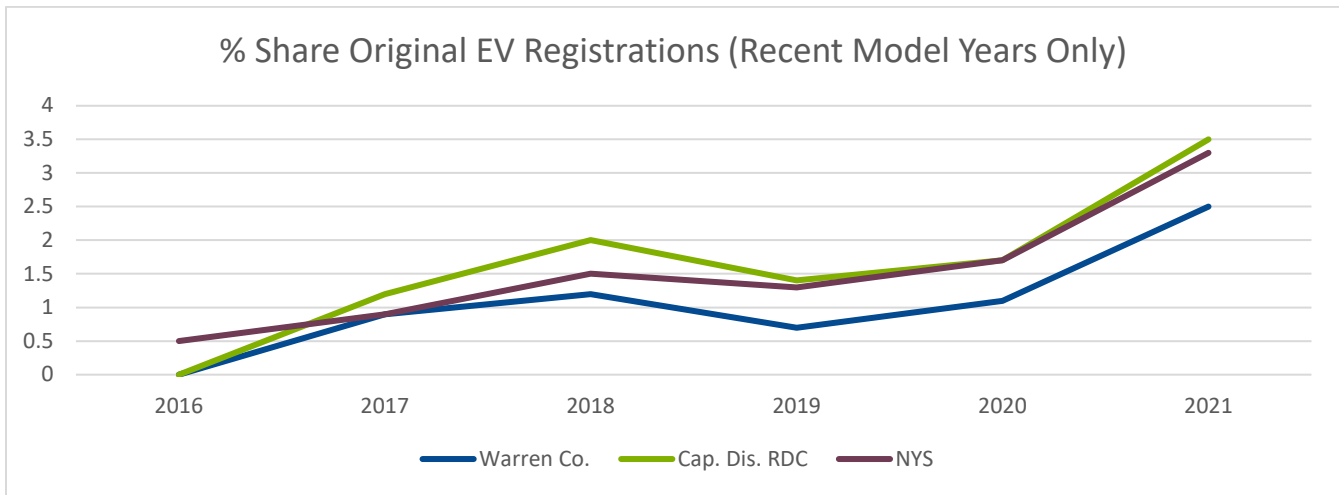


Figure 3 - Proportion of EV registrations, 2016-2021. Data courtesy of NYSERDA via EvaluateNY

<sup>4</sup> Range anxiety refers to the fear that an electric vehicle has insufficient energy storage to cover the road distance needed to reach the destination.

### b. Existing EV Charging Stations

Just as the number of EVs on the road has increased, so too has the number of charging stations. Since 2017, the number of charging ports in Warren County has increased from 9 to 214. (See Figure 4).

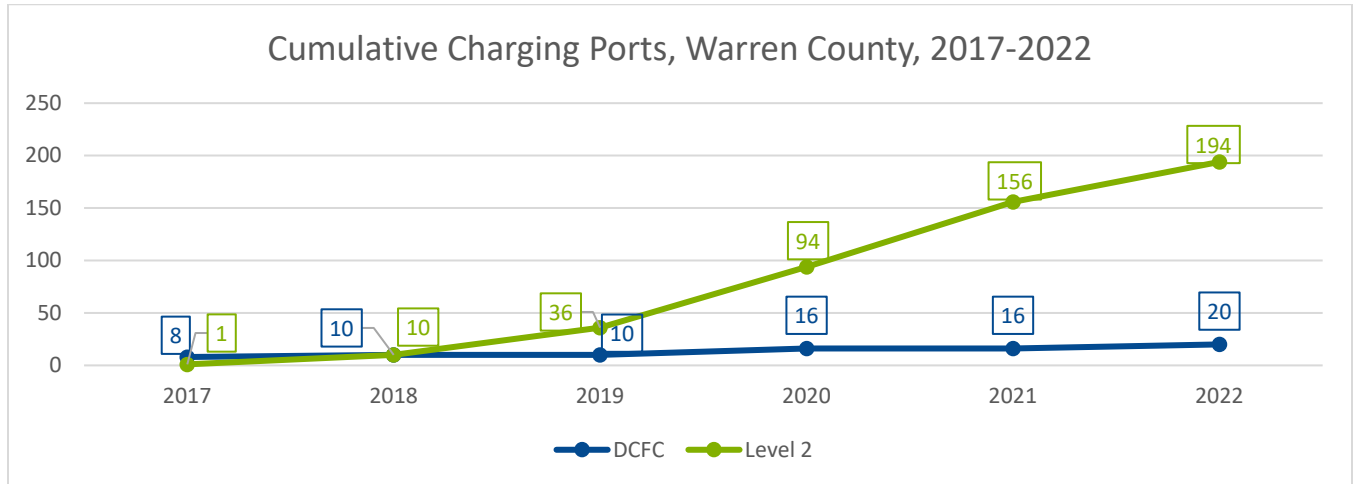


Figure 4 – Cumulative Number of EV Charging Ports, Warren County NY, 2017-2022. Data courtesy of NYSERDA via EValuateNY.

However, as the map in Figure 1 illustrated, the majority of these stations are located in the urban area of the county. Aside from pockets of charging infrastructure in the Village of Lake George and the hamlets of Bolton Landing and North Creek, options for EV drivers in the remainder of the rural areas of the county are very limited.

### c. Range gap analysis

A distance-based range gap analysis was performed using GIS to determine the potential mileage afforded by existing EV stations. The parameters of this analysis were designed to be conservative, to provide a realistic “worst-case” scenario for BEV vehicles; as such, the analysis was intended to model range for the lowest-capacity BEVs while also taking into account potential diminished battery capacity during winter. To account for these variables, a range of 60 miles<sup>5</sup> was selected. However, it is important to keep in mind that the average range of BEVs on the road in the Capital District today is about 255 miles under optimal conditions, according to NYSERDA’s EValuateNY data portal.

Even considering the limited range of this conservative scenario, all areas of Warren County are within 60 driving miles of a public Level 2 or DCFC station. Under ideal circumstances, BEV drivers should be able to access the entire county; as such, the minimum requirements for charging infrastructure are met.

However, as stated above, charging options are limited in outlying areas. Although it is feasible to get from point A to B, visitors to Warren County may be less inclined to venture into more remote locations or to travel rural roads for the purposes of leaf-peeping or scenic exploration. These trips often benefited isolated businesses

<sup>5</sup> The ESRI Network Analysis tool modeled a 60-mile range according to the actual centerline mileage from existing EV charging stations.



along scenic routes. To provide a greater incentive for BEV drivers, rural businesses which install Level 2 chargers may want to consider the addition of activities or amenities which increase the duration of the visit.

In addition, some municipalities have town-wide events, such as the Warrensburg Garage Sale or the Thurman Maple Days, which are heavily dependent on driving. Businesses and attractions which offer EV charging will create an incentive for BEV drivers to participate in these local events.

## 4. Recommendations

### a. Best practices for site selection

The best locations for charging stations address convenience, safety, user-friendliness, and efficiency. Good candidates include:

- Public venues such as town halls, libraries, and museums
- Public parking areas near walkable downtown clusters
- Public or private parking areas for long-duration venues (restaurants, theaters, tourist attractions, medical clinics)
- Public or private parking areas within 1 mile of interstate exits
- Public parks and/or boat launches which have sufficient access to electric infrastructure
- Large employers, especially those not located within downtown areas
- Locations along busy roadways

Finally, although it is important to consider best practices, an imperfect site is better than none.

Once a site is selected, a number of factors may influence the specific location of the charging stations. For new development, the location of EV-only parking spaces can be integrated into the overall site plan prior to construction. However, in many cases EV charging stations will be retrofitted into existing parking areas.

Considerations include:

- ADA access. Where possible, EV-only parking spaces should also integrate ADA design elements. Further detail regarding best practices for accessible EV charging can be found here: <https://www.access-board.gov/tad/ev/>
- Electrical infrastructure. All EV charging stations require sufficient electrical power to operate. For new construction, electrical conduits and other required elements can be integrated into the site plan. Retrofitting an existing parking area may involve digging trenches for new conduit to be extended from existing buildings or utilities, which can increase site costs substantially. Building-mounted charging stations may reduce the need for underground installations but may also require upgrades to the wiring systems in the structure.
- Visibility. In many cases, EV charging is available 24 hours a day, 7 days a week, even if the associated business or office is closed. For the security of EV drivers, charging ports should offer a high level of visibility to surrounding areas and should be well lit.

A detailed checklist of considerations is available here: <https://www.energetics.com/projects/developers-and-planners-guide-to-electric-vehicles-and-charging-stations/EV-Site-Checklist-v07-2019.pdf>

## b. Community profile assessments

Although this analysis does not include individual recommendations for charging station types, an overall examination of EV station suitability was completed for the community centers/hamlets within rural Warren County. This is intended to provide broad context for both municipalities and local businesses, to inform priorities for expansion of EV charging infrastructure.

This assessment takes into account the following:

- **Downtown clusters.** To determine whether a community center contains a downtown area, GIS data from Warren County was utilized. Downtown clusters are defined as concentrations of community services, retail, recreation, employment, and housing within a walkable area, which increases suitability for EV charging stations.
- **Number of community features.** This includes amenities and services used primarily by residents: groceries, libraries, schools, town halls, health centers.
- **Number of tourism/recreation amenities.** This includes parks, attractions, golf courses, beaches, historic and cultural landmarks, shopping, and major hotels. These facilities are used by both visitors and residents.
- **Average Annual Daily Traffic (AADT).** Traffic volume for the most-traveled roadway segment within the community (not counting interstates) was analyzed.
- **Number of existing charging stations.** The number of Level 2 and DCFC stations were examined. The assessment includes locations where charging stations are available primarily for patrons of specific businesses or for Tesla vehicles only; these facilities may not be easily accessible by the general public.

Name	Downtown	Community Amenities	Tourism/Recreation	AADT	Lvl 2	DCFC	Notes
Warrensburg	Yes	7	4	12731	1	0	
Chestertown	No	5	1	4426	0	1	DCFC is Tesla only
Brant Lake	No	2	3	2037	1	0	
Stony Creek	No	2	2	602	0	0	
Hague	No	1	2	2008	0	0	
Thurman	No	1	2	1280	0	0	
Bolton Landing	Yes	6	3	5416	7	0	5 of the 7 Lvl2 chargers are dedicated for guests of the Sagamore
North Creek	Yes	6	4	3104	8	0	3 of the 8 Lvl2 chargers are located at Gore Mountain
Lake Luzerne	No	5	2	3897	3	0	

In terms of prioritization, Warrensburg stands out as having the highest traffic volume, number of community features, tourism/recreation attractions, while only containing one Level 2 charger. This represents a prime opportunity to expand the number of charging stations in the community, especially given the proximity to Exit 23 off Interstate 87.

In addition, Chestertown, Brant Lake, Stony Creek, Hague, and Thurman should also be considered priority communities, due to the lack of Level 2 charging stations available. Bolton Landing, North Creek, and Lake Luzerne are all good candidates for continued expansion of EV stations, building on the charging network already in place.

## 5. Implementation/Next Steps

As stated in the introduction, the two largest barriers for the installation of EV charging stations are funding and regulatory uncertainty. Steps that local business owners and municipalities can take to reduce these hurdles are outlined below.

### a. Funding

In general, the two main costs of EV charging stations are associated with installation (including site preparation) and networking fees. Prices for the installation and networking of Level 2 and DCFC stations have fluctuated both up and down, due to inflation, supply chain issues, and advances in technology. Historically, the purchase price of Level 2 charging stations ranges from \$1-4K per port and installation costs are \$2-10k, inclusive of labor, materials, and permitting. The equipment cost of DCFC charging stations is about \$25-50K, with another \$50-100K in required electrical service upgrades. In terms of networking fees, until recently the annual cost could reach \$10,000; however, recent expansion in the market has resulted in lower cost options which may be less than \$1,000 per year.

One way to reduce installation costs is to integrate the potential for EV charging stations into new development proposals. By adding underground conduit and an additional electrical panel to new construction, the cost of

installing EV stations in the future can be reduced by up to 33%. However, this option only applies to new development projects (or substantial redevelopment).

Funding programs are available to assist public and private organizations with the installation of EV charging stations. Opportunities for assistance vary depending on program availability, which in turn varies depending on the funding source.

For example, the popular ChargeReady NY program<sup>6</sup> administered by NYSERDA ran out of funding in 2021. Although no announcements have yet been made, it is possible that this program will be renewed sometime in the future.

Similarly, statewide guidance for the National Electric Vehicle Infrastructure (NEVI) Program<sup>7</sup>, a new funding source focused on locations within one travel mile of designated EV corridors, is still being developed. (Interstate 87 is a designated EV corridor.) Over the next year, New York State will continue to determine the most efficient/effective way to provide NEVI Funding Program incentives to support the installation and operation of electric vehicle infrastructure and the availability of a trained workforce to support the operation and maintenance of this infrastructure.

Given the rapid changes in funding streams, it is highly recommended that any public agency or business seeking funding assistance first reach out to NYSERDA ([transportation@nyserda.ny.gov](mailto:transportation@nyserda.ny.gov)) for the most up-to-date information. As of January 2023, current opportunities in New York State include:

- Utility EV Make-Ready Programs: Through this program, entities seeking to install or participate in the installation of L2 and/or DCFC chargers can earn incentives that will offset a large portion of, or in some cases, all of the infrastructure costs associated with preparing a site for EV charger installation. (<https://jointutilitiesofny.org/ev/make-ready>)
- New York State Tax Credit for Public and Workplace Charging: New York State provides an income tax credit of up to \$5,000 for the purchase and installation of an electric vehicle charging station. The credit is targeted at commercial and workplace charging stations. The tax credit is available through the end of 2025. ([https://www.tax.ny.gov/pit/credits/alt\\_fuels\\_elec\\_vehicles.htm](https://www.tax.ny.gov/pit/credits/alt_fuels_elec_vehicles.htm))
- ZEV Infrastructure Grants: The Municipal ZEV Infrastructure Grant program provides grants to cities, towns, villages, and counties to install hydrogen fuel filling station components and Level 2 (L2) and direct current fast charge (DCFC) electric vehicle supply equipment (EVSE) primarily for public use. ([https://www.dec.ny.gov/docs/administration\\_pdf/22zevinfs.pdf](https://www.dec.ny.gov/docs/administration_pdf/22zevinfs.pdf))
- FHWA Charging and Fueling Infrastructure (CFI) Discretionary Grant Program: The CFI Program is a new competitive grant program created by the Bipartisan Infrastructure Law to strategically deploy electric vehicle (EV) charging infrastructure and other alternative fueling infrastructure projects in urban and rural communities in publicly accessible locations, including downtown areas and local neighborhoods, particularly in underserved and disadvantaged communities. (<https://www.fhwa.dot.gov/bipartisan-infrastructure-law/charging.cfm>)

---

<sup>6</sup> <https://www.nyserda.ny.gov/All-Programs/ChargeNY/Charge-Electric/Charging-Station-Programs/Charge-Ready-NY>

<sup>7</sup> <https://www.nyserda.ny.gov/All-Programs/ChargeNY/Charge-Electric/Charging-Station-Programs/National-Electric-Vehicle-Infrastructure-Program>

In addition, USDOT has a consolidated matrix of federal funding programs which may be used towards EV charging infrastructure<sup>8</sup>. Please note that many of these programs are highly competitive and/or may not be available in the A/GFTC area. Many reputable EV charging station installation companies will be able to provide current guidance on funding opportunities.

**b. Permitting**

The permits required to install an EV charging station depend on the proposed location. In Warren County, all EV charging stations require a building permit from the County, with the exception of the City of Glens Falls and the Town of Queensbury; Glens Falls and Queensbury have their own building permit requirements.

In terms of the Adirondack Park Agency, the requirement for a permit depends on several factors, including but not limited to:

- Location inside or outside a Hamlet land use district
- Whether the installation will disturb wetlands
- Whether the EV station is a commercial or public use, including whether the users will be charged a fee
- If the EV station constitutes an expansion of the existing use under APA regulations

It is highly recommended that all project applicants submit an APA Jurisdictional Inquiry Form<sup>9</sup> to determine the exact requirements for each site installation.

In addition, local regulations such as site plan review or special use permits may apply, depending on the zoning requirements of the municipality. Municipalities which are interested in supporting the installation of EV stations may elect to review and revise their land use regulations to streamline these processes. Table 2 outlines a range of options which support and encourage the installation of EV stations.

Category	Example
ALLOW	<ul style="list-style-type: none"> <li>• Define EV and EV charging stations in land use regulations</li> <li>• Include EV charging stations in Zoning Use Tables, either as a permitted use or under site plan/special permit use</li> <li>• Review zoning ordinances to ensure EV charging stations are permitted in logical locations such as commercial areas or hamlets</li> <li>• Set high-level design, accessibility, and parking enforcement criteria</li> <li>• Standardize EV charging station permitting procedures</li> </ul>
INCENTIVIZE	<ul style="list-style-type: none"> <li>• Lower or eliminate EV charging station permitting costs</li> <li>• Add incentive zoning: EV charging station site preparation or installation in exchange for incentives such as fewer required parking spaces or density bonus</li> </ul>
REQUIRE	<ul style="list-style-type: none"> <li>• Require or set numerical or percentage-based goals for EV charging infrastructure in certain zoning districts or uses, especially commercial and multifamily</li> <li>• Establish minimum number and type (level) of EV charging stations for development projects over a certain threshold</li> <li>• Require conduit to be included in new parking lot projects</li> </ul>

<sup>8</sup> <https://www.transportation.gov/rural/ev/toolkit/ev-infrastructure-funding-and-financing/funding-matrix>

<sup>9</sup> (<https://apa.ny.gov/Forms/jiform.pdf>)

NYSERDA has compiled sample templates of local regulations, available at: <https://www.nyserdera.ny.gov/-/media/Project/Nyserda/Files/Programs/ChargeNY/Planning-and-Policy-Tool-Guide.pdf>

Finally, it is recommended that municipalities seek training for Town Board, Planning Board, and Zoning Board of Appeals members as well as relevant staff. This will provide an opportunity for local municipal leaders to gain a more thorough understanding of the issues, opportunities, and challenges, as well as build momentum and support for the proliferation of EV stations throughout the region. Options for these types of training sessions may be available through the Clean Cities Coalition, NYSERDA, or A/GFTC.

## Appendix 1: Resources and Links



## Planning and Best Practices



- FHWA: EV Infrastructure Planning for Rural Areas  
<https://www.transportation.gov/rural/ev/toolkit/ev-infrastructure-planning>
- NYSEDA: Best Practice Guides and Cases  
<https://www.nyserda.ny.gov/All-Programs/chargeNY/charge-electric/best-practices>
- NYSEDA: Planners & Municipalities  
<https://www.nyserda.ny.gov/All-Programs/ChargeNY/Support-Electric/Planners-and-Municipalities>
- CDTC & CDRPC Technical Assistance Program  
[https://www.cdtcmo.org/images/techassist/ColonieEV\\_Guidance\\_WhitePaper\\_Final.pdf](https://www.cdtcmo.org/images/techassist/ColonieEV_Guidance_WhitePaper_Final.pdf)

## Funding Resources



- FHWA: EV Infrastructure Funding and Financing for Rural Areas  
<https://www.transportation.gov/rural/ev/toolkit/ev-infrastructure-funding-and-financing>
- NYSEDA: Charging Station Programs  
<https://www.nyserda.ny.gov/All-Programs/ChargeNY/Charge-Electric/Charging-Station-Programs>
- Joint Utilities of NY: EV Make-Ready Program  
<https://jointutilitiesofny.org/ev/make-ready>
- Charging and Fueling Infrastructure Discretionary Grant Program  
<https://www.fhwa.dot.gov/environment/cfi/>

## Installation & Permitting



- NYSEDA: Permitting Resources  
<https://www.nyserda.ny.gov/All-Programs/Clean-Energy-Siting-Resources/EV-Charging-Station-Permitting-Resources>
- NYSEDA: Qualified Charging Equipment and Networks  
<https://www.nyserda.ny.gov/All-Programs/ChargeNY/Charge-Electric/Charging-Station-Programs/Charge-Ready-NY/Qualified-Charging-Equipment-and-Networks>
- Warren County Building Permits :<https://warrencountyny.gov/fpbc/permit>
- Adirondack Park Agency: Jurisdictional Inquiry Form: <https://apa.ny.gov/Forms/jiform.pdf>
- US Access Board: ADA Charging Stations: <https://www.access-board.gov/tad/ev/>
- Fuels Institute: <https://www.fuelsinstitute.org/research/reports/ev-regulatory-best-practices>

## Data and General Info



- Capital District Clean Communities: <https://www.cdtcmo.org/what-we-do/clean-communities>
- NYSEDA Clean Transportation Email: [transportation@nyserda.ny.gov](mailto:transportation@nyserda.ny.gov)
- EvaluateNY: <https://atlaspolicy.com/evaluateny/>
- US Dept. of Energy Alternative Fuels Data Center: <https://afdc.energy.gov/fuels/electricity.html>



## Appendix 2: Community Profile Assessment Maps



## Bolton Landing EV Charging Station Suitability Assessment Map

Prepared by A/GFTC Staff using data from Warren County Planning, Adirondack Park Agency, and NYSDOT

### Points of Interest

- Attraction
- Beach
- Downtown Area
- Golf Course
- Major Hotel
- Major Landmark

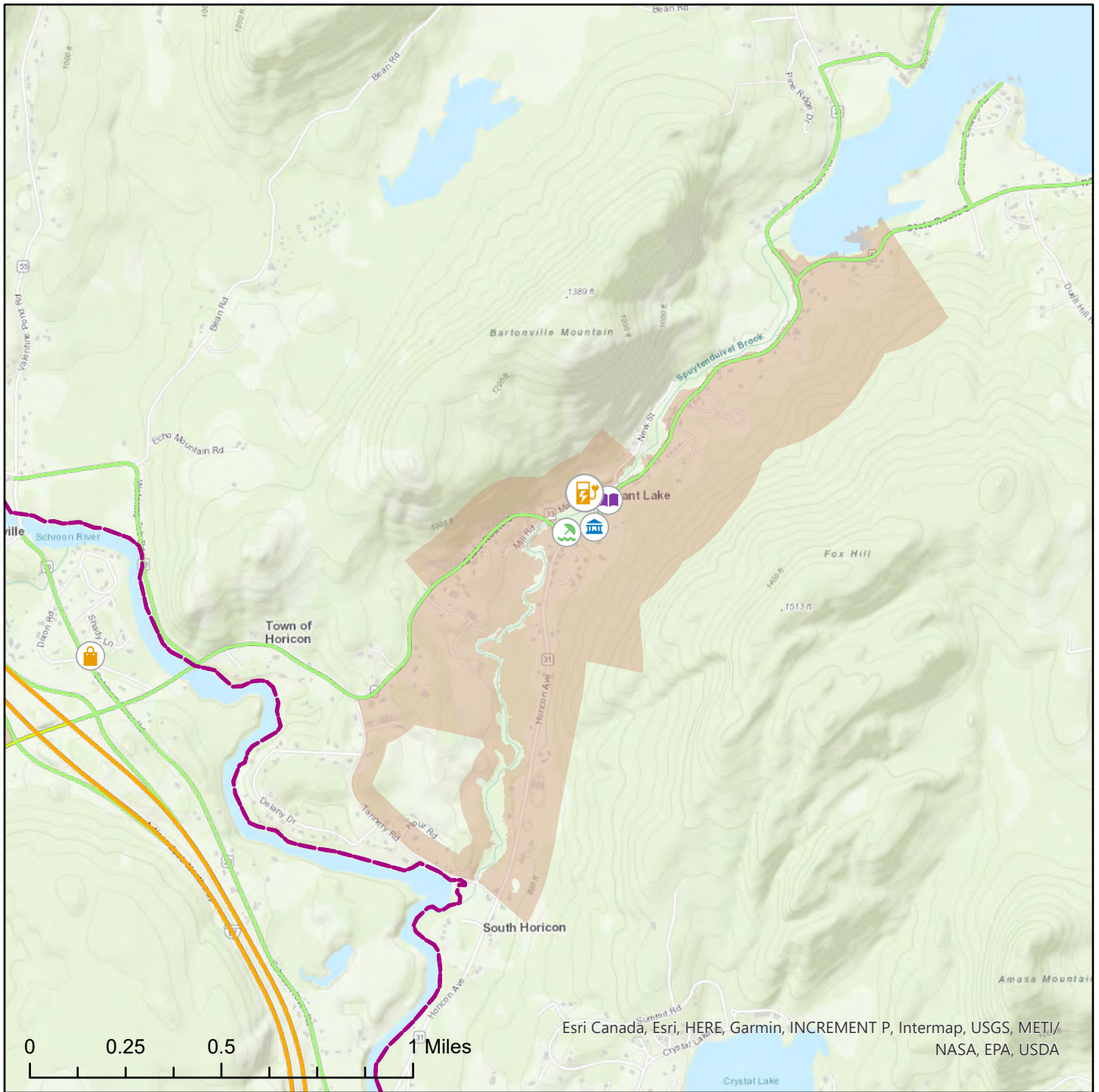
- Park
- Shopping
- Libraries
- Government Office
- Schools
- Medical Facilities

- Grocery Stores
- Farmers Markets
- EV Stations DCFC
- EV Stations Level 2
- Municipal Boundary
- APA Hamlet Designation

### AADT

- ≤1500
- ≤4000
- ≤10000
- ≤25000
- ≤75000
- ≤300000.000000





## Brant Lake EV Charging Station Suitability Assessment Map

Prepared by A/GFTC Staff using data from Warren County Planning, Adirondack Park Agency, and NYSDOT

### Points of Interest

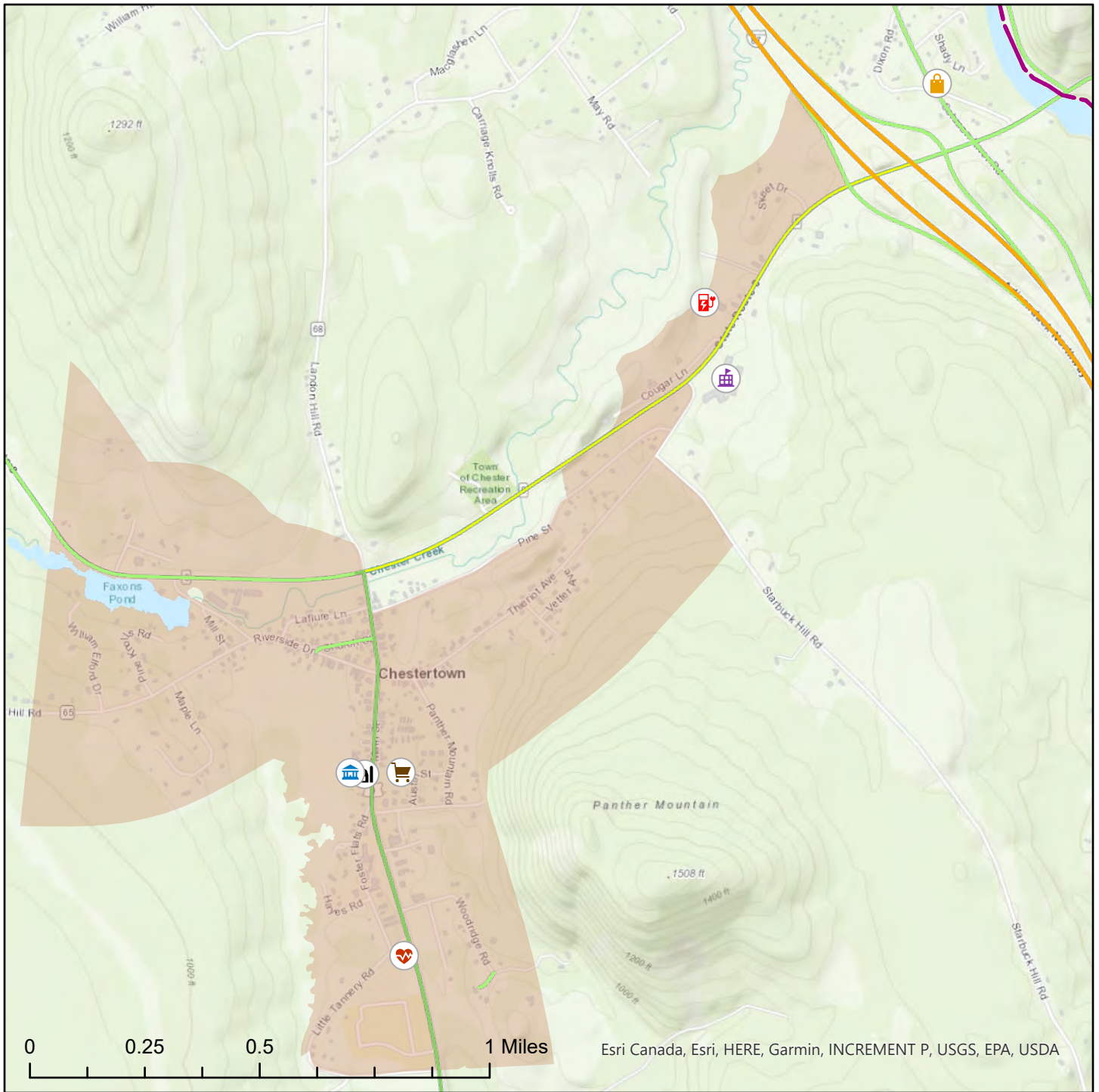
- Attraction
- Park
- Shopping
- Beach
- Rail Stations
- Downtown Area
- Libraries
- Golf Course
- Government Office
- Major Hotel
- Schools
- Major Landmark

- Medical Facilities
- Grocery Stores
- Farmers Markets
- EV Stations DCFC
- EV Stations Level 2
- Municipal Boundary
- APA Hamlet Designation

### AADT

- ≤1500
- ≤4000
- ≤10000
- ≤25000
- ≤75000
- ≤300000.000000





## Chestertown EV Charging Station Suitability Assessment Map

Prepared by A/GFTC Staff using data from Warren County Planning, Adirondack Park Agency, and NYSDOT

### Points of Interest

- ★ Attraction
- 🏖️ Beach
- 🏢 Downtown Area
- 🏌️ Golf Course
- 🏨 Major Hotel
- ★ Major Landmark

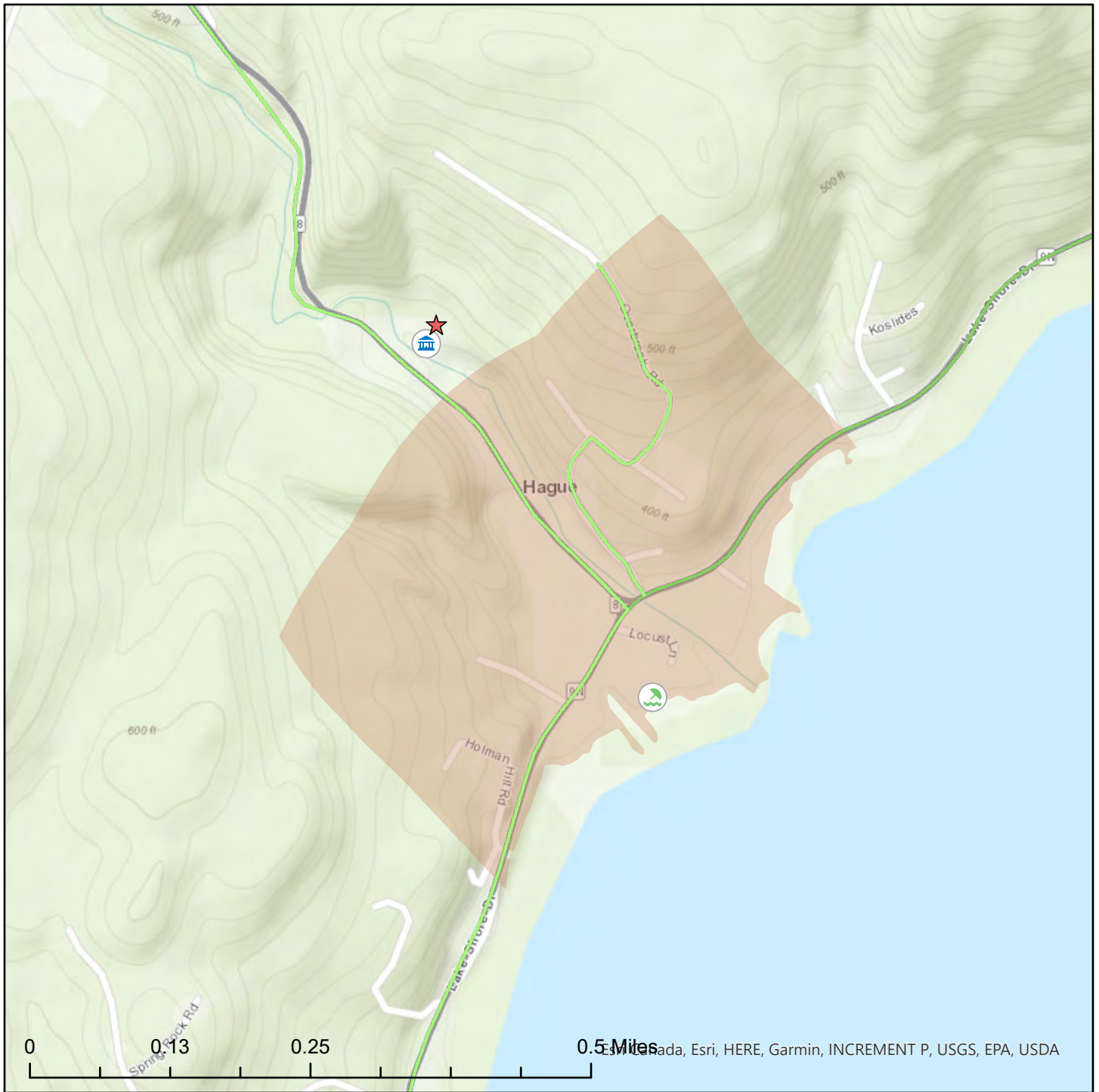
- 🌳 Park
- 🛍️ Shopping
- 📖 Libraries
- 🏛️ Government Office
- 🎓 Schools
- 🏥 Medical Facilities

- 🛒 Grocery Stores
- 🏠 Farmers Markets
- 🚗 EV Stations DCFC
- 🔌 EV Stations Level 2
- 🏘️ Municipal Boundary
- 📍 APA Hamlet Designation

### AADT

- 🟢 ≤1500
- 🟡 ≤4000
- 🟠 ≤10000
- 🔴 ≤25000
- 🟣 ≤75000
- 🟤 ≤300000.000000






























## Hague EV Charging Station Suitability Assessment Map

Prepared by A/GFTC Staff using data from Warren County Planning, Adirondack Park Agency, and NYSDOT

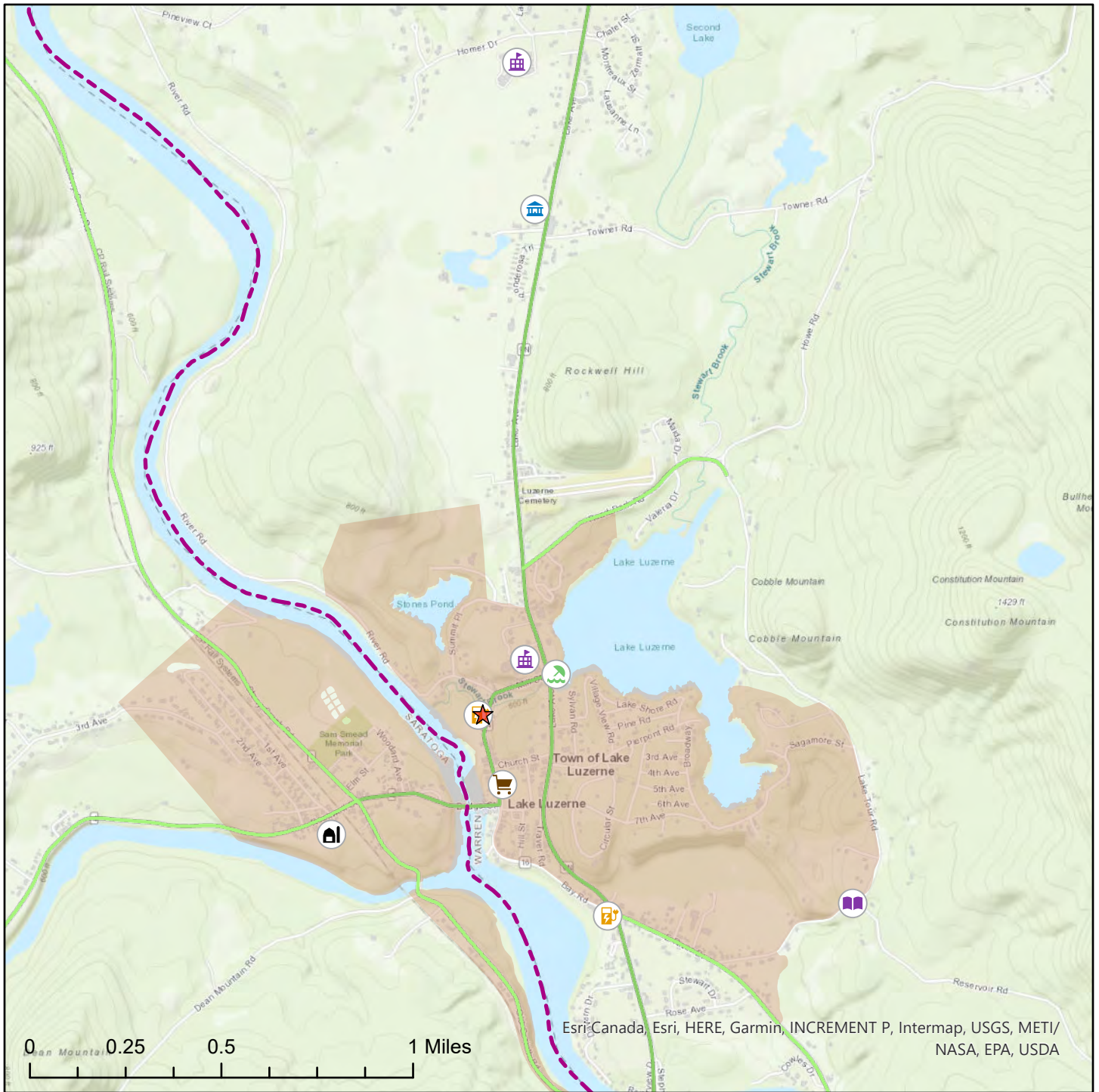
### Points of Interest

-  Attraction
-  Beach
-  Downtown Area
-  Golf Course
-  Major Hotel
-  Major Landmark
-  Park
-  Shopping
-  Rail Stations
-  Libraries
-  Government Office
-  Schools
-  Medical Facilities
-  Grocery Stores
-  Farmers Markets
-  EV Stations DCFC
-  EV Stations Level 2
-  Municipal Boundary
-  APA Hamlet Designation

### AADT

-  ≤1500
-  ≤4000
-  ≤10000
-  ≤25000
-  ≤75000
-  ≤300000.000000





## Lake Luzerne EV Charging Station Suitability Assessment Map

Prepared by A/GFTC Staff using data from Warren County Planning, Adirondack Park Agency, and NYSDOT

### Points of Interest

- Attraction
- Beach
- Downtown Area
- Golf Course
- Major Hotel
- Major Landmark
- Park
- Shopping
- Rail Stations
- Libraries
- Government Office
- Schools

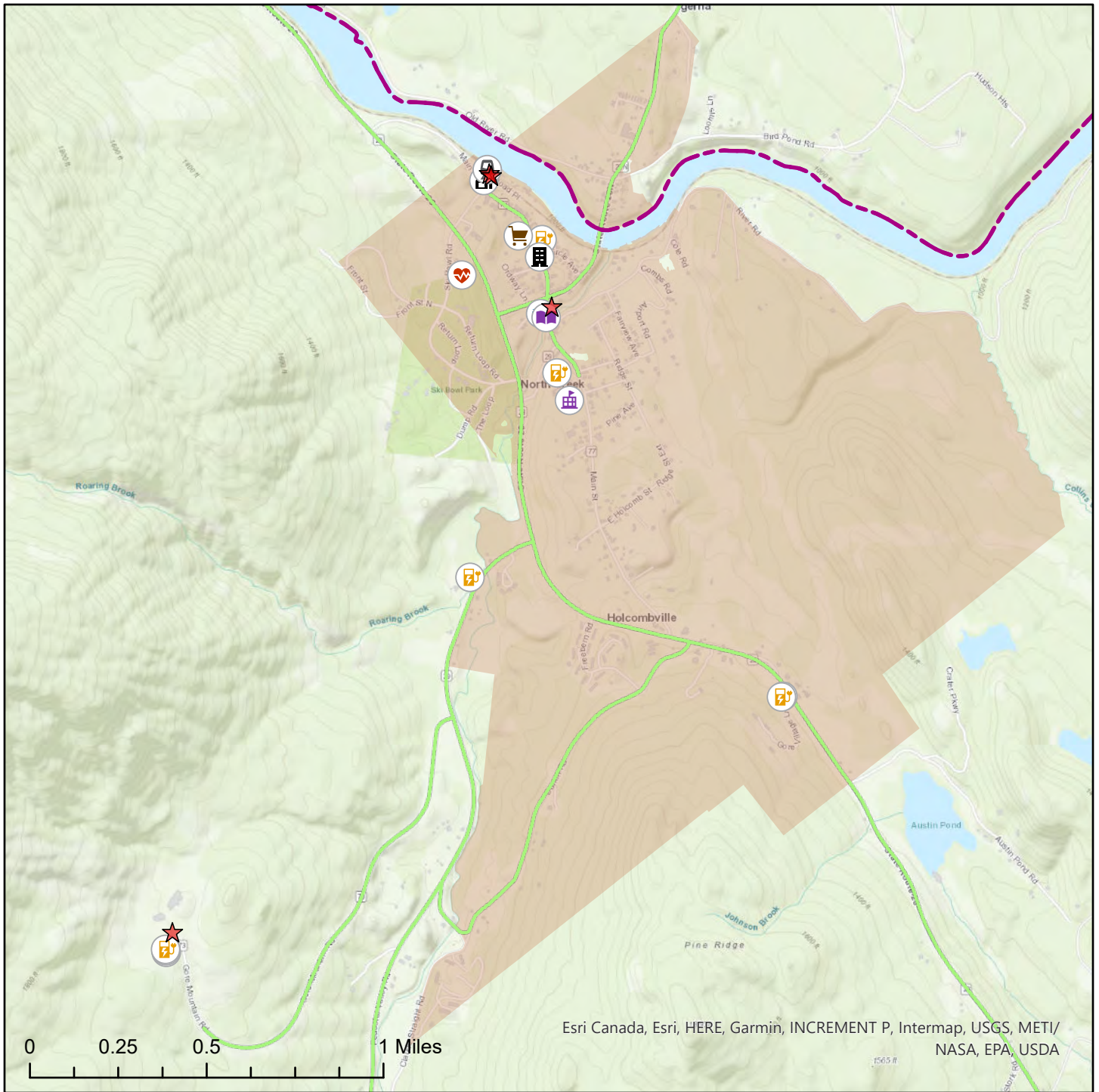
- Medical Facilities
- Grocery Stores
- Farmers Markets
- EV Stations DCFC
- EV Stations Level 2

- Municipal Boundary
- APA Hamlet Designation

### AADT

- ≤1500
- ≤4000
- ≤10000
- ≤25000
- ≤75000
- ≤300000.000000





## North Creek EV Charging Station Suitability Assessment Map

Prepared by A/GFTC Staff using data from Warren County Planning, Adirondack Park Agency, and NYSDOT

### Points of Interest

- Attraction
- Beach
- Downtown Area
- Golf Course
- Major Hotel
- Major Landmark

- Park
- Shopping
- Rail Stations
- Libraries
- Government Office
- Schools

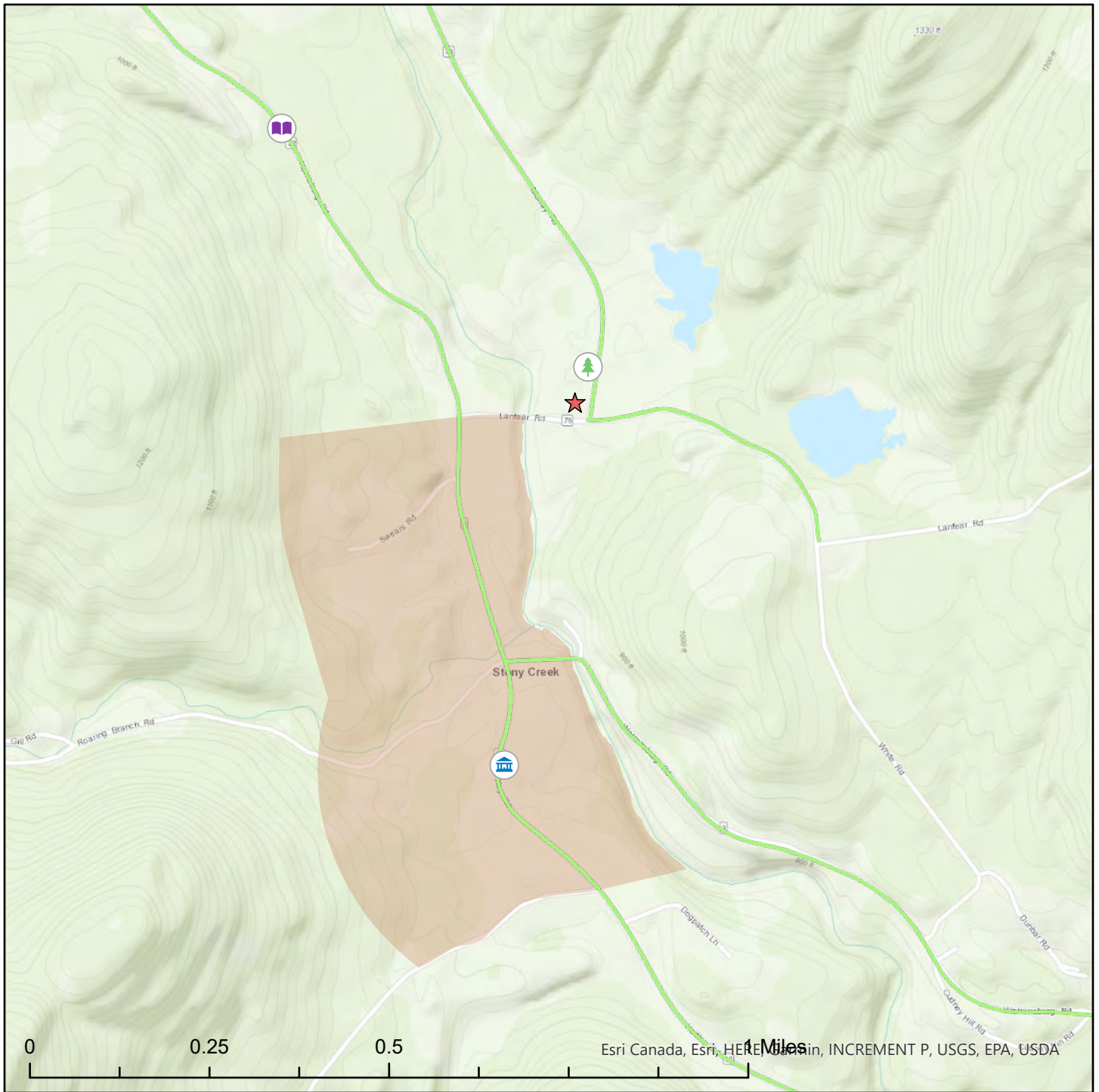
- Medical Facilities
- Grocery Stores
- Farmers Markets
- EV Stations DCFC
- EV Stations Level 2

- Municipal Boundary
- APA Hamlet Designation

### AADT

- ≤1500
- ≤4000
- ≤10000
- ≤25000
- ≤75000
- ≤300000.000000





## Stony Creek EV Charging Station Suitability Assessment Map

Prepared by A/GFTC Staff using data from Warren County Planning, Adirondack Park Agency, and NYSDOT

### Points of Interest

- Attraction
- Beach
- Downtown Area
- Golf Course
- Major Hotel
- Major Landmark

- Park
- Shopping
- Libraries
- Government Office
- Schools
- Medical Facilities

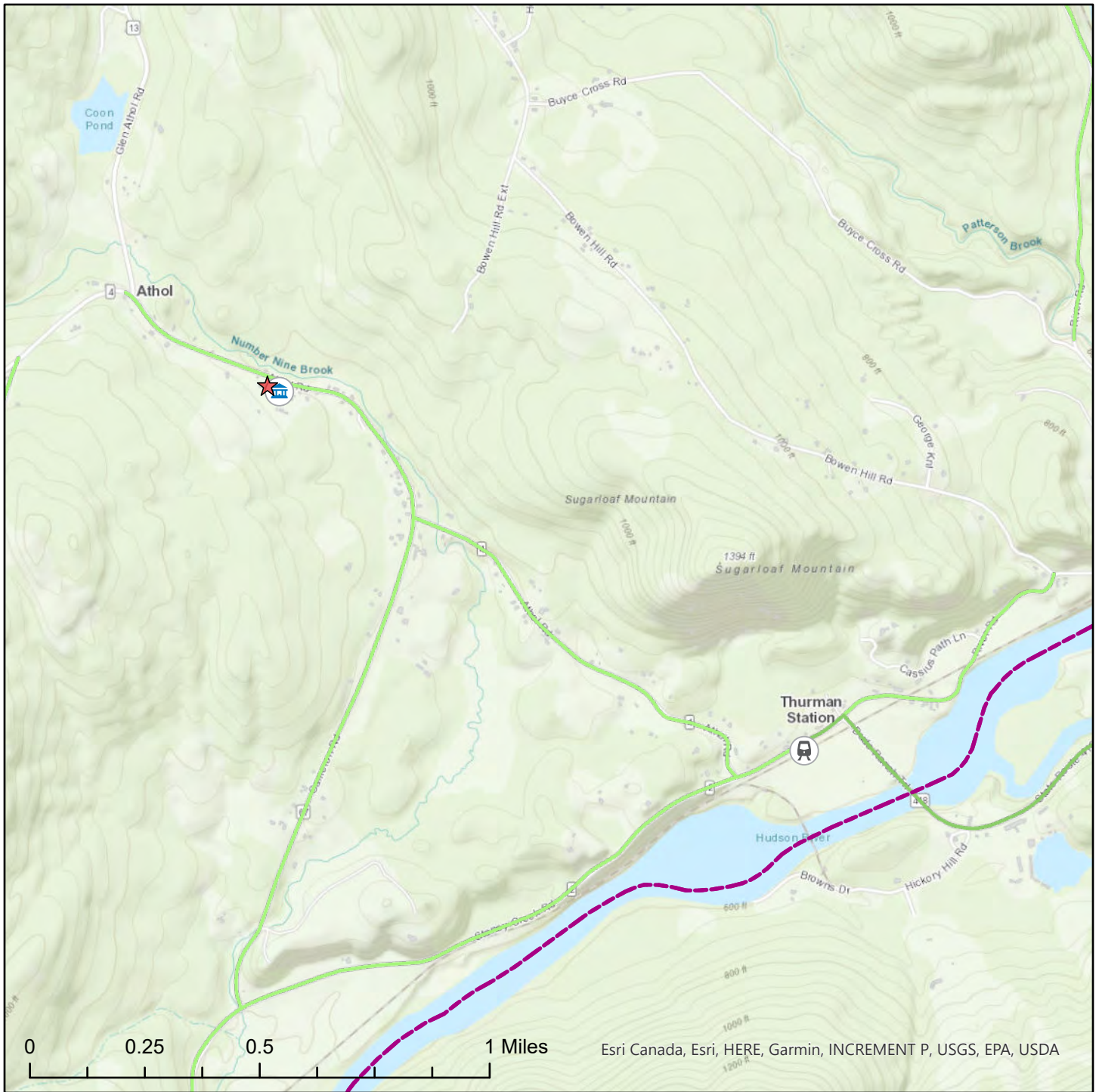
- Grocery Stores
- Farmers Markets
- EV Stations DCFC
- EV Stations Level 2
- Municipal Boundary
- APA Hamlet Designation

### AADT

- ≤1500
- ≤4000
- ≤10000
- ≤25000
- ≤75000
- ≤300000.000000







## Thurman EV Charging Station Suitability Assessment Map

Prepared by A/GFTC Staff using data from Warren County Planning, Adirondack Park Agency, and NYSDOT

### Points of Interest

- Attraction
- Park
- Shopping
- Beach
- Downtown Area
- Golf Course
- Major Hotel
- Major Landmark
- Rail Stations
- Libraries
- Government Office
- Schools

### Medical Facilities

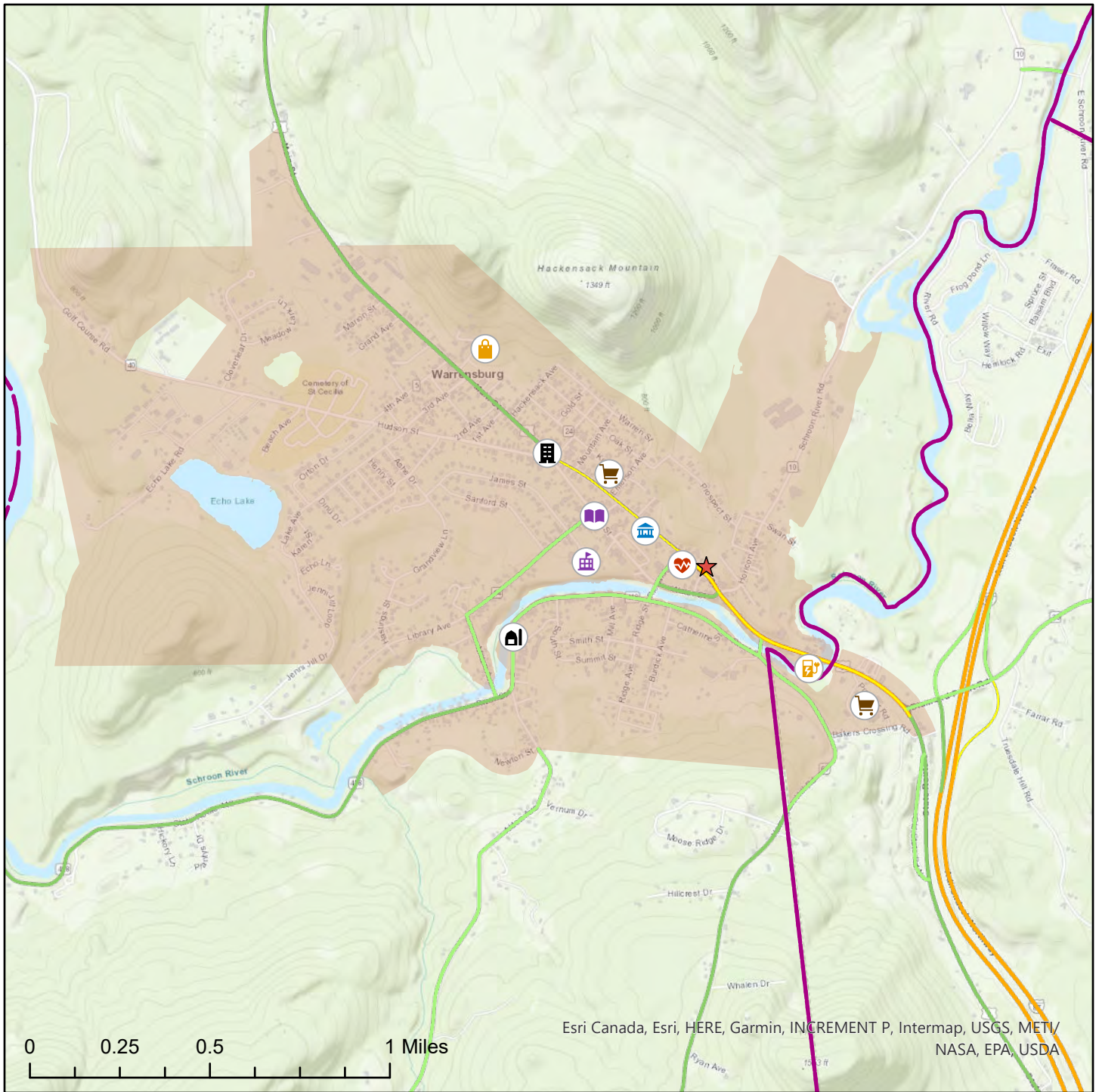
- Medical Facilities
- Grocery Stores
- Farmers Markets
- EV Stations DCFC
- EV Stations Level 2

- Municipal Boundary
- APA Hamlet Designation

### AADT

- ≤1500
- ≤4000
- ≤10000
- ≤25000
- ≤75000
- ≤300000.000000





## Warrensburg EV Charging Station Suitability Assessment Map

Prepared by A/GFTC Staff using data from Warren County Planning, Adirondack Park Agency, and NYSDOT

### Points of Interest

- Attraction
- Beach
- Downtown Area
- Golf Course
- Major Hotel
- Major Landmark

- Park
- Shopping
- Libraries
- Government Office
- Schools
- Medical Facilities

- Grocery Stores
- Farmers Markets
- EV Stations DCFC
- EV Stations Level 2
- Municipal Boundary
- APA Hamlet Designation

### AADT

- ≤1500
- ≤4000
- ≤10000
- ≤25000
- ≤75000
- ≤300000.000000

