

2.6 LOCAL REGULATIONS AND GUIDELINES

This chapter provides an overview of the current land use regulations utilized by the village for lands within the WRA. The village has one zoning district located outside of the WRA, therefore: the Rural Residential Zoning District was not included in this analysis. The current zoning districts in the WRA for the village are shown on Map 4.

Zoning Regulations

On November 19, 2013 the Village of Union Springs adopted a new zoning law which replaced and repealed their previous zoning law based on the recommendations from their Comprehensive Plan adopted in 2007. The village's zoning law is quite robust and covers a variety of topics and development possibilities. Like many villages in Central New York, the Village of Union Springs' Zoning Law was written to allow for the continued orderly development of the village, while also providing for the preservation of the historic character of the community. The most notable changes to the 2013 Zoning Law from the 1987 Zoning Law are the addition of requirements and procedures for special use permits, landscaping and buffers, site plan review, and small wind energy systems. The previous local laws for telecommunications facilities and subdivision regulations were incorporated into the 2013 law as well. The most significant change however, is the inclusion of four (4) new zoning districts bringing the total to nine (9) along with a floodplain overlay district and a planned development district. In the village, local and county regulations are enforced in the same manner as in the town, through the local Code Enforcement Officer/Building, the County Health Department, local fire department, county police, and state police forces.

The Village of Union Springs Zoning Law provides a purpose and intent statement, a list of permitted uses, and minimum lot area and setback requirements for each zoning district. Below is a list of the zoning districts present in the WRA and their corresponding purpose statement, followed by Table 24 which illustrates the permitted uses in these districts, and the minimum lot area and setback requirements in Table 25.

- Agricultural Residential (AR) Zoning District: The purpose and intent in establishing the Agricultural Residential (AR) Zoning District is to provide areas within the Village of Union Springs where some low-impact farming practices will be permitted within the context of existing and future residential uses. The establishment of the AR District and the continuation of farming practices within the Village of Union Springs will contribute to and maintain the rural character prevalent in the AR District areas.
- Residential (R) Zoning District: The purpose and intent in establishing the Residential (R) Zoning District is to preserve and codify the existing areas within the village where higher density, Single-Family and Two-Family residential dwellings are the primary use and where, with approval by the Village Board and in compliance with this Law, some limited higher density residential uses and/or community organization and facility uses are permitted through a Special Use Permit approval process.
- <u>Lakeside Residential (LR) Zoning District:</u> The purpose and intent in establishing the Lakeside Residential (LR) Zoning District is to acknowledge the existence and special character of the primarily residential areas adjacent to Cayuga Lake and to establish use and dimensional requirements for this residential zone which address the residential nature and development constraints for the area.



- Historic Business (HB) Zoning District: The Historic Business (HB) Zoning District is located in the Village Center of Union Springs and includes lots with frontage on Cayuga Street (also designated as Scenic Byway NYS Route 90) and is bordered to the north by Chapel Street and to the south by Center Street. The Historic Business (HB) Zoning District contains the core of the historic commercial retail shops/uses within the Village of Union Springs with many of the nineteenth-century buildings sharing cornice heights and styles and creating a cohesive street facade where adjacent buildings all align to the sidewalk edge along the street. The purpose and intent in establishing the Historic Business (HB) Zoning District is to acknowledge the character and nature of this commercial area while providing use and dimensional regulations that encourage infill development compatible with the existing street pattern and architectural context.
- Commercial (C) Zoning District: The purpose and intent in establishing the Commercial (C) Zoning District
 is to acknowledge and sustain the section of the Village of Union Springs that traditionally included
 commercial uses and enterprises and to establish a zoning district where the primary land use involved
 the sale and/or manufacture of goods and services carried out for profit.
- Neighborhood Commercial (NC) Zoning District: This district has been established to permit the establishment of certain commercial and residential uses in proximity to the center of the village and the Historic Central Business (HB) Zoning District and to allow such uses to be established along the NYS Route 90 corridor in a manner that is complimentary to, and in context with, adjacent residential neighborhood character. The District allows both residential and commercial uses, but any commercial activity must take place wholly within a structure that resembles a residential structure, or was formerly a residential structure and retains the appearance of a residential structure, and the lot must be developed through adherence to a site plan that shows yards with landscaping in the front and fully screened parking areas to either the side or rear of the property.
- Waterfront Commercial (WC) Zoning District: The Waterfront Commercial (WC) Zoning District has been
 established to provide a lakefront zone where the primary use is for activities involving the commercial
 sale of goods and services for profit where access to the Cayuga Lake waterfront is beneficial and/or
 essential to the nature of the established business enterprise.
- Park (P) Zoning District: The Park (P) Zoning District has been established to identify and provide for areas that are owned by the Village of Union Springs or other organizations, that the village has determined should remain undeveloped and in a natural state with the exception that the development of limited infrastructure, facilities and amenities to serve the public who utilize the park facilities may be established under the review and authorization of the Union Springs Village Board.



Table 24: Village of Union Springs Zoning District Permitted Uses ¹							
	Zoning District						
Use Type	AR	R	LR	НВ	С	NC	WC
Accessory Structures & Buildings	Р	Р	Р	Р	Р	Р	Р
Accessory Uses	Р	SP	SP				
Animal Care / Training Facilities	SP						
Assisted Living Facility	Р					SP	
Automobile Sales & Auto Dealerships	SP				SP		
Automobile or Vehicle Repair	SP				SP		
Bank and Financial Institutions	SP			Р	Р	Р	Р
Bed & Breakfast	Р	Р	Р	Р	Р	Р	Р
Business and Professional Offices	SP			Р	Р	Р	Р
Campground	SP						
Cemeteries	Р						
Child Care Facilities, Including Pre-school	Р			Р	Р	Р	Р
Clear Cutting Woodlands	Р						
Commercial Antenna, Micro-relay Station	SP						
Commercial Domestic Animal Boarding Facilities	SP						
Commercial (Non-Domestic) Animal Boarding Facilities	SP						
Conversion: Single-Family dwelling converted to a Two-Family dwelling	Р	SP	SP			SP	SP
Docks (Water)	Р		Р				Р
Eating or Drinking Establishment	SP			Р	Р	Р	Р
Emergency Dwelling	SP	SP	SP	SP	SP	SP	SP
Farm Stands	Р	Р	Р	Р	Р	Р	Р
Fire Station	Р						
Gasoline Station/Convenience Store	SP				SP		
Golf Courses (Also See Section 6-12, A(3))	SP (PD)						
Greenhouse	Р	Р	Р	Р	Р	Р	Р
Health Care Facilities	Р			Р	Р	Р	Р
Home Occupations	Р	Р	SP	Р	Р	Р	Р
Hotels, Motels	SP			SP	SP	SP	SP
Industrial Uses (per Section 6-12,A(4))					SP		
Inns	Р	Р	Р	Р	Р	Р	Р
Junkyards							
Keeping or raising of Domestic Animals	Р	Р	Р	Р	Р	Р	Р
Keeping or raising of Exotic Animals							
Keeping or raising of Farm Animals	Р						



Table 24: Village of Union Springs Zoning District Permitted Uses (Continued)							
	Zoning District						
Use	AR	R	LR	НВ	С	NC	WC
Library	Р			Р	Р	Р	Р
Light Industrial Uses	SP			SP	SP		
Marina	SP						Р
Mixed-use building combining permitted residential and commercial uses	Р			P*		Р	Р
Mobile Home (stand alone, not in a Mobile Home Park)							
Mobile Home Park	SP (PD)						
Multi-family dwelling	Р	SP	SP	SP*		SP	SP
Nursing Homes	Р						
Park, or Recreation Area (wherein the chief activity shall consist of outdoor recreation owned and operated by a not-for-profit organization)	Р			SP	Р	SP	Р
Parking for Fee	SP			SP	SP	SP	SP
Personal Service Use	SP			Р	Р	SP	SP
Places of Worship	Р	Р	Р	Р	Р	Р	Р
Private club or lodge for members inly and operated by a not-for-profit organization	SP	SP	SP	SP	SP	SP	SP
Religious, sectarian and non-sectarian, denominational, private or public school, not conducted as a private, gainful business	Р	SP	SP	SP	SP	SP	SP
Retail Uses	SP			Р	Р	Р	Р
Riding Academy	SP						
Shopping Center					Р		SP (PD)
Single-family dwelling	Р	Р	Р	P*		Р	Р
Spa Facility	Р			Р	Р	Р	Р
Telecommunications/Cell Tower Facility	SP						
Two-family dwelling	Р	Р	Р	SP*	SP	SP	SP
Undertaking & Funeral Parlors	SP			SP	Р	Р	Р

Note: a blank cell indicates that the use is not permitted in that zoning district.

[&]quot;P" = Permitted by Right
"SP" = Permitted with a Special Permit Approval subject to the requirements in Article VIII

[&]quot;SP (PD)" = Permitted with a Special Permit Approval subject to the requirements in Article VIII AND as a Planned Development District subject to the requirements in Article VI, Section 6-10

^{*} No Residential Use or Units shall be permitted on the first floor of buildings in the Historic Business District.



Table 25: Village of Union Springs Zoning District Dimensional Requirements ²							
	Min. Lot Size	Min. Road	Minimum Yards			Mass Desilations	May Duilding
District	(sq. ft.)	Frontage (ft.)	Front (ft.)	Side (ft.)	Rear (ft.)	Max. Building Coverage	Max. Building Height (ft.)
Agricultural Residential (AR)	20,000	100	30	10	30	30%	35
Residential (R)	7,500	60	20	10	10	40%	35
Lakeside Residential (LR)	20,000	100	30	10	35	40%	35
Historic Business (HB)	5,000	24	0	0	0	85%	35
Commercial (C)	40,000	100	30	20	30	35%	35
Neighborhood Commercial (NC)	25,000	100	30	10	30	35%	35
Waterfront Commercial (WC)	25,000	100	30	10	35	35%	35

State and Federal Agency Authorities

The table below summarizes several federal and state agencies and their areas of regulation and/or enforcement pertinent to possible future activities or development in or on the waters or lands in the Village of Union Springs Waterfront Revitalization Area.

Table 26: Fo	Table 26: Federal & State Agency Regulations Enforced in the WRA						
Agency Name	Area(s) of Regulation/Enforcement	Regional Office Contact					
U.S. Army Corps of Engineers	The Corps of Engineers has jurisdiction over all waters of the United States. In the Buffalo District these waters include lakes, rivers, streams, intermittent tributaries, mudflats, vegetated shallows, and wetlands. Some ditches and ponds are also regulated. In general, Corps jurisdiction occurs at or below the Ordinary High Water (OHW) level or at the wetland/upland boundary. Examples of regulated activities include but are not limited to: dredging, filling, excavating, land clearing using mechanized equipment, ditching, stream channelization and relocation, shoreline protection, and dock construction. Permits are required for all projects which involve work in a water of the United States. Applicants may be private individuals, large or small businesses, farms, corporations, marina operators, Federal and State agencies, highway departments, utility companies, parks departments and local governments. ³	U.S. Army Engineer District, Buffalo 1776 Niagara Street Buffalo, NY 14207-3199 (716) 879-4410 Auburn Field Office 7413 County House Road Auburn, NY 13021 (315) 255-8090					
U.S. Fish & Wildlife Service (FWS)	FWS Endangered Species staff in regional offices administer native endangered and threatened species permits under the Endangered Species Act. FWS Migratory Bird staff in regional offices administer permits for certain activities with migratory birds and bald and golden eagles. The Ecological Services function of the U.S. Fish and Wildlife Service is responsible for the conservation and restoration of fish and wildlife habitat, especially wetland habitat.	U.S. Fish & Wildlife Service New York Ecological Services Field Office 3817 Luker Road Cortland, NY 13045-9349 (607) 753-9334					
New York State Department of State (DOS)	The NYS DOS maintains and updates the State's building construction and energy conservation standards and oversees the enforcement of the standards by local jurisdictions.8	NYS Department of State One Commerce Plaza 99 Washington Ave, Suite 1160 Albany, NY 12231 (518) 474-4073					

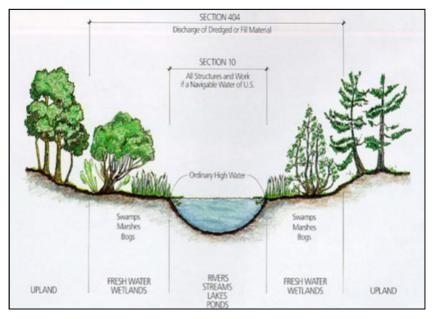


Table 26: Fo	ederal & State Agency Regulations Enforced in the WRA	(Continued)
Agency Name	Area(s) of Regulation/Enforcement	Regional Office Contact
New York State Department of Environmental Conservation (DEC)	The NYS DEC issues permits for the following activities relevant to the Village of Union Springs WRA: hunting & fishing licenses; to take and sell bait for fishing; to operate a party or charter boat for fishing trips; wastewater, stormwater & water withdrawal; drilling & mining of mineral resources; chemicals, petroleum & pesticides (excavation, bulk storage, transportation, and application); emissions into the air (factories); solid waste management (collection, storage, and transportation of hazardous and non-hazardous materials). Additionally, the NYS DEC requires the following permits for activities in waterways and wetlands: Projects in or near streams, rivers, lakes and ponds: require a Protection of Waters Permit for installing a culvert or bridge, digging or excavating, placing any fill material, installing a boat dock, stabilizing a streambank, installing utilities across a stream, building or removing a dam, excavating a pond. Projects in or near wetlands: require a Freshwater Wetland Permit for placing any fill material, digging or excavating, building any structure or road, clearing vegetation, installing a culvert, constructing a bulkhead.	NYS DEC Region 7 Office 615 Erie Blvd. West Syracuse, NY 13204 (315) 426-7400 David Bimber, Regional Permit Administrator (315) 426-7438 Dan Bishop, Regional Natural Resources Supervisor 1285 Fisher Avenue Cortland, NY 13045 (607) 753-3095
New York State Department of Health (DOH)	The NYS DOH focuses on three areas for "promoting healthier environments" which include public drinking water, ensuring healthy fish consumption (monitoring toxins such as mercury in fresh water fish), and managing bluegreen algal blooms. Areas that the NYS DOH regulate, permit, and inspect include: Public Water Supplies: the siting, design, treatment, and operation of public water systems; Public Swimming Pools, Bathing Beaches, and Aquatic Spray Grounds: site development, construction, maintenance, operation, supervision, and water quality/safety; Hotels, Motels, Children's Camps, Campgrounds, and Mass Gatherings: fire, water, and food safety are the major concerns; and Public Food Service Establishments: proper food handling and preparation at permanent and temporary locations. Proper food handling and preparation at permanent and temporary locations.	Cayuga County Department of Environmental Health 8 Dill Street Auburn, NY 13021 (315) 253-1405 NYS DOH Central NY Regional Office 217 South Salina Street Syracuse, NY 13202 (315) 477-8481
New York State Department of Transportation (DOT)	The NYS DOT reviews proposals and issues permits for construction work on or in the right-of-way of any State highway. Permits are required for: the installation of signage; construction of sidewalks; curbs, crosswalks, etc.; culverts or other drainage facilities; installation of utilities adjacent to, across (overhead) or under State highways; and road/bridge reconstruction, resurfacing, patching, etc. The Traffic Safety & Mobility office is responsible for making determinations regarding traffic safety issues, truck-bus inspections, hauling permits, highway work permits, and roadside signs. ¹³	NYS DOT Region 3 Office 333 E. Washington Street Syracuse, NY 13202 (315) 428-4351 Traffic Safety & Mobility Diana L. Graser, P.E. (315) 428-4380
New York State Office of Parks, Recreation and Historic Preservation (OPRHP)	The NYS OPRHP issues permits for: floating objects in navigable waters (mooring buoys, bathing beach markers, swimming floats, speed zone markers, etc.), regattas, public vessel operator's license, and certification of a public vessel. ¹⁴	NYS OPRHP, Central NY Office 6105 E. Seneca Turnpike Jamesville, NY 13078 (315) 492-1756



Table 26: Federal & State Agency Regulations Enforced in the WI	tA (Continued)
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Agency Name	Area(s) of Regulation/Enforcement	Regional Office Contact
New York State Office of General Services (OGS)	NYS OGS's Bureau of State Asset Utilization regulates and issues permits, grants, easements, licenses, and other interests for activities affecting State-owned uplands or lands under or formerly under the waters of New York State in accordance with the following: 14 Lands Underwater: (1) Administration of the Public Lands Law for acquisition and disposition of lands, grants of easement, leases, or permits with regards to the use of lands state waters for docks and related structures, grants of land and grants of easement of land underwater for underwater cables, conduits, pipelines, & hydroelectric power, issuance of licenses for removal of materials from lands under water, and oil & gas leases for exploration and development; (2) Administration of Article 5, Section 233, Subsection 5, of the Education Law on removal of archaeological and paleontological objects under the waters of the State; and (3) Administration of Article 3, Section 32, of the Navigation Law, regarding location of structures in or on navigable waters. Other State Lands: (1) Administration of Article 4 8, Public Buildings Law, regarding the protection and management of State historic and cultural	Thomas LaLiberte, Jr., Director NYS Office of General Services Bureau of State Asset Utilization 39th Floor Corning Tower Empire State Plaza Albany, NY 12242 (518) 474-2195
	properties and State uses of buildings of historic, architectural or cultural significance; (2) Facilities construction, rehabilitation, expansion, or demolition; and (3) Section 334 of the State Real Estate Law, regarding subdivision of waterfront properties on navigable waters to include the location of riparian lines.	
New York State Office of Historic Preservation (SHPO)	The State Historic Preservation Office (SHPO) regulates the modification and use of properties and structures listed on both the National and the NYS Register of Historic Places. A SHPO review and permit is required for any proposed construction on the site of, or directly to a building that has been listed on either register.	NYS Division for Historic Preservation Peebles Island State Park PO Box 189 Waterford, NY 12188-0189 (518) 237-8643

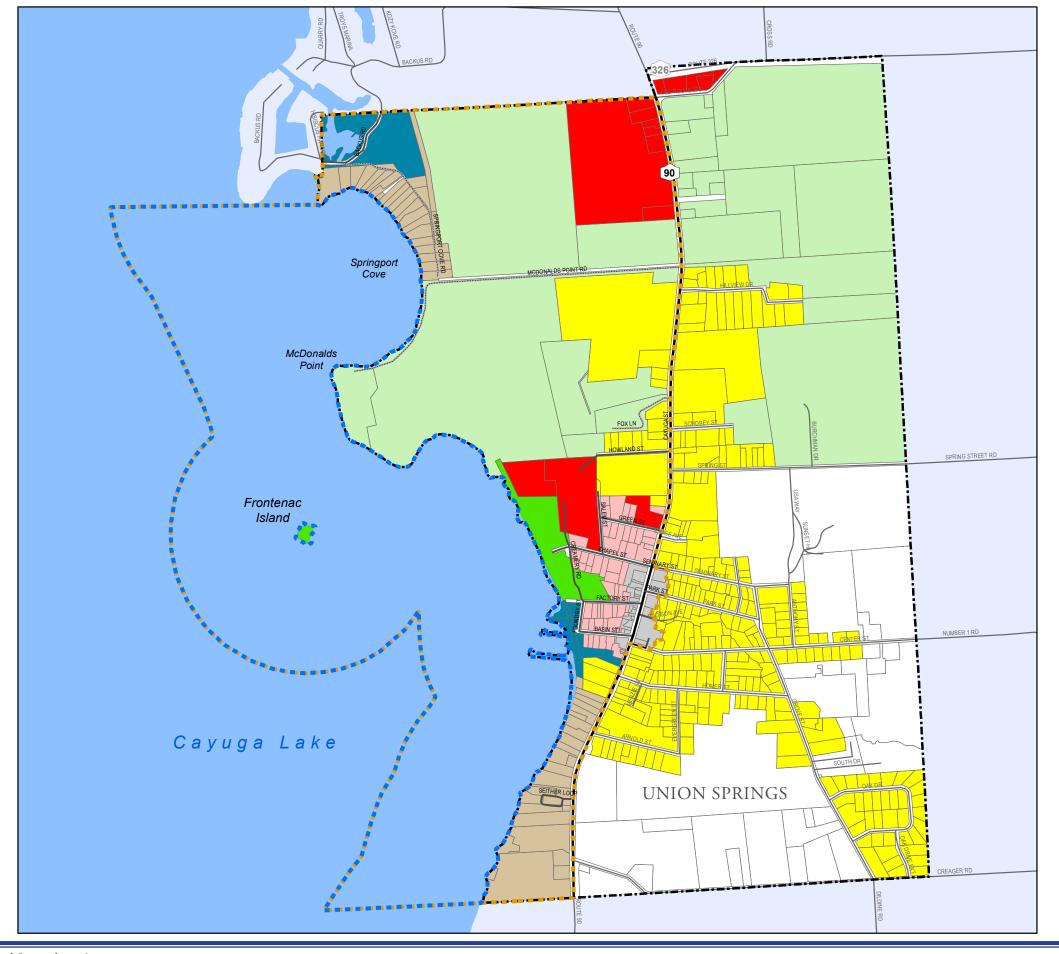


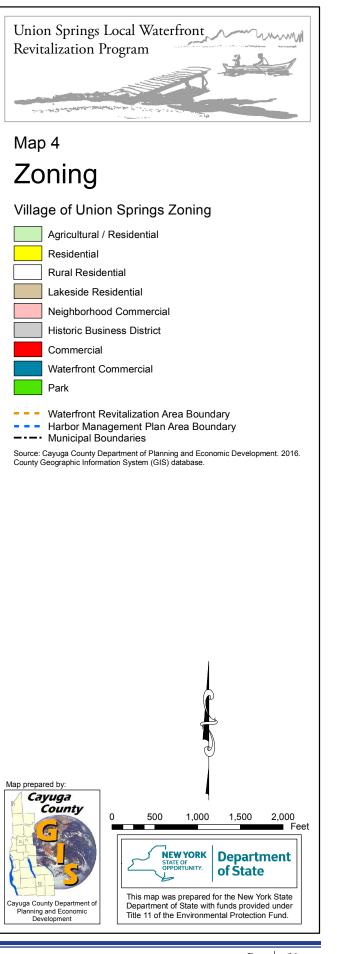
U.S. Army Corps of Engineers Regulatory Jurisdiction in Fresh Waters Diagram¹⁵



Citations

- 1. This table was generated using information from the Village of Union Springs Zoning Law adopted November 19, 2013 for just the zoning districts that are located within the Village of Union Springs LWRP Waterfront Revitalization Area (WRA), which does not include any lands zoned Rural Residential in the village.
- 2. This table was generated using information from the Village of Union Springs Zoning Law adopted November 19, 2013 for just the zoning districts that are located within the Village of Union Springs LWRP Waterfront Revitalization Area (WRA), which does not include any lands zoned Rural Residential in the village.
- 3. U.S. Army Corps of Engineers, Regulatory Program, Understanding the U.S. Army Corps of Engineers Regulatory Program- FAQ brochure. http://www.lrb.usace.army.mil/Missions/Regulatory/Regulatory-Program/Corps-Regulatory-Program/
- 4. U.S. Fish & Wildlife Service. Endangered Species Act of 1973. https://www.fws.gov/endangered/esa-library/pdf/ESAall.pdf
- 5. U.S. Fish & Wildlife Service. Migratory Bird Treaty Act. https://www.fws.gov/birds/policies-and-regulations/laws-legislations/migratory-bird-treaty-act.php
- 6. U.S. Fish & Wildlife Service. Bald and Golden Eagle Protection Act. https://www.fws.gov/birds/policies-and-regulations/laws-legislations/bald-and-golden-eagle-protection-act.php
- 7. U.S. Fish & Wildlife Service New York Field Office. https://www.fws.gov/northeast/nyfo/
- 8. New York State Department of State. http://www.dos.ny.gov/about/aboutus.html
- 9. New York State Department of Environmental Conservation: Permit, License, Registration. http://www.dec.ny.gov/63.html
- 10. New York State Department of Environmental Conservation: waterways, coastlines & wetlands permits. http://www.dec.ny.gov/permits/96314.html
- 11. New York State Department of Health: Annual Report 2015. https://www.health.ny.gov/press/reports/docs/2015_annual_report.pdf
- 12. New York Codes, Rules and Regulations, Title 10 (Health). http://w3.health.state.ny.us/dbspace/NYCRR10.nsf/Full+Directory?OpenView
- 13. New York State Department of Transportation, Region 3. https://www.dot.ny.gov/regional-offices/region3/contacts
- 14. New York State Office of Parks, Recreation and Historic Preservation: Floating Object Permits. https://parks.ny.gov/recreation/boating/resources.aspx
- 15. New York State Office of General Services, Rules and Regulations. http://www.ogs.state.ny.us/About/Regs/Statutes.asp
- 16. Army corps jurisdictional images: http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/juris_imagesv2.pdf







2.7 LAND USE PATTERNS

Current land use patterns in the Village of Union Springs Waterfront Revitalization Area (WRA) were summarized by utilizing the Cayuga County GIS database to analyze parcel data from the Cayuga County Office of Real Property Services. The property class codes and descriptions used by the local assessor and county Office of Real Property Services are set by the New York State Office of Real Property Services in their Assessor's Manual.

The distribution of land use by property classification code (as assigned by the local assessor) is represented in Table 27 below; and graphically depicted in Maps 5 & 6- Existing Land Uses. Active land uses in the WRA are dominated in the number of parcels by residential uses, but in terms of acreage used, agricultural use is by far the predominant land use (45.8% of the total land area in the WRA).

Table 27: Union Springs 2018 Land Use Distribution by Property Class Code							
Property Class	Description	Parcel Count (%)	Acreage (%)				
100	Agriculture	2 (1.1%)	202.40 (45.8%)				
200	Residential	103 (58.2%)	74.69 (16.9%)				
300	Vacant Land	26 (14.7%)	52.61 (11.9%)				
400	Commercial	33 (18.6%)	18.82 (4.3%)				
500	Recreation & Entertainment	2 (1.1%)	17.50 (3.9%)				
600	Community Services	7 (4.0%)	58.46 (13.2%)				
700	Industrial	1 (0.6%)	12.20 (2.8%)				
800	Public Services	2 (1.1%)	4.16 (0.9%)				
900	Wild, Forested, Conservation Lands & Public Parks	1 (0.6%)	1.00 (0.3%)				
	Total Parcels 177 441.84						
		Source: C	ayuga County RPS Data, 2018				

For active land uses, residential properties account for 16.9% of the land area in the WRA, followed by Community Services (13.2%), Commercial (4.3%), and Recreation & Entertainment (3.9%). While there are significantly more commercial parcels located in the WRA, at 33 compared to only 9 for recreation & entertainment and community services combined, these parcels are concentrated in the Historic Business District in downtown Union Springs and occupy parcels that are mere fractions of an acre.

As seen in Table 27, inactive or passive land uses such as vacant land and wild, forested, conservation lands & public parks occupy a significant portion of the Village of Union Springs Waterfront Revitalization Area, at 12.1% of the total land area; however, a very small percentage of these lands are actually publicly owned by the Village of Union Springs (the 8.64 acres of and around North Pond and the 1.00 acre of Frontenac Island). The village offices and public park (Frontenac Park) are located together on a single 11.90 acre parcel which is classified as a recreational facility under the community services category. The majority of the vacant land in the WRA is classified as residential vacant land and is located in close proximity to the lakeshore as indicated in Map 5- Existing Land Uses. Some of these areas, particularly those with significant lake frontage, may be prime areas for future conservation efforts.



Agricultural Lands

The two agricultural parcels in the WRA are classified as either productive vacant agricultural land or field crops. These fields produce cash crops such as corn, soybeans, hay, and other grains that are either harvested and sold on the open market, or are used to support local livestock and dairy farms elsewhere in the county. The agricultural soil quality in the WRA is quite high. In fact, 83% of the soils on these two active agricultural parcels are classified as either USDA Prime Agricultural Soils or NYS Soils of Statewide Significance (see Map 7).

Neither of the two agricultural parcels in the WRA are in the Cayuga County Agricultural District. The county's agricultural district provides protection for farmland from nuisance lawsuits and unreasonable land use restrictions through the NYS Right-to-Farm Law administered through the NYS Department of Agriculture & Markets (NYSDAM). As provided in a summary from NYSDAM "The New York State Constitution directs the Legislature to provide for the protection of agricultural lands. The Agricultural Districts Law fulfills this constitutional mandate, in part, by providing a locally initiated mechanism for the protection and enhancement of farm lands as both a viable segment of the local and State economies, and as an economic and environmental resource of major importance. Several benefits accrue to farm operations conducted within certified agricultural districts. Chief among these include:

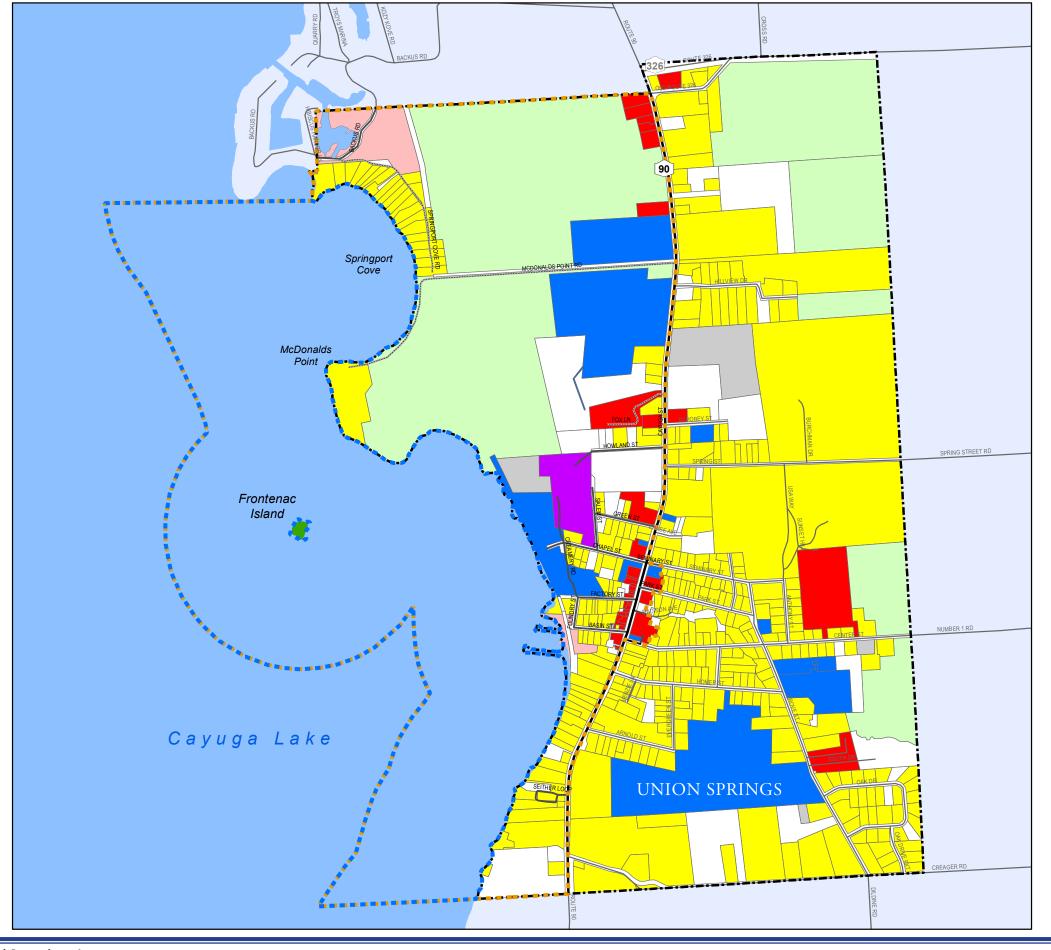
- The obligation of State agencies, as a matter of policy, to encourage the maintenance of viable farming in agricultural districts;
- Limitations on the exercise of eminent domain and other public acquisitions, and the advance of public funds for certain construction activities;
- Limitations on the siting of solid waste management facilities on land dedicated to agricultural production;
- Limitations on the power to impose benefit assessments, special ad valorem levies, or other rates or fees in certain improvement districts or benefit areas;
- Requirements that direct local governments to realize the intent of the Agricultural Districts Law and to avoid unreasonable restrictions in the regulation of farm operations when exercising their powers to enact and administer comprehensive plans, local laws, ordinances, rules and/or regulations; and
- Requirements that applications for certain planning and zoning actions impacting a designated farm operation
 within an agricultural district, or on lands within five hundred feet of such farm operation within an agricultural
 district, include an agricultural data statement designed to allow the review agency to evaluate any possible
 impacts of the proposed action on farm operations."1

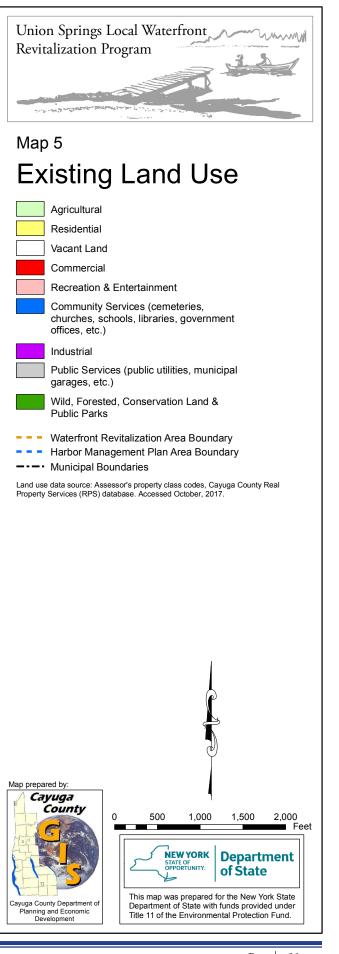
The Cayuga Agriculture & Farmland Protection Board with assistance from the county's Department of Planning & Economic Development administers the county's agricultural district locally. The board and department are also responsible for district maintenance and conduct annual inclusions of property into the district, as requested by landowners, and a comprehensive review of the district every eight years.

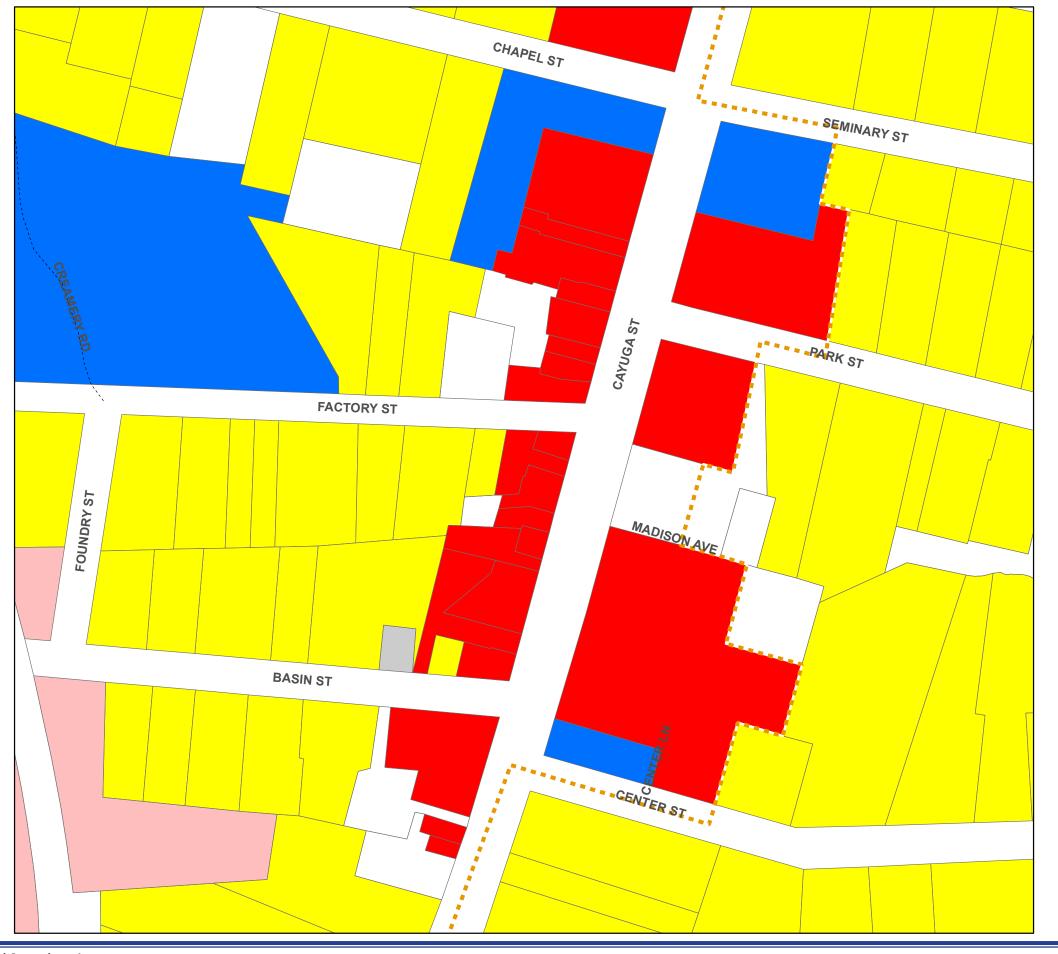
The presence of this agricultural land adjacent to Cayuga Lake provides buffer areas to the lake and to tributaries; while also drawing tourists to the area to enjoy the scenic open views of the lakeshore that this land helps to provide.

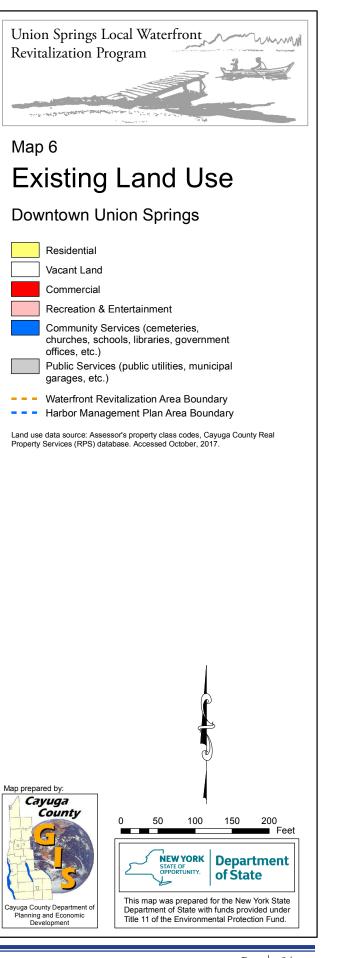
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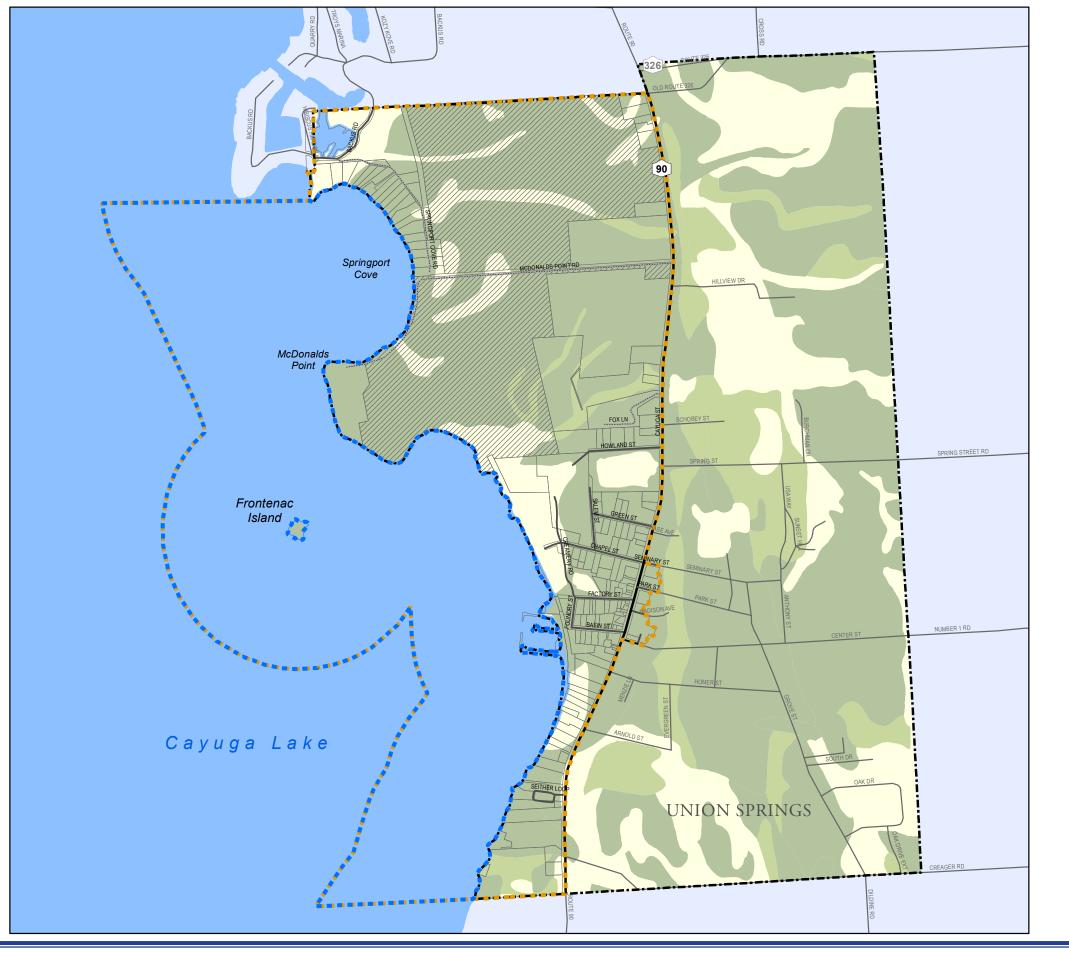
1. NYS Department of Agriculture & Markets webpage on Agricultural Districts, <u>Agricultural Districts Law: A Current Summary</u>. Available at: https://www.agriculture.ny.gov/ap/agservices/dis8/Summary-AgrDistrict-Law.pdf

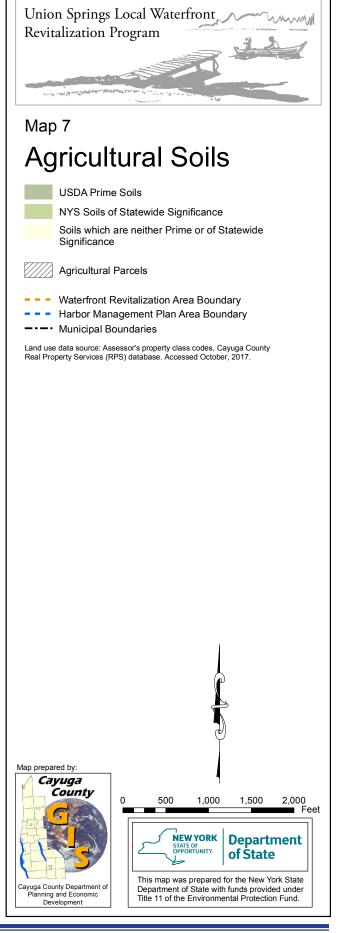














2.8 LAND OWNERSHIP

There are three major categories of land ownership within the Village of Union Springs Waterfront Revitalization Area: municipal lands, not-for-profit lands, and private lands.

Municipal Lands

The Village of Union Springs is the only municipal land owner within the WRA; and owns seven parcels that total 27.13 acres (6.1% of the total land area in the WRA). The largest of these seven parcels (11.90 acres) is located on the lakeshore and is home to Frontenac Park, South Pond, the public boat launch, and the village offices. This parcel along with the 1.00 acre Frontenac Island (located approximately 2,500 feet from the shoreline) are the primary public park lands in the village. The next largest parcel (8.64 acres) owned by the village, which is actually mostly water, is enjoyed regularly by the public. This parcel is the historic North Pond site, often referred to as Mill Pond, created in 1789 by damming underground springs that surfaced in the area. North Pond is located at the corner of Cayuga Street (NYS Route 90) and Howland Street and was used for several different mill operations, the last of which was for the Spring Mills operation established in 1860. South Pond in Frontenac Park was also created by damming underground springs and used to serve local industries in the late 1800s. Both North Pond and South Pond are still considered to be dams by the NYS DEC, and as such fall under their regulations for maintenance, permitting, use, etc.

Another piece of village owned properties adjacent to the lakeshore is the village's sewer treatment plant which is situated between "North Pond" and Frontenac Park (4.10 acres). In July 2018, the Village acquired one last lakefront property adjacent to Frontenac Park which will eventually be restored and redeveloped to be included into Frontenac Park for public use (see Section 4 for details). This historic RotoSalt property sits at the intersection of Factory St. and Foundry St. and is the only parcel between Frontenac Harbor Marina and Frontenac Park. Despite its small size of only 1 acre, this property has a huge impact on the water quality and community's access to and enjoyment of Cayuga Lake.

The final two parcels owned by the Village of Union Springs in the WRA are quite small. The largest (0.44 acres) is a public parking lot adjacent to the Trinity United Church of Christ with access on Cayuga Street (NYS Route 90); and the final parcel (0.05 acres) is a vacant undeveloped land locked lot behind a series of row buildings in the Historic Business District between Factory Street and Basin Street.

Not-For-Profit Lands

There are a total of seven parcels in the WRA owned by not-for-profit organizations occupying 46.61 acres. Of these organizations, the largest land owner is the Union Springs Central School District which serves children in grades Pre-K through 12 on one 30.20 acre parcel adjacent to the fire station on Cayuga Street (NYS Route 90).

The remaining not-for-profit acreage is owned by two churches, the fire station, the local library, the United States Postal Service, and a local chapter of a benevolent organization (Salem Lodge).



Private Lands

There are a total of 163 parcels and 368 acres (92% and 83% of the total respectfully) that are held in private ownership in the WRA (not counting municipal or not-for-profit lands). As mentioned in the previous section, Land Use Patterns, the vast majority of this land is being used for agriculture and residential use; however, as indicated on Map 5- Existing Land Uses, there is a significant portion of this land that is currently classified as vacant.

Native American Lands

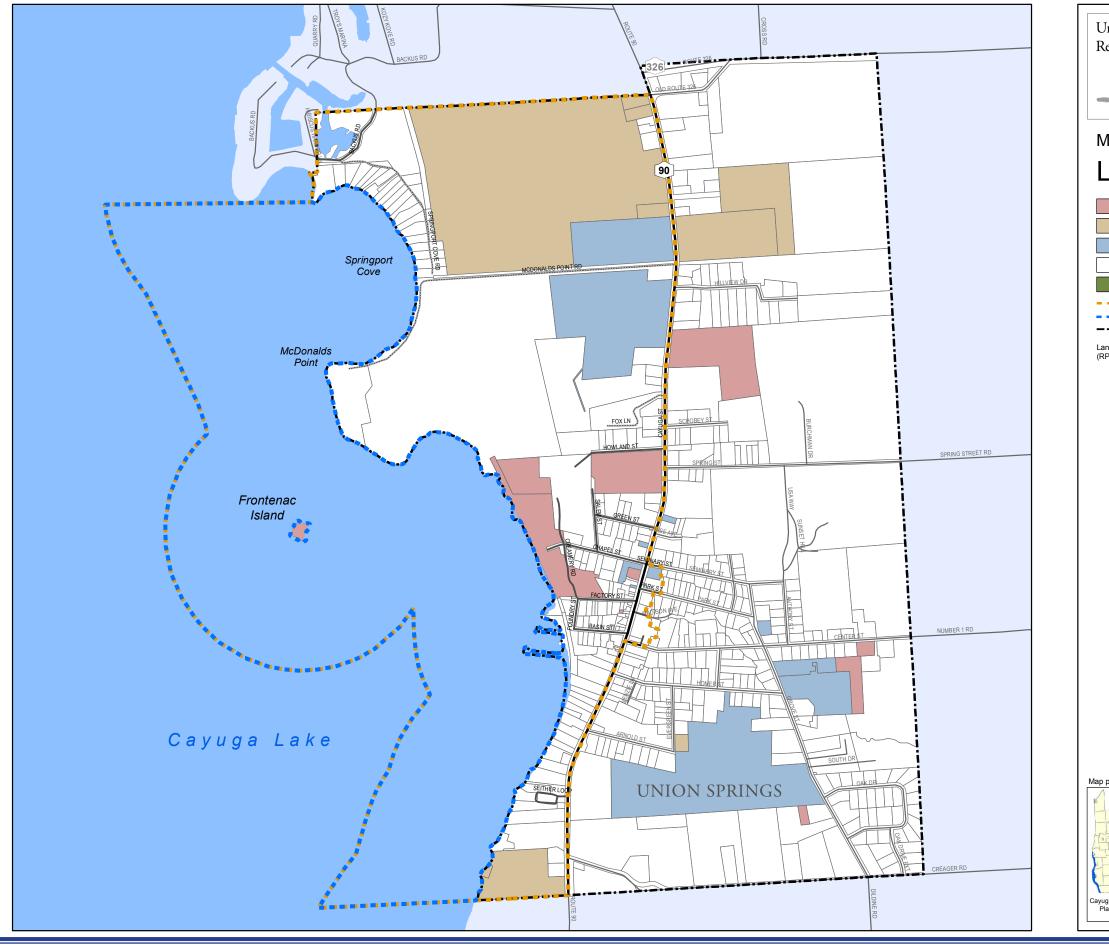
The Cayuga Nation of New York is the owner of a significant number of acres of land within the WRA. They own six parcels and a total of 122.65 acres (27.8% of the total land area in the WRA). Within the village, the Cayuga Nation owns and operates a car wash, a gas station, and a bingo hall; as well as a small residential parcel with waterfront access, a vacant residential property with waterfront access (10.90 acres), and a large vacant agricultural parcel (108.00 acres) that is situated behind their commercial properties between the fire station, school district, and several waterfront residential properties along Hibiscus Harbor. Currently none of the lands that the Cayuga Nation owns are located in a federally recognized reservation. These parcels are subject to the same enforcement of local laws and regulations by village as all other parcels within the municipality's jurisdiction.

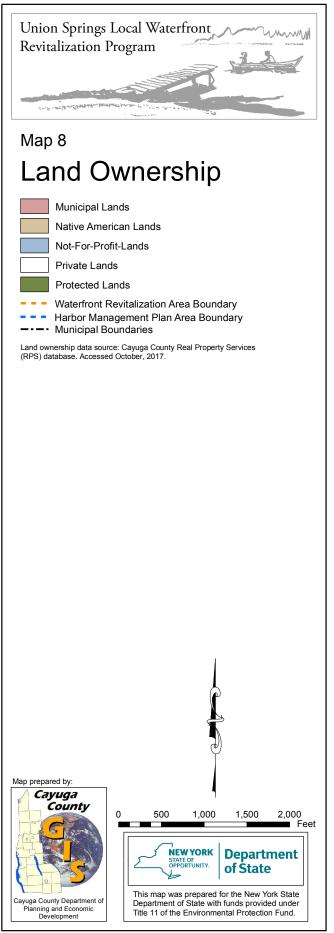
Map 8 shows the location of the land ownership types and parcels described in this section.

Land Underwater

According to the NYS Office of General Services (OGS) there are two areas of land under the waters of Cayuga Lake in the Village of Union Springs that have been conveyed by the state through a land grant. The land under the water in the marina of Frontenac Harbor Marina (formerly Castelli's Marina) was granted by the state to the owner of Castelli's Marina in 1969, and this land grant has continued with the property and the new owners. The Village of Union Springs was granted the land which was filled by the Finger Lakes Railroad and is now part of Frontenac Park in 1996, however; this land grant was made and accepted by the village with the condition that the land shall be improved and maintained for park and recreation purposes only (see maps and conveyance document in Appendix E).

The Hibiscus Harbor marina, a portion of which is located in the Village of Union Springs, is operating under license to the NYS Office of General Services for their dock structures which is an authorization for the use of State-land and not a conveyance of a property interest like an easement or grant.







2.9 WATER USES

As is to be expected, the use of the waters of Cayuga Lake are varied, but primarily dominated by private residential access and use. Historically, as part of the Cayuga-Seneca Canal "leg" of the Erie Canal, there was an abundance of commercial and recreational boat traffic on the lake. However, as industry evolved and the Finger Lakes Rail Road (later CSX) built rail connections along the lakeshore, commercial boat traffic slowed to a crawl and nearly a halt altogether. Today, the lake is primarily used by recreational boaters (power, sail, paddle, and Jet Ski alike) who enjoy fishing, swimming, and just trolling around the lake. Like many of the lakefront communities in Central New York, there is a significant number of private residential homes, both year-round and seasonal, along the waterfront in the Village of Union Springs; with nearly as many boat docks as there are homes.

Boating, Docking, and Navigation

The location and permitting of private and commercial docks, marinas, moorings, and other in-water structures in waters of Cayuga Lake in village have thus far been regulated solely by the NYS DEC. However, NYS Navigation Law¹ grants the legal authority to the village to regulate certain water uses pertaining to the operation of vessels and personal watercraft in the lake. Areas of regulation include speed, anchoring/ mooring locations (including overnight and length of stay for vessels used as living quarters), and the removal of garbage and sewage disposal from the vessel.

Surface Use Issues

Cayuga Lake surface water issues in the Village of Union Springs are primarily related to the conflicting interests between residential property owners and recreational boating and fishing uses; which results in complaints about excessive boat noise, speed, and night-time light glare. There have also been some instances of individuals fishing or hunting (fish and/or waterfowl) too close to private docks and the shoreline. Most of these instances are minor and do not result in the need for police enforcement. The most common complaint is from property owners and residents about the high speed of some motor boats and personal watercraft (Jet Skis) and the large wakes that they create close to shore, especially near swimming areas, both private and public. There is no village police department, so complaints are handled by the County Sheriff's Department or the NYS Police.



Potential boating conflicts near Frontenac Island²



Water Quality

While village utilizes inland spring-fed wells in the village for public water, Cayuga Lake is used as a source of drinking water for several communities at both the northern and southern end of the lake; and overall has been classified as suitable for drinking water. However, in 2015 the NYS DEC did classify some sections of the lake as having a "threatened" quality of water for use as a public drinking water supply and for bathing; and as such passed regulations making all of Cayuga Lake a "No Discharge Zone" for marine waste (sewage). This determination was made in an effort to reduce the amount of phosphorus entering the lake that has helped to increase the weed growth and spread of aquatic invasive species in the lake. The NYS DEC, NYS Office of Parks, Recreation, and Historic Preservation, and Cayuga County government have been working diligently to educate boaters in the area about aquatic invasive species and the steps that they can take to reduce the spread of these plants. Like so many waterbodies in the Finger Lakes, the proliferation of aquatic weeds in Cayuga Lake has created areas near the shoreline that have become "cloqged" with weeds; and in some locations has prevented boaters and swimmers alike from being able to enjoy the water without being tangled in large weed beds. The Cayuga County, Seneca County, and Tompkins County Soil & Water Conservation Districts continue to work to harvest as much of this plant material as they can in their respective areas of the lake, but it is a time consuming and expensive program to maintain in a time when budgets are subject to severe cutbacks. While the large areas of weeds can pose problems for power boats and tangle their propellers, the weeds and grasses provide habitats for several species of fish and are often the target of experienced fishermen. A coordinated effort is needed between state, county, and local agencies to reduce and control the spread of aquatic invasive species; while also maintaining an appropriate level of native vegetation for fish and wildlife.

Harmful Algal Blooms (HABs)

In recent years, harmful algal blooms (HABs), also referred to as blue-green algae or cyanobacteria, have been appearing primarily during the late summer months in some areas of Cayuga Lake including near Frontenac Park. According to the NYS DEC, "HABs usually occur in nutrient-rich waters, particularly during hot, calm weather." These blooms can result in toxins produced by the algae that can be harmful to humans and animals if they come in contact with the algae or the water during or immediately after the bloom has subsided. The Cayuga County Health Department has been working with municipalities and the public to identify HABs and to immediately respond by closing public beaches and deploying staff to take samples of the water for testing. The beaches and swimming areas are reopened only after testing of samples reveals that the toxins are no longer present. In 2017, the occurrences of HABs near Frontenac Park were numerous enough to close the beach in the park for most of the summer. In addition to recreational use of the water and health concerns from direct skin contact with HABs, communities that draw water directly from a water body affected by HABs are concerned about the toxins appearing in drinking water. Communities across the Finger Lakes region are working with NYS to identify ways to mitigate and hopefully prevent the occurrences of HABs in the future.



Swimming area at Frontenac Park⁴



In-Water Structures/Navigation Aides

Cayuga Lake is still actively a part of the Cayuga-Seneca Canal portion of the Erie Canal System and as such, the NYS Canal Corporation maintains a lock (#CS-1, aka Mud Lock) at the northern end of the lake in the Town of Aurelius (directly north of the Village of Union Springs); and they also maintain a series of navigational buoys along the central navigational channel in the lake. Table 28 lists the official number, location, and type of buoys present adjacent to the Village of Union Springs Waterfront Revitalization Area. In addition to the NYS Canal System red and green buoys, there are several small white cautionary buoys (see below for an example) located around Frontenac Island and along the shoreline that mark shallow areas of the lake. The areas between these white navigational markers and the shoreline have a water depth of approximately 5 feet or less.

In addition to these NYS maintained navigational markers, the village also deploys a red floating rope around their swimming area to keep boats out of the designated swimming area during the summer months when the beach is open and life guards are on duty.



Hazard buoys around the eastern side of Frontenac Island⁵



Close-up view of one of the hazard buoys around the eastern side of Frontenac Island⁶



NYS Canal Corp Buoy #50 (starboard side) located north of Union Springs⁷



NYS Canal Corp Buoy #51 (port side) located north of Union Springs⁸



NYS Canal Corp Buoy #51A (port side) located south of Union Springs⁹



Table 28: Navigational Buoys in the Vicinity of the WRA ¹⁰							
Location in the Lake (mi.)	Buoy Number	Buoy Color	Side of Channel (going upstream)	Light	Channel Width	Latitude/ Longitude	
9.07	#51	Green	Port	Flashing Green	400	42.87613, -76.72304	
9.08	#50	Red	Starboard	Flashing Red	400	42.87593, -76.72592	
13.36	#51A	Green	Port	Flashing Green	400	42.81497, -76.71998	

One of the two marinas in the WRA use small red and green buoys to mark the preferred and safe channel for boats to use when entering or leaving the marina (Hibiscus Harbor). Unlike the large buoys deployed by the State, these small buoys at the marina do not have beacon lights on them, but both marinas do have lights on land to help guide boats into the marina channels at night. There are no known moorings, public or private, in the WRA.



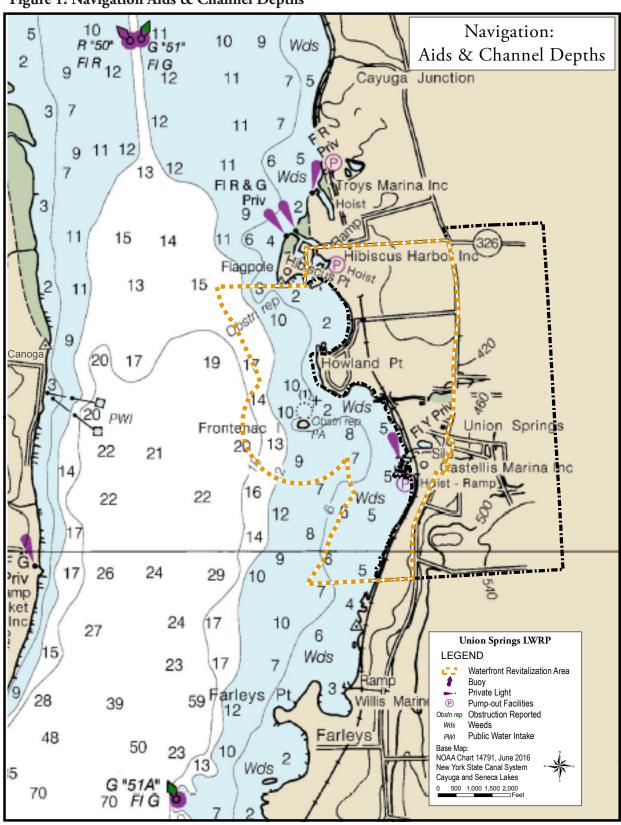
Channel buoys used at the entrance to Hibiscus Harbor Marina¹¹ [emphasis added to aid in buoy identification in the photograph]

Figure 1: Navigation Aids & Channel Depths, uses Navigational Chart 14791 produced by the National Oceanic and Atmospheric Administration (NOAA) in June of 2016¹² as base information with the Village of Union Springs WRA drawn over the top to illustrate the location of various navigational aids in Cayuga Lake including buoys and private beacon lights; as well as the depth of the water in the lake. The sounding measurements on the NOAA chart (water depth in feet) for the NYS Canal System is measured from a plane of reference known as the normal pool level. The depths indicated on the map can fluctuate with the overall lake level which is controlled through Lock #CS-1 at the northern end of the lake in the Town of Aurelius by the NYS DEC, which oversees this location of the lock system for the NYS Canal Corporation.

The only known underwater structure in the lake in the WRA is the village's wastewater treatment plant discharge pipe which extends approximately 500 feet from the shoreline into the lake at the north-western edge of Frontenac Park adjacent to the canal for North Pond. The location of the end of the pipe is not marked by a buoy, however; it is located far enough under the surface of the water that boats pass over it safely.



Figure 1: Navigation Aids & Channel Depths





Public and Private Boat Docks

As previously mentioned, the predominant uses of Cayuga Lake within the Village of Union Springs Waterfront Revitalization Area (WRA) are related to private recreational uses. Table 29 below illustrates the distribution of private and public boat docks in relation to the major points and coves located along the lakeshore in the area (see Map 9- Water Uses). Of the 177 parcels located in the WRA, 50 are considered lakefront properties which either currently have, or could have, direct access to the lake including Frontenac Park, Frontenac Island, the RotoSalt property, and both marinas. If you remove those five parcels from the equation, there is nearly a 1 to 1 ratio of private docks to private properties along the waterfront (43 of 45 waterfront properties have docks.

Table 29: Boat Docks Located in the WRA						
Area in WRA	# of Private Docks*	# of Public Docks*				
Hibiscus Harbor Marina	n/a	n/a				
Springport Cove to McDonalds Point	21	n/a				
Frontenac Park	n/a	3				
Frontenac Harbor Marina	n/a	5				
South of Frontenac Harbor Marina	22	n/a				
Total: 43 8						
*Physical dock structures in the water, not representative of the total possible number of boats that could be docked there.						



Private boat docks in Springport Cove¹³



Frontenac Harbor¹⁴



In addition to motor and sail boats, the use of paddle-craft vessels such as canoes, kayaks, etc. has become increasingly popular in the Finger Lakes area, especially on Cayuga Lake. So much so, that the Planning Departments from Cayuga County, Seneca County, and Tompkins County partnered on a project beginning in 2012 to develop a plan and establish the Cayuga Lake Blueway Trail, a paddle-craft trail around the entire circumference of Cayuga Lake. The trail as it exists today has 14 public canoe/kayak launch sites located around the lake with a plan to add more as soon as partnership agreements can be made with private land owners. Frontenac Park in the Village of Union Springs was selected and highlighted in the plan as one of three key anchor sites on the trail; and the plan included specific recommendations for improvements to the park to serve paddle-craft users. Figure 2, the site conditions and improvements table from the Cayuga Lake Blueway Trail Plan, lists the existing amenities and suggested improvements of 4 locations in the Village of Union Springs WRA for paddle-craft access and use.

In the years since the Cayuga Lake Blueway Trail project was initiated, the demand for improved access and especially a local paddle-craft rentals has risen dramatically in the village. In July of 2016, in response to the increasing demand, the Village of Union Springs executed an agreement with Owasco Paddles to use a portion of Frontenac Park on the north side of the village offices as a satellite location for their paddle-craft rental business. No improvements were made to the shoreline of the park for paddle-craft access; however, the village plans to create a permanent and improved location for canoes, kayaks, and other paddle-craft to launch in to the lake.



Access to trails Bicycle rental Figure 2: Cayuga Lake Blueway Trail Existing Site Conditions and Proposed Improvements for Paddle Craft Access¹⁵ Paddle craft storage Paddle craft rental Short Term Improvement Long Term Improvement Currently Available Shelter CLBT Signage Picnic tables Access to hotel or inn Access to camping Access to food Access to potable water 1/4 mi Rest-rooms 1/4 mi 1/4 mi Parking area Paddle craft launch Table 1- Site Conditions and Improvements Village of Union Springs, Cayuga County, east shore Town of Seneca Falls, Seneca County, west shore Boat dock Town of Springport, Cayuga County, east shore Fown of Romulus, Seneca County, west shore Village of Cayuga, Cayuga County, east shore Town of Aurelius, Cayuga County, east shore Town of Ledyard, Cayuga County, east shore Village of Aurora, Cayuga County, east shore Town of Varick, Seneca County, west shore Public property Whitlock VanPiper-Moran Preserve Frontenac Park, Union Springs Access point location Dock near Hosmer Winery Seneca River at Route 20 Goose Watch Winery dock Cayuga Lake State Park Twin Oaks Campground Wolffy's Grill and Marina Lakeshore Winery dock Aurora Steam Grist Mill Hibiscus Harbor Marina Long Point State Park **Button Grove Winery** Bet the Farm Winery Beacon Bay Marina Thirsty Owl Winery Frontenac Marina Lockview Marina Seneca Canal Deerhead Inn Yawger Creek Dean's Cove Harris Park Mud Lock Access point ž E4 ≶ ٧4 W10 E2 E3 W2 W3 8 E2 9E E7 W 9/ **M M8** W9 63 Щ



Heavy Boat Traffic Areas & Reduced Speed Zones

As to be expected, the heaviest boat traffic areas in the Village of Union Springs WRA are located near the marinas and public boat launch at Frontenac Park; and around Frontenac Island. Summertime boat activity also increases around the more populated areas along the shoreline, which again is to be expected given the large number of private residential boat docks located in the area (see Table 30).



Heavy boat traffic at the village boat launch at Frontenac Park after the Bassmaster Elite Fishing Tournament's events were concluded for the day from private boat owners, not professional anglers¹⁶

Within the waters of Cayuga Lake under jurisdiction of the Village of Union Springs, there are currently no speed restrictions for boats other than those already imposed by New York State. Despite being part of the NYS Canal System, there are currently no speed limit regulations on the portion of Cayuga Lake in the WRA except when boats are traveling within 100 feet of certain fixed objects (in an effort to reduce wakes). The statewide boat speed restriction is currently 5mph when traveling within 100 feet of a shoreline, dock, pier, marked swimming area, anchored swim platform, anchored boat, or raft/float. When approaching the lock at the northern end of the lake (from the Finger Lakes Railroad bridge north) the speed limit for boats is 5 miles per hour (see Map 23 in Appendix F for the location of this no-wake and 5mph zone). 17

There are two existing commercial marinas in the WRA and only one public launching facility, located at Frontenac Park. It is important to note that the landside boat launch location in Hibiscus Harbor Marina is located in the WRA, however, the waterside access area is not, as it is located in the Town of Springport. Table 30 below illustrates the types of amenities that are currently provided at each of these three locations.



Table 30: Amenities at Marinas Lo	ocated in the WRA		
Amenity	Hibiscus Harbor*	Frontenac Park	Frontenac Harbor
Vessel Accommodations (Max. Length)	65 ft.		42 ft.
Approach / Dockside Depth	6.0 / 8.0 ft.		6.0 / 5.0 ft.
Seasonal Slips (rentals)	200		150
Transient Slips	50	8	
Boat Sales			Х
Boat Rental	Х		
ADA Accessible Docks and Facilities	Х		
Fuel Dock- Diesel	Х		Х
Fuel Dock- Gasoline	Х		Х
Marine (Boat) Sewage Pump-out Facility	Х		Х
Aquatic Weed Disposal Station		Х	
Boat Washing Station		X**	
Public Water Hook-ups	Х		Х
Electrical Hook-ups	X		Х
Wi-Fi			Х
Pay Telephone	Х		
Showers	Х		Х
Restroom Facilities	Х	Х	Х
Picnic Areas	Х	Х	
Playground		Х	
Security Cameras/Surveillance	Х	Х	Х
Ships Store (convenience goods)	Х		Х
Boat Hoist	35 Ton		25 Ton
Indoor Heated Winter Boat Storage	X		Х
Outdoor On-Land Boat Storage	X		Х
Maintenance: Parts & Service	X		Х
Website	X ¹⁸	X ¹⁹	X ²⁰

^{*}Information provided is for the entire marina, not just the portion located in the WRA. **Installation planned for 2019.



Swimming, Fishing, and Other Recreational Uses

The water in Cayuga Lake is typically clear and of a moderate temperature, which helps to make swimming a popular summertime activity. However, Frontenac Park is the only location in this community that has been designated for public swimming. Elsewhere, swimmers stay close to shore and private residential docks or a private seasonal floating swim platform. Table 31 below illustrates the distribution of private and public swimming platforms in the WRA. While there are two state parks relatively close by, Long Point State Park to the south in the Town of Ledyard and Cayuga Lake State Park to the west across the lake, there is an opportunity for improved public swimming areas in village, especially in response to recent occurrences of harmful algal blooms near the swimming area at Frontenac Park.

Table 31: Swimming Platforms in the WRA					
Area in WRA	# of Public Swim Platforms	# of Private Swim Platforms			
Hibiscus Harbor Marina	0	0			
Springport Cove to McDonalds Point	0	0			
Frontenac Park	2	0			
Frontenac Harbor Marina	0	0			
South of Frontenac Harbor Marina	0	1			
Total:	2	1			

The high quality fishing environment of Cayuga Lake is known to locals and tourists, but has been thrust into the national spotlight in recent years by professional anglers participating in the Bassmaster Elite Series, which has held a four day long summer tournament on the lake twice in the past decade. The 2014 and 2016 tournaments have been officially launched and stationed at Frontenac Park in the Village of Union Springs. The Series is planning to return to Union Springs in June 2019. During the 2016 tournament, held from June 23rd to 26th, the anglers broke records daily for the total weight of the bass that they had caught. Greg Vinson, a professional angler in the Bassmaster Elite Series, had this to say about his time on Cayuga Lake: "Cayuga Lake is a good fishery, but it's also a place where good people live" In his blog post "That Cayuga Hospitality" Greg spoke about the residents and spectators around the lake and their generosity in allowing him to fish near their docks and property, while also pointing out areas that he might find some big fish.

According to NYS DEC²² Cayuga Lake offers a diverse fishery for both cold-water and warm-water species including lake trout, rainbow trout, landlocked salmon, brown trout, northern pike, chain pickerel, largemouth and smallmouth bass, crappies, bluegill, pumpkinseed, yellow perch, bullheads, carp, channel catfish and longnose gar. The NYS DEC stocks Cayuga Lake with approximately 60,000 lake trout, 25,000 brown trout, and 40,000 landlocked salmon annually.

Due to its depth, 400 feet or more in some locations, Cayuga Lake rarely experiences complete ice coverage and most locations are often too thin for even birds to stand on, however; the northern end of the lake, where the water is shallower, does freeze over nearly every year and becomes a very popular location for ice fishing. Some areas along the shoreline in Union Springs are suitable for ice fishing as well, weather permitting.



Another very popular activity on and along the waters of Cayuga Lake in the village is birding. Cayuga Lake is in the direct migratory path for several species of birds all of which can be observed enjoying their brief stopover on the lake during the winter, and in the spring. The lake is also directly connected to the Montezuma National Wildlife refuge via Lock #CS-1 and the Seneca River at the northern end which provides excellent spring-summer breeding areas for a large number of different species. North Pond and South Pond in the village also provide unique habitats and opportunities for local birding groups to observe a variety of seasonal species. Due to the temperate climate of the ponds, which were built over natural springs, with a winter water temperature of around 45 degrees, many species of nesting and migratory birds will spend their winter on the pond as seen in the photograph below. See Section 2.12 for more details on the types of wildlife species, including migratory birds that can be found in and around Union Springs.

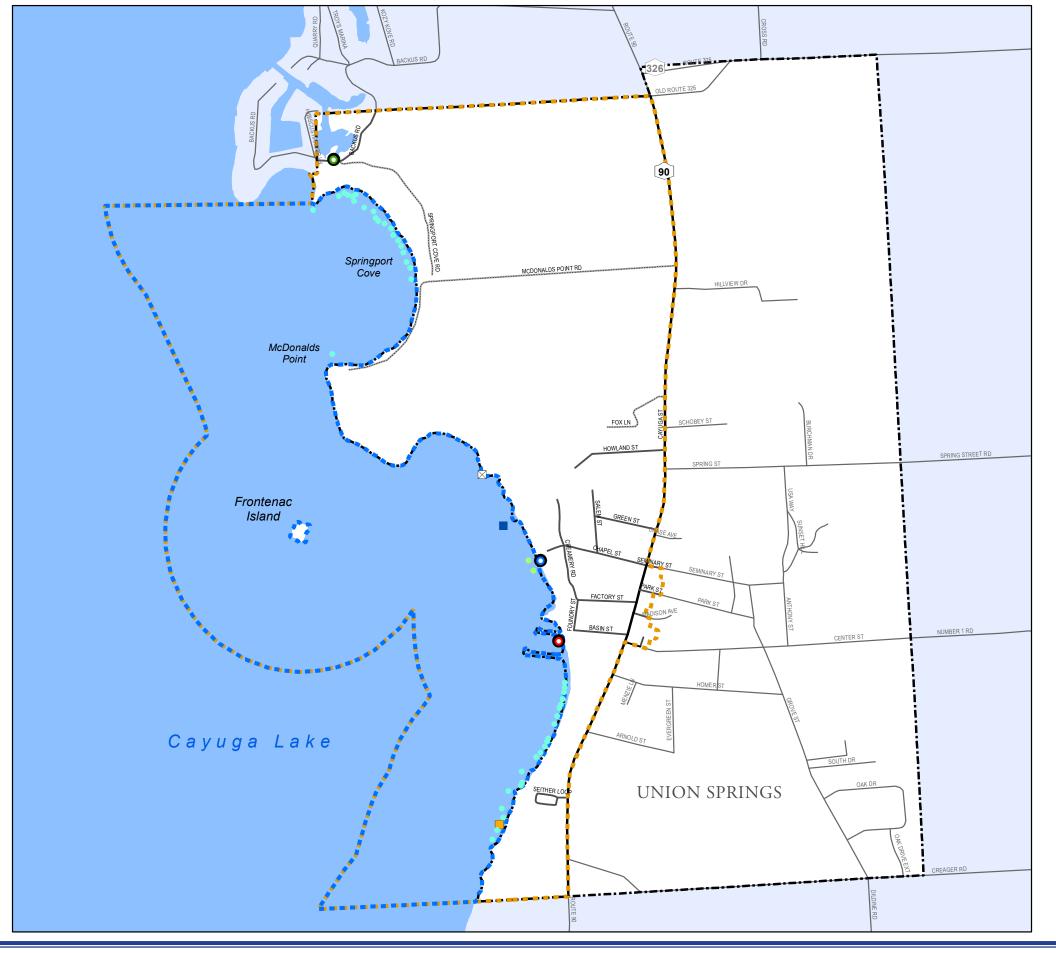


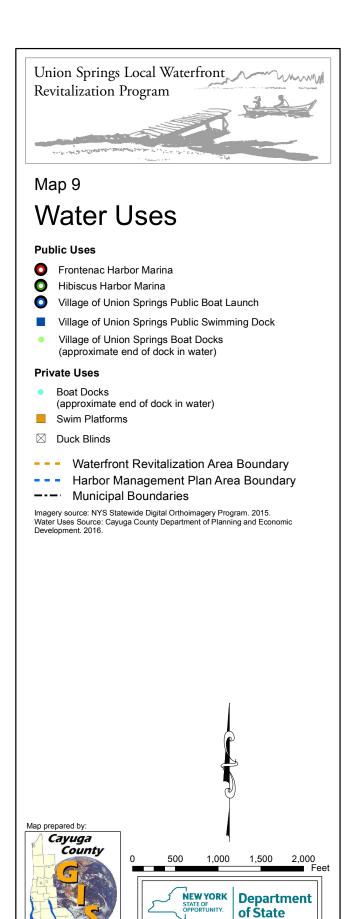
Winter on Mill Pond (North Pond)²³



Citations

- 1. NYS Navigation Law, Chapter 37, Article 4, Part 1, Section 46-a,(2) available at: https://www.nysenate.gov/legislation/laws/NAV/46-A
- 2. Photograph Taken by Kari Terwilliger from shore at Frontenac Park, August 24, 2016.
- 3. NYS Department of Environmental Conservation webpage on Harmful Algal Blooms (HABs). Available at: http://www.dec.ny.gov/chemical/77118.html
- 4. Photograph Taken by Kari Terwilliger from shore at Frontenac Park, August 24, 2016.
- 5. Photograph Taken by Kari Terwilliger from shore at Frontenac Park, August 24, 2016.
- 6. Photograph Taken by Kari Terwilliger from shore at Frontenac Park, August 24, 2016.
- 7. Photograph Taken by Kari Terwilliger from a private boat on Cayuga Lake, September 25, 2016.
- 8. Photograph Taken by Kari Terwilliger from a private boat on Cayuga Lake, September 25, 2016.
- 9. Photograph Taken by Kari Terwilliger from a private boat on Cayuga Lake, September 25, 2016.
- 10. Navigation Info: Cayuga-Seneca Canal to Cayuga Lake. NYS Canal Corporation. Available at http://www.canals.ny.gov/navinfo/navinfo.cgi?waterway=cayugalake Last updated: April 18, 2016. Accessed: August 4, 2016.
- 11. Photograph Taken by Kari Terwilliger from a private boat on Cayuga Lake, September 25, 2016.
- 12. Nautical Chart 14791, Edition 19, June 2016. New York State Canal System, Cayuga and Seneca Lakes. National Oceanic and Atmospheric Administration, U.S. Department of Commerce. Available at https://historicalcharts.noaa.gov/ Accessed: August 9, 2016.
- 13. Photograph Taken by Kari Terwilliger from a private boat on Cayuga Lake, September 25, 2016.
- 14. Photograph Taken by Kari Terwilliger from a private boat on Cayuga Lake, September 25, 2016.
- 15. Existing Site Conditions and Proposed Improvements for Paddle Craft Access table (sheet 1 of 2) from the Cayuga Lake Blueway Trail Plan, Implementation Plan, Page 66. Alta Planning & Design, prepared for the Cayuga Lake Blueway Trail Plan Committee representing Cayuga, Seneca, and Tompkins Counties, with funding from the New York State Department of State under Title 11 of the Environmental Protection Fund. Note: the blue highlighting was added by the author of this LWRP Plan to call attention to the proposed implements to areas within the Village of Union Springs Waterfront Revitalization Area.
- 16. Photograph Taken by Kari Terwilliger from the boat launch at Frontenac Park, June 25, 2016.
- 17. New York State Navigation Law, Article 4, Part 1, Section 45.
- 18. Hibiscus Harbor Marina: http://www.tradeayacht.com/central-new-york-marinas/
- 19. Frontenac Park: http://unionspringsny.com/park/boat-launch/
- 20. Frontenac Harbor: http://www.frontenacharbor.com/
- 21. Greg Vinson. July 4, 2016 blog post "That Cayuga Hospitality". Bassmaster website: https://www.bassmaster.com/greg-vinson/cayuga-hospitality Accessed: August 22, 2016.
- 22. NYS DEC, Outdoor Activities, Fishing, Places to Fish, Finger Lakes Fishing, Cayuga Lake webpage: http://www.dec.ny.gov/outdoor/36544. html Accessed: August 22, 2016.
- 23. Photograph taken by Jodi Mekeel.





This map was prepared for the New York State Department of State with funds provided under Title 11 of the Environmental Protection Fund.

Cayuga County Department of Planning and Economic Development



2.10 INFRASTRUCTURE

This section will provide an overview of the existing public infrastructure systems in use throughout the WRA including areas for improvement.

Transportation Infrastructure

The majority of residents in the Village of Union Springs commute to work via NYS Route 90 and NYS Route 326. NYS Route 90, part of the Cayuga Lake Scenic Byway, occupies approx. 2 miles of roadway in the Village of Union Springs. This highway travels parallel to the lakeshore through the heart of the village, where it is called Cayuga Street. This major north-south route along the eastern side of Cayuga Lake connects commuters and tourists from NYS Routes 5 & 20 (off of the NYS Thruway in the Town of Tyre, Seneca County) at the northern end of the lake with NYS Routes 34B & 34 to the south in the Town of Lansing.

NYS Route 326 is an east-west route which connects NYS Route 90 at the northern boundary of the village to Genesee Street Road in the Town of Aurelius; and from there to either NYS Routes 5 & 20 or into downtown Auburn. While NYS Route 326 is not in the Village of Union Springs WRA, it is important to recognize this highway as a source of commuter and tourist traffic both into and out of the WRA.

Highway Traffic Volume

Table 32 below illustrates just how heavily traveled the section of NYS Route 90 in the village is compared to segments to the north and south in the Village of Cayuga and Village of Aurora respectfully; as well a comparison to a similar length segment of NYS Route 89 on the western side of Cayuga Lake. Additionally, NYS Route 326 from the intersection with NYS Route 90 in the village east to Genesee Street Road in the Town of Aurelius had an annual average daily traffic count of 3,645; which more than covers the traffic counts on NYS Route 90 in Union Springs; and is indicative of additional commuter traffic other than that of local residents traveling to and from work.

NYS Route 90			NYS Route 89		
Segment Starting Point	Segment Ending Point	AADT¹	Segment Starting Point	Segment Ending Point	AADT
NYS Rt. 20 @ NYS Rt. 90 Aurelius	NYS Rt. 90 @ Genesee Street Rd. Village of Cayuga	2,438	NYS Rt. 89 @ E. Bayard St. Ext. Seneca Falls	NYS Rt. 89 @ County Rd 138 Ovid	1,739
NYS Rt. 90 @ Genesee Street Rd. Village of Cayuga	NYS Rt. 90 @ NYS Rt. 326 Village of Union Springs	2,573			
NYS Rt. 90 @ NYS Rt. 326 Village of Union Springs	NYS Rt. 90 @ Poplar Ridge Rd. Village of Aurora	2,369			
NYS Rt. 90 @ Poplar Ridge Rd. Village of Aurora	NYS Rt. 90 @ NYS Rt. 34B King Ferry	1,457			
	Average Total	2,209		Average Total	1,739



Local and County Roads

The remainder of the roads in the WRA are either private roads, local roads maintained by the village, or small segments of Cayuga County maintained roads. For instance, in the Village of Union Springs WRA there are 3 miles of local roads which serve the downtown area and waterfront properties equally; and one 276 linear foot section of Center Street in downtown (beginning at the intersection of Cayuga Street) that is maintained by the County. See Table 33 below for more detail and Map 10.

Table 33: Local & County Roads in the WRA ²						
Road Name*	Road Name* Road Type		Jurisdiction			
Backus Road	Local Road	1,031.75	Union Springs			
Springport Cove Road	Local Road	2,012.76	Private			
McDonalds Point Road	Local Road	4,467.62	Private			
Fox Lane	Local Road	942.47	Private			
Howland Street	Local Road	1,107.54	Union Springs			
Green Street	Local Road	738.83	Union Springs			
Salem Street	Local Road	734.95	Union Springs			
Creamery Road	Local Road	1,217.49	Union Springs			
Chapel Street	Local Road	1,195.65	Union Springs			
Seminary Street	Local Road	175.72	Union Springs			
Park Street	Local Road	261.78	Union Springs			
Factory Street	Local Road	685.58	Union Springs			
Madison Avenue	Local Road	193.31	Union Springs			
Foundry Street	Local Road	354.96	Union Springs			
Basin Street	Local Road	628.50	Union Springs			
Center Street	County HWY	188.28	Cayuga County			
Center Lane	Local Road	113.59	Union Springs			
Seither Loop	Local Road	790.45	Union Springs			
	Total:	16,841.23	*			
*In order of physical location (north to south)						

Sidewalks

Downtown Union Springs is fairly walkable and accessible through the existing sidewalk system. Sidewalks are present on both sides of Cayuga Street (NYS Route 90) and on at least one side (typically the north side) of most side streets. However, the current sidewalk infrastructure does not extend down to the waterfront on any street in the village, including for Frontenac Park where the sidewalk along Chapel Street ends at Creamery Road. In addition to the need for more sidewalks on the side streets, nearly all segments of sidewalk located in downtown Union Springs are in various states of disrepair and need to be replaced. There are only five (5) marked crosswalks in the village (three are across Cayuga Street and two are for the school's driveways).



Currently, the village does have sidewalks outside of the Historic Business District on Cayuga Street (NYS Route 90). North of downtown, there is sidewalk on both sides of the road up to the southern edge of the Fire Department's driveway. South of downtown, beginning across from the Post office, the sidewalk continues only on the western side of Cayuga Street for about two more blocks, ending just south of Arnold Street.

In the WRA, there is approximately 6,478 linear feet of sidewalk on Cayuga Street (NYS Route 90); and 3,181 linear feet on the side streets. In the Historic Business District the sidewalks on the west side of Cayuga Street are nearly 12 foot wide which has allowed merchants to place their wares out on the sidewalk to grab the attention of passersby. The sidewalks on the east side of Cayuga Street are a standard 4 feet wide.

In addition to the broken and uneven sidewalks located throughout downtown, several large sections of curbing between the roadway and sidewalk are severely deteriorated causing safety concerns for pedestrians. The general aesthetics of the streetscape in downtown is also impaired by insufficient landscaping and street trees; a lack of inviting street furniture; and the need for facade and structural improvements to the current building stock.



Sidewalk and curb on west side of Cayuga Street in downtown Union Springs³



Sidewalk and curb on west side of Cayuga Street at Basin Street in downtown Union Springs⁴

Parking

Public parking is available in the Village of Union Springs in the form of on-street parking and a small number of off-street spaces in the village parking lot. There is currently no cost for parking in the village, however; overnight on-street parking (between 2am and 6am) is not permitted on Cayuga Street between Chapel Street and Basin Street year-round. Overnight parking during the winter (November 1st to April 1st) is prohibited on all streets in the village from 2am and 6am for snow removal.

There are approximately 330 on-street parking spaces in the WRA, nearly all of which are located along Cayuga Street (NYS Route 90) from the Fire Department south to Arnold Street (where the sidewalk ends). A small number of these spaces are located on Factory Street and Center Street. There is no public on-street parking on Foundry Street or Basin Street.

The village does maintain a small public parking lot (19 spaces) off of Cayuga Street adjacent to the Trinity United Church of Christ. There is also free parking available at Frontenac Park for park users and boat launch users. There is a small lot (20 spaces) adjacent to the baseball field in the park; and the boat launch parking area can accommodate 50 vehicles with boat trailers.



Emergency Services and Facilities

The Village of Union Springs is served by The Union Hose and Engine Company, known locally as the Union Springs Fire Department. The department provides the following services: fire protection on land and on the lake with a water rescue boat, ambulance services through their emergency medical service (EMS) team, a HAZMAT response team, search and rescue, and when necessary extrication from vehicles



Union Springs Fire Department Fire Rescue One boat⁵

involved in accidents (aka. jaws of life). The Union Springs Fire Department maintains its headquarters on a 14.20 acre parcel just north of the school district on Cayuga Street.

The village does not have its own police department therefore; they rely on the Cayuga County Sheriff's Department or the NYS Police Department to respond to emergency calls. Cayuga County does have a 911 emergency system with a central call center and addressing database that all municipalities in the county participate in.

Drinking Water Sources and Infrastructure

The village does not source its water from Cayuga Lake. The natural springs that the community was originally built over, along with abundant groundwater, have proven to be more than sufficient at providing water for the village water system. Public water is available throughout the village to all residents and businesses from the village water system which is sourced from two drilled wells located just outside of the WRA on property across the street from the school district. The village's system also includes a water treatment facility, located on the same property as the two wells, and two storage tanks located in the south-east portion of the village, also outside of the WRA. Table 34 below provides detailed information on the location, size of pipe, and approximate number of customers (parcels) served by water lines located in the WRA. Map 11 shows all of the parcels in the WRA that are served by municipal water and sewer systems.

Table 34: Municipal Water Service in the WRA ⁶					
Pipe Size	Location	Linear Feet	Parcels Served		
4 inch	Backus Rd	1,031	1		
6 inch	Springport Cove Rd, McDonald Point Rd, Cayuga St, Howland St, Green St, Chapel St, Seminary St, Park St, Factory St, Foundry St, & Basin St.	13,756	127		
8 inch	Cayuga St & Center St	4,956	48		
	Total	19,743	176		
*Note: There are no municipal services on Frontenac Island, therefore only 176 of the 177 parcels in the WRA are served with public water.					



Water supplies in the village have been impacted in recent years from a groundwater plume of VOC (volatile organic compound) contamination from the General Electric Powerex manufacturing facility located on West Genesee Street in the City of Auburn. Beginning in the late 1980s and continuing into the early 2000s, the village's municipal wells were found, as part of routine testing by the NYS Department of Health, to have low levels of two particularly hazardous chemicals: cis-1,2-DCE (cis-1,2-dichloroethene) and TCE.⁷ As a result of the testing, the village, in 2001, installed equipment at their water treatment facility that would remove the chemicals from the water supply prior to distribution. Since 2000, the EPA, NYS DEC, NYS DOH, and the Cayuga County Department of Health have worked together to identify the source of the contamination, put the Powerex site on the National priority List as a Superfund site, and worked to formulate a remediation plan. The EPA and General Electric have finalized a remediation plan for the area around the Powerex site;⁸ and in Spring/Summer 2018 began the process of cleaning up the site.

The village continues to maintain equipment at their water treatment facility designed to remove these harmful chemicals from the water supply before they enter the distribution system to residents and businesses; and this method has proven effective to date at keeping the drinking water safe.

Wastewater Treatment Facilities and Stormwater Infrastructure

In the village, all residents and businesses are served by a public sanitary sewer system owned and operated by the village. The village sewage treatment plant is located at 27 Creamery Rd adjacent to Frontenac Park and North Pond. The treatment plant utilizes a submerged discharge pipe, approximately 500 feet long, which extends out into Cayuga Lake from the north-western point of Frontenac Park at the shoreline adjacent to the un-named outlet creek from the North Pond dam. The village system is a combined sewer and storm water system with catch basins along Cayuga Street and other major roadways. This combined system has been subject to overflows and local flooding in the past due to large storm events which have caused the failure and overflow of a storm drainage-only system located under Cayuga Street that carries water from an upland stream to the east, under the roadway to the west where the stream continues into the lake. However, the village has been working with NYS DOT to upgrade these storm drainage pipes to avoid future flooding incidents where possible. The positive result of this combined sewer and storm water system is that run off water from streets, sidewalks, parking areas, and other impervious services is being treated at the sewage treatment plant before ending up in the lake. One major negative result of the combined system is that of possible overflow events due to rapid high volumes of rain fall. One type of overflow event could take place at the treatment plant, which could result in raw sewage entering the lake; another could happen along the roadways which can cause street and property flooding.

Marine sewage pump-out facilities are located at Frontenac Harbor and Hibiscus Harbor Marina. The pump-out station at Frontenac Harbor is connected directly to the village sewer system and waste is treated at the village treatment plant. Hibiscus Harbor Marina however, uses a holding tank as part of their pump-out facility and contracts with a private septic service to come and empty the tank when it is full. The owners of the marina expressed their interest in upgrading their pump-out tank facility so that marine sewage can be pumped directly into the village's sewer system and then treated at the village treatment plant. This upgrade would alleviate the potential for spills and contamination from the holding tank that could lead to removal of this service at the marina.



Village of Union Springs' wastewater treatment plant adjacent to Frontenac Park9

Solid Waste Management

The Village of Union Springs has a municipal contract with a private waste hauling company that provides curbside trash and recycling pick up to all residents and commercial businesses in the village. Some businesses, like Frontenac Harbor and Gillespie Chevrolet car dealership, have their own private contracts with a waste management company that provides them with dumpster service.

Communication Services

Telephone (landline and cellular), high-speed internet (DSL and Wi-Fi as well), cable (and satellite) television services are available to residents and businesses throughout the village by various national carries including Verizon and Time Warner Cable.

Natural Gas, Electric, and Alternative Energy Services

Natural gas and traditional electric service in the village are provided by New York State Electric and Gas (NYSEG). The Union Springs Central School District doe have a private natural gas well that is regulated by NYS DEC. The school's well is the only private natural gas well in the WRA.¹⁰

As a result of the countywide promotion of the benefits of solar energy in 2015 (Solarize Cayuga), residential solar energy installations are slowly gaining traction in the village. By November of 2016 there were 10 residential roof-top photovoltaic energy systems in use in the WRA. There were no commercial installations at that time, nor any ground mounted systems. However, the Village of Union Springs, with funding from the New York State Energy Research and Development Authority (NYSERDA) and support from the Central New York Regional Planning and Development Board (CNY RPDB), contracted with Optony, Inc. to prepare a feasibility assessment for potential solar project development opportunities in the village, particularly the potential for a community micro-grid solar array project. The report, completed on July 29, 2016, found that there are several opportunities to install solar panels or arrays on village owned buildings and properties which could help the village save a considerable amount of money on energy costs annually.

The consultants stated in the report that "Using information collected during pre-screening discussions and in-person site visits, viable sites on rooftops, parking lots, and open land, have been selected and mapped out using a modular approach to provide system and project design flexibility. Based on the area available for solar, the recommended solar PV system capacity has been estimated at 1,600 kilowatts (kW) for a community solar array. Subscribing to 528 kW of capacity, or building a remote net metered system of that size, would offset 99% of known village electric consumption." Table 35 shows the full community solar potential.

Table 35: Village of Union Springs Community Solar Potential ¹²							
ID	Name	Priority Score	System Type	Azimuth	Tilt	System Size (kW-DC)	Energy Output (kWh/year)
US1	Water Works	Α	Ground	180	20	1,600	1,995,000
US2	Water Treatment Plant	С	Roof	various	18	44	51,390
			Total Recommended (A or B)			1,600	1,995,000

The Village of Union Springs has decided to pursue establishing a community solar array system, on village owned properties through a third-party agreement as recommended in Optony's report. There is potential for residents and businesses to purchase some or all of their electrical power from the village's system (there will be some capacity left after the village's electrical needs are met). The consultants also pointed out the local economic and environmental impacts that could be achieved through the installation and use of the proposed 1,600 kW solar array. The report states that:¹³

Economic Benefits include not only reductions to and predictability of future energy expenses, but also local economic activity and job creation. The recommended solar PV projects would stimulate approximately \$2.1 million in new, local economic activity during construction and an additional \$20K per year in operations and maintenance. It would also create 27 additional job-years (the equivalent of that many full time jobs for one year).⁵

Environmental benefits include the reduction of greenhouse gas emissions, which could support the achievement of the community's sustainability goals, as well as other emissions that negatively impact public health. The installation of 1,600 kW of solar capacity would generate 1,995,000 kWh of solar power annually, which would displace over 452 tonnes of CO2 from being released into the atmosphere from current power sources every year.

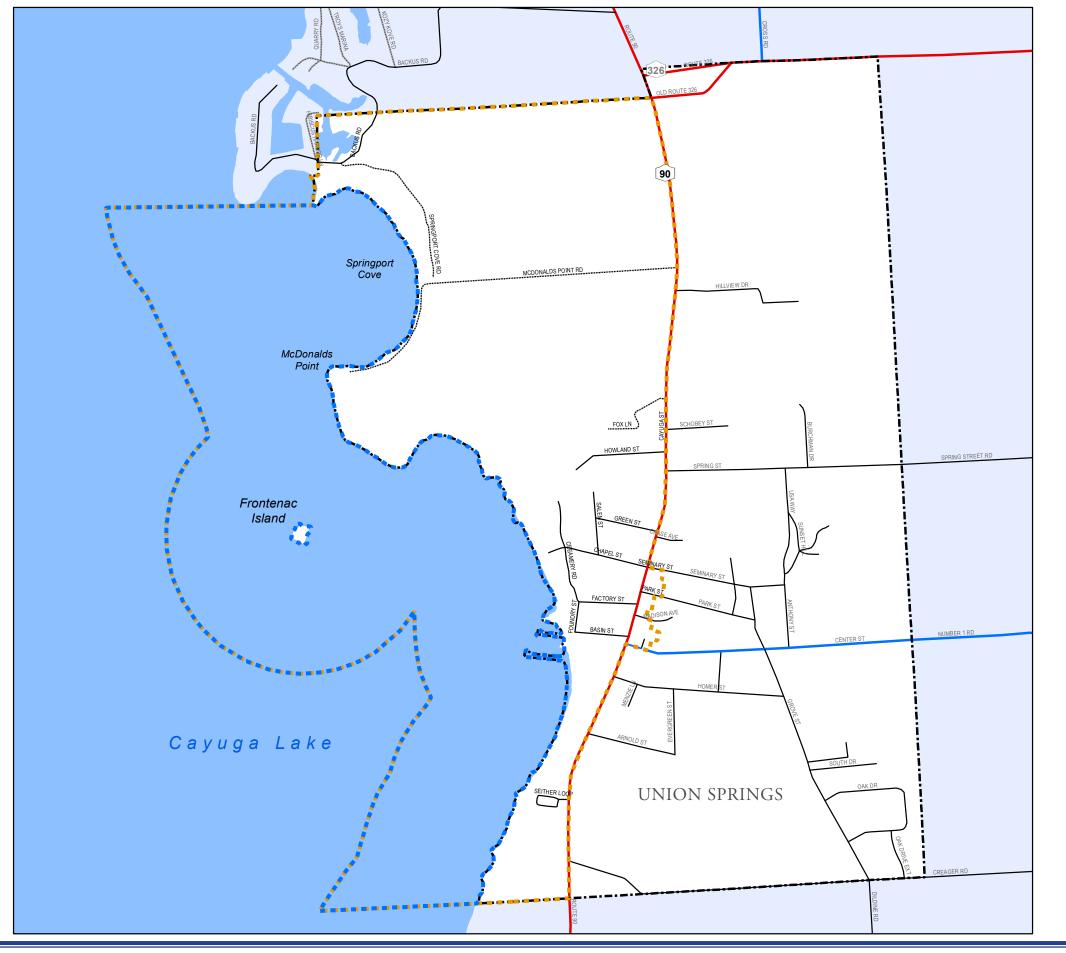
The CNY RPDB through its Solarize CNY project developed an RFP with a multi-municipal agreement and procurement process to assist interested local governments in CNY with the development of their own community solar projects. The village is proceeding with the proposed ground array at their water works site and is working with the CNY RPDB to finalize contracts and secure electric pricing from the builder and solar company Abundant. Construction is planned for 2018.

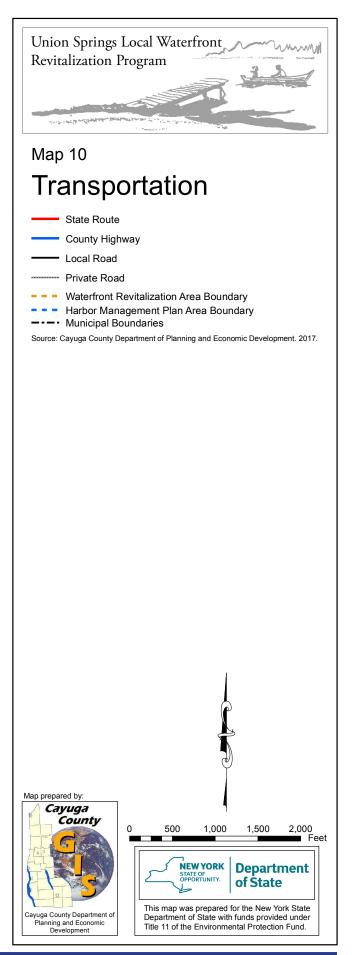
⁵ The economic impact results provided in this report are based in the National Renewable Energy Laboratory's Jobs and economic Development Impact (JEDI) model and assume that direct local spending and job creation benefits do not include induced impacts, such as waitresses hired to support additional construction workers. Furthermore, manufacturing jobs creation benefits are not included in the estimates, as it is assumed that equipment will come from outside the region.

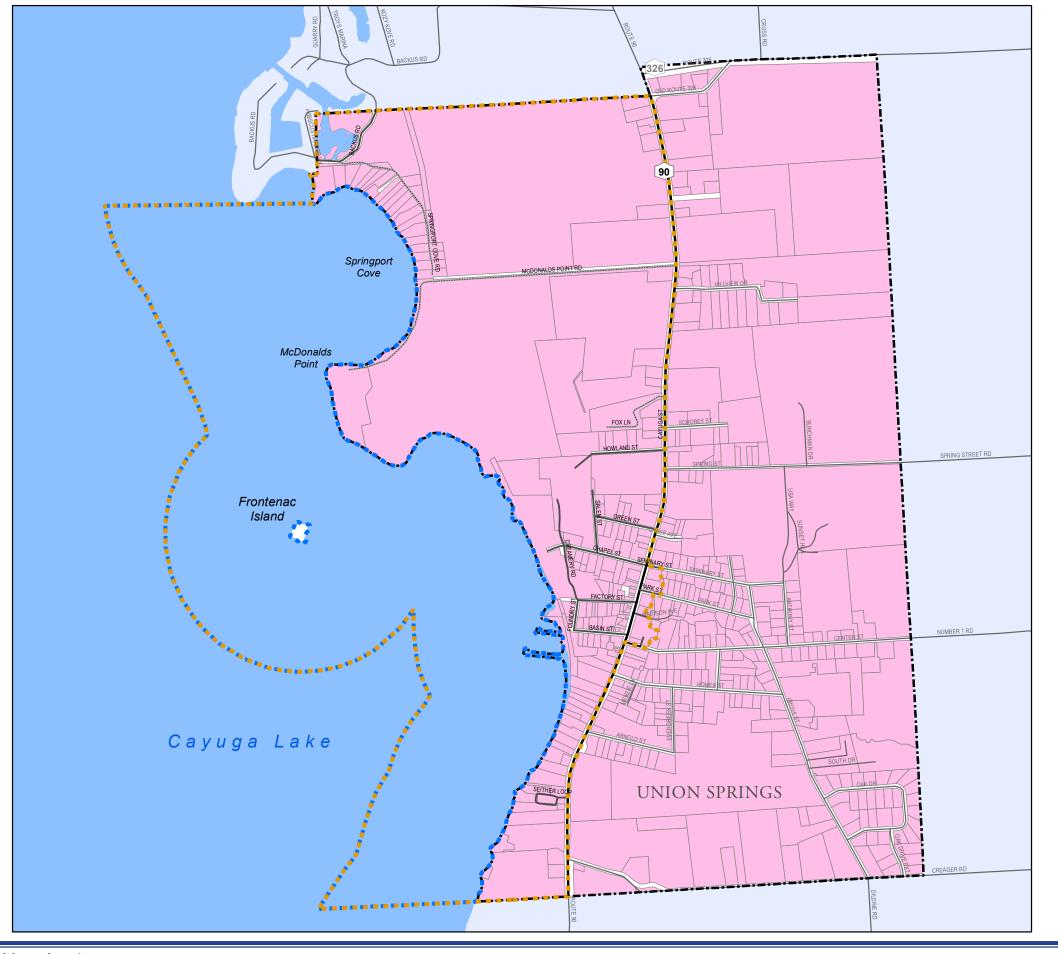


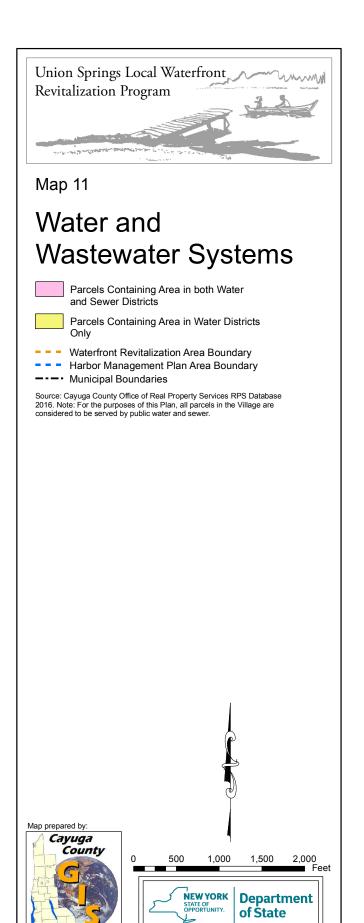
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- 2. Road data from the Cayuga County GIS parcel data base.
- 3. Photograph Taken by Kari Terwilliger, August 24, 2016.
- 4. Photograph Taken by Kari Terwilliger, August 24, 2016.
- 5. Photograph of Fire Rescue boat available at: http://ithacavoice.com/wp-content/uploads/2016/08/14102273 10153626410926876 8295266585034359584_n.jpg
- 6. Road data from the Cayuga County GIS parcel data base.
- 7. Cayuga County Groundwater Contamination Superfund Site, Record of Decision report. United States Environmental Protection Agency, Region II, New York, NY. March 2013.
- 8. The NYS DEC maintains a webpage with updated information on all environmental remediation projects around the state. See the Region 7 page at http://www.dec.ny.gov/chemical/37558.html for more information.
- 9. Photograph Taken by Kari Terwilliger from Frontenac Park, August 24, 2016.
- 10. NYS DEC Environmental Navigator, Mineral Resources. Available at: http://www.dec.ny.gov/gis/maw/ Accessed: September 9, 2018.
- 11. Solar Feasibility Assessment Report for the Village of Union Springs and the Central New York Regional Planning and Development Board. Optony, Inc. July 29, 2016. Page 9.
- 12. Solar Feasibility Assessment Report for the Village of Union Springs and the Central New York Regional Planning and Development Board. Optony, Inc. July 29, 2016. Page 4.
- 13. Solar Feasibility Assessment Report for the Village of Union Springs and the Central New York Regional Planning and Development Board. Optony, Inc. July 29, 2016. Page 24









This map was prepared for the New York State Department of State with funds provided under Title 11 of the Environmental Protection Fund.