

## **Town of Clifton Park**

One Town Hall Plaza / Clifton Park, NY 12065

[www.Cliftonpark.org](http://www.Cliftonpark.org)



518-371-6651

### **THE GEOLOGY OF CLIFTON PARK, NEW YORK**

This web page is a supplement to the brochure produced as part of a 2021 Girl Scout Silver Award project for Troop 2158 by Katherine Johnson (age 14).

The theme of the project started as an investigation of a section of the Mohawk Towpath Scenic Byway, but it was quickly decided that the rest of Clifton Park should also be included in the research.

# COME HIKE THE TRAILS!

## PLACES/TRAILS TO VISIT

**NY 146 Multi-Use Trail on Rexford Bridge**  
Balltown Road, Rexford, NY  
View of cliffs of Clifton Park from the bridge trail

**Mohawk Landing Nature Preserve**  
640 Riverview Road, Rexford, NY  
Follow an 800-foot trail to river views; sloped ramp to shore below cliffs

**Lock 7 Dam Overlook**  
6 Sugar Hill Road, Rexford, NY  
East of river overlook is a paved trail (east) along rocky shoreline and then towpath trail to Ferry Drive

**Mohawk River Canoe/Kayak Access**  
1 Towpath Road, Clifton Park, NY (in Halfmoon)  
Erie Canal Towpath Community Connector Trail Access (North)

**Ferry Drive Entrance to Vischer Ferry Nature & Historic Preserve**  
End of Ferry Drive at Mohawk River; Ferry Drive, Rexford, NY  
Access to east (to Lock 7 Dam overlook) and west (to rest of Preserve) on historic towpath route

**Whipple Bridge Entrance to Vischer Ferry Nature & Historic Preserve**  
South side of Riverview Road & VanVranken Road, Rexford, NY  
Extensive trail network and access to river's edge within preserve

**Clute's Dry Dock Entrance to Vischer Ferry Nature & Historic Preserve**  
69-89 Riverview Road, Clifton Park, NY  
New pedestrian bridge over historic canal leads to extensive trail network

# GEOLOGY WALKS

Photo Location: Mohawk River at Lock 7 Dam  
Photo Credit: Katherine Johnson

Prepared by  
Katherine Johnson  
on behalf of the Town of Clifton Park  
as part of a Girl Scout Silver Award  
project for Troop 2158

Travel through geologic time by  
experiencing what is visible on  
walking trails near the river!

Clifton Park Town Hall phone  
518.371.6651  
www.cliftonparkopenspaces.org  
www.cliftonpark.org

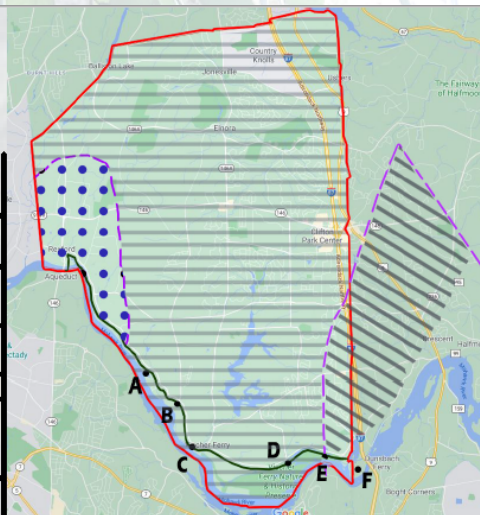
**MOHAWK RIVER  
SHORELINE,  
CLIFTON PARK, NY**



# THE STORY OF CLIFTON PARK GEOLOGY

(Highlighted)

Phanerozoic Eon	Era	Life	Period	Mill. Years Ago	
	Cenozoic	Modern Humans, mastodons, mammoths	Quaternary		2.58
		Large carnivores; abundant grazing mammals; Earliest grasses; Large running mammals; Many modern groups of mammals.			
			Tertiary	Neogene	24
			Paleogene	65	
	Extinction of dinosaurs & ammonoids				
	Mesozoic	Earliest placental mammals; Climax of dinosaurs and ammonoids; Earliest flowering plants; Decline of brachiopods; Diverse bony fishes.	Cretaceous		142
		Earliest birds; Abundant dinosaurs and ammonoids			
		Modern coral groups appear; Earliest dinosaurs and mammals with abundant cycads and conifers.	Jurassic		206
			Triassic		251
Extinction of many kinds of marine animals, including trilobites					
Paleozoic	First mammal-like reptiles	Carboniferous	Permian	290	
	Earliest reptiles; Extensive coal-forming forests		Pennsylvania	323	
	Abundant sharks and amphibians; Large and numerous scale trees and seed ferns		Mississippi	362	
	Earliest amphibians, ammonoids, sharks; Extinction of armored fish; Other fish abundant.	Devonian		418	
	Earliest insects; Earliest land plants and animals; Peak development of eurypterids				
	Invertebrates dominant (mollusks become abundant); Diverse coral and echnoderms; Graptolites abundant.	Silurian		443	
	Earliest fish; Algal reefs; Burgess shale fauna; Earliest chordates; Diverse trilobites; Earliest trilobites; Earliest marine animals with shells				
		Cambrian		544	



**KEY**

- Town of Clifton Park Boundary
- Mohawk Towpath Scenic Byway
- Canojoharie Shale
- Austin Glen Formation contains graywacke & shale
- Schenectady Formation - contains graywacke, sandstone, siltstone, shale

- A: Mohawk Landing Nature Preserve**
- B: Lock 7 Dam Overlook**
- C: Ferry Drive**
- D: Vischer Ferry Nature Preserve**
- E: Clute's Dry Dock**
- F: River access under the Thaddeus Kosciuszko Bridge (I-87) - Halfmoon**

**Shale:** A soft, finely stratified sedimentary rock formed from consolidated mud or clay and can be split into fragile slabs. Texture: fine.

**Graywacke:** A coarse usually dark gray sandstone or fine-grained conglomerate composed of firmly cemented fragments. Matrix is of clay, chlorite, quartz, and pyrite. Texture: medium, fine.

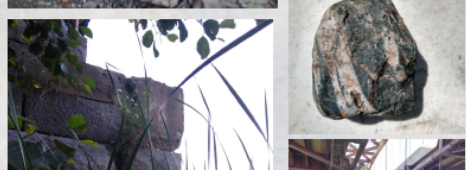
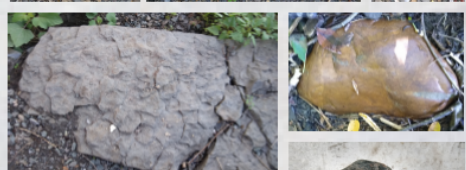
**Schist:** A metamorphic rock, formed by the metamorphism of mudstone/shale, or some types of igneous rock, to a higher degree than slate. Texture: medium, fine.

**Limestone:** A sedimentary rock made primarily of the mineral calcite. Texture: very coarse

**Dolostone:** A carbonate primarily of mineral dolomite. Texture: Medium, fine

**Quartz:** A hard and transparent mineral that is the second most common mineral (after feldspar) on earth. It can be found in igneous, metamorphic, and sedimentary rocks. Hardness: 7

**Sandstone:** A sedimentary rock made up of round quartz grains cemented together. Texture: medium



L to R. Top row: Sedimentary - Shale. Second row: Sedimentary - Sandstone. Third row: Sedimentary - Graywacke; Sandstone. Fourth row: Clute's Dry Dock; Schist with vein of quartz; River access under Thaddeus Kosciuszko Bridge (I-87).

Ordovician and Cambrian Periods are known for bedrock consisting of limestones, shales, sandstones, and dolostones.

**For more detailed information, please see the following websites**

Hudson River Lake Clay Exposures

- ‡ Lake Clay Distribution Map
- ‡ Glacial Lake Albany Map

<http://www.nysm.nysed.gov/research-collections/geology/resources/hudson-river-lake-clay-exposures>

Maps

- ‡ Boundary Data Maps
- ‡ Surficial Geology Maps
- ‡ Surficial Geology Color Chart of the NYSGC
- ‡ Bedrock Geology Map
- ‡ Physiographic Map
- ‡ Brittle Structures of NY (NY Faults) Map

<http://www.nysm.nysed.gov/research-collections/geology/gis>

Erie Canalway Natural Heritage Corridor

<https://eriecanalway.org/>

Town of Clifton Park Comprehensive Plan

<https://www.cliftonpark.org/document-center/planning-board/1478-town-of-clifton-park-comprehensive-plan-2006-update/file.html>

Clifton Park Open Space Plan Summary, January 2003

<https://www.cliftonpark.org/document-center/open-space/2157-exec-sum-cp-open-space-plan-2003/file.html>

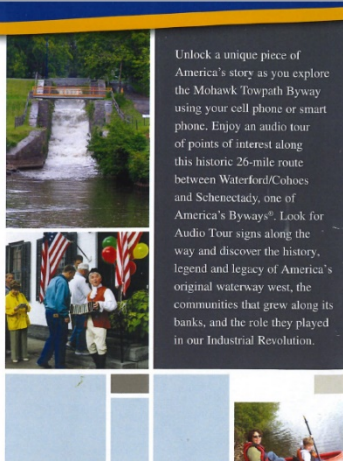
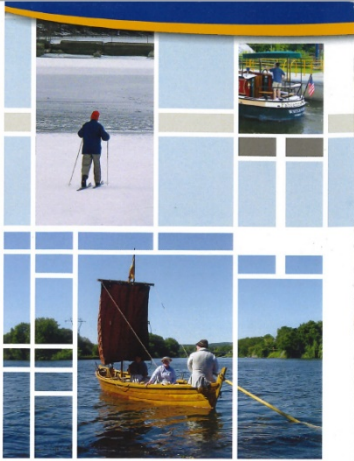
Geologic History of New York State

<https://www.scienceteacherprogram.org/pdf/esp8-9.pdf>

Geotechnical Design Manual: Geology of New York State

[https://www.dot.ny.gov/divisions/engineering/technical-services/geotechnical-engineering-bureau/geotech-eng-repository/GDM\\_Ch-3\\_Geology\\_of\\_NY.pdf](https://www.dot.ny.gov/divisions/engineering/technical-services/geotechnical-engineering-bureau/geotech-eng-repository/GDM_Ch-3_Geology_of_NY.pdf)

# Brochure of the Mohawk Towpath Scenic Byway ([www.mohawktowpath.com](http://www.mohawktowpath.com))



## Mohawk Towpath Scenic Byway

Unlock a unique piece of America's story as you explore the Mohawk Towpath Byway using your cell phone or smart phone. Enjoy an audio tour of points of interest along this historic 26-mile route between Waterford/Cohoes and Schenectady, one of America's Byways®. Look for Audio Tour signs along the way and discover the history, legend and legacy of America's original waterway west, the communities that grew along its banks, and the role they played in our Industrial Revolution.

**NOTE**  
This audio tour is free but normal rate plan charges from your phone carrier will apply.

**SHORTCUTS**  
• Press # for the next stop  
• Press 2 for pause/play

**FEEDBACK**  
We'd love to hear your thoughts about our Audio Tour. Just dial \*0 at the end of any audio stop to leave your feedback.

**SAFETY**  
For the safety of others please do not use your cell phone while driving. It's in violation of New York State Law. The tour is meant to be used after you exit your vehicle.



[www.mohawktowpath.com](http://www.mohawktowpath.com)

USE YOUR CELL PHONE TO ENJOY A FASCINATING AUDIO TOUR OF AMERICA'S HISTORIC WATERWAY.



TOUR PHONE  
518-649-9990

**STOP 1 - Crescent Park**

Discover the historic canal community of Crescent in the town of Halfmoon. Kiosk is located near the parking lot at the intersection of Canal Road and Vischer Ferry Road, just west of State Route 9.

**STOP 2 - Dunsbach Ferry Site**

Envision early Mohawk River crossings. Kiosk is located near the intersection of Canal Road and Clamsteam Road in the Town of Halfmoon.

**STOP 3 - Clute's Dry Dock**

Explore an early canal boat building site. Kiosk is located south of the parking lot on the south side of Riverview Road, 1/4 mile east of Male Drive.

**STOP 4 - Vischer Ferry Nature and Historic Preserve**

Stand on an old canal bridge on one of the earliest Town of Clifton Park public roads. Kiosk is located at the main entrance to the preserve at the intersection of Riverview and Van Vranken Roads.



**STOP 5 - Ferry Drive**

Imagine life in an early canal village. Kiosk is located at the riverside at the end of Ferry Drive.

**STOP 6 - Lock 7 Dam Overlook**

Survey the panoramic view of the Old Erie Canal and present day Canal overlooking the Lock 7 dam and New York Power Authority facility.

**STOP 7 - Riverview Orchards**

Swap out a mule team as you ply the Erie Canal. Located inside the country store at 660 Riverview Road, Rexford.

**STOP 8 - Aqueduct Park**

Visualize the upper crossing of the Mohawk River and the historic recreation area near Niskayuna. Location: within the old Erie Canal right-of-way west of Balltown Road; includes the Aqueduct Rowing Club facilities.



**STOP 9 - Schenectady Visitor Center**

Enjoy the Byway's cultural anchor and the center of innovation. Location: inside Proctors Theatre Arcade opposite the Apostrophe Cafe, 432 State Street, Schenectady.

**STOP 10 - Freddie's Park**

Fish for knowledge or launch a car top vessel at this historic river crossing and canal aqueduct site. Kiosk is located at the "Public Fishing Access" at the south end of the State Route 9 bridge over the Mohawk River.

**STOP 11 - Old Military Crossing**

Learn of military history and water power in Colonie. Location: the New York Power Authority facility on the river side of the Cohoes Crescent Road.

**STOP 12 - Cohoes Falls**

Watch the mighty Mohawk plunge 90 feet to meet the majestic Hudson. Location: Falls View Park on North Mohawk Street, Cohoes. Use the parking lot on the west side of the street and use the crosswalk.

**STOP 13 - Waterford Harbor**

Wade the waters at the eastern gateway of the Erie Canal. Location: on the waterfront side of the Waterford Harbor Visitor Center. The parking lot is on the west side of Second Street just south of South Street.

**STOP 14 - Flight of Locks**

Admire a modern day navigational wonder. Location: the canal side pocket park at the intersection of Flight Lock Road and Washington Street.

**More stops to be added soon!**



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Zim, Herbert S. and Paul R. Shaffer. *Rocks and Minerals: A Guide to Familiar Minerals, Gems, Ores and Rocks*. New York: Simon and Schuster, 1957. Print.



View from below Clutes Dry Dock

~~~~~ Created in 2021 ~~~~~