

Town of Clifton Park

One Town Hall Plaza / Clifton Park, NY 12065

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)
Big 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: 518.371.6951
www.cliftonparkopenspaces.org
www.cliftonpark.org

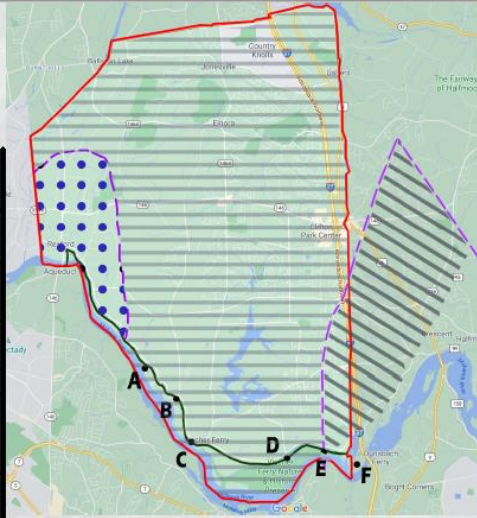
MOHAWK RIVER SHORELINE, CLIFTON PARK, NY



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	Jurassic	206	
			Modern coral groups appear; Earliest dinosaurs and mammals with abundant cycads and conifers.	Triassic	251	
	Extinction of many kinds of marine animals, including trilobites					
	Paleozoic		First mammal-like reptiles	Permian	290	
			Earliest reptiles; Extensive coal-forming forests	Carboniferous	Pennsylvania	323
				Mississippian	362	
			Abundant sharks and amphibians; Large and numerous scale trees and seed ferns			
			Earliest amphibians, ammonoids, sharks; Extinction of armored fish; Other fish abundant.	Devonian	418	
			Earliest insects; Earliest land plants and animals; Peak development of eurypterids	Silurian	443	
			Invertebrates dominant (mollusks become abundant); Diverse coral and echnoderms; Graptolites abundant.	Ordovician	490	
		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

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

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

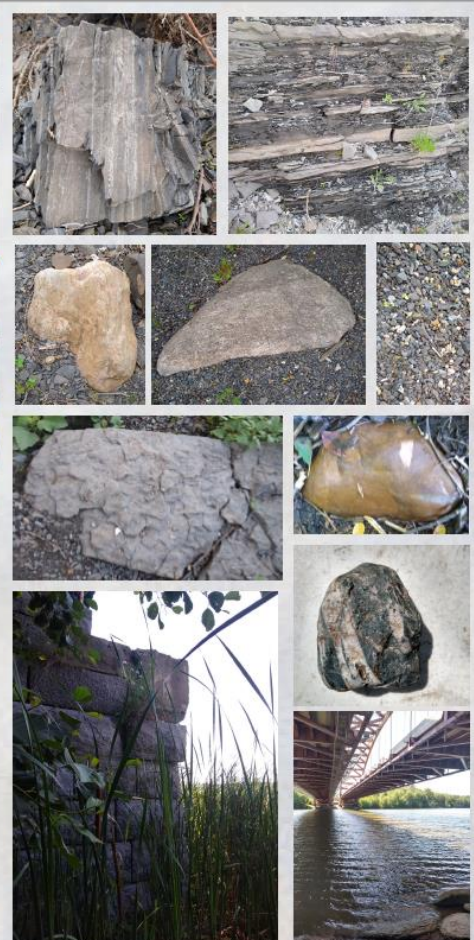
Shale: A soft, finely stratified sedimentary rock formed from consolidated mud or clay and can be split into fragile slabs. Texture: fine.

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.

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>

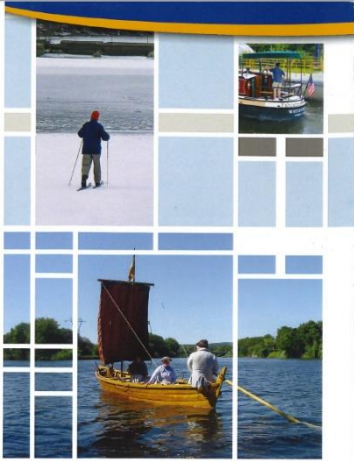
Geologic History of New York State

<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

Brochure of the Mohawk Towpath Scenic Byway (www.mohawktowpath.com)



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.

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.

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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

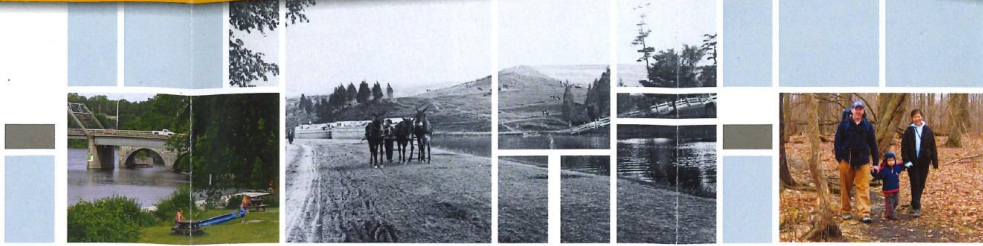
Envision early Mohawk River crossings. Kiosk is located near the intersection of Canal Road and Clamsteam Road in the Town of Halfmoon.

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.

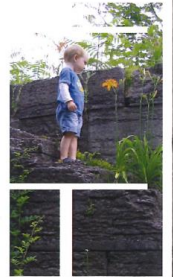
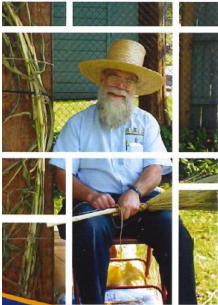
STOP 13 - Waterford Harbor

Weld 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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View from below Clutes Dry Dock

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