

United States Department of the Interior
National Park Service

New York State Barge Canal Historic District
Albany, Cayuga, Erie, Herkimer, Madison, Monroe, Montgomery,
Niagara, Oneida, Onondaga, Orleans, Oswego, Rensselaer, Saratoga,
Schenectady, Seneca, Washington, and Wayne Counties, New York

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Mile 17.32 Buoy R134 marking head of Cayuga-Seneca Canal at outlet of Seneca Lake – limit of historic district boundary

Discontiguous Features – Southern Adirondack Feeder Reservoirs

Delta and Hinckley Reservoirs were built as part of Barge Canal construction to supply water to the Rome summit level of the Erie Canal between locks E20 in the Town of Marcy and E21 near New London. Supplying water to summit levels that cross between drainage basins has challenged canal engineers since the late 1300s.²⁰⁶ Water flows out from locks at either end, so an abundant yet manageable source has to be secured at a higher elevation to supply the summit channel and locks. New York built several reservoirs in Madison and Onondaga counties during the 19th century to supply the summit level of towpath-era Erie Canal. The state also built Forestport Reservoir and Feeder to supply the summit level of the Black River Canal. That waterway joined the Erie Canal at Rome, so any flow down the southern end of the Black River Canal supplemented the Erie's summit level. These 19th century water supply reservoirs remain in service today but were deemed insufficient to supply the short summit level with a far larger prism and lock chambers of the Barge Canal. Although larger reservoirs had been built for public water supply and irrigation, Delta and Hinckley were the largest reservoirs constructed up to that time solely for navigation.²⁰⁷

Delta Dam

E465261
N4791414

DELTA DAM and RESERVOIR (4 contributing structures, 1 contributing building)

Spanning Mohawk River, west side of NY-46, north of Golf Course Road, City of Rome, Oneida County [Delta Reservoir extends into the Towns of Western and Lee, Oneida County]

The site includes Delta Dam, its reservoir, a gatehouse atop the dam, and the remains

²⁰⁶ The Stecknitz Canal, built 1391-98 to connect the River Elbe at Lauenburg with the River Trave at Lübeck, may have been the first summit level canal in Europe. Others were built in Italy during the next century but the most ambitious early example was the Canal du Midi, constructed 1667-1681 to connect the Atlantic to the Mediterranean across the Languedoc region of southwestern France. Saint Ferreol Dam, constructed 1667-76 in the Montagne Noir, north of the Canal du Midi, is the first European example of a dam built to supply water for the summit level of a navigation canal. It remains in service today. L.T.C. Rolt, *From Sea to Sea*. (Grenoble, FR: Euromapping, 1973, 1994) pp. 4-6.

²⁰⁷ The Salt River Reservoir, completed in 1911 for irrigation and power, had about 20 times the surface area of Delta. Ashokan Reservoir, constructed 1907-15 to supply water to New York City, was the largest reservoir in the world when it was completed with three times the surface area of Delta and nearly four times the depth. "Delta Reservoir – Its Planning and Building." *Barge Canal Bulletin* III:8 (August 1910) p. 347.

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of a concrete aqueduct and lock chambers below the dam, built as part of Barge Canal construction, to carry the Black River Canal across the Mohawk and around the dam site.

Delta Dam is 1,100' long with a 300' spillway at the middle. The non-overflow sections feature a row of decorative arches cast along the top to support a walkway along the crest. The dam is built of cyclopean masonry (large rocks set in concrete) at a narrow point in the river valley formerly known as the Mohawk "Palisades."

The **reservoir** covers a little more than four square miles at the base of a 137 square mile drainage basin. Water stored in Delta Lake is released into the natural bed of the Mohawk River below the dam and enters the summit level of the Erie Canal at the western end of the Rome Terminal about six miles downstream.²⁰⁸

A hip roofed **gatehouse** stands on the non-overflow section east of the spillway. An "L" shaped secondary dam below the gatehouse maintains a 10' pool to cushion the impact of falling water and protect the main dam from being undermined.²⁰⁹

A six-span concrete box **aqueduct** was built to carry the Black River Canal across the Mohawk River below Delta Dam along with a flight of three tall hand-operated concrete **locks** around the east end of the dam. Although they were built of concrete with some Barge Canal features, the chambers were only 110' long by 18' wide to match others on the Black River Canal. They were last used in 1924. The aqueduct and lower portions of the three-lock flight survive, in deteriorated condition, but the upper chambers were obliterated by realignment of Route 46.

History: Delta Dam and Reservoir were built by the New York City firm of Arthur McMullen under Contract 55. Work started in 1908. The contractor opened quarries and sand pits about 20 miles away and used a fleet of 40 barges to move construction materials to the site along the Black River Canal. Delta Dam rises 100' above bedrock; tall by early 20th century standards but not a record setter.²¹⁰ It is founded on shale that tended to deteriorate rapidly when exposed to weather. Excavation to sound material had to proceed without widespread use of explosives that would have opened up seams in the rock. The dam was closed at the end of the 1911 navigation season and all work at the site was finished by July 1912.²¹¹

²⁰⁸ "Delta Reservoir – Its Planning and Building," *Barge Canal Bulletin* III:8 (August 1910), pp. 347-59.

²⁰⁹ BoP, p. 50.

²¹⁰ New Croton Dam, constructed 1892-1906 to supply water for New York City, was the tallest dam in the world at the time and was nearly three times as tall as Delta – rising 297' from base to crest.

²¹¹ *Barge Canal Bulletin*, (November 1908), p. 293; (January 1909), p. 31; (February 1909), p. 55; (May 1909), p. 171; (June 1909), p. 205; (August 1909), pp. 308, 347-59; (January 1912), p. 25; (February 1912), p. 61; (August 1912), p. 259.

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Delta Reservoir construction displaced the village of Delta. A poem, published in March 1909, bemoaned its passing:

Echos of the Barge Canal

Near headwaters of the Mohawk,
Nestled down between the hills,
Stands a quiet little hamlet,
That has suffered many ills.

The State has now concluded,
That it's not of much account,
So they propose to build a dam,
And drown the village out.

They have planned to build a reservoir
The Barge Canal to fill,
Which, when it is completed,
Will cover shops and mill.

Its dimensions are one mile in width,
Its length five times the same,
Just thirty feet will be its depth,
Where now the streets remain.

Of course the people living there
Take unkindly to the plans,
To be obliged to leave their homes
And depart for other lands.

But this little town called Delta
Will soon be off the map.
In its place will be a lake,
No matter how they scrap.²¹²

Subsequent work on Delta Dam included efforts to reduce seepage during the 1920s

²¹² Scothon Scrapbook, Barge I, p. 1. New York State Museum collections, quoted in Canal Society of New York State, "Adirondack Reservoirs: Field Trip Guide, October 10-11, 2003."

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by grouting and adding a layer of concrete to the upstream face and coating the downstream (air) face with gunite to arrest deterioration caused by freeze-thaw action.

Hinckley Reservoir / Nine Mile Creek Feeder

The system includes Hinckley Dam, the wetted area of Hinckley Reservoir at 1225.0' spillway elevation, a diversion dam and gatehouse below Trenton Gorge, and the 5.7 mile long Nine Mile Creek Feeder Canal. Natural river beds of West Canada Creek and Nine Mile Creek between the dam and Erie Canal are not included in this district. Hydrologist Emil Kuichling's proposal for Hinckley Reservoir and associated Nine Mile Creek Feeder were described in the 1901 Bond Report, largely as they would come to be built.²¹³

E491237
N4795044

Hinckley Dam and Reservoir (2 contributing structures, 1 non-contributing building)

Spanning West Canada Creek, south side of CR365, east of Hinckley/Southside Road, Town of Trenton, Oneida County & Town of Russia, Herkimer County

Hinckley dam includes a 3,300' long earthen embankment over a concrete corewall with a 500' long concrete spillway section with discharge pipes at the north end. The dam rises up to 45' above the valley floor. It is 250' wide at the base tapering to 20' at the top.²¹⁴

Hinckley Reservoir is 13 miles long with a surface area of nearly 5 square miles, an average depth of 36,' and a storage capacity of 3,445,000,000 cubic feet (25.8 billion gallons) below a 372 square mile watershed.²¹⁵ The impoundment extends into the Town of Remsen, Oneida County; its upper end is within the Adirondack Park.

The **Gregory P. Jarvis hydroelectric plant**, constructed 1982-86 by New York Power Authority on the north side of West Canada Creek immediately below the dam, is non-contributing.

History: Hinckley Dam and Reservoir were constructed by Buffalo Dredging Company under Contract 50, awarded September 23, 1910. The contractor built a construction camp in January 1911, broke ground on April 25 and started pouring concrete for the corewall on August 25. Clearing the reservoir required moving or demolishing over 200 homes and other buildings. Work was completed in 1915.²¹⁶

Water from Hinckley Reservoir is released into the natural bed of West Canada

²¹³ *Report on the Barge Canal from the Hudson River to the Great Lakes* (Albany: James B. Lyon, 1901), pp. 14-15.

²¹⁴ BoP, p. 51-54.

²¹⁵ *Barge Canal Bulletin* IX:9, September 1916.

²¹⁶ *Barge Canal Bulletin* (February 1911), p. 64; (March 1911), p. 96; (May 1911), p. 156; (June 1911), p. 187; (July 1911), p. 219; (September 1911), p. 283; (November 1914), p. 406; (February 1915), p. 62; (November 1915), p. 337.

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Creek, passes through Trenton gorge, either over the falls or through the 1901 Trenton Falls hydroelectric plant, to a low concrete diverting dam, just upstream of the Dover Road bridge in the town of Barneveld. From there, water to be used for canal purposes is diverted through a gatehouse into a 5.7-mile feeder canal leading to Nine Mile Creek, which empties into the summit level of the Erie in the town of Marcy. The remainder flows down West Canada Creek, which empties into the Mohawk on the west side of Herkimer and flows into the Erie Canal downstream of lock E18.

E487127
N4791038

Nine Mile Feeder Dam (1 contributing structure, 1 contributing building)
Spanning West Canada Creek, 355' upstream of Dover Road Bridge, between the towns of Barnaveld, Oneida County and Russia, Herkimer County
Constructed 1915 under Contracts 123 and 51

The site includes a fixed crest concrete overflow **dam**, approximately 180' long, founded on ledge, with a 31' wide Taintor gate at the west (Barneveld) end, and a hip-roofed concrete **gatehouse** on the west bank. The gatehouse controls the flow of water from the pool above the dam into a canal that leads to Ninemile Creek. The dam and Taintor gate were constructed by Frank L. Cohen under Contract 123. The headgate house and canal were built by Alto Construction Company under Contract 51, awarded December 23, 1910. Work started at the end of February 1911 and completed in August 1917 (an unusually long span for a comparatively small contract).²¹⁷

²¹⁷ *Barge Canal Bulletin* (January 1911), p. 21; (March 1911), p. 96; (April 1911), p. 125; (June 1911), p. 186; (January 1913), p. 21; (February 1914), p. 56; (February 1915), p. 62; (July 1915), p. 214; (January 1916), p. 15; (September 1917), p. 227.

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