



# Friends of the Old Croton Aqueduct

*Newsletter*  
No. 37, Winter 2011

## It Might Have Been Paved: Trail Rescued By The Croton Aqueduct Committee

Some would say that emergencies bring out the best in us. It was such an emergency that led to the formation of the Croton Aqueduct Committee, a forerunner of the Friends, and one of the first citizens' organizations to fight to keep the Aqueduct trail in its natural state.

It was September 1974. Aqueduct trail lovers in communities up and down the Hudson valley had just learned of a tentative plan to pave over the trail to make it part of a series of county bicycle routes. If implemented, the dirt path would be covered with an eight-foot wide — the width that paving machines were designed to handle—hard surface so bikers would have a smoother ride. Concrete barriers would be put in place where the trail crossed roadways to prevent access by motor vehicles. The barriers, however, would not bar the use of motorbikes.

Constance Porter, a current Friends Board member, remembers how horrified she was when she heard about it. "I couldn't believe it," she said. She immediately contacted fellow Irvington resident and long-time environmentalist, Bill Hoppen, and together they decided to form the Croton Aqueduct Committee to preserve the trail. Connie became the president of the organization and Bill its legal adviser and they took their message to anyone who would listen to them, Connie says.

Newspapers from Tarrytown to Yonkers reported their concerns. In the September 24, 1974 edition of

*Daily News* (Tarrytown) in an article by Barbara Ross, the new group is quoted as saying they fully support the

### SENATE-ASSEMBLY

February 19, 1976

IN SENATE—Introduced by Sens. FLYNN, GORDON, WINIKOW—read twice and ordered printed, and when printed to be committed to the Committee on Cities

IN ASSEMBLY—Introduced by Mr. SUCHIN—Multi-Sponsored by—Mrs. GOODHUE, Messrs. KOPPELL, SULLIVAN—read once and referred to the Committee on Local Governments

### AN ACT

to amend chapter six hundred thirty-nine of the laws of nineteen hundred seventy-five, entitled "An Act to establish the Croton aqueduct as a scenic and historic corridor in Westchester county and in the city of New York in honor and celebration of the Bicentennial of the American Revolution" in relation to providing for clarification of permitted uses and for notice to the Taconic state park and recreation commission of projected construction and changes in land use of properties abutting the aqueduct that may adversely affect the historic, scenic, cultural, and recreational resources of the corridor, with the opportunity to comment thereon

### It Might Have Been Paved (cont'd)

idea of bike paths in Westchester but "the aqueduct is not suitable as part of a countywide circular system of bikeways designed for fast, long-distance bike riding." It vowed to monitor the condition of the Aqueduct, the article continues, to keep community organizations along the route informed and, if necessary, to propose legislation and support court action to safeguard it.

The Committee took its message to civic and environmental groups in Westchester, urging them to write to the County Executive and state officials protesting the paving. More than 30 organizations responded. By June 1975, the *Daily News* was reporting that legislation to establish a Croton Aqueduct Scenic and Historic Corridor in Westchester and New York City had been passed by the New York State Assembly. It gave credit to the Croton Aqueduct Committee, which it said, conceived of and drew up the bill. On February 19, 1976, a bill preserving the Old Croton Aqueduct "as a natural pathway between communities" and limiting paving to the extent that it is necessary for the prevention of erosion was passed by both houses of the legislature in honor and celebration of the Bicentennial of the American Revolution. Three years later, a bill clarifying permitted uses was enacted. It specified that the Old Croton Aqueduct may be used for horseback riding, hiking and walking but not by any motorized vehicle.

*Editor's Note:* In the mid-1960s, there was a group known as the Croton Aqueduct Association. Its president was Dr. William Amols, a neurologist who lived in Irvington. We would appreciate any information about this organization's work.

### *Stunt Jumper on the High Bridge*

*From the minutes of the Old Croton Aqueduct Board of the City of New York, 1852.*

September 14, 1852

At a meeting of the Board held this day the following preambles and resolution were adopted:

Whereas this Board has received information from the Keeper of the High Bridge that an exhibition has been advertised by public notices posted in the vicinity of that structure that a person is about to leap from the parapet of the Bridge into the Harlem river at 3 o'clock p.m., to-morrow; and

Whereas, exhibitions of the like character have heretofore drawn evil disposed and unruly parties to the damage of the work; therefore be it

Resolved, That such exhibition as this and at any future time be discountenanced and is forbidden by this Board.

Adjourned.

THEO. R. DE FOREST, Secretary

## It Takes A Village...To Fund a Project

The Friends of the Old Croton Aqueduct are happy to be working with the Village of Dobbs Ferry to make the entrance to the trail accessible to all—even those who are handicapped. The Village has given \$10,000 to the project which will be credited to the mandatory matching funds account required for the Recreational Trails Grant.

In addition, hundreds of people throughout the Rivertowns and beyond are continuing to help the Friends to reach their match. Some bought raffle tickets for a bike last year. Others are giving now in response to the Meet The Match campaign.

The Friends would like to thank everyone for their generous donations so that we can make this exciting project a reality. Special thanks to Jason at Endless Trail, the bike shop in Dobbs Ferry, for his contribution. The drawing for the bike took place on November 20, 2010. The winners of the raffle were:

**1st Prize:** Eugenie Anderson of Washington DC who won the Transeo bike.

**2nd Prize:** Soo Chin of Dobbs Ferry who won Dinner for Two at Orissa restaurant in Dobbs Ferry.

**3rd Prize:** Jo Brimmer of Dobbs Ferry who won a basket of Aqueduct gifts.

— Mavis Cain



*Friends President Mavis Cain with Dobbs Ferry Village Manager Marcus Serrano. (Photo by Evan Cain)*

# The Old Croton Aqueduct in History and Culture

Ed Brody

## III. From the Manhattan Company (1802) to the Decision to Build (1835)

This continues the story from Issue 36 (Summer 2010) that covered the period from 1776-1802. New York City recovered commercially from the dire effects of the Revolution but no progress was made in providing clean water. In 1799 the Manhattan Company was formed, ostensibly to utilize the Bronx River as a water source but it was turned into a banking company and did little to provide access to water.

### What Is to Be Done

Over the next 30 years, 1803 to 1835, there were many changes. The country grew substantially with the Louisiana Purchase and the Oregon and the Florida

arose. Sanitation and disease were worst in working class neighborhoods, which were attributed to workers' loose morals.

Westchester (which still included the Bronx) was also taking shape. Towns began to form local identities; Sing Sing (now Ossining) was the first village to incorporate in 1813. Marble quarries were opened in Sing Sing and Hastings and industry supplemented farming. The population now exceeded 30,000 with increased contact with New York City via better roads and the Hudson River.

But while the city expanded, the availability of clean water did not. In 1803 the city began filling the polluted Collect Pond, selling lots in and around it, trying to create valuable real estate. But by 1820, these buildings

literally began to sink into the poorly drained land. Not surprisingly, the area became the nation's first great slum, the notorious Five Points. Severe epidemics were frequent<sup>1</sup> and fires even more frequent. The previously narrow city at the tip of Manhattan was now two miles wide so lugging river water to a fire site was harder. The inability of the Manhattan Company to make clean water available led to more wells, rain cisterns and, for the well-off, spring water carted in at 6¢ per day for three pails. The poorer folk added brandy or gin to make the water palatable. Eventually, poor water quality began to hurt New York's businesses, in particular, the beer industry. There was no sewage system either and by 1830 city well water was no longer safe for drinking or cooking. A study found 125

grains of waste per gallon in city water compared with two grains per gallon in the Bronx River.

Between 1800 and 1830, the Manhattan Company did make some half-hearted efforts<sup>2</sup> to increase the supply of clean water but public complaints increased. Some plans were put forward but they came to naught. Other cities, however, recognized that clean water was not just another business but important to their success. In 1816, Philadelphia developed its famous water works on the Schuylkill River, which was not salty. Other large cities in America and Europe developed water systems, albeit with difficulty. London still had unregulated companies using the polluted Thames. But Lisbon had



*Greenwich Street (1810) showing a street pump. Courtesy of I. N. Phelps Stokes Collection, Miriam and Ira D. Wallach Division of Art, Prints and Photographs, The New York Public Library, Astor, Lenox and Tilden Foundations.*

Territories. New York came of age in business: this is the age of John Jacob Astor, the start of Fulton's steamboat line to Albany in 1807, the Black Ball Line (the first regularly scheduled Atlantic crossing) in 1817 and, most importantly, the completion of the Erie Canal in 1825. The Erie Canal opened up New York City through the Hudson River to the mid-West, greatly expanding economic opportunities. The city grew rapidly, becoming the most populous in the United States and a cosmopolitan financial center with many visitors. By 1830, the city (now 203,000 people) had opened 14th Street, engulfing Greenwich Village. But it was now increasingly stratified by wealth as a new merchant class





*The small Manhattan Company reservoir on Chambers St. (1825)*

built a 9-mile aqueduct from mountain springs by 1748. And of course Rome had its first aqueduct back in 312 BC.

### First Steps

Finally, in 1830, someone stepped forward to confront the Manhattan Company. Samuel Stevens<sup>3</sup>, who had been serving on the Common Council, chaired a committee that concluded the Manhattan Company was not complying with its charter regarding water. The committee sued to dissolve the Manhattan Company, and when the case stalled Stevens asked the council to push for state legislation that would take away the company's water rights and fund a public water supply using the Bronx River. The council voted to ask for the transfer but not for the funds so in the end the proposal died.

Stevens also chaired a Fire Committee and that did make headway. In 1829 he proposed a water tower to be built at Broadway and 13th Street, which would use well water (it didn't have to be pure for firefighting), a steam pump and iron pipes with hydrants. The 13th Street reservoir officially opened in April 1831 and further expansion continued. Although small and only for firefighting, it was the start of the public water system.

In the summer of 1832 a cholera epidemic spread to New York. By the time it ended in October 3,500 people had died and 100,000 (nearly half the population!) fled. All social strata were affected. Victims experienced great thirst and called for cold water, but there was little clean water to be had; cholera is now known to spread via contaminated water. The epidemic had one salutary impact: it shocked civic leaders into looking for new sources of water.

### At Last

In April 1832 Myndert Van Schaick<sup>4</sup>, who was elected both alderman and then state senator, became convinced that the Croton River was the best source (it had a large supply and watershed, good elevation for flow and terrain that would not allow much surrounding settlement) and that he could thereby skirt the Manhattan Company monopoly since it had never considered the Croton River. He managed to maneuver engineers, committees, laws and appointments to get the state and city to authorize the highly respected engineer, Major David Douglass<sup>5</sup>, to make a recommendation about how to bring the water to New York.

Douglass recommended a gravity driven, closed aqueduct from the Croton River to East 174th Street and thence to a reservoir at Fifth Avenue and 38th Street.

In April 1834 Van Schaick got a state law passed allowing the city to proceed. The following year, there was a special public ballot asking for approval to bring clean water from the Croton River. Due to extraordinarily bad weather the turnout was light but the measure passed by three-to-one (17,330-5,963). This affirmed that water supply was now a public function, not a private one. But it would be seven more years until water actually flowed.

### Footnotes

1. A novel set against the 1824 yellow fever epidemic is *Hosack's Folly*, Gillen D'Arcy Wood, (2005).
2. See Issue No. 21 (Summer 2005) on the Manhattan Co., the wooden pipes recently unearthed and its "laughably small reservoir"; by 1808 they added the Coenties Slip line with 25 customers!
3. Samuel Stevens (1785-1844), the son of a famous general, became a lawyer who served actively on the Common Council and became president of its successor Board of Aldermen.
4. Myndert Van Schaick, born in Albany in 1782 from a distinguished Dutch family, came to New York, made a fortune, then married into wealth, became an art collector, philanthropist and a committed Democrat. He remained actively involved with the Aqueduct until his death in 1865. Issue 33 (Summer 2009) describes his later activities.
5. David Douglass is treated in Issue 30 (Summer 2008).



## New Trail Connections Entice Aqueduct Walkers

Attractive new links with the Aqueduct have been completed recently that invite trail users to devise creative variations on their Aqueduct-based hikes.

**Gerlach Park Steps, Ossining.** Thanks to 17-year-old Dustin Hofer of Ossining, trail walkers can now easily enjoy a two and a half mile walk on the Aqueduct to Croton Gorge County Park and the New Croton Dam. In a project that gained Dustin Eagle Scout rank in the Boy Scouts, there is now a handsome, sturdy 44-step stairway connecting the Aqueduct with Town of Ossining's Gerlach Park. The park is on Old Albany Post Road off North Highland Ave./Rte. 9, north of the GE campus. There is ample parking space at the north end of the park, something lacking in the past along this entire section of the trail. Walkers can head south from here as well, as course.

Recognizing the need, Henry Atterbury, head of Ossining Recreation & Parks, originated the idea for the stairway. Dustin, who with the rest of his family has long enjoyed the Aqueduct, made this community service project his Eagle Scout project and proceeded to carry out all the tasks involved. These included assessing the topography and choosing a specific site for the stairs; researching stairways built in similar conditions elsewhere; producing a major written proposal with examples, specifications, and a budget that was submitted to Town engineers; organizing fundraising that resulted in the needed \$1800; and eventually constructing the stairs with the help of volunteers from Briarcliff Manor and Ossining who belong to Boy Scout Troop 18 of Briarcliff.

The steps are framed with landscape-grade lumber, filled with gravel, and surfaced with stone dust. Each is anchored in the ground with two-foot-long metal rods for stability. The stairway curves attractively as a result of following the natural topography and avoiding rocks and roots. It is designed to last some 30 to 40 years.

The entrance to the park on Old Albany Post Road is marked with a large, green sign carved to depict a cluster of evergreen trees. The steps are shown as several short, parallel lines on the second edition of the Friends' map of Old Croton Aqueduct State Historic Park, a little below the third ventilator from the top and close to Indian Brook.

**RiverWalk in Tarrytown.** A newly built section of Westchester County's RiverWalk that opened in August is of particular interest to Aqueduct walkers. The one-mile paved path, replete with appealing plantings, railings, benches, overlooks, interpretive signs, and an

80-foot-long footbridge across the ravine of fast-flowing Sheldon Brook, offers a variety of Hudson River views. It extends between the Hudson River end of Van Wart Ave., about a half-mile from Route 9/Broadway, and a Lyndhurst path that yields a grand, open view of the river and connects with the Aqueduct where it enters the estate. (Van Wart Ave. is a short distance north of the Double Tree Hotel.)



*Eagle Scout Dustin Hofer and volunteers work on the Gerlach Park steps. (Photo by A. Hofer)*



*The completed stairway. (Photo by C. Fahn)*

Aqueduct walkers entering Lyndhurst from Irvington can turn left onto the gravel road to the Carriage House courtyard and then onto a paved path heading towards the Hudson; follow this to the gate at the new RiverWalk segment; continue to the gate at Van

Wart Ave.; and walk uphill to Broadway. From here they can walk north to White Plains Road (Route 119) and turn right to pick up the Aqueduct trail, or walk south to explore another part of the trail in bucolic Gracemere, the Tarrytown village park across Broadway from Kraft Foods. Alternatively, when entering Lyndhurst, they can stay straight on the Aqueduct footpath to Route 9 and take one of several possible routes from there. Southbound walkers can do a variety of routes in reverse. The second edition of the Friends' map, including the inset showing the Thruway, Van Wart Ave., and Gracemere, can help with planning.

*Note:* The gate between the new RiverWalk path and Lyndhurst may sometimes be locked in the late afternoon. The non-member fee for parking in Lyndhurst is \$5 per person. Public restrooms are expected to be available next April in the former Lyndhurst bowling alley building close to the new RiverWalk segment. Lyndhurst's number is 914-631-4481.

RiverWalk is the 51.5-mile walk paralleling the Hudson that Westchester is creating along the length of the county by connecting existing paths (including the Aqueduct), streets, and parks with newly built paths. According to <http://tarrytown.path.com>, the segment that opened in August "traverses property owned by Kraft Foods, Lyndhurst, Metro-North, and the Village of Tarrytown."

**Teatown-Kitchawan Trail.** This new 6.5-mile-long east-west trail enables connections

between the north end of the Aqueduct trail at the New Croton Dam in Croton Gorge County Park; Kitchawan Preserve to the east (including a short section on the Briarcliff-Peekskill Trailway), and North County Trailway near where it crosses the New Croton Reservoir. The new trail accesses John Hand County Park at Bald Mountain and Stayback Hill and in places traverses rugged wilderness, reports the New York-New Jersey Trail Conference, offering fine views of the reservoir and beyond.

From the south/east end of the dam, walkers can take the Briarcliff-Peekskill Trailway about 1.25 to 1.5 miles to the intersection with the Teatown-Kitchawan Trail – marked with purple blazes - and then head east toward Kitchawan (or stay on the Briarcliff-Peekskill trail to reach Teatown's lake and trails). North County Trailway walkers can reverse the route to reach the Aqueduct and dam, or Teatown.

The trail opened in October after more than a decade of effort by Teatown Reservation, with participation by the Trail Conference in designing and building the trail and training volunteers to maintain it. Critical cooperation was received from the New York City Department of Environmental Protection, since the trail crosses city-owned Croton Watershed lands. More information and a Trail Conference map are available on the websites of the Trail Conference and Teatown Lake Reservation. – *C. Fahn*



### **Get Ready, Go!: Ossining MATTERS' 8th Annual Run/Walk.**

*On September 11, 2010, more than 500 runners and walkers took part in this annual event to raise money for Ossining schools. The route of the 5-km. run/2-mile walk is partly on the Aqueduct. Walkers start at the south end of the Double Arch Bridge, the runners (photo) at the Post Office. The race opened with a moment of silence in recognition of the 9/11 anniversary. For more information, visit [ossiningmatters.org](http://ossiningmatters.org) or call 914-510-9320. (Photo by N. Temple)*



## Sewage Accident Stems From 1970s Decision

October 24, 2010

Hi Steve,

I noticed that there's some sort of public works excavation going on right atop the Old Croton Aqueduct. A gaping hole appears to have been dug, with lots of broken old bricks piled up, I think you can see right down into the exposed Aqueduct. It's in Tarrytown; north on Route 9 about a mile from the intersection for the Tappan Zee Bridge—you'll see a big round church on the corner of Prospect Avenue. Make a right, go up the block, you'll see the OCA trail marker and the bright orange construction netting around the hole. Maybe these people have a permit, maybe not, just thought you'd like to know. Lloyd Trufelman

Hi Lloyd,

Thank you so much for contacting me about the damage to the Aqueduct in Tarrytown. It is folks such as yourself who let me know when things aren't right that help me maintain the trail.

I did know about this one. It is something of a long story, but you deserve at the very least the brief version for being such a conscientious trail watcher.

In mid-October, I received a call from Yonkers engineers noting a spill of sewage leaking from an Aqueduct bridge over Nepperhan Avenue. The sewage was inside the Aqueduct tube, it was treated with chlorine, and it abated over the course of the night. The next day the bridge exterior was dry, with only a slight flow of sewage inside the tube.

Inasmuch as there should be no raw sewage in the tube, I set out to locate the source. Over the course of the next few days I probed every access to the tube I could



Steven Oakes

locate as far north as Irvington, where there seemed to be no flow. My suspicions centered on St. John's Hospital in Yonkers, as there is a sewage line running over the Aqueduct and it had been worked on months ago. But nothing there seemed amiss and by the beginning of last week, things seemed to have returned to normal.

It was then that I heard from one of my crew of the gaping hole in Tarrytown. Through the assistance of the State Park Police and the tracking of the ownership of a piece of construction equipment, I was able to ascertain that the culprit was ultimately Westchester County's Environmental Facilities arm, which operates sewers and wastewater treatment plants.

The bottom line is that in the very early 1970s, the County received permission from State Parks to place a 30-inch force main—a pressurized sewer line—inside the Aqueduct for a short distance in Tarrytown. That line sprung a leak, which took a day or more to locate. Once the location was found the county hired a contractor to repair the leak, which they did by tearing the opening you saw into the top of the 170-year-old structure.

As you might have guessed, the Aqueduct as an historic entity is a relatively recent phenomenon. When it was accepted as a state park in 1968 there was evidently little attention paid to the tube and its ancillary structures, the weirs and ventilators. It wasn't until 1992 that the engineered portions of the park were recognized as an historic landmark. Since that time we have been living with a handful of arrangements that aren't in keeping with the park as an historic site, such as the County sewer easement. Alas, the contract allows emergency repairs as needed, so the best long-term hope is that the sewer line be relocated at some point in the future. And the County has been made aware of my displeasure at not having notified the landowner of a leak of sewage onto public property.

So that is the long and short if it. The county expects to replace the destroyed arch with a concrete arch, and place a concrete 'hood' over the repaired area, to alleviate the ground pressure that might damage what could be a structurally-impaired section of the historic tube. It is the consequence of decisions made back in the 1970s.

Anyway, thanks again for keeping me posted. By all means report to me anything you see that is amiss. I am fervently trying to catch dumpers—mostly yard waste and so on, but in substantial quantities and over years—just a few blocks to the north, so keep an open eye for me, if you can!

Steve Oakes  
Park Manager

### MEMBERSHIP COUPON

Your tax-deductible contribution helps to protect and preserve the trail.

- |   |   |
|---|---|
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Please make check payable to Friends of the Old Croton Aqueduct. Send it with this coupon to the Friends at Keeper's House, 15 Walnut St., Dobbs Ferry, NY 10522-2109.

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*Please let us know if you would like to volunteer.*

For inquiries about Old Croton Aqueduct State Historic Park or to report trail conditions, call Park Manager Steven Oakes at 914-693-5259; mailing address: 15 Walnut Street, Dobbs Ferry, NY 10522.



*The drawing for the bike took place at the Keepers House in Dobbs Ferry. (Photo by Deniz Tuzun)*

**Newsletter:** Ruth Gastel, *Editor*. News items, reminiscences, and comments welcome: 914-479-1414 or [ruthg@iii.org](mailto:ruthg@iii.org) or by mail c/o the Friends.

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**Friends of the Old Croton Aqueduct** is a private, non-profit, volunteer organization formed to protect and preserve the Old Croton Aqueduct. The Friends work to raise public awareness of the Aqueduct and trail, and to secure the resources that will enable this historic greenway to remain unspoiled in perpetuity. *Address:* Keeper's House, 15 Walnut St. Dobbs Ferry, NY 10522-2109; *telephone* 914-693-4117, [www.aqueduct.org](http://www.aqueduct.org)

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