

### YORKTOWN HISTORICAL SOCIETY

P. O. Box 355 - Yorktown Heights, NY 10598 http://www.yorktownhistory.org

## NEWSLETTER

### Preserve the Past - Enlighten the Future

By: Joan J. Fyfe, Editor

Welcome back! The third Chapter of "Images of America Yorktown" will take our excursion on water, "Water for New York.,"

A special thank you to Alice Roker, Yorktown Town Clerk for permission to excerpt the book, "*Images of America Yorktown*." And to Carl Oechsner and Linda Cooper for their composition of this chapter.

Water for New York: During the Colonial period, the city of New York did little to ensure an adequate and safe supply of water for the citizens of its growing community. A series of government efforts to create municipal water companies met with disorganization and corruption.

Two devastating events finally motivated the city to create a plan to supply clean water for its citizens. The first was the cholera epidemic of 1832, in which 2,000 people died. The toll would have been higher, but some 150,000 residents fled, leaving an "unwanted silence." The second disaster that urged the city to secure an ample water supply was the Great Fire of 1834 that consumed an estimated 1700 buildings.

A newspaper reported, "The morning of the 17th of December, opened upon New York with a scene of devastation sufficient to dismay the stoutest heart." The City's chief disadvantage against the fire's onslaught was the lack of water. New York still took most of its drinking water from neighborhood wells, which had grown increasingly polluted. Spring water, carted from up island, supplied only those who could afford it. The time had come for a better system

A number of suggestions had been made to solve the problem:

In 1789, Dr. Joseph Browne designed a dam and canal system across the Bronx River into the Harlem River, with a waterwheel filling a reservoir on Manhattan.

In 1819, Robert Macomb proposed to bring water from Rye Pond to a reservoir on the Harlem River before distributing it to the city.

In 1830, John L. Sullivan suggested building a navigable canal from the Passaic River for both water and commerce to flow between Pennsylvania and New York.

Finally, in 1834, Bradford Seymour proposed building a dam across the Hudson from New Jersey to New York. The dam would prevent saltwater encroachment, and locks would allow navigation in the river, while river water would be pumped to a reservoir for city consumption.

The population of New York City soaredto 4350,000 in 1835, with each citizen using an average of 26 gallons of water daily.....in 1835, city voters approved the building of a 42-mile aqueduct, dam and reservoir that would carry fresh water from the Croton River in Yorktown into Manhattan. Maj. David B. Douglas, West Point professor was appointed chief engineer for the project. He and his assistants laid out the line of the 42-mile brick conduit, as well as the spot for the new dam a "lake" (reservoir). For political reasons, John Bloomfield Jarvis, who had worked on both the Erie Canal and the Delaware & Hudson Canal, replaced Douglas in 1836.

### Contd. from cover page

Work on the dam began in 1837......From 1837 to 1842, Jarvis dealt with many issues that complicated the massive project...large amounts of granite and sand had to be obtained, as well as dealing with dishonest contractors who absconded with money leaving laborers unpaid.

Letters appeared in city newspapers from renowned individuals such as Washington Irving, who strove to create worker unrest. Not wanting construction so close to his property, Irving did his best to offend the largely Irish workforce by writing letters full of stereotypical jokes....after a fateful winter in January 1840 and below zero temperature, the structure collapsed......Jarvis quickly rebuilt the structure and finished the 42-mile aqueduct into New York City ending at a receiving reservoir in Central Park, and finishing at the distribution reservoir on Fifth Avenue and 42<sup>nd</sup> St., now the site of the New York City Public Library. The project was finally completed and opened in June 1842.

The Old Croton Dam, now a National Historic Landmark, was the first large masonry dam built in the United States and was the prototype for numerous municipal water supply dams built in the east during the 19<sup>th</sup> Century. In 1973, it was listed on the National Register of Historic Places as an underwater archeological site.

Today the New York City watershed covers an area of over 1,900 square miles in the Catskill Mountains and the Hudson River Valley. The watershed is divided into two reservoir systems: the Catskill/Delaware watershed located west of the Hudson River and the Croton watershed, located east of the Hudson River.

Together, the reservoir systems deliver approximately 1.4 billion gallons of water each day to nearly 9 million people in New York City, much of Westchester County, and areas of Orange, Putnam, and Ulster Counties.

The Catskill Water Supply System, completed in 1927, and the Delaware Water Supply System, completed in 1967 combine to provide about 90 percent of New York's water supply. The combined Catskill/Delaware (Cat/Del) watersheds cover 1,600 square miles. Water from the Catskill and Delaware systems is mixed in the Kensico reservoir before it is discharged into the Hillview reservoir and on to the distribution system. Drinking water from the Cat/Del System is of high quality and is currently delivered to New York consumers unfiltered (in compliance with the Surface Water Treatment Rule).

The Croton Water Supply System began service in 1842 and was completed in 1906 with the New Croton Dam. Consisting of ten reservoirs and three controlled lakes, the Croton system has the capacity to hold 95 billion gallons of water and normally provides 10 percent of New York's daily water supply. The Croton Watershed covers approximately 375 square miles east of the Hudson River in Westchester, Putnam, and Duchess Counties and a small section of Connecticut. For further information Contact: Gratz.Jeff@epa.gov

New Changing Exhibit "Valley Of The Dam" July 25 – Nov 7, 2004

Get the dirt on the Dam – Visit this exciting exhibit at the Yorktown Museum Celebrating the 100th Anniversary of the architectural marvels of the dams of the Croton Reservoir system featuring the "Cornell Dam" (The New Croton Dam). The Croton River Valley



system provides water to New York City and impacts on the local Yorktown area to this day.

Come and see how water for New York City impacted our local community and changed the lives of many of the residents who were living and working here. New villages were created, new roads and bridges were constructed, houses and farms were relocated. Yorktown was fortunate to have had many water sources available that were used. Some of these water sources are still in use by the local population today. This is an educational exhibit and the Museum suggests that schools, camps, organizations and other interested parties call for tour appointments as time slots are limited and filled on a first come basis.

A special thank you to Adele Hobby of the Yorktown Museum for permission to use this information and photo.

Water is abundant on our planet. However, 97.3 per cent occurs in the form of sea water, and only 2.7 per cent is fresh water; that there are 1.4 billion km3 of water available in the form of liquid water, ice and water vapour; that average precipitation on land is 74 cm/yr, and average evaporation from land in 49 cm/yr; and

• that average precipitation on oceans is 107 cm/yr, and average evaporation from oceans is 117 cm/yr. While the water in world's oceans may seem unbounded, the amount of fresh water actually available to mankind is limited. The world per capita internal renewable water supply is about 7000 m3 at present. This per capita supply varies between and within countries and seasons.

Of the available renewable water resources, only an estimated 9000 km3 to 14,000 km3 per year (8 - 13% of terrestrial precipitation) may potentially be controlled with technically, socially, environmentally and economically feasible water development programes.

Human use of water has increased more than 35-fold over the past three centuries. Globally, about 3400 km3 of fresh water is being withdrawn annually for use. Of this total, 69 per cent is used for agriculture, 23 per cent for industry, and 8 per cent for domestic use. Water use varies considerably around the world - in Africa, Asia and South America, agriculture is the primary user. Asia uses 86 per cent of its water for agriculture, mainly irrigation. But in most of Europe and North America, domestic requirements of water exceed the agricultural needs.

Civilizations have used dams for thousands of years for water supply, flood control, navigation, and in more modern times, hydroelectric power generation and recreation.

The major driving force for dams throughout the world will be the need for reliable and safe water supply, particularly in developing nations. Water demand and consumption is expected to grow exponentially worldwide largely as the result of: "Growth in world population creating demand for water and food

- "Rising expectations for economic growth and improved standard of living
- "Recognition that safe and reliable water supplies are essential to health

67TH ANNUAL MEETING OF INTERNATIONAL COMMISSION ON LARGE DAMS

### Wanted:

The Yorktown Historical Society is seeking an energetic and resourceful individual to chair the Program Committee in 2005. Monica Doherty, current chair, will be stepping down and is eager to work with her future replacement to provide the same level of excellent programming, to which members have become accustomed.

If you or someone you know, would be interested in this volunteer position, please contact Monica @914-245-5153

**Also Wanted:** The volunteer position of Treasurer is available. If interested, contact Thom Travis @ 914-962-5406.

Water is essential for life. USGS operates in every State; the Water Resources mission is to provide water information that benefits the Nation's citizens: publications, data, maps, and applications software.

# Please renew your membership

### Type of Memberships

Individual	\$ 10
Family	\$ 15
Senior	\$ 8
Senior Family	\$ 12
Student	\$ 5
Corporate	\$100
Sustaining	\$ 25
Life/Benefactor	\$250
Institutional	\$ 50
Please mail checks to:	

Yorktown Historical Society
P. O. Box 355 - Yorktown Heights, NY
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## Thursday, October 28, 2004, 8:00 PM; Yorktown Community Cultural Center, Senior Meeting Room. Somers, Home of the Early American Circus.

Terry Ariano, Curator of the Somers Historical Society, will show slides and talk about the purchase of one elephant in the early 19th century and the beginning of a new American entertainment form that evolved in Somers and its locale. She will review what remains of this curious segment of local history, and the pioneers whose innovations are still in use today.

## Thursday, November 18, 2004, 8:00 PM; Yorktown Community Cultural Center, Nutrition Center. *Raptors and Eagles*.

Tom Lake, a naturalist with the State Department of Environmental Conservation, who specializes in the history of the Hudson River Estuary, will discuss the return of eagles to the Hudson Valley area after a 100-year absence and their needs for long-term survival.

Sunday, December 5, 2004, 1:00 PM; Yorktown Museum, Yorktown Community Cultural Center, Top Floor.

Holiday Program. TBA

Join us for a special holiday program co-sponsored with the museum.

About the organization: The Yorktown Historical Society is a not-for profit organization with a 15-member Board of Trustees. It was established in 1976 for the purpose of identifying and preserving local historic sites and structures in and around the town of Yorktown. and researching, interpreting and sharing local history. It meets once a month either in committees, board meetings or special programs; all are open to the public.

All programs are open to the public and free of charge.

### A GIFT FOR ALL SEASONS



"Eternal Vigilance"

June 1779, Crompond (Yorktown) NY Image size 11" x 17" Release Date: October 2002

Edition size 500: 50 A/P: 25

Remarques

Price: \$175 to \$275

(Unframed)

You can view the artwork of Paul Martin at the Yorktown Historical Website: http://www.yorktownhistory.org and also place an order for a

Standard Rate
U. S. Postage
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