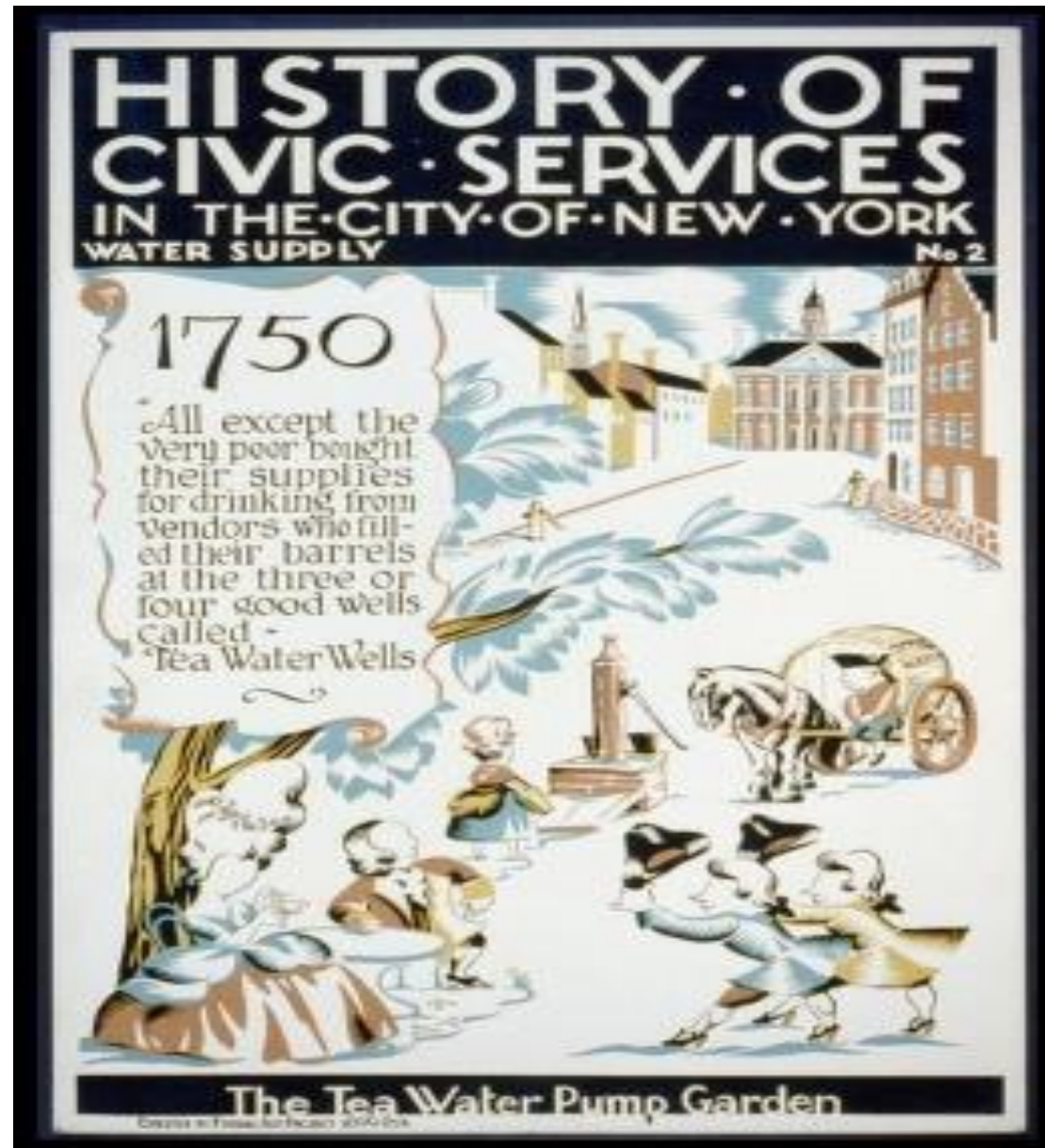
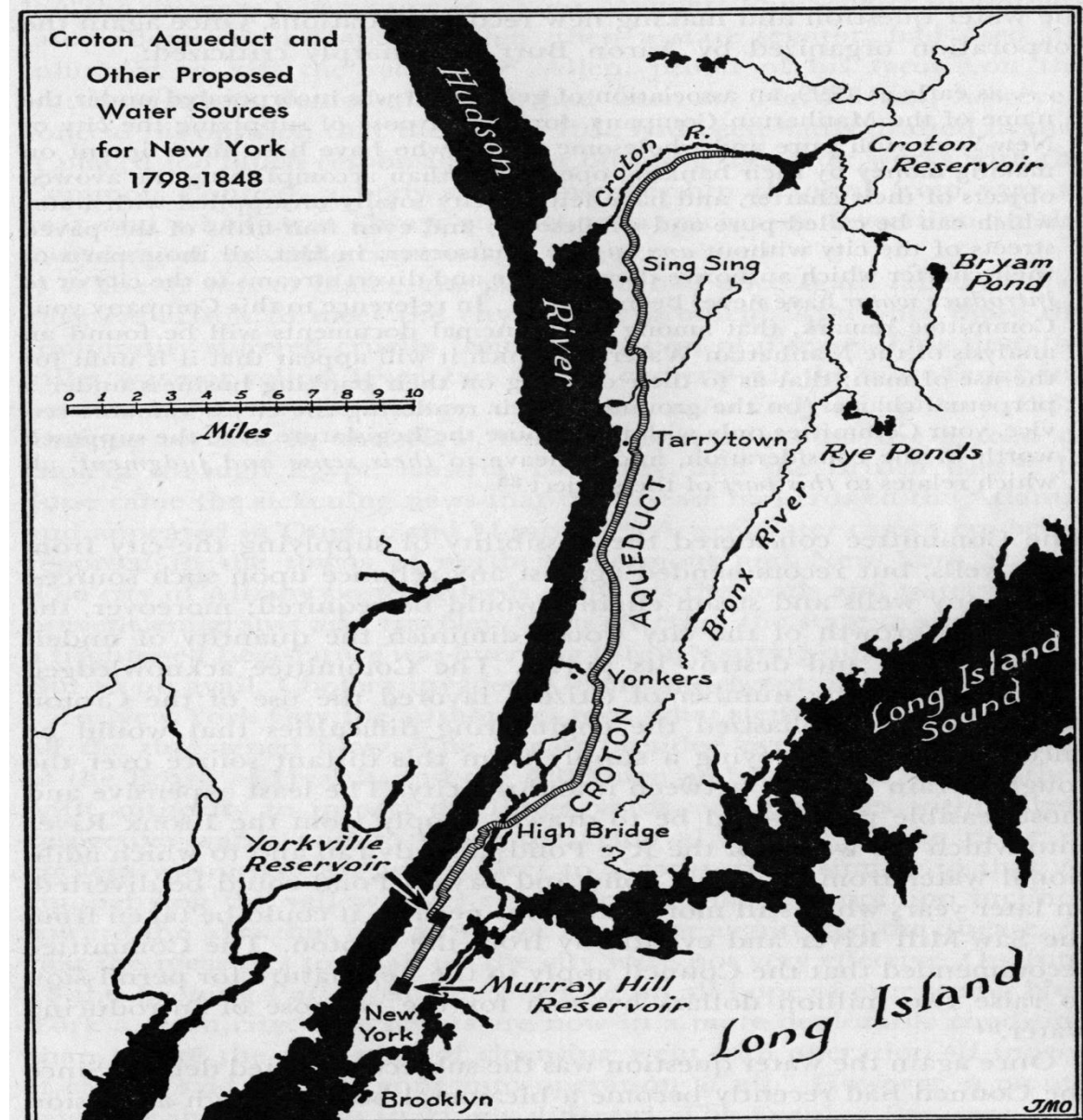


- ❖ 1600s:
Main water source was a 48-acre pond in lower Manhattan
- ❖ 1700s:
Water hauled from Brooklyn to supply Manhattan's growing population
- ❖ Early 1800s:
Inadequate supply leads to health and safety problems



Evolution of New York City's Water Supply

- ❖ 1830s: City begins construction of the Croton Water Supply System in Westchester County
- ❖ 1842: Water flows from upstate New York through the Croton Aqueduct
- ❖ 1880s and 1890s: Croton System Expanded



The Old Croton Watershed

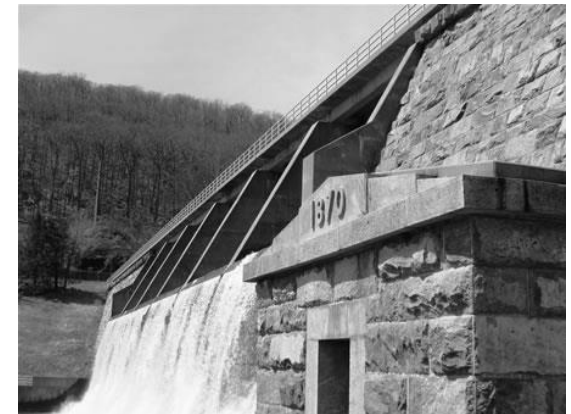
Great Fire of 1835

- ❖ Consumed over 700 buildings in a 17 square block area
- ❖ Increased demand for reliable water supply / increased the pace of Croton development



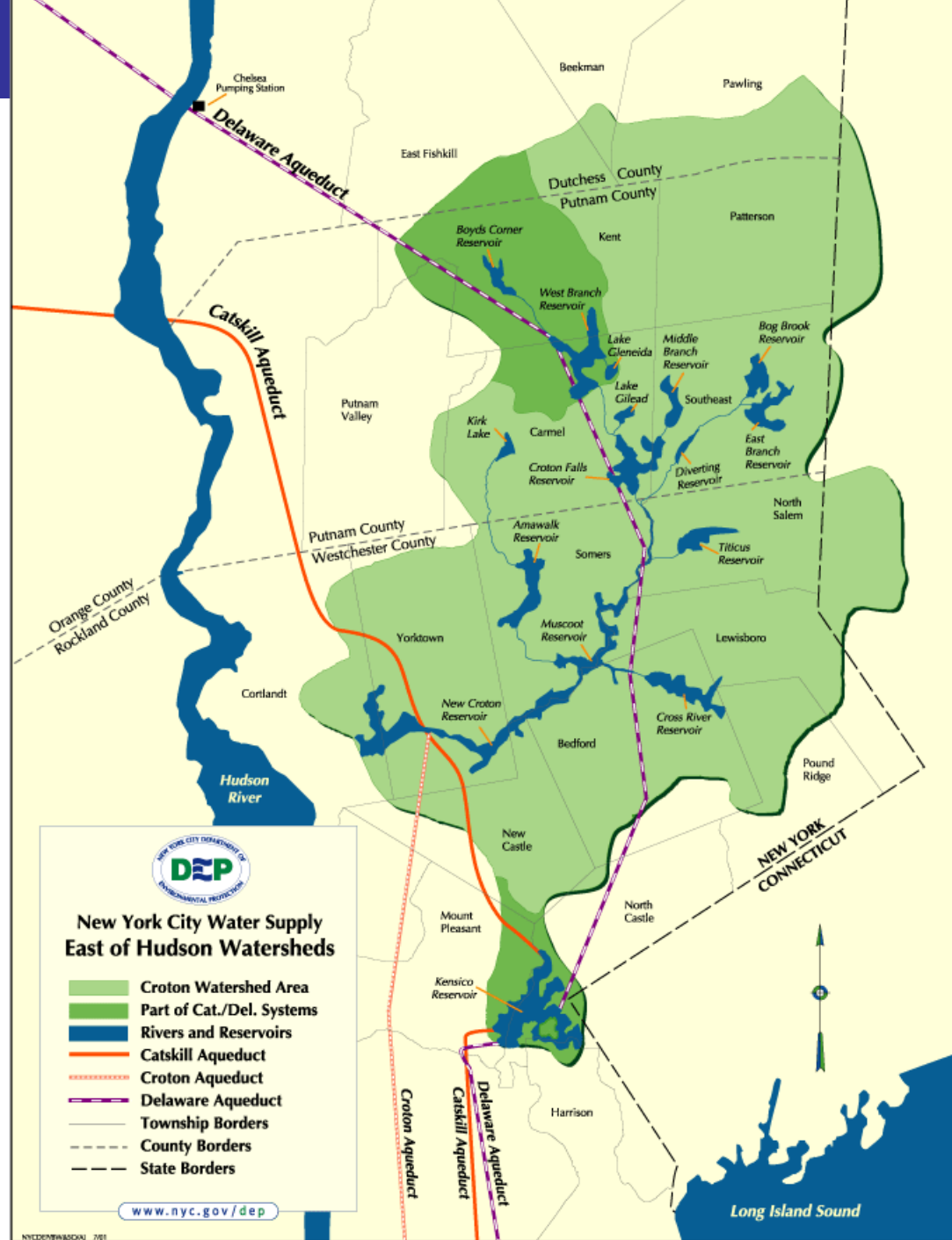
❖ New reservoirs constructed to increase supply

- ❖ 1870 Controlled Lakes (3)
- ❖ 1873 Boyd's Corner
- ❖ 1878 Middle Branch
- ❖ 1891 East Branch
- ❖ 1892 Bog Brook
- ❖ 1893 Titicus
- ❖ 1895 West Branch
- ❖ 1897 Amawalk
- ❖ 1905 New Croton Reservoir
- ❖ 1905 Muscoot Reservoir



❖ New Croton Aqueduct placed in service in 1890 to serve the Greater New York Area

Croton System Today

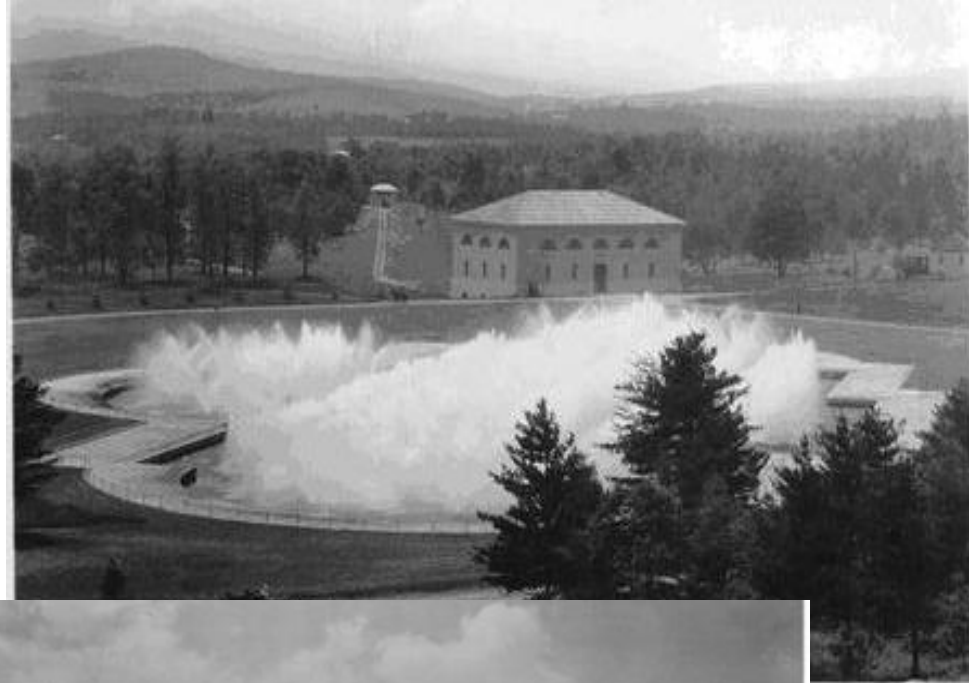


West of the Hudson Expansion

- ❖ 1905 Board of Water Supply created
 - ❖ Catskill region plan submitted
 - ❖ Department of Water Supply, Gas, and Electricity operated system



- ❖ Esopus and Schoharie Watersheds selected
- ❖ Construction started 1907
- ❖ Ashokan Reservoir and Catskill Aqueduct were placed in service in 1915



The Catskill Watershed (1905-1928)

Development began in the early 1900's as the city's population grew at a rapid rate.

Comprised of:

- 2 reservoirs
- Shandaken Tunnel
- Catskill Aqueduct
- Kensico Reservoir
- Hillview Reservoir
- City Tunnel # 1
- Richmond Tunnel

Provides 40% of the
water supply.

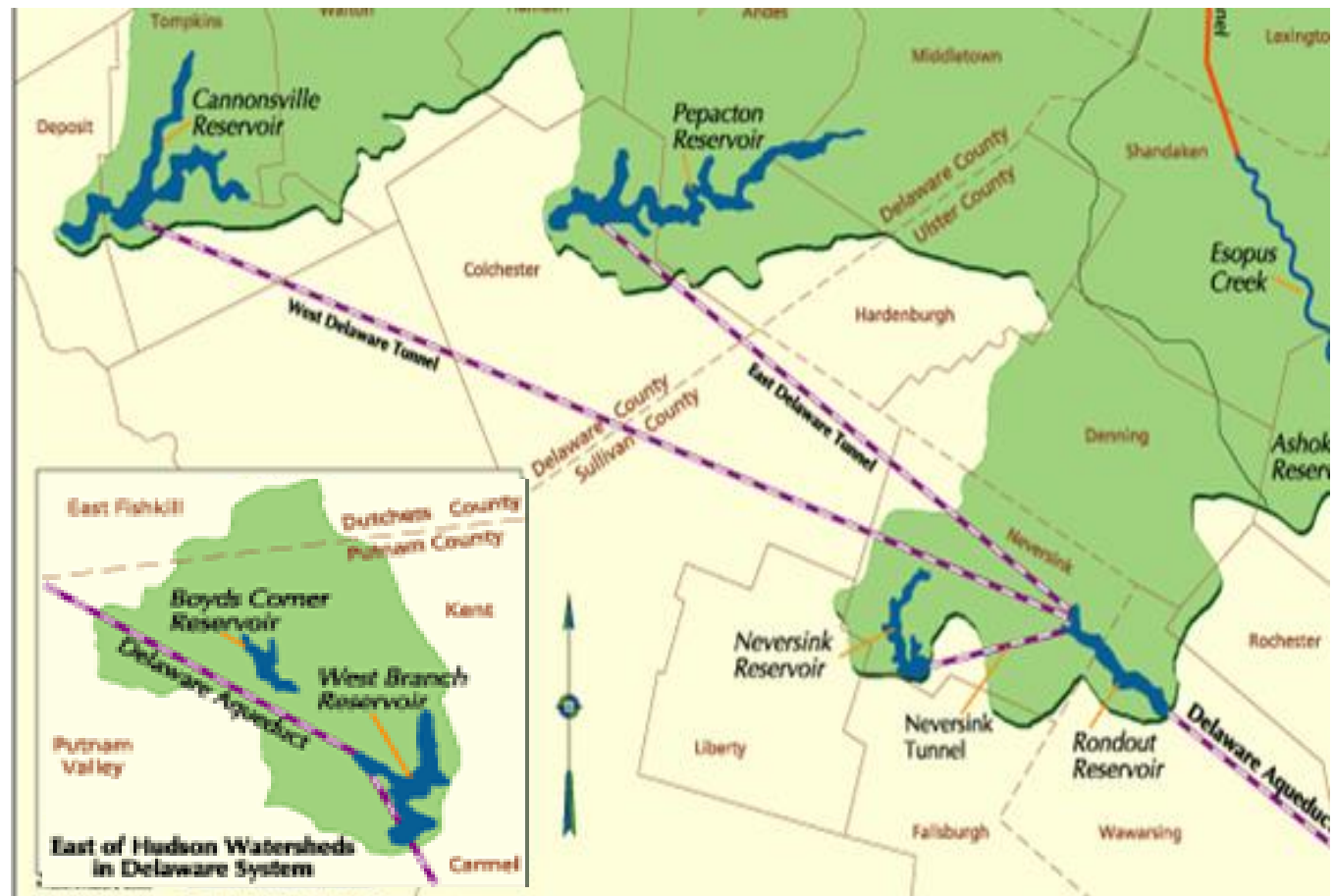


The Delaware Watershed (1937-1965)

Created in accordance with the Supreme Court Decree of 1931 (amended 1954) which formulated a water rights agreement between NYC, NY, NJ, PA and DE .

Comprised of:

- 4 reservoirs
- Delaware Aqueduct

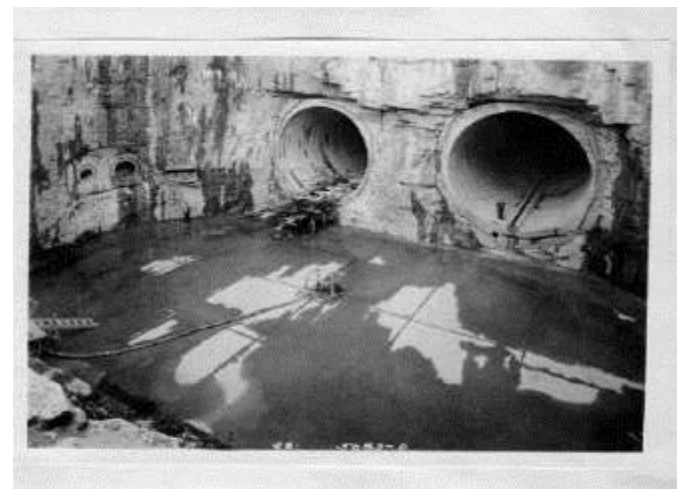


Provides 50%
of the water
supply.

- ❖ 1928- NYC moves forward
- ❖ 1930 New Jersey to stop NYC development
- ❖ In 1931 Supreme Court upheld the right of New York City to develop Delaware supply
- ❖ 1954 Supreme Court Decree amended allowing Cannonsville development



- ❖ Delaware System was completed in several stages.
 - ❖ Delaware Aqueduct -1944
 - ❖ Rondout Reservoir - 1950
 - ❖ Neversink Reservoir - 1954
 - ❖ Pepacton Reservoir - 1955
 - ❖ Cannonsville Reservoir – 1964



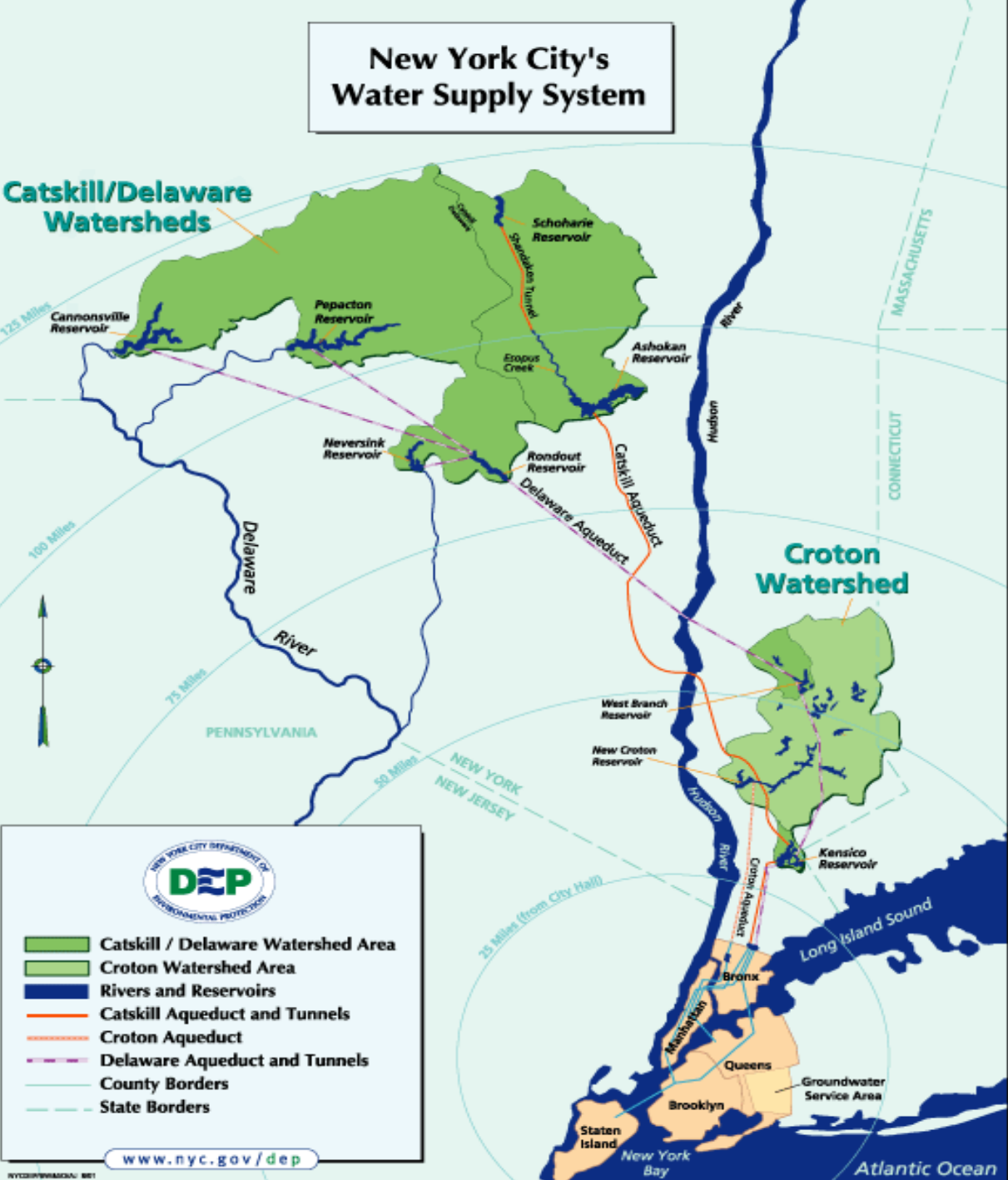
Today

- Primarily a surface water supply
- 19 reservoirs & 3 controlled lakes
- System Capacity: 550 billion gallons
- Serves 9 million people (1/2 of population of New York State)
- Delivers approx. 1.3 billion gallons per day to the City
- Source of water is a 2,000 square mile watershed in parts of 8 upstate counties

New York City's Water Supply System

Catskill/Delaware Watersheds

Croton Watershed



New disinfection & filtration facilities will increase the flexibility of our water supply system



Catskill/Delaware Ultraviolet
Disinfection Facility



Croton Water Filtration Plant







- ❖ Filtration of the Croton System is required under the Surface Water Treatment Rule and a subsequent federal Consent Order.

- ❖ Filtration of the Croton supply will:
 - ❖ significantly enhance the reliability of the Croton system in meeting downstate water needs in the 21st century
 - ❖ reduce the formation of disinfection by-products and seasonal problems with color, odor and taste
 - ❖ significantly reduce the potential threats posed by microbial contaminants

- ❖ Filtration in conjunction with a strong watershed protection program is the most effective way to protect the public and increase the reliability of the water supply

- ❖ Filtration Plant will be located at the Mosholu Golf Course in Van Cortland Park.
- ❖ Filter process:
 - ❖ stacked dissolved air flotation above filters
 - ❖ UV disinfection
 - ❖ Design flow of 290 mgd
- ❖ To compensate for the lost parkland, 70 Bronx parks reconstruction projects, at a cost of \$220 million from DEP and the Municipal Water Finance Authority, will be completed over the next five years.



Mosholu Site New Design

