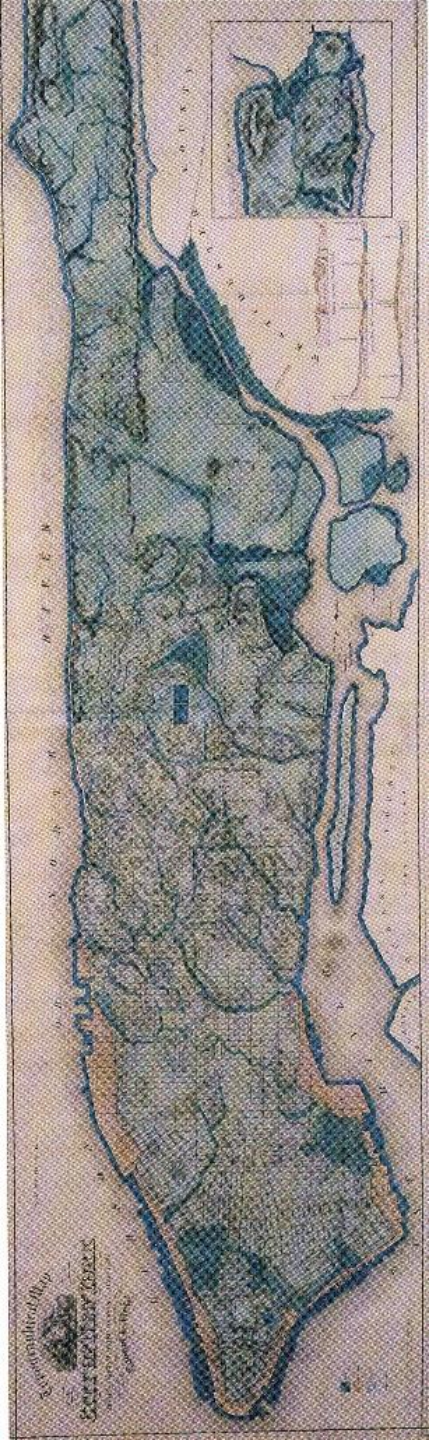


NEWYORK WATER SYSTEM



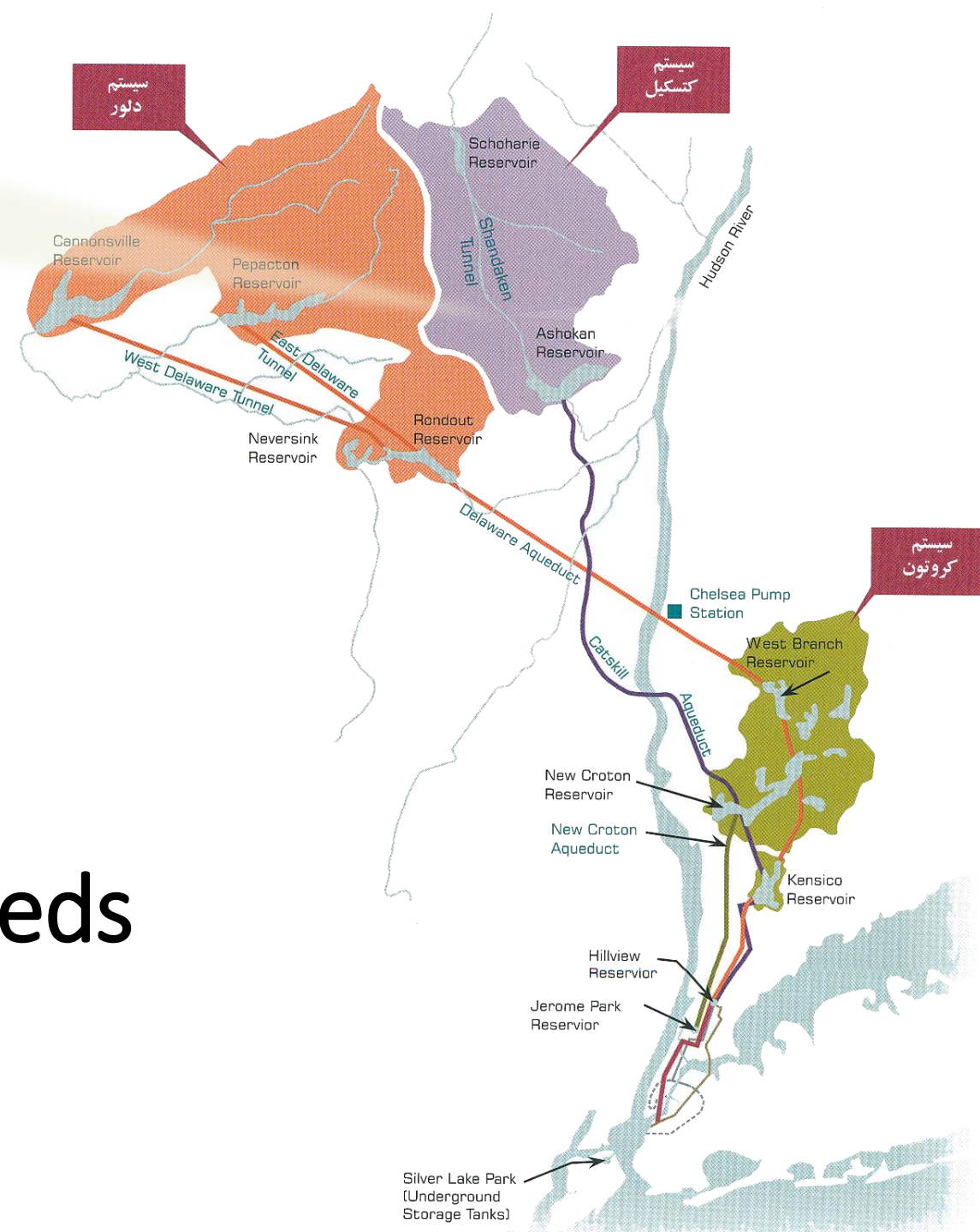
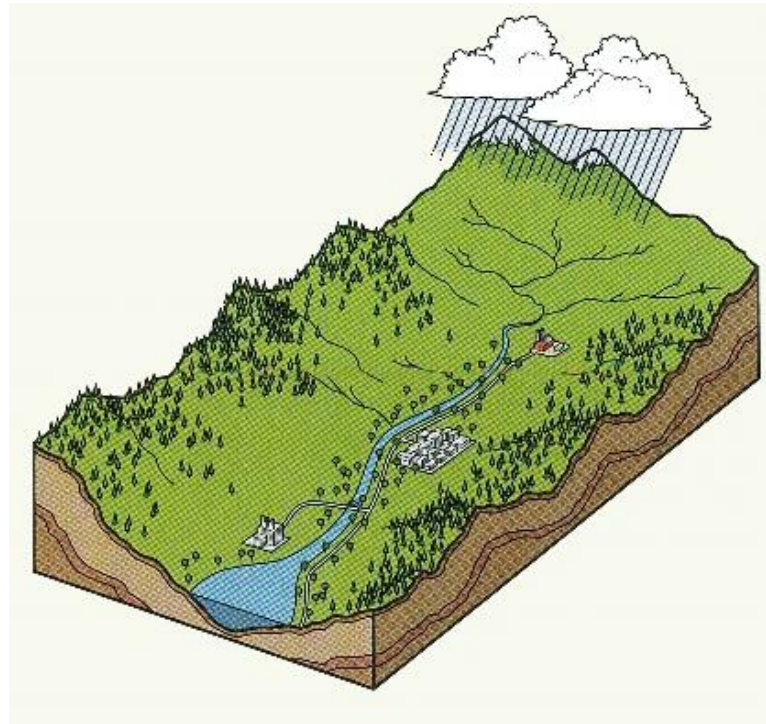


HISTORY

NEW YORK CITY'S WATER IS RENOWNED FOR ITS ABUNDANCE AND ITS PURITY. BOTH ARE PRODUCTS OF THE INTRICATE SYSTEM OF DAMS, RESERVOIRS, TUNNELS, AND AQUEDUCTS THAT CARRY 1.3 BILLION GALLONS OF WATER EACH DAY FROM PROTECTED WATERSHED AREAS IN UPSTATE NEW YORK TO RESIDENTS OF THE FIVE BOROUGHS. THE SYSTEM ALSO SUPPLIES, EN ROUTE, ANOTHER 100 MILLION WATER GALLONS OF WATER DAILY TO OVER A MILLION CUSTOMERS IN NEIGHBORING COUNTIES. NEW YORK'S WATER WASN'T ALWAYS SO CLEANER SO PLENTIFUL.



- Croton system
- Catskill system
- Delaware system

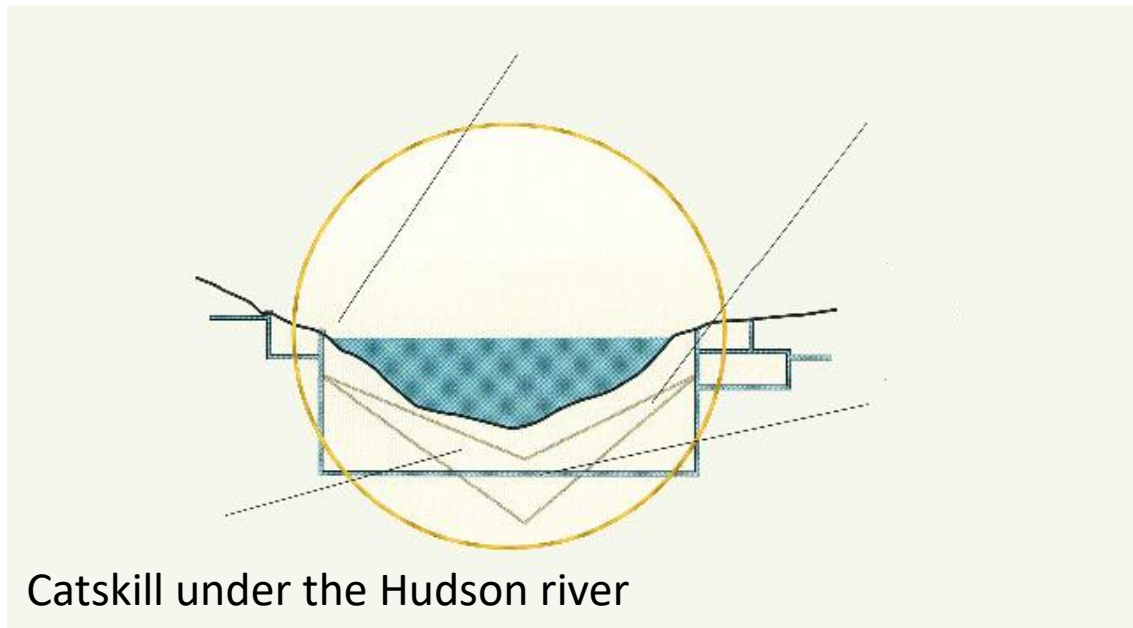


Aqueducts and watersheds

Lake reservoir



Bridged aqueduct

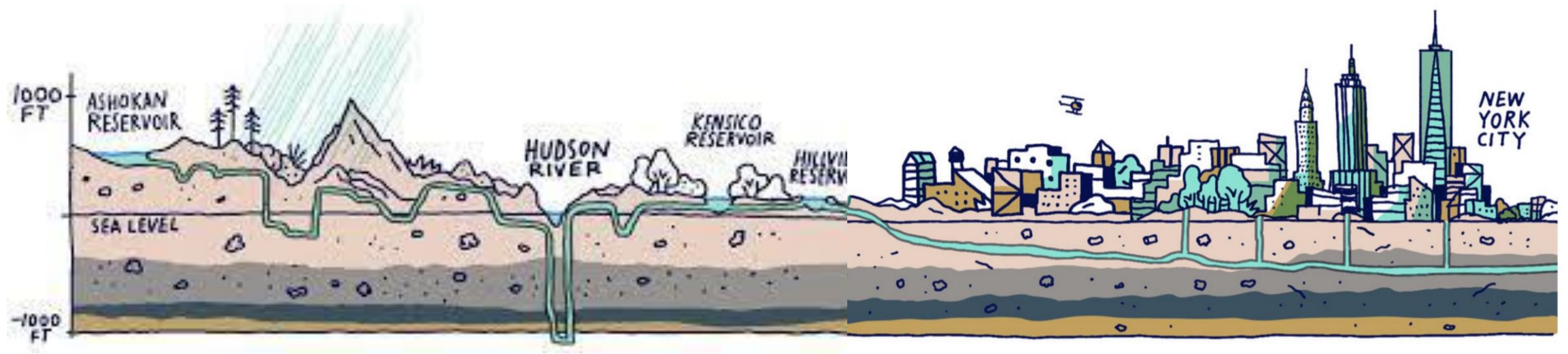
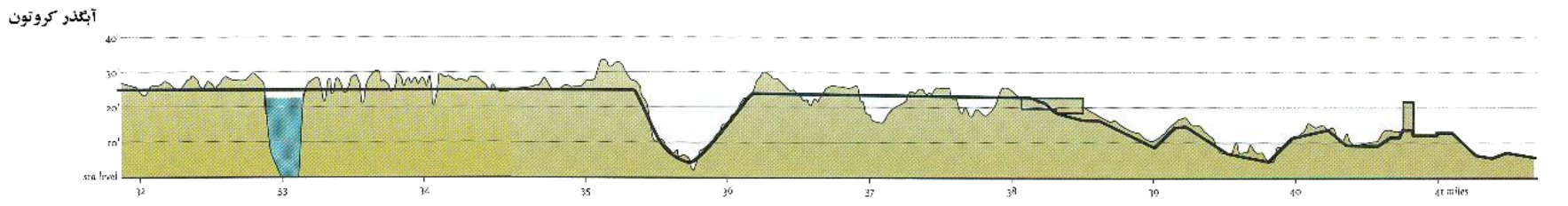
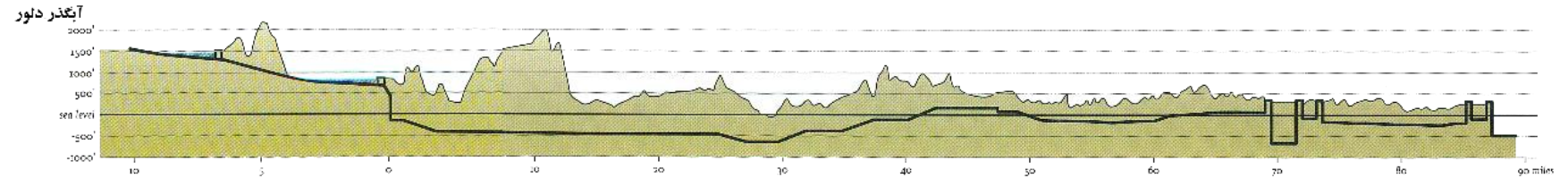
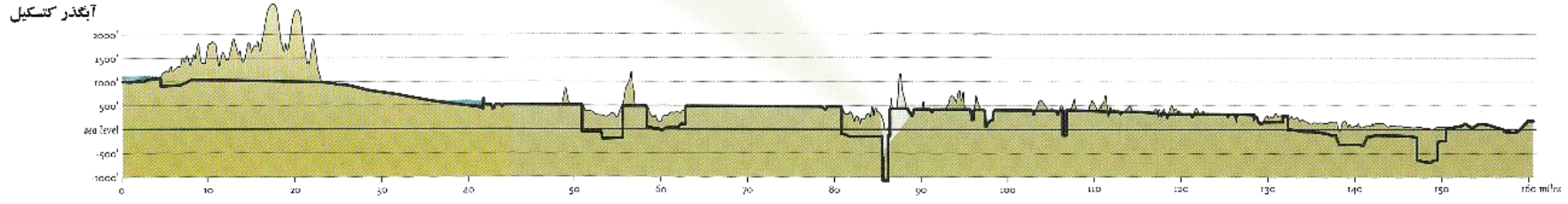


Catskill under the Hudson river

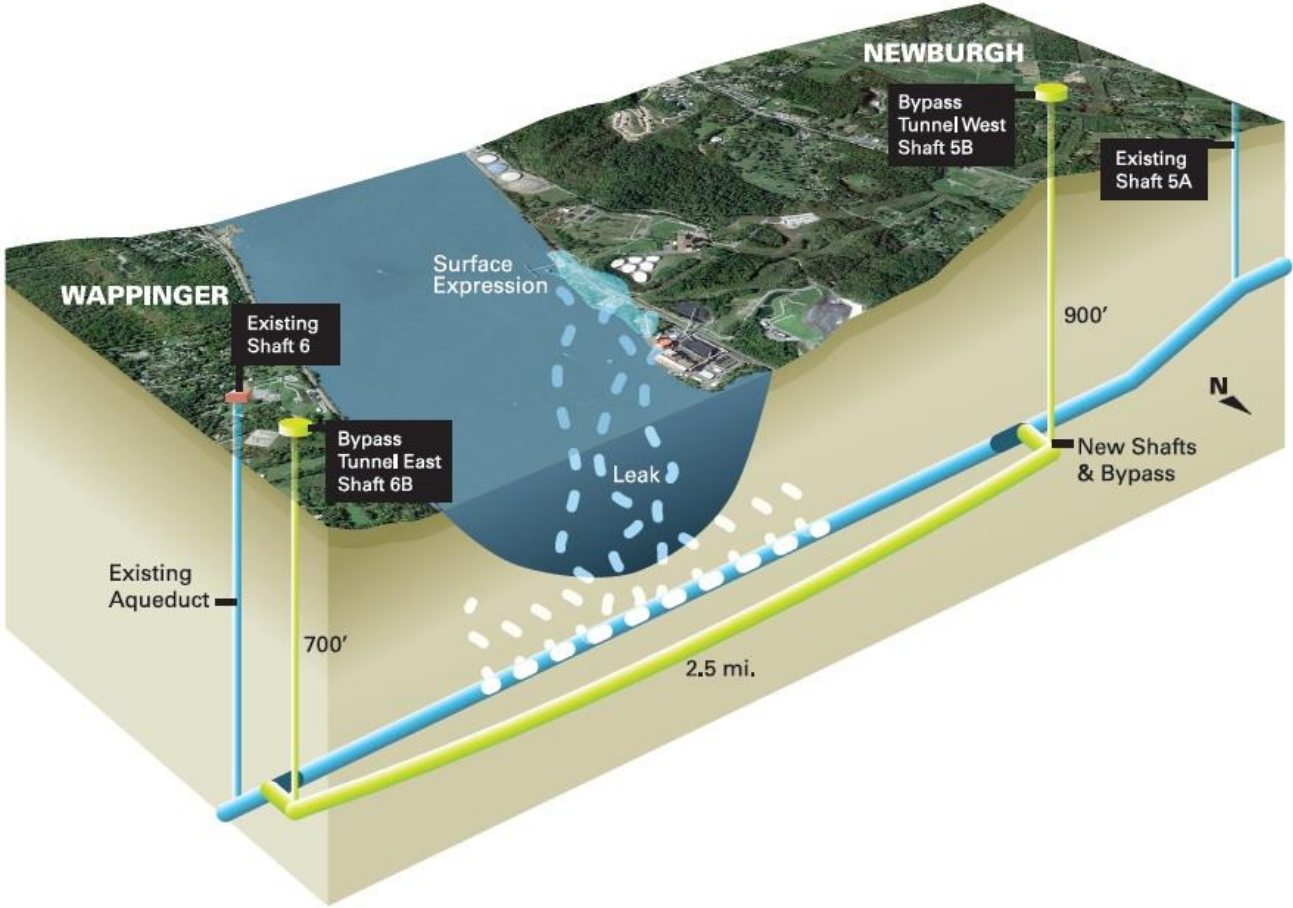
Old Croton reservoir



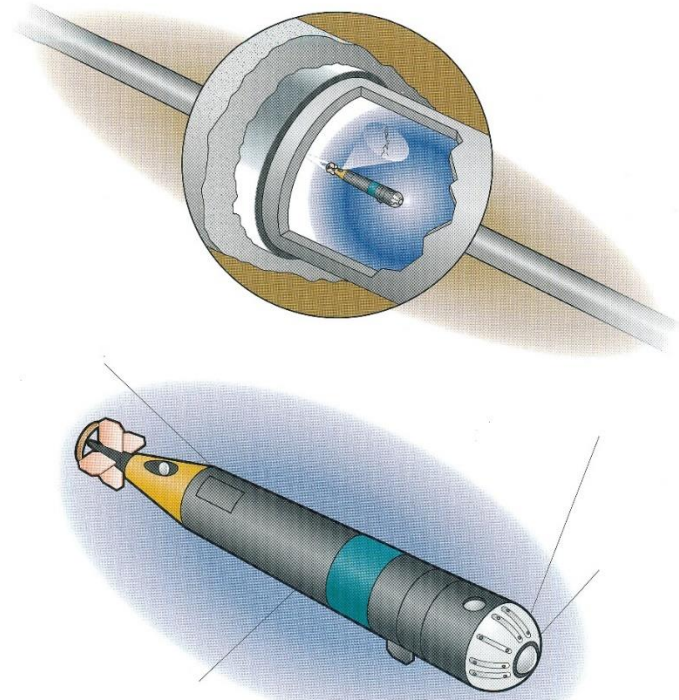
- Profile
- Geographical pressure



Leaks

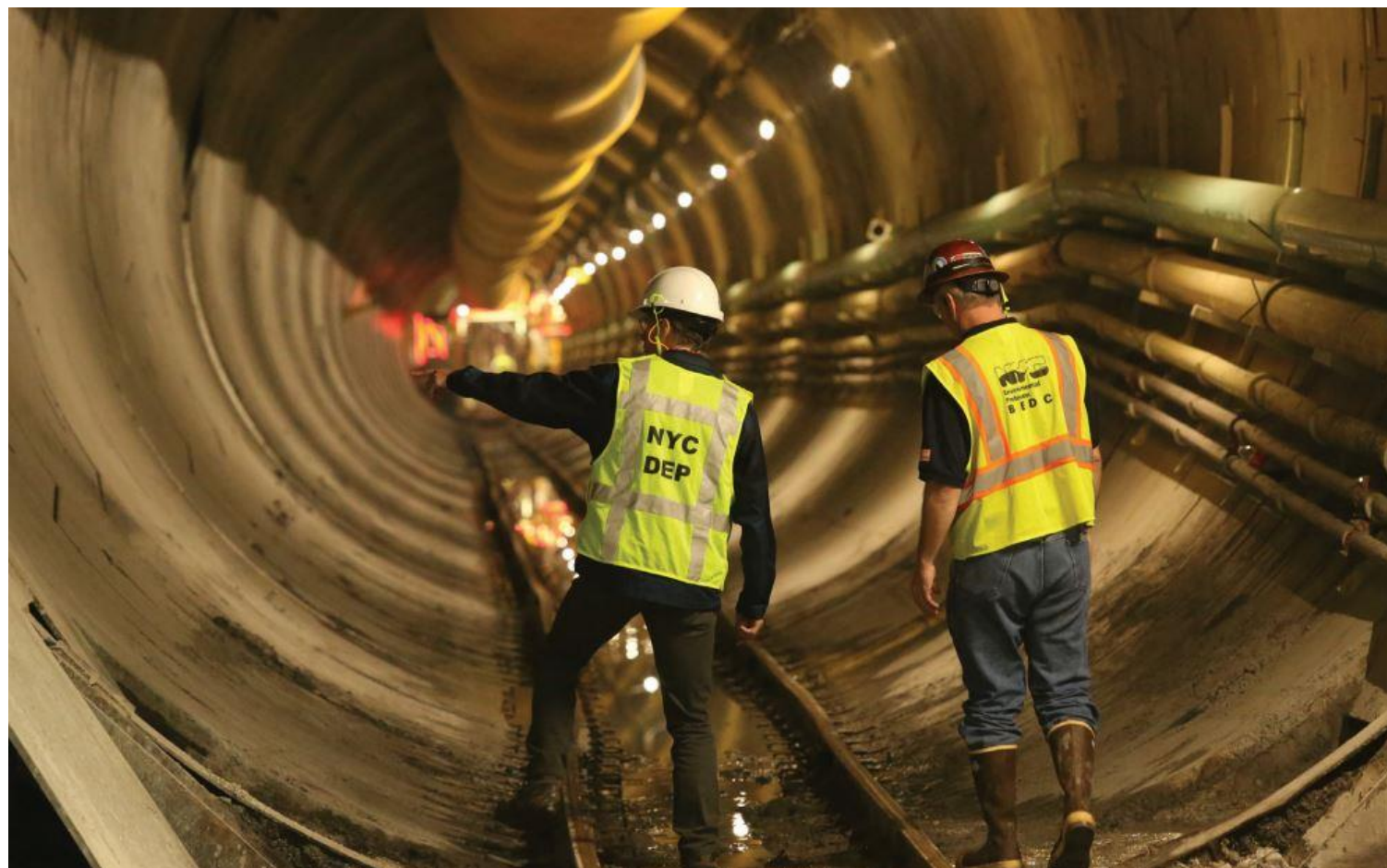


Delaware aqueduct



Tunnel inspection robot

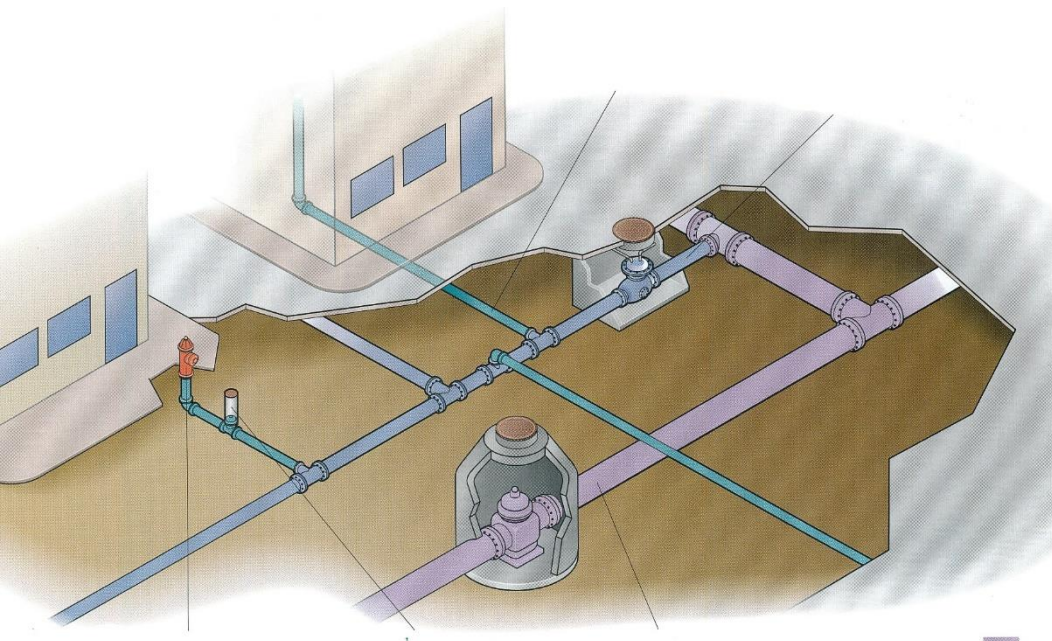
Delaware aqueduct bypass tunnel



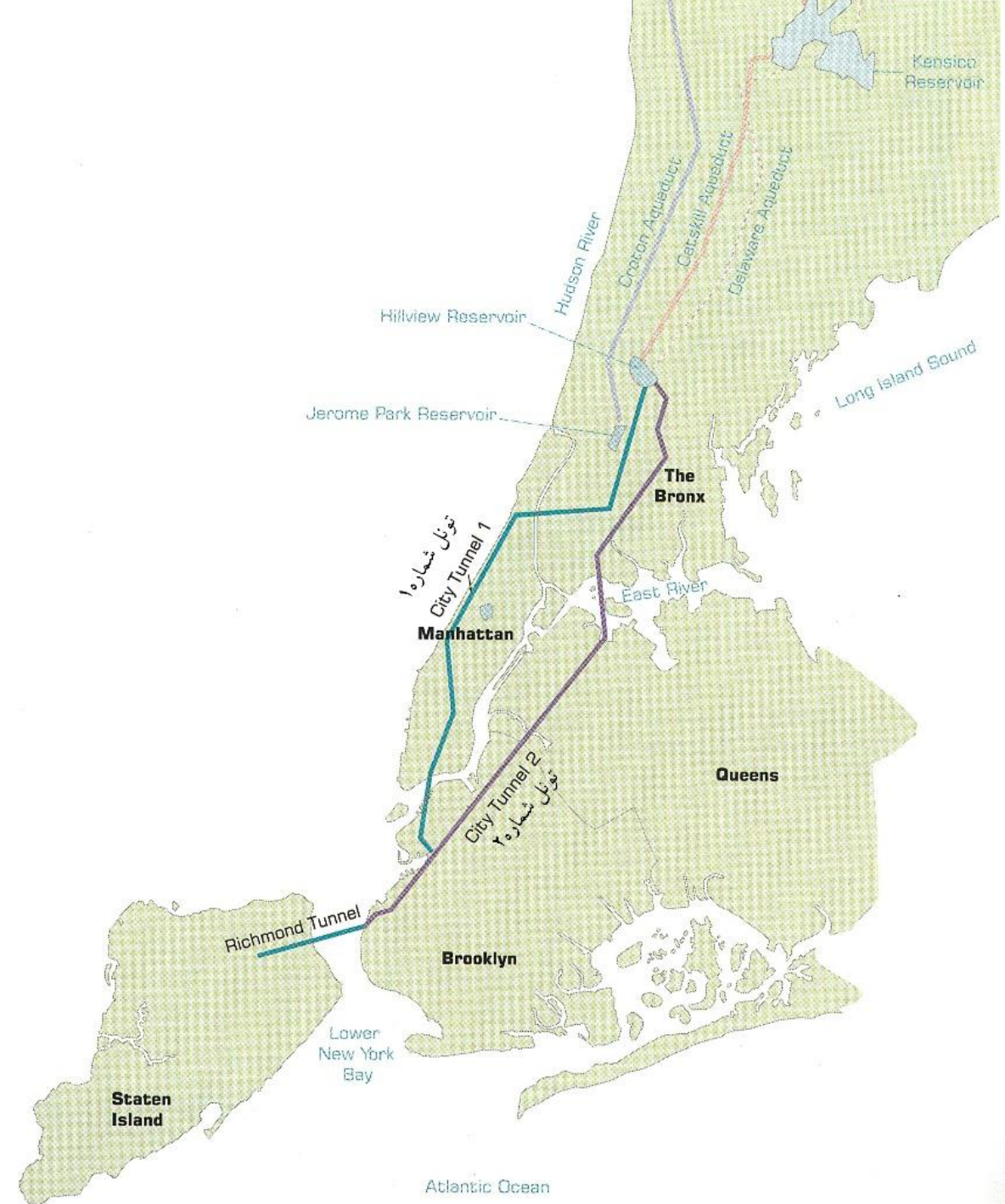
NEW YORK CITY WATER AND WASTEWATER RATE REPORT – FY 2020 MAY 2019

Distribution

- Water tunnels 1,2
- pipes

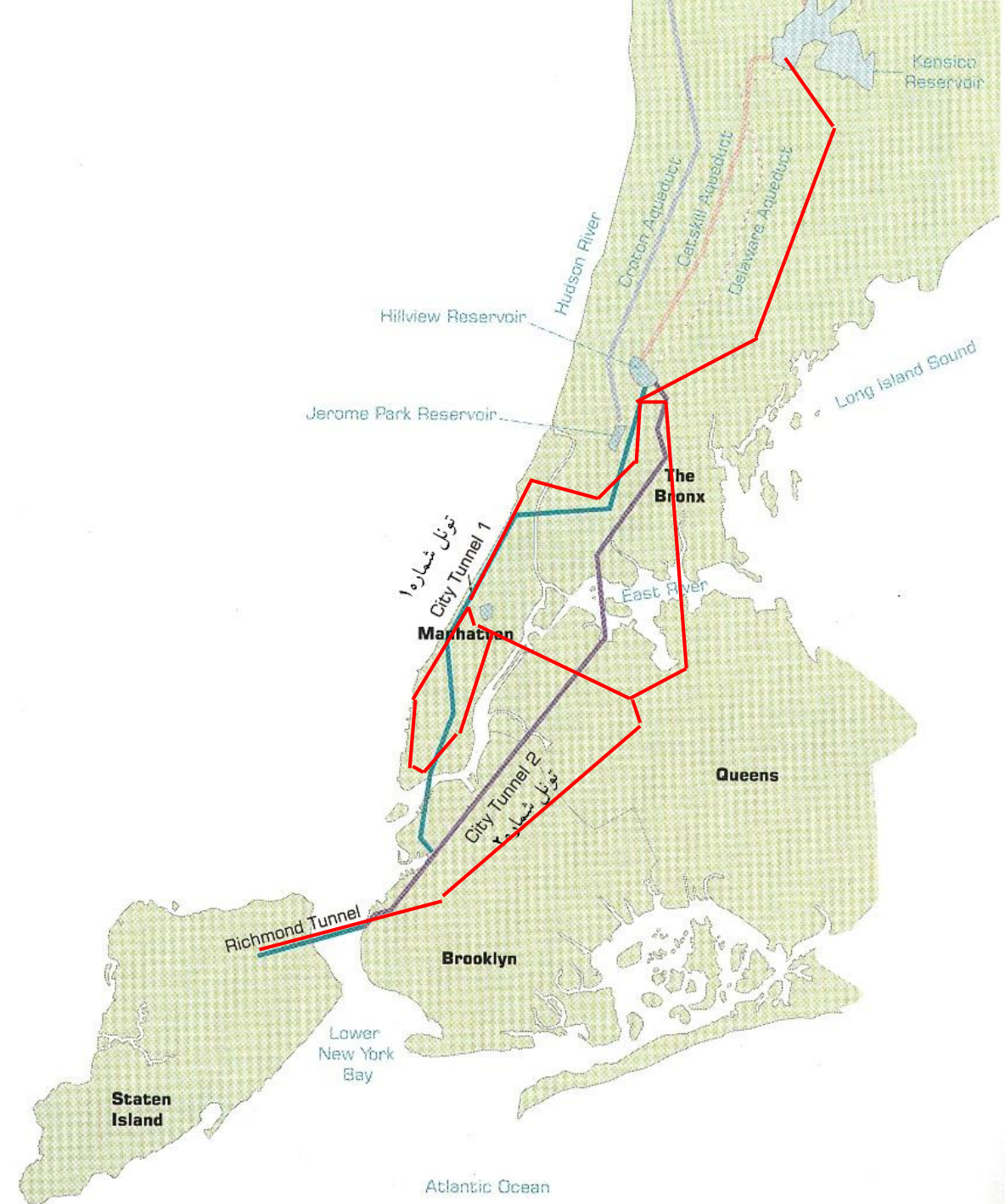


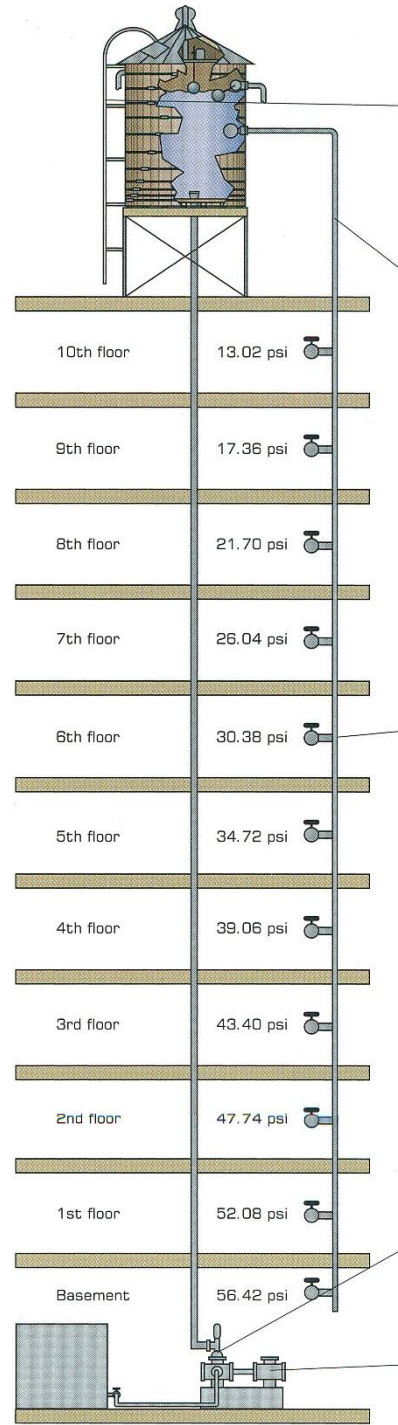
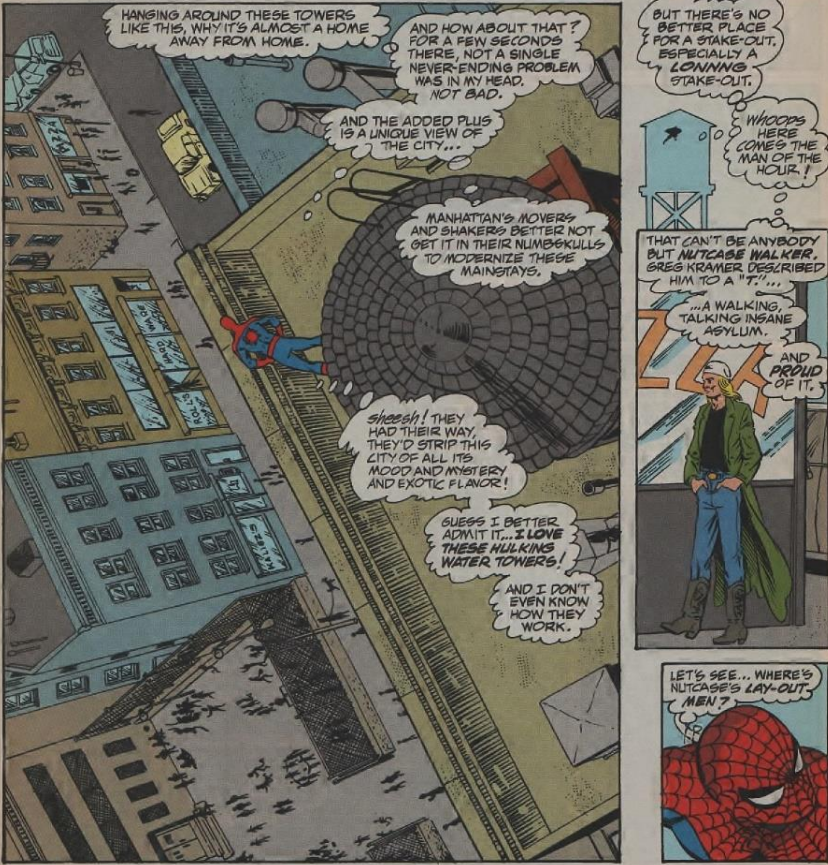
لوله‌های اصلی
لوله‌های اصلی توزیع یا زیرشاخه‌ها
خطوط سرویس



Distribution

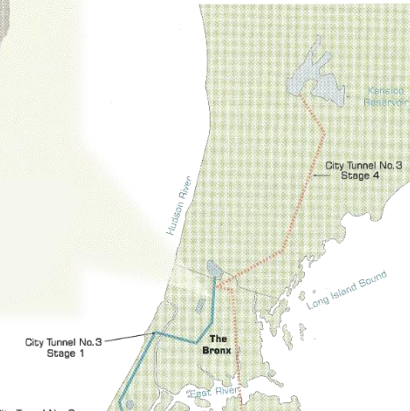
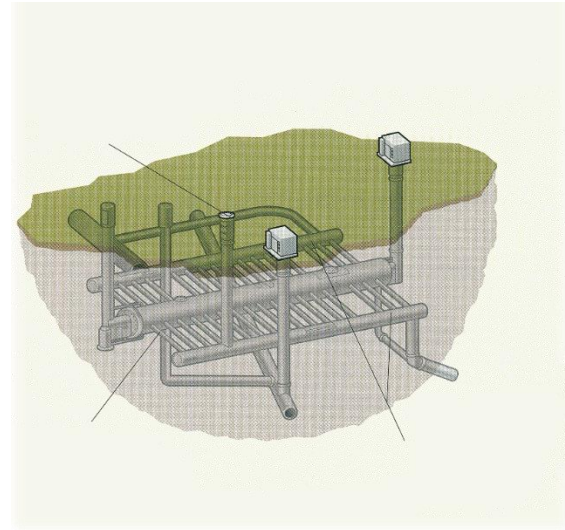
- Water tunnels 1,2
- Water tunnel 3





Water Pressure

- Regulators
- Water tanks
- Valve chambers



hydrants

- History
- Plug uglies
- regulations



18
NEW YORK CITY
SAVING LIVES AT A TENEMENT-HOUSE FIRE (AN ACTUAL SCENE)
1877
M. V. BROWN (ARTIST)
NEW YORK ILLUSTRATOR

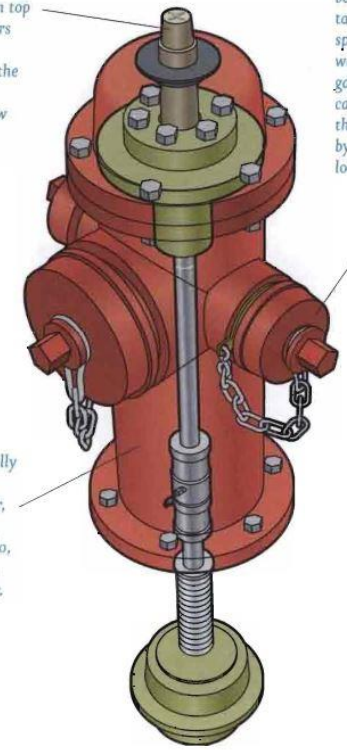




The Modern Hydrant

A custodial lock, a muffin-shaped cap on top of the hydrant, covers the top of the main valve and closes off the water main feeding the hydrant. The new locks have a raised "X" on top.

The new hydrant locks can be opened only by firefighters. Tens of thousands have been installed to prevent tampering. Special spray caps, which limit water flow from 1,000 gallons a minute to 25, can still be secured from the Fire Department by applying in writing at local engine companies.



Hydrants are generally painted yellow nationwide; however, any highly visible color of paint will do, including white, red, lime yellow, or silver.



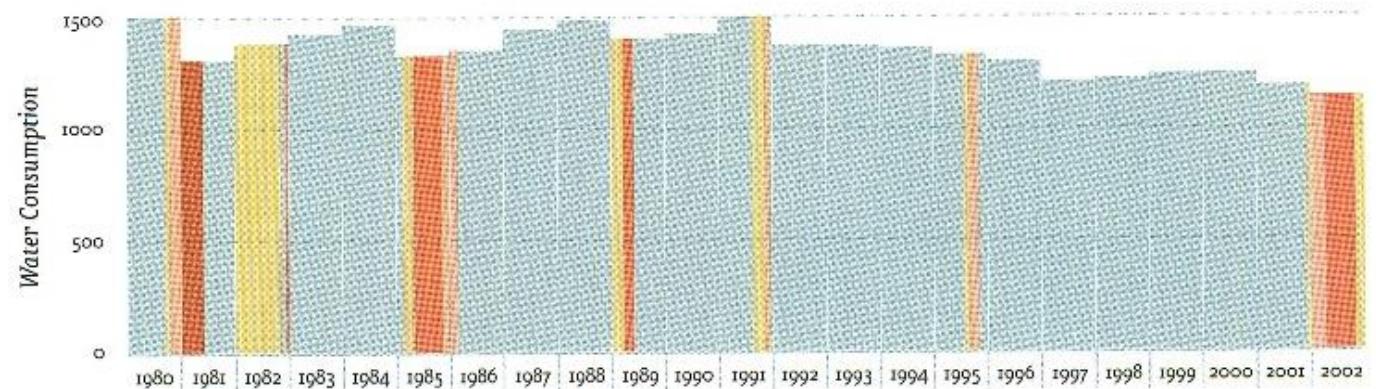
Water storage

- Water shortage
- Silver lake
- Other solutions



History of Drought and Water Consumption

million gallons per day no restrictions watch warning emergency



Water tunnel No.3



Sandhogs



Sandhogs



Water treatment

- Chemicals
- Water sampling
- Filtration or protection

