

WATER SUPPLY - CITY OF STAMFORD, CONNECTICUT

HISTORY OF THE STAMFORD WATER COMPANY

The Stamford Water Company is a private Company founded in 1868, supplying water to Stamford and also to Darien. (Darien is serviced by the Noroton Water Company which purchases water from the Stamford System) Funds for the Water Company were raised through the sale of stock to residents of the community, and a charter was obtained by action of the state legislature.

(Look at map)

The Stamford Water Company obtains its water supply principally from the Mill River and tributaries, draining 22 square miles of watershed. (Refer to fact sheet, reservoirs, capacity, ) The new Mill River Reservoir is the first major addition to the reservoir system since 1922. The Company began acquiring land for this reservoir in 1951. The Water Resources Commission of the State of New York granted permission for its construction in 1963 and New York State approved the construction plans in 1964. (Board of Rep. report p.101)

Although this may seem like very slow action, it can be partially explained by PUC rules, according to a comment by the Conn. Development Commission, "While some (water) companies have actually provided for their needs by acquiring necessary properties, others have been deterred from carrying projects beyond the planning stage by the control the PUC maintains over capital expenditures and current costs. Current capital expenditure alone may be included in current water prices to the consumer, thus costs of future expansion must be borne by other methods. This practice tends to curtail the purchase of land and rights in advance of immediate requirements, although their current costs will appear reasonable with those of future years."

~~CURRENT COSTS WILL BE RESPONSIBLE WITHIN THE NEXT FEW YEARS~~

The estimated cost ~~of the project~~ to construct Mill River Res. and enlarge Trinity Lake will run \$3,300,000 (W.C.C.

report p. 91) ~~The reservoir is expected to be completed by mid-year 1966.~~ The reservoir is directly fed by the Mill River and is expected to fill more rapidly than Trinity Lake which is fed by run-off water in the watershed area. A spillway will divert excess water from the Mill River Reservoir into Trinity Lake until both reservoirs are full.

Completion of these two construction projects will increase the reservoir capacity 35%, or the equivalent of 91 days supply. This would bring the total reservoir storage capacity to approximately 4½ billion gallons, or roughly a years supply of water without rain. (Stam. Adv. 12/7/65)

include  
to  
use if  
questioned

The well on Wire Mill Road can supply 864,000 gallons per day (W.C.C. report p.5) and can be used to supplement the reservoir system. In 1962, exploratory wells were drilled along the banks of the Rippowam River, but ledge rock was encountered near the surface, making the search unsuccessful. Of several locations tried, only the well drilled in the Wire MILL area proved adequate. In April 1964, several complaints against the project were made by local residents (Stam. Adv. 4/16/64). The Mid Ridge Civic Assn. opposed the Water Company's proposal to pump water conceivably amounting to 1 million gallons per day on the possibility that it would affect other wells in the area during periods of prolonged drought. (Stam. Adv. 4/23/64). An agreement on use has been reached by the Water Company and the Mid Ridge Civic Assn.

## WATER SHORTAGE EMERGENCIES OF 1964 and 1965

The reasons for the water shortage of the past two years in Stamford have concerned both Municipal and State offices.

At State Level the Public Utilities Commission can investigate adequacy of service, among other matters. On Feb. 3, 1966 the PUC began hearings on water problems throughout the state. The first hearing was held in Stamford concerning the water shortage in the city and the role of the Stamford Water Company. Quote from Mr. Loughlin, chairman of PUC, "There's something definitely wrong done here in Stamford." Final report of the PUC will not be available for several months.

Locally, the report of the bi-partisan Water Conservation Committee appointed by the Board of Representatives was presented Feb. 3, 1966. The Committee concluded the cause of the present shortage to be:

1. The unprecedented drought
2. The inadequacy of the Stamford system to store sufficient water to carry over during the drought.

The Committee recommended that "by legislative means, a semi-annual review should be provided for, to be performed by the Planning Board with the aid and advise of an independent qualified expert in the field of water supply and planning, and that the results of these reviews be made public. If deficiency is found, then the City shall be empowered to seek remedies under applicable laws."

Decision on this recommendation is being held until the PUC Report is in.

Mr. Bell, President of the Stamford Water Company, blames the drought. Mr. Bell points out that in 1963 with a relatively normal amount of rain the 12,5 million gallons used per day caused no water shortage, and ~~only~~ the unusual and prolonged drought caused the

shortage in 1964 when the daily usage was still approximately 12.6 million G/D. Note: This 12.6 million G/D average consumption for 1964 is deceptive since a request for water conservation kept water consumption down. Notices appeared as early as July 2, 1964 in the Stam. Advocate. On Sept. 15, 1964 the Stamford Water Company published a large ad requesting conservation of water. On Sept. 29, 1964 the newspaper reported Mr. Bell's statement that the consumption for the year to date was averaging 13,240,582 gallons per day and the safe yeild of the four existing reservoirs was 13,030,000 gallons per day. On November 12, 1964, the Mayor declared a water emergency thereby curtailing still further normal use. (Stam. Adv. 11/12/64)

In spite of limited rainfall, the reservoirs were at full capacity by June 1, 1964. By October 1964, the reservoir supply had dwindled to 28%. (Storage capacity = 260 days at 13,030,000 G/D average consumption.)

According to Mr. Bell (W.C.C. report p. 51) the reservoir system was full May 28, 1965, however the Board of Representatives' Water Conservation Comm. reports that on June 1, 1965 the reservoirs were at 89% of capacity.

The following account of the water shortage was taken from the Board of Representative  
 W. C. C. report p. 96-99. The material was compiled by C. L. Herold, a retired geologist from Darien who attended the committee meetings at the request of the Town of Darien. The dates refer to accounts published in the newspaper, or other factual accounts.

July 4/26/65 Reservoirs 61% (73% in 1964)

Aug 4/1/65 ~~Rain since June 1st (6.25") 20% below normal.~~

8/6/65 State Health Department warns Stamford local situation is an emergency; asks Co. to take conservation steps.

- 8/9/65 Water consumption about 18% above average and higher than in 1964.
- ~~Sept 9/8/65~~ Sec'y. of Interior Udall says even rain from severe hurrican would not alleviate drought in N.E. Advises ~~all in N.E.~~ to act on assumption drought will continue into 1966.
- Sept 9/27/65 Reservoirs 30%. Daily consumption still at average rate.
- 9/27/65 Water Company report: "...situation ~~XXXX~~ not yet critical....The water company is the agency in the City that knows whether and when measures should be taken for restricting use of water....Should the company be in error.....the city has recourse to the Public Utilities Commission, who...could immediately order the company to change its position...."
- Oct 10/1/65 State Health Dept.: Stamford water is "one of our more serious problems in the state." Dept. will wait for two weeks before "taking action."
- ~~10/2/~~ State P.U.C. confirmed statement that any water company can cut off supplies to customers who fail to comply with reasonable restrictions filed by company with PUC. ~~Stamford did not file rules with PUC until six weeks after State Health Dept. warning in August.~~
- ~~10/2/~~ State Health Dept.: Present situation in Stamford is "A serious emergency."
- 10/11 Reservoirs 26.6% (28.7% in 1964)
- 10/14 Mayor signs conservation ordinance. "No emergency at present time....."
- Nov. 11/8 Reservoirs 19% (49 - day supply)
- 11,12 Mayor declares water emergency effective Nov. 12.
- ~~1/3/66~~ Reservoirs 6.5% (net after Greenwich purchase)
- 1/17/66 Reservoirs 18.7% Note: Company now reporting reservoir data so as to include water available by pumping from below gravity flow. Capacity as of 1/17/66 is 6.7% by gravity, 12% by pumping.
- ~~1/31/66~~ Reservoirs 4.9% by gravity flow.

*In compliance with state law which requires water system to be between 10 and 20 years ahead of demand, Mr. Bell states our water system is adequate until 1980.*

#### PROJECTIONS OF FUTURE USE

Mr. Bell does not see a rise in average daily consumption per capita during the 1963-1980 period. ~~Mr. Bell~~<sup>He</sup> indicated the per capita use will remain the same in the next period due to (1) high rise apartments (High rise apartments require only 65 G/D compared to 125 G/D in other dwellings) (2) improved industrial use, (3) areas with wells do not want water services.

Although the Planning Board median population estimate is 150,000 people in 1980, Mr. Bell does not feel population increases obtained from the Planning Board reflects the water users population figures. ~~The~~ Water Company predicts that by 1980 the city would require only 3.5 million gallons per day more water than the present 12.5 million G/D now used, bringing the total daily consumption figure to 16 million gallons per day, which is the safe average yield for our reservoir system. (Including Mill River Reservoir)

*Explain chart*

The Board of Representatives' Water Conservation Committee questioned the adequacy of the reservoir system in 1980. Using the Water Company figures, they say the reservoir system will be barely adequate in 1980 and will not allow for emergencies such as we have experienced in the past. Nor does it allow for a larger population growth or for increased per capita consumption. If the projected high population of 136,000 is achieved by 1980 and water consumption per capita rises as it has in the past ten years, the city would require a daily average between 18 to 22 million gallons of water.

#### COMPARISON OF STATE, REGION AND CITY WATER CONSUMPTION

Water consumption varies throughout the state. Figures for 1960 show that in the Southwestern Region the per capita daily consumption was 159 gallons compared to the Stamford Water Company

report of 125 gallons for Stamford City residents. Southwestern region consumption is 20% higher than Stamford consumption and State consumption is approximately 5% higher than Stamford consumption.

It is interesting to note that while the tendency in the past has been for water consumption to rise, the Water Company predicts the per capita usage will stabilize at about 125 G/D. Figures show that Stamford water consumption has increased 30% since 1940. Per capita usage in 1940 was 96 G/D and 125.3 G/D in 1964. Of this total increase, 83% of it occurred in the last 14 years (1950-64) indicating a greater rate of per capita increase in more recent years. During the 10 years 1950-1960, the per capita use increased 21.8%.

Stamford presently has a population in excess of 100,000 people. The Stamford Planning Board's population projection for 1980 presents

a low figure of	120,000 people
high figure	136,700
* median figure	130,500

(Look at Graph)

Assuming Stamford has 130,000 people by 1970 and each person consumes only 125 G/D or a total consumption of 16,250,000 G/D, the Stamford Water Company reservoirs are barely adequate. If however the estimated 130,000 people consume 160 G/D which is 20% more than they now consume but in keeping with the Southwestern Regional Average water consumption, the total water consumption for Stamford will be 20,800,000 gallons. This far exceeds our <sup>proposed</sup> present reservoir safe yield capacity of 16 million gallons per day. (which would include Mill River Res.)