

## WATER SUPPLY

Sterling receives its water supply from a gravel packed well located just south of the center of town off Route 12. This well produces 225 gallons of water per minute. It was constructed in 1954 and has been used continuously ever since. In the same area there are 12 other wells that can produce a maximum of 100 gallons of water per minute. These wells are used as an auxiliary system. Distribution is accomplished by pumping water into a 250,000 standpipe located atop Kendall Hill. Pressure is stabilized at approximately 100 pounds per square inch.

The system supplies approximately 450 users in Sterling center, the campground Sterling Junction and Route 62 east to Lancaster including some 300 feet of water main in the town of Lancaster. Consumption averaged 160,000 gallons per day in 1961.

### CONSUMPTION.

Sterling's water consumption averages 160,000 gallons per day. Metered volumes of water pumped indicate a large sharp rise since 1957, part of this rise is due to increased consumption by new water users.

1957	28,926,000	gallons
1958	28,828,000	"
1959	35,465,000	"
1960	35,088,000	"
1961	34,108,000	"

Sterling water users - average year since 1959:

<u>USE</u>	<u>APPROXIMATE GALLON VOLUME</u>	<u>% OF TOTAL</u>
Residence (including water loss)	32,000,000	91.5
Retail business	1,400,000	4.0
Industry	700,000	2.0
Orchards	700,000	2.0
Institutions	200,000	0.5
		<hr/> 100.0%

Residential uses comprise over 90% of volume of water consumption. The next largest volume is retail trade. The group consists of retail stores in the town center and Inns and restaurants along Route 12 that have town water

service available. The orchardists are also large water consumers using approximately 700,000 gallons per year.

It must be noted here that some of Sterling's large enterprises have their own source of supply. These are the crushed rock plant, the duck farm, and the power plant at Pratt's Junction.

Presently there are nearly 20 miles of water main in Sterling. Water supply is ample at present. The new well previously mentioned, and the old well system provide well over the 250 gallons per minute estimate of future needs, expansion of water service is needed but it should be accomplished along with increased storage capacity. At present, fire protection in outlying areas is at a minimum. Business and residence alike have to depend upon river, lakes, ponds or water holes for fire fighting water supply. This element of danger must be corrected eventually, as every fire in one of these areas is likely to cause total loss of property and equipment to say nothing of the threat to human life.

#### RECOMMENDATIONS.

In 1953 the engineering firm of Fay, Spofford and Thorndike recommended the construction of a 300,000 gallon standpipe on Fitch Hill. Further extension of the town water system into West Sterling area could then be accomplished the report stated. In order to properly supply the West Sterling area and also to provide suitable water pressure for fire protection in the center of town, the Planning Board recommends acceptance of the engineers' report and urges construction of the standpipe on Fitch Hill. It is also recommended that a 10" by-pass be constructed from the present pumping station on Route 62 (Princeton Road) in order to prevent loss of service in town because of a break in the present 6" service main in Route 12. Jewett Road is the proposed location for this service. Cost of construction is estimated at \$40,000.

#### INDUSTRIAL DEVELOPMENT.

Many industries depend on clean water, supplied in quantity, for their manufacturing processes and adequate water pressure for fire fighting. The sites on Greenland Road and Route 12 at Pratt's Junction Road recommended by the Board for industrial development will eventually need such service. They are as follows: Boutelle Road 8,000 feet 8" main which would cost an estimated \$72,000. Construction of this service should be undertaken as part of a development program entered into by the town and industry.

Route 12 north of Route 62. Some 500 acres of land have been recommended for industrial development on Pratt's Junction Road and the railroad. Public water supply to this area will necessitate a 12,000 foot extension of water mains northerly along Route 12 to proposed industrial park. Cost of such a project (\$115,000) would be recommended by the Board as part of an industrial development program only.

WEST STERLING.

Water service in West Sterling can be accomplished by one of two alternatives. Construction of a well and pumping station in West Sterling at the Wachusett Brook east of Route 140 and extending service from there along Route 140 or construction of a standpipe on Fitch Hill, and the extension of a water main in Princeton Road from the proposed storage facility to the West Sterling area. This report recommends the latter method for two reasons: 1. there is adequate supply of water at the present source of supply, 2. the standpipe is needed before any main pipe extension takes place, also the water at its present source is the best in taste, color and chemical content available (Fay, Spofford and Thorndike report 1953).

# STERLING WATER SYSTEM 1961

- | EXISTING  | PROPOSED  |
|---|---|
|  PUMPING STATION |  |
|  STANDPIPE       |  |
|  WELL POINT      |  |
|  MAIN PIPE       |   |

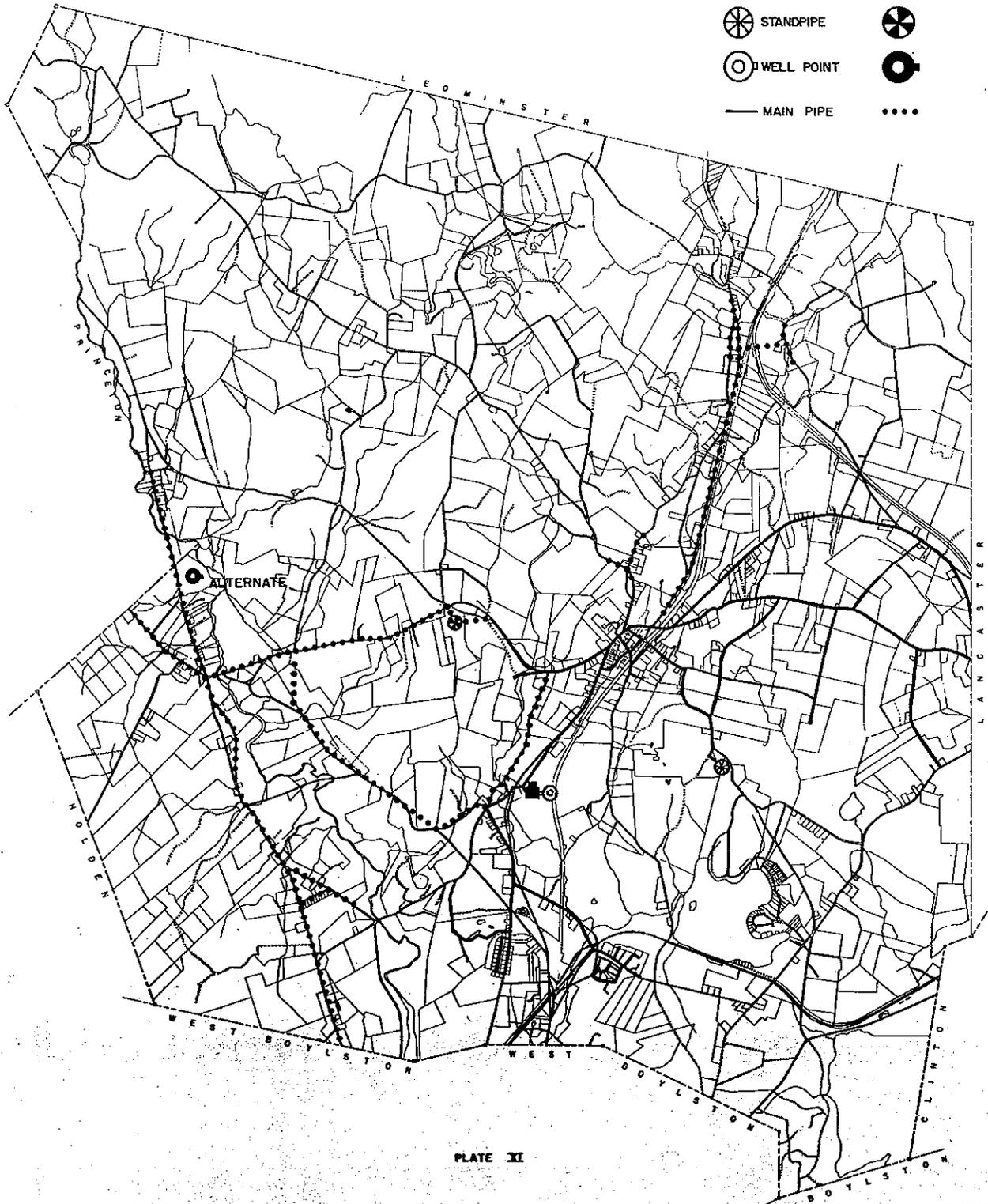


PLATE II

WATER SUPPLY  
STERLING PLANNING BOARD

MAP SCALE  


  
NORTH