THE BOLTON POINT WATER TREATMENT PROCESS

A. Intake. Lake water flows by gravity into wet well underneath raw water pump station at shore line.

B. Treatment. Raw water is pumped 1800 feet to the front of treatment plant (a lift of 270 feet).

C. Chemical Application. As water flows in, chemicals are added:
   a. Chlorine which kills bacteria harmful to the consumer and oxidizes and removes iron and manganese which can cause household staining, undesirable color, and oils which cause undesirable taste and odor.
   b. Alum and polymers which remove solid particles (turbidity) and assist chlorine action and aid in removing hardness producing compounds.

D. Rapid Mixing. Water and chemicals are mixed together in a small tank.

E. Flocculation. Water flows slowly through a large tank, where it is gently agitated. Alum and polymers coagulate the solid particles to make them heavier.

F. Sedimentation. Water flows slowly through another large tank. Weighted solid particles settle to bottom of tank and are flushed out to waste field. Top layer water is drawn off by series of collection troughs just below the water level.

G. Filtration. Water flows into another tank and through a filter consisting of coal, sand, garnet, and several sizes of gravel.

H. Post Treatment Chemical Application. Approximately .5 milligrams of chlorine per liter of water is added to provide a chlorine residual throughout distribution system to guard against contamination. Water leaving plant has 1.5 milligrams of chlorine per liter.

I. Storage. Freshly treated water flows into clear well under treatment plant pump room.

J. Distribution. Water is pumped 3200 feet to the Burdick Hill storage tank (a lift of 360 feet), then flows into the distribution system.

*Diagram not to scale.