



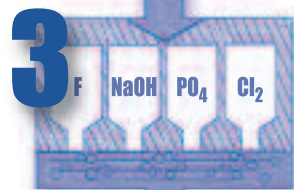
RAW WATER ENTERS THE PLANT

Untreated water is screened as it enters the filtration plant at the reservoirs' intake houses. Gravity then helps the water flow through a complex piping system.



FILTRATION

The screened raw water is piped to sixteen 1/2 acre and six 3/4 acre filter beds. In the filter beds, water trickles down through 27 inches of sand and 12 inches of stone, where solid particles and microscopic bacteria are trapped and filtered out. The filtered water flows to two storage basins.



CHEMICALS

As the filtered water travels to storage, 4 chemicals are added.

- Fluoride (**F**) – to help prevent tooth decay
- Sodium Hydroxide (**NaOH**) – to reduce the water's natural acidity which, in turn, protects pipes in the distribution system from corrosion.
- Orthophosphate (**PO₄**) – to reduce corrosion.
- Chlorine (**Cl₂**) – in the form of liquid Sodium Hypochlorite, to kill any remaining bacteria.



STORAGE

Up to 15 million gallons of water can be stored in the plant's two underground storage basins. These concrete basins are continuously replenished as the filtered water flows, by gravity, into the distribution system and ultimately to the consumers' faucets.

CLEANING THE FILTERS

Each filter bed is cleaned every six to eight weeks. With all but a foot of water drained, a tractor pulls a spring tooth harrow through the top 12" of sand. Like a large rake, the harrow loosens the trapped particles which are then washed into a nearby drain. The sand is loosened the following day using a dry harrowing process.

