

CHEDDAR TREATMENT WORKS

1) Abstraction Storage

Water from the springs in Cheddar is abstracted from the ponds and piped to the reservoir. The water is stored in the reservoir so that it can be used more effectively especially during summer months. The reservoir can hold more than 6 million cubic metres.

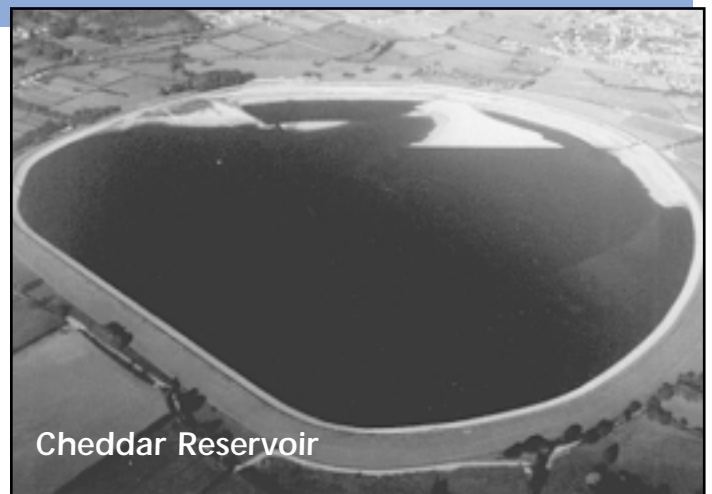
2) Microstraining

The first stage of cleaning. Water passes through two microstrainers, revolving drums covered with a fine mesh which removes most of the algae and other particles like a giant sieve. The drums are constantly revolving and are self cleaning.

3) Filtration - Slow Sand Filters

(see picture on page 5)

Filtration is carried out by six slow sand filters. Each one has an area of 2,100 square metres, and contains a layer of sand nearly one metre deep, resting on a bed of gravel. As the water percolates down through the sand any remaining algae or particles are retained on the surface. The natural formation of a biologically active layer, the schmutzdecke actually eats up bacteria. Sand filters need cleaning and every so often the water is drained and a few centimetres of dirty sand is removed and taken away to be cleaned.



4) Chlorination

Chlorination takes place in the contact tank. The water is dosed with chlorine to a level similar to that found in a swimming pool for at least an hour to ensure the water is bacteriologically clean. Once this process is complete, excess chlorine is taken out by adding sulphur dioxide. The chlorine remaining - the equivalent of about 1 teaspoonful in 3 gallons (5ml in 1000 litres) of water - is sufficient to protect the water as it travels through our distribution system.

5) Pumping

When treatment is complete the water is pumped into supply. The treatment works can treat 60 million litres of water a day.