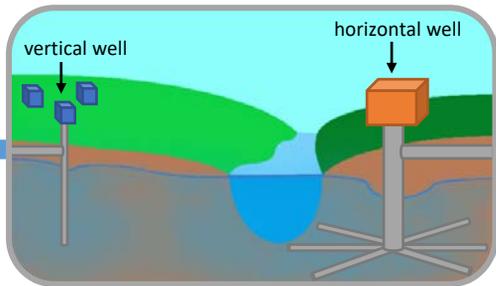


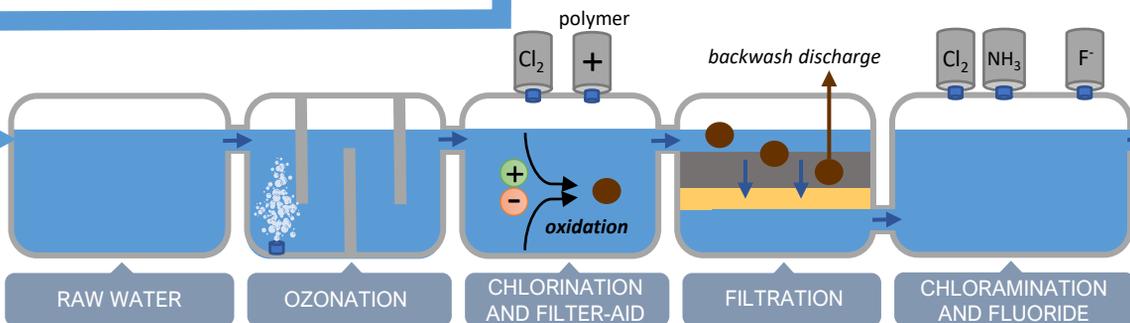
# WATER TREATMENT

## FROM WELLFIELD TO HOME

*Water from the wells travels over 20 miles to reach Lincoln and its first stop is the Treatment Plant.*



WELLFIELD



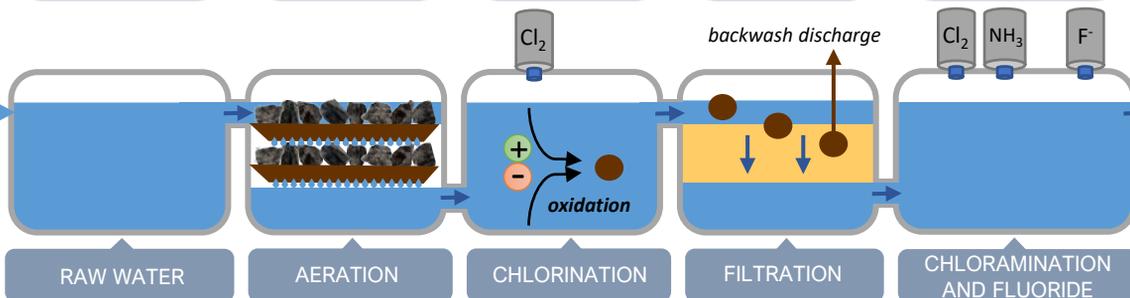
Horizontal wells supply water classified as groundwater under the direct influence of surface water from the Platte River.

Ozone ( $O_3$ ) kills microbes and oxidizes manganese and iron so they can be filtered out. Ozone is a very strong oxidizer that decays rapidly.

Chlorine is added to kill microbes and enhance manganese filtration. A filter-aid polymer is used to enhance solids removal in the filtration process.

Water is filtered by gravity through a layer of anthracite and a layer of sand to remove impurities. The filters are regularly cleaned with backwashing.

Chloramines are formed by combining chlorine and ammonia. This provides protection from microbes in the distribution system. Fluoride is added for dental health.



Vertical wells supply water classified as groundwater. Since the water comes from an aquifer, water quality is not directly influenced by surface water from the Platte River.

Water percolates through coke tray aerators, adding air to the water. This begins the oxidation process of naturally occurring manganese and iron so they can be filtered out.

Chlorine is added to kill microbes and further oxidize iron and manganese to enhance filtration. Excess iron and manganese can affect the taste and discolor the water.

Water is filtered by gravity through a layer of sand that removes impurities. The filters are regularly cleaned with backwashing.

Chloramines are formed by combining chlorine and ammonia. This provides protection from microbes in the distribution system. Fluoride is added for dental health.



DISTRIBUTION SYSTEM