Enhanced Water Treatment Process at Choa Chu Kang Waterworks Increases Operating Efficiency and Reliability

PUB SINGAPORE'S NATIONAL WATER AGENCY

Ceramic Membrane Filtration

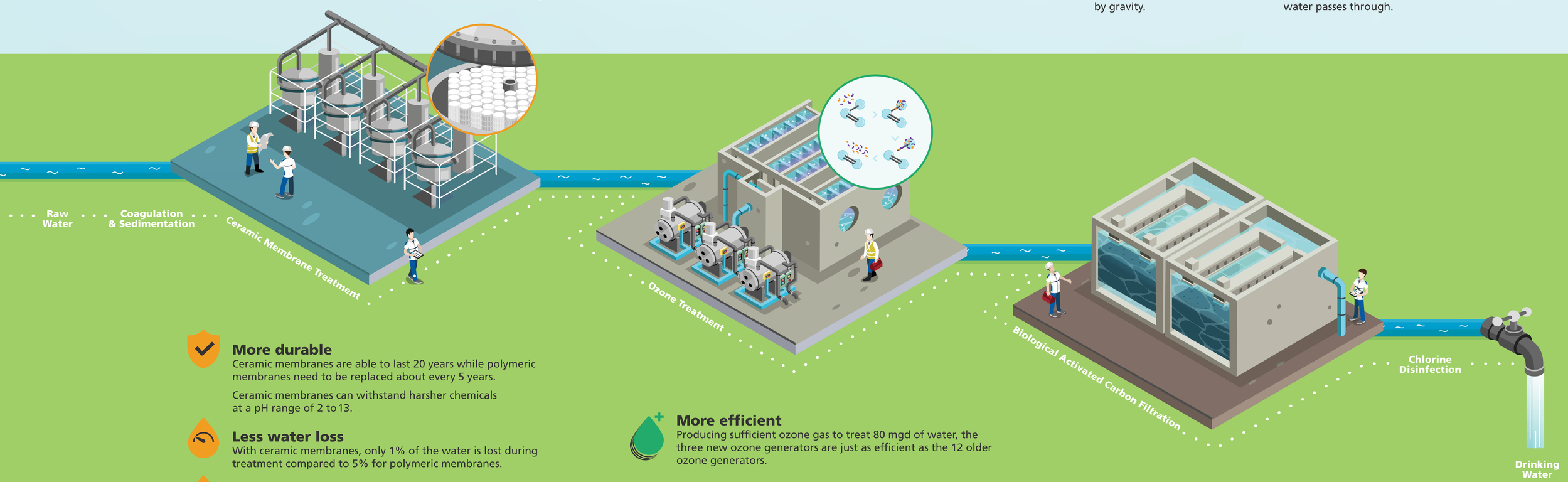
1. Pressurised water is fed into the membranes.
2. The membranes keep particles out while clean water passes through.

Ozone Treatment

1. Ozone generators produce ozone gas which is diffused into the water.
2. The ozone molecules destroy microbes and oxidise other contaminants in the water.

Biological Activated Carbon Treatment

1. Water passes through a layer of biological activated carbon media by gravity.
2. The biological activated carbon media removes organic matter while clean water passes through.



More durable

Ceramic membranes are able to last 20 years while polymeric membranes need to be replaced about every 5 years.

Ceramic membranes can withstand harsher chemicals at a pH range of 2 to 13.

Less water loss

With ceramic membranes, only 1% of the water is lost during treatment compared to 5% for polymeric membranes.

Latest water treatment technology

Ceramic membranes are the latest in water treatment technology.

More efficient

Producing sufficient ozone gas to treat 80 mgd of water, the three new ozone generators are just as efficient as the 12 older ozone generators.

Smaller footprint

The three new ozone generators occupy a smaller space in the plant.

More effective

Biological activated carbon filtration is one of the most effective processes in removing organic matter from water.