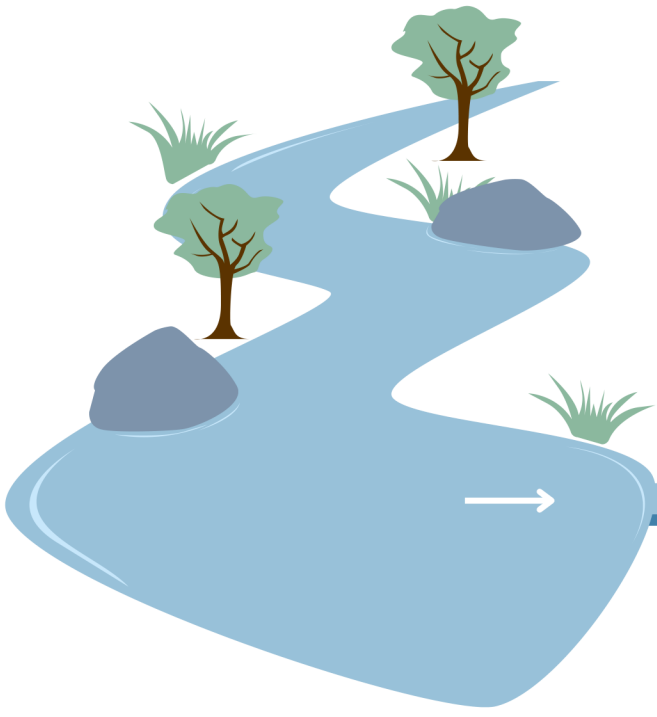
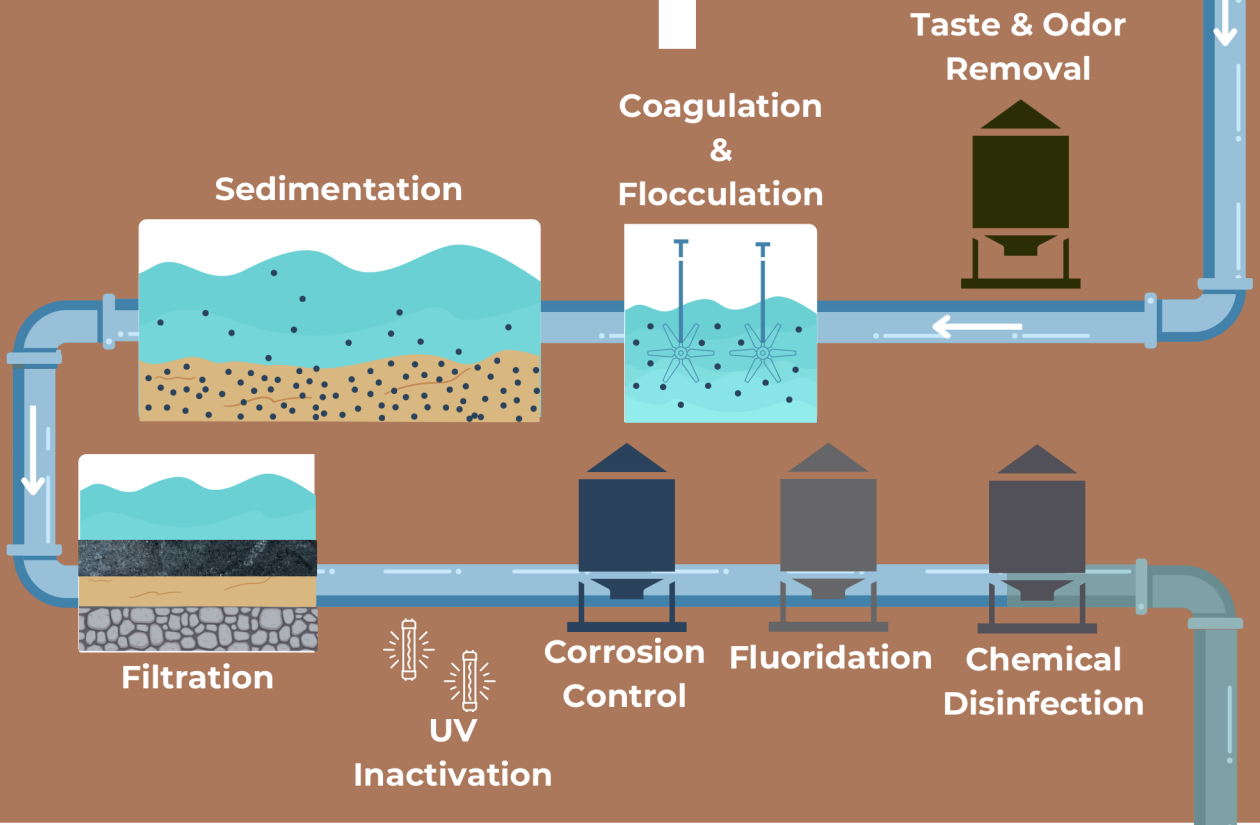


East Moline Drinking Water Treatment Process

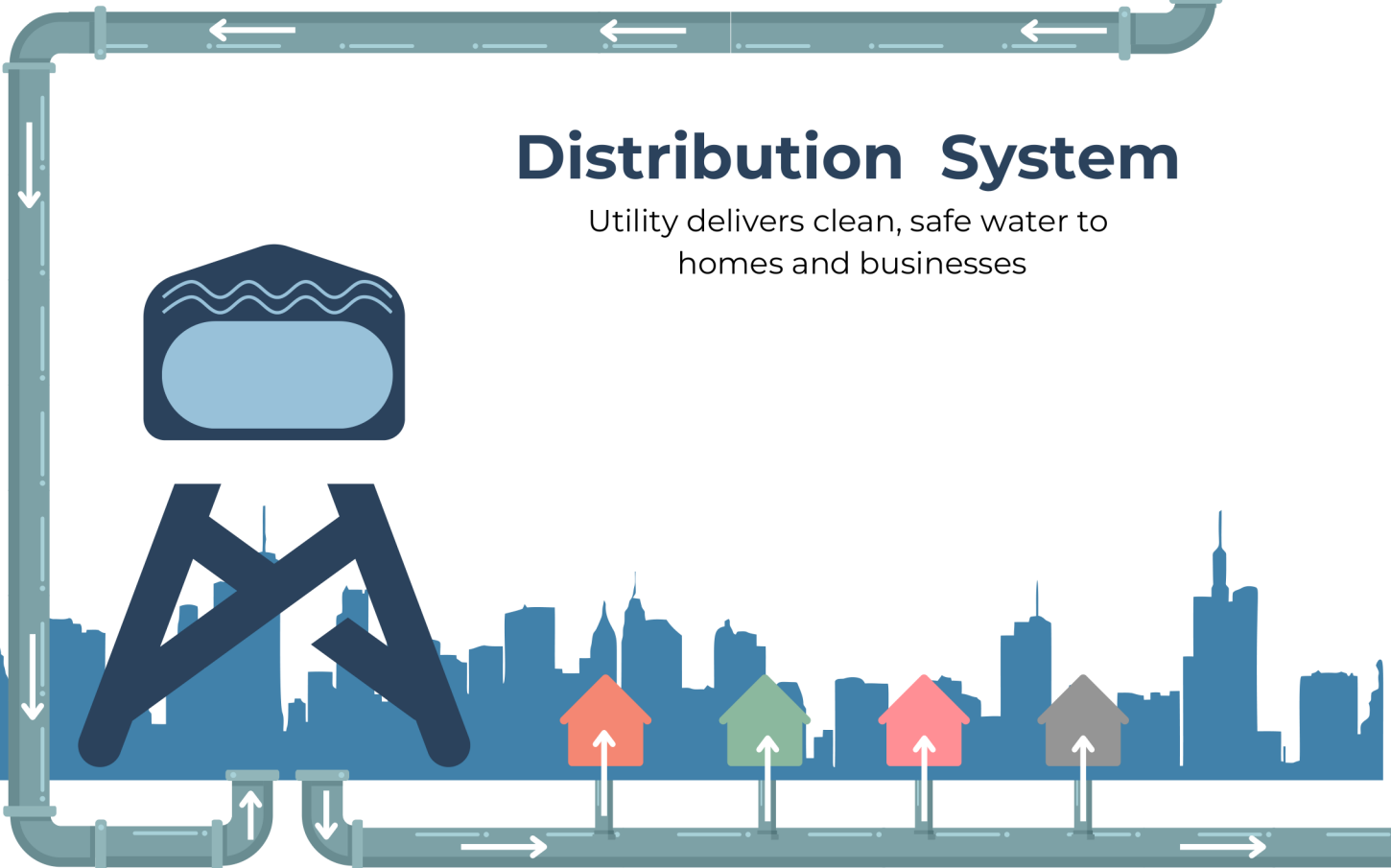


Water Treatment



Distribution System

Utility delivers clean, safe water to homes and businesses



1 - OUR SOURCE

Our source water is the Mississippi River. Raw river water is taken from the river through an intake pipe and flows to the intake building.

2 - TASTE & ODOR REMOVAL

The raw water first flows through a large mesh screen to remove large debris, and is then treated with a chemical called Carbon to remove unwanted taste and odors. Next, the water is pumped to the water treatment plant for additional treatment.

3 - COAGULATION & FLOCCULATION

At the water treatment plant, a chemical called Aluminum sulfate (alum) is added and mixed into the water using large propeller mixers. Alum is used to aid coagulation and flocculation, a process that helps dirt, bacteria, algae, and other particles bind together and form larger particles called floc.

4 - SEDIMENTATION

During sedimentation, floc become heavier and heavier as more particles bind, until the floc are heavy enough that they will drop to the bottom of a sedimentation basin. The floc are then removed from the bottom of the sedimentation basin using a large sweep.

5 - FILTRATION

Any particles remaining in the water after coagulation, flocculation and sedimentation are removed by passing the water through filters made from crushed coal (anthracite), sand, and gravel. The filters catch the small particles and do not allow them to pass through the filter.

6 - UV DISINFECTION

Some organisms in water, such as Giardia and Cryptosporidium, are resistant to disinfection treatment and must be inactivated. After filtration, the water is treated with ultraviolet (UV) radiation to inactivate these organisms.

7 - CORROSION CONTROL

Corrosion is when a material such as metal breaks down, and sometimes pieces of the material break off, like what you see with a rusty piece of metal. Corrosion control in water treatment is the process of putting a thin barrier layer between a lead pipe and the water within the pipe to prevent broken pieces of lead pipe from entering the water. We use a chemical called Caustic soda to provide corrosion control.

8 - FLUORIDATION

Fluoride is added to the water to help protect teeth from decay.

9 - CHEMICAL DISINFECTION

The water is also treated with a combination of chlorine and ammonia that forms a product called chloramine. Chloramine further disinfects the water by killing bacteria, viruses, fungi and protozoa that cause disease.

10 - STORAGE & DISTRIBUTION

Once water treatment is complete, the water is sent to your home through a system of large underground water pipes. Water that is not used immediately is stored in water towers so it is available at any time when you turn on your faucet or for fire protection.

