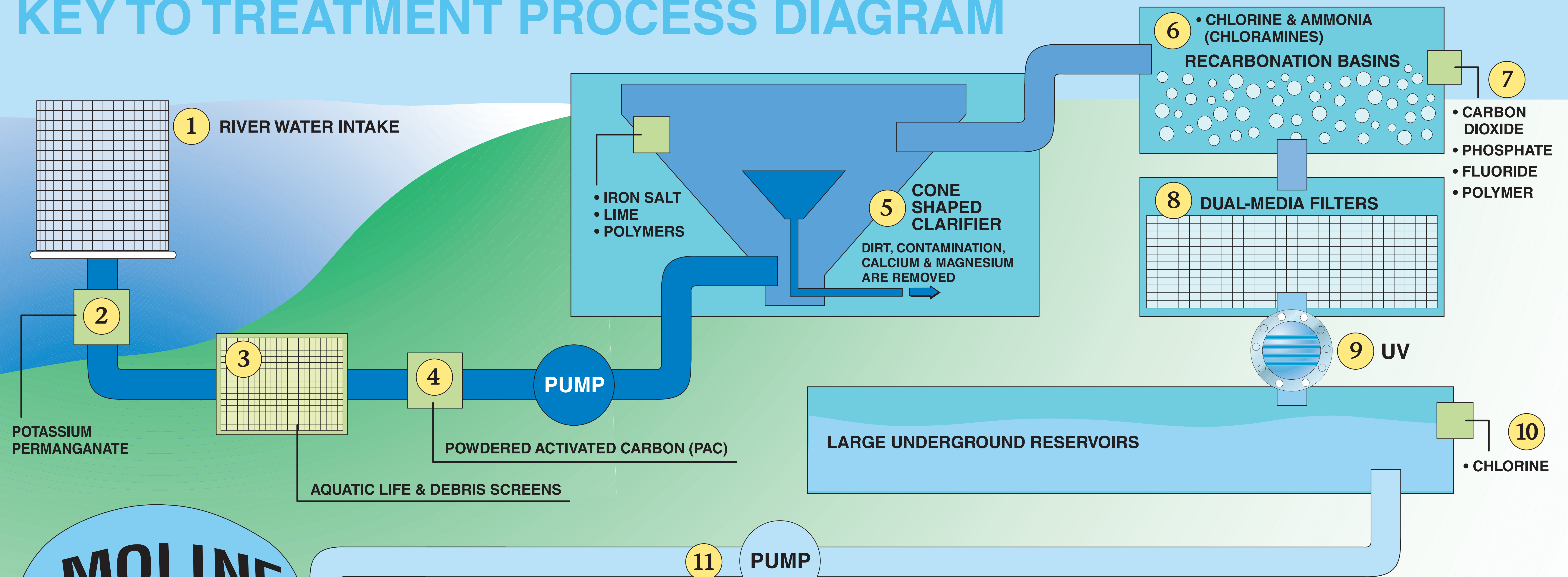


MOLINE WATER TREATMENT PLANT

KEY TO TREATMENT PROCESS DIAGRAM



1 The river water enters the intake located in Sylvan Slough.

2 A small dose of potassium permanganate is fed at the intake to control zebra mussels and to oxidize organic matter.

3 The raw water passes through screens where aquatic life and debris are removed.

4 Powdered activated carbon (PAC) is applied to remove tastes, odors and chemical pollutants.

5 The water is pumped to large cone-shaped clarifiers, where ferric sulfate (iron salt), lime and chemicals called polymers are added to the water. These chemicals work together to remove most of the dirt and contamination present in the river water. The water also is softened, as nearly half of the dissolved calcium and magnesium is removed.

6 Chlorine and ammonia, which combine to form chloramines, are added as the water flows into the recarbonation basin. Chloramines disinfect the water, while minimizing the formation of potentially harmful disinfection byproducts.

7 In the recarbonation basins, carbon dioxide is applied to lower the pH and stabilize the water. At the same time, small doses of phosphate and polymer are added to enhance water filtration. A small dose of Fluoride is also added, as required by the Illinois Department of Public Health, to help prevent tooth decay.

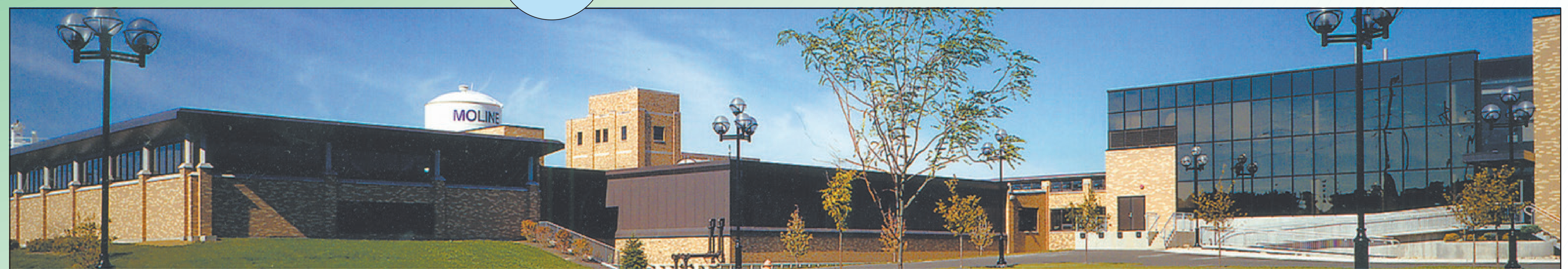
8 The clarified and stabilized water passes through dual-media filters, where remaining particles are removed.

9 Next, the filtered water flows through powerful UV reactors. The reactors use high intensity ultra-violet light to inactivate micro-organisms, such as cryptosporidium.

10 As the water flows from the UV reactors into large underground reservoirs, some additional chlorine is added. The water is stored in the reservoirs for a period of time to ensure that any remaining micro-organisms are inactivated.

11 The finished water is pumped to the homes and businesses of Moline via the distribution system, which is a network of large-diameter pipes located beneath the streets of the city.

12 Finished water is stored in elevated tanks at several locations in the City, in addition to that stored at the underground reservoirs at the treatment plant.



TO CITY OF MOLINE

