

FACT SHEET

Aquifer Storage and Recovery

What is aquifer storage and recovery (ASR) technology?

- A water supply concept in which treated drinking water is stored underground by injection into a suitable storage zone during those months of the year when available supply and capacity of treatment facilities exceeds system demand.
- The stored water is recovered from the same wells to meet peak demands exceeding supply or treatment plant capacity, usually without the necessity for retreatment other than disinfection.
- With ASR systems, water facility expansion capital costs are typically reduced by at least 50 percent.

What is an aquifer?

An aquifer is a water-bearing geologic formation that transports and stores groundwater.

What is the Jordan (Cambrian-Ordovician) aquifer?

- The Jordan is a bedrock aquifer formed over millions of years.
- One of five principal bedrock aquifers in Iowa.
- Across Iowa, its depth ranges from 1,000 feet to 3,000 feet below the surface.
- Average thickness of Jordan aquifer is 30-145 feet (central and southwestern Iowa to northeastern Iowa).
- Material is fine- to coarse-grained quartz sandstone, loosely to moderately cemented.

How many ASR wells does DMWW operate?

DMWW operates three ASR wells.