



During the production of oil and natural gas, there are two types of water: fresh water and produced water.

Fresh water – used for drilling and completion – can come from several different sources including surface, groundwater and marginal quality sources, like wastewater effluent or treated wastewater that is often used to irrigate golf courses and public parks. Whenever producers acquire this type of water for their operations they have to get permits and authorizations from the Oklahoma Water Resources Board and any landowners, rural water districts and municipalities that also might be affected.

Produced water comes out of an active well, along with oil and natural gas, during production. With proper techniques, this water can be treated, cleaned and recycled for use in future completion operations.

CUTTING DOWN ON TRAFFIC

Transporting fresh and produced water to and from the production site has long been accomplished by trucks. In the completion processes, a well could use as many as 6 million gallons of fresh

or recycled water. Subsequently, that same well could generate more than 2 million gallons of produced water each month. To get all that water where it needs to go, one well might require as many as 1,400 truckloads over a month.

The innovation of temporary water lines could significantly reduce both the traffic and environmental impact of trucking water while making operations far more efficient.

TEMPORARY WATER LINES REDUCE TRAFFIC AND EMISSIONS



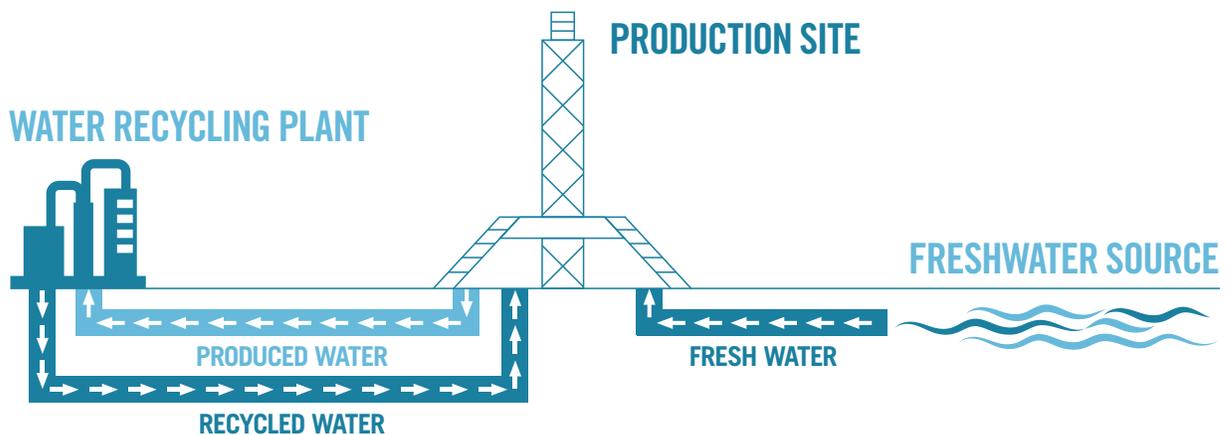
UP TO 1,400 WATER-TRANSPORTING TRUCKS PER WELL OVER A MONTH

*Each truck represents 50 trucks.



WHAT ARE TEMPORARY WATER LINES?

Temporary water lines act as bridges between production sites and water recycling and storage facilities where permanent pipelines don't exist. There are often two lines – one for fresh water and one for produced water – laid in right-of-ways and easements to deliver water to and from producing wells or wells in the hydraulic fracturing phase. They are a safe, reliable and environmentally responsible way of transporting essential water to a well site.



BENEFITS OF TEMPORARY WATER LINES?

1. THEY REQUIRE LESS TRUCK TRAFFIC

Temporary water lines can replace up to 1,400 heavy water-transporting trucks per well over a month. Fewer trucks mean less traffic and less impact on the environment and local roads.

2. THEY USE MORE RECYCLED WATER

Temporary water lines offer a reliable way to transport produced water from an active well to a water recycling facility so it can be reused, reducing the need to use freshwater sources.

3. THEY'RE TEMPORARY

Temporary water lines are used for less than three months at each site.

4. THEY'RE DURABLE

Temporary water lines are constructed with highly durable materials and are tested thoroughly each time they are relocated. Trucks and heavy tractors can even drive over them.

5. THEY'RE MONITORED

Temporary water lines are monitored 24/7, both manually and with the latest monitoring technologies. If pressures go out of their designated range, the pumps automatically shut down.

6. THEY'RE REGULATED

Temporary water lines are all permitted for 30, 60 or 90 days. The entire process is regulated by the Oklahoma Corporation Commission, which oversees all oil and natural gas activity.