

# From The Lake To Your Glass *and Everything In Between...*

On a hot day there's nothing better than a cool, clean glass of water. Throw in a couple ice cubes and it's pretty close to perfect – perfect for hydration, for taste, for health, and refreshment. **But did you ever stop to think about HOW the water you get from the tap actually gets there?**

Thanks to the crew at your Osceola Water Works, you're able to partake in some of Iowa's highest quality water without buying a single bottle, or pesky filters or softeners.



## West Lake Is Where It All Starts

**The water has to come from somewhere, right?** Well, in Osceola's case, West Lake is the source. "Raw" water is drawn from West Lake Reservoir, which is fed by Squaw Creek just northwest of the city. At 306 acres, considered a fairly small reservoir to most cities, West Lake provides a water storage pool of 3,800 to 4,200 acre-feet. To give you an indication of how much water that is, 1 acre-foot is equal to 325,851.4 US gallons. Intakes at 12" and 20" below the normal pool feed into the Osceola Water Treatment plant where the cleaning and purification treatments begin.

**TO SEE HOW OSCEOLA WATER FLOWS, CHECK OUT THE COMPLETE OUTLINE ON THE BACK!**

## Turn On The Tap!

Go ahead. Get that cool, clear drink of water. You can do it knowing that the Osceola Water Works has you covered. The water you drink is taken from everyday lake water to that clean, clear, refreshing drinking water right in your glass. The water you use to bathe, the water for lawns and for other various needs will be there, thanks to the Osceola Water Works and their dedicated team.

If you have questions or would like to talk to a Water Works representative, please feel free to call: **(641) 342-1435**  
or go to **[www.OsceolaWaterWorks.com](http://www.OsceolaWaterWorks.com)**  
or email: **[info@OsceolaWaterWorks.com](mailto:info@OsceolaWaterWorks.com)**



208 W Jefferson St., Osceola, Iowa 50213

## Water Works Fact:

Osceola Water Works cares for over 300,000 feet of water main and delivery lines in the distribution system. Pipes range in size from 2" all the way to 16". This massive grid of iron carries the water to over 4,000 Osceola residents, hundreds of businesses, and keeps the water flowing for emergencies and other demands. Osceola Water Works maintains 330 fire hydrants and approximately 620 gate valves.

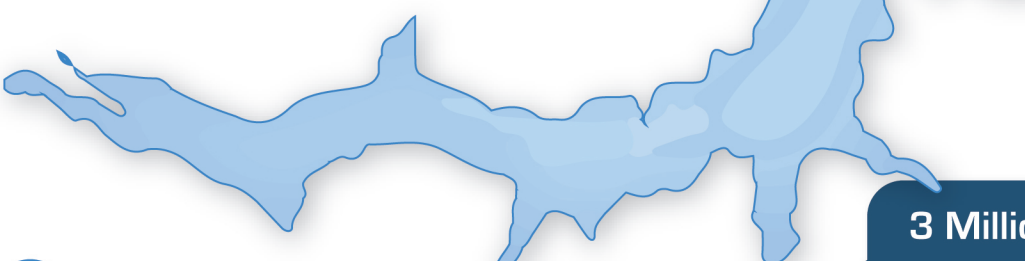
## From The Lake To Your Glass...



### 1 Intake, Rapid Mix, and Up-Flow -

Initially there is an Addition of ferric sulfate at a rapid mix in the raw water line to remove phosphorous and impurities. And at the two Up-flow Clarifiers, Chlorine Dioxide and Cationic polymer are injected to start the reactions necessary to effectively clarify the water

### West Lake Reservoir



### 2 8 High-Tech Gravity Filters -

Water is then sent on and filtered through eight dual-media gravity filters containing one-foot sand and two and one half foot granulated carbon. Much like water filters you can attach to your faucets or other systems, this is a proven quality filtering system that can handle the millions of gallons sent through it each day.

### 3 Million Gallons of Water per day

Once the water is drawn to the treatment plant, it's taken through an involved sanitizing and purification process. Up to 3 Million Gallons per Day runs through dozens of levels of treatments and filters.

### 3 Clear Wells -

In two mid-way sections called "Clear Wells," chlorine is added for disinfection purposes. This stage allows the water to have contact with the chlorine before sending the water on to the Ground Storage Reservoir.

### 4 On To Ground Storage Reservoir (GSR) -

Here, caustic soda is added for pH balance and ammonium sulfate is added after the contact chamber within the GSR to convert to chloramines in order to reduce the potential for trihalomethane production in the distribution system. Fluoride is added after the GSR.

### 5 Transfer To Storage -

Plant storage includes an existing 60,000-gallon clear well, a new 80,000-gallon clear well and a 1.5 million gallon ground storage reservoir. There are three transfer pumps from each clear well to the ground storage reservoir and three high service pumps to pump water from the GSR to the distribution system.

### 6

**Distribution** - While most of the previous process goes unnoticed, you've probably seen the following pieces looming high over town. Two elevated storage tanks serve Osceola's distribution system - a 300,000 gallon tank in the center of the town and a 500,000 gallon tank located in the Industrial Park on the west side of town. The water is pumped from the treatment plant up town to the residents and the towers. The same pipe that pumps the water to the towers also feeds the water coming back out to the residents. Once the towers are full, the pump shuts off and gravity takes care of the rest. And with over 1.2 Million gallons of water being used by Osceola residents on a daily basis, that's one heck of a cycle to manage.

