**Turning River and Lake Water into Drinking Water**

Our three treatment plants are built to turn water from the Yadkin River and Salem Lake into drinking water. The treatment process takes about 16 hours from the time the water is drawn from a raw water reservoir until it is pumped into the water distribution system. The raw water reservoirs hold up to ten days worth of water which serves as off-river storage as needed for changing river conditions.

### Water Treatment Plants

<table>
<thead>
<tr>
<th>Max. Capacity</th>
<th>Raw Water Source</th>
<th>Opened</th>
</tr>
</thead>
<tbody>
<tr>
<td>R.W. NEILSON</td>
<td>48 MGD* Yadkin River</td>
<td>1964</td>
</tr>
<tr>
<td>P.W. SWANN</td>
<td>25 MGD Yadkin River</td>
<td>2004</td>
</tr>
<tr>
<td>R.A. THOMAS</td>
<td>18 MGD Yadkin River and Salem Lake</td>
<td>2011</td>
</tr>
</tbody>
</table>

* million gallons per day

**HOW DO WATER TREATMENT PLANTS WORK?**

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### Water Treatment Plant Process

(based on P.W. Swann design)

**Basin/Filter Complex**
Where mixing (coagulation), settling (flocculation and sedimentation) and filtering process occurs

**Waste Stream from treatment process**

**EQ Basin flow control**

**Residual Storage Lagoons**
Hold water treatment waste stream to settle out solids and decant (clear water) discharge to river

**Clear water discharge back to Yadkin River via NPDES permit**

**Operations Building**
- Chemical Feed System
- Control Room
- Laboratory Facilities
- Maintenance Facilities

**Finished Drinking Water**

**Worried about lead in your water?**

To minimize the potential for lead exposure in public and private plumbing, WSFC Utilities adds zinc orthophosphate during the water treatment process to form a protective coating on the inside of pipes. **When your water has been sitting for several hours, flush your tap for at least two minutes before using water for drinking or cooking.** Learn more at epa.gov/safewater.

Concerned about the pipes on your property? Call City Link 311 to request a water test.
OUR WATER SYSTEM

The Winston-Salem/Forsyth County Utilities water system includes three water treatment plants that can process up to 91 million gallons a day. The water distribution system includes 14 water tanks, seven pumping stations and 2,330 miles of water lines. WSFC Utilities serves more than 381,000 residential, business and industrial customers with water that meets or surpasses all state and federal drinking water standards.

See annual Water Quality Reports at wsfcutilities.org

Quench Your Thirst!
Our water is safe and satisfying, so skip the bottle and save big $$$!

The Yadkin River is the primary water source for WSFC Utilities.

NORMAL FLOW: 2,500 cubic feet per second (3,875 MGD)

HIGHEST FLOW: 91,000 cubic feet per second (1940 flood)

LOWEST FLOW: 221 cubic feet per second (2002 drought)

In case of drought or other emergency, WSFC Utilities has rights to 11 billion gallons of water stored in the W. Kerr Scott Reservoir on the Yadkin River at Wilkesboro, NC.

Flowing through history...

Did you know?
In 1774, the Moravians of Salem began work on one of the nation’s first water systems. Water was delivered through bored-out logs joined end-to-end, a design praised by President Washington during his 1791 visit.