New River Basin 2013
Basinwide Assessment Report
Whole Effluent Toxicity Program
2009-2013

The Division of Water Resource's Whole Effluent Toxicity Monitoring Program

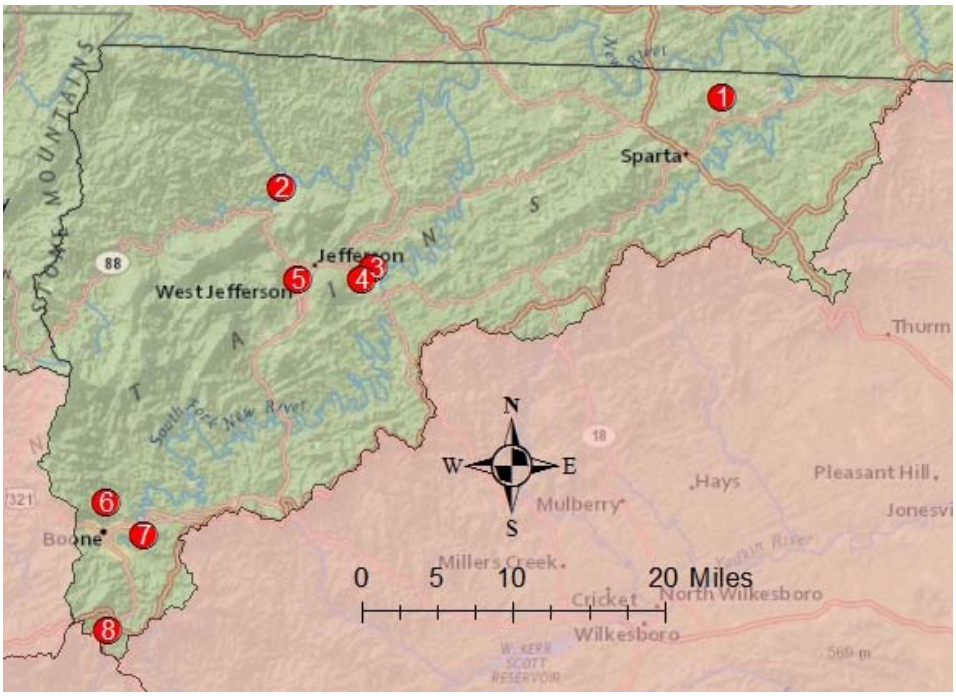
Acute and/or chronic toxicity tests are used to determine toxicity of discharges to sensitive aquatic species (usually fathead minnow, *Pimephales promelas* or the water flea, *Ceriodaphnia dubia*). Results of these tests have been shown by researchers to be predictive of discharge impacts to receiving stream populations.

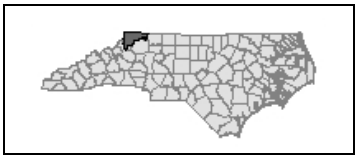
Many facilities are required to monitor whole effluent toxicity (WET) by their NPDES permit. Facilities without monitoring requirements may have their effluents evaluated for toxicity by DWR's Aquatic Toxicology Laboratory. If toxicity is detected, DWR may require aquatic toxicity testing upon permit renewal.

DWR's Aquatic Toxicology Branch maintains a compliance summary for all facilities required to perform tests and provides a monthly update of this information to Regional Offices and DWR administration. Ambient toxicity tests can be used to evaluate stream water quality relative to other stream sites and/or a point source discharge. The eight facilities are overwhelmingly complaint for the 5-year basin cycle for the period of 2009-2013.

WET Monitoring in the New River Basin – 2009-2013

Eight facility permits in the New River basin currently require whole effluent toxicity (WET) monitoring. Six facility permits have a WET limit.





Map #	HUC/Facility
	05050001
1	Sparta WWTP*
2	United Chemi-Con*
3	Jefferson WTP
4	Jefferson WWTP*
5	West Jefferson WWTP*
6	Appalachian State WTP
7	Boone WWTP*
8	Blowing Rock WWTP*
*Denotes WET limit.	

Figure 1. Watauga River basin facilities required to conduct whole effluent toxicity testing

The numbers of facilities in this small basin have increased by two since 2008. The compliance rates of these facilities have been almost perfect over the last 5 years – there was only one reported fail for the whole basin. All follow-up tests for the initial failures were compliant.