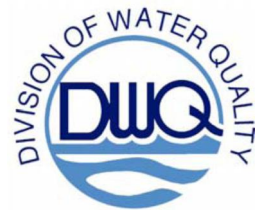


**Little Tennessee River Basin
Basinwide Assessment Report
Whole Effluent Toxicity Program**

2005-2009



The Division of Water Quality'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 minnows or the water flea, *Ceriodaphnia dubia*). Results of these tests have been shown by researchers to be predictive of discharge effects 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 DWQ's Aquatic Toxicology Laboratory. If toxicity is detected, DWQ may include aquatic toxicity testing upon permit renewal.

DWQ's Aquatic Toxicology Unit maintains a compliance summary for all facilities required to perform tests and provides a monthly update of this information to regional offices and WQ administration. Ambient toxicity tests can be used to evaluate stream water quality relative to other stream sites and/or a point source discharge.

WET Monitoring in the Little Tennessee River Basin: 2005-2009

Four facility permits in the Little Tennessee River basin require whole effluent toxicity (WET) monitoring (Figure 1 and Table 1)

Figure 1 Facilities within the Little Tennessee River Basin conducting WET testing

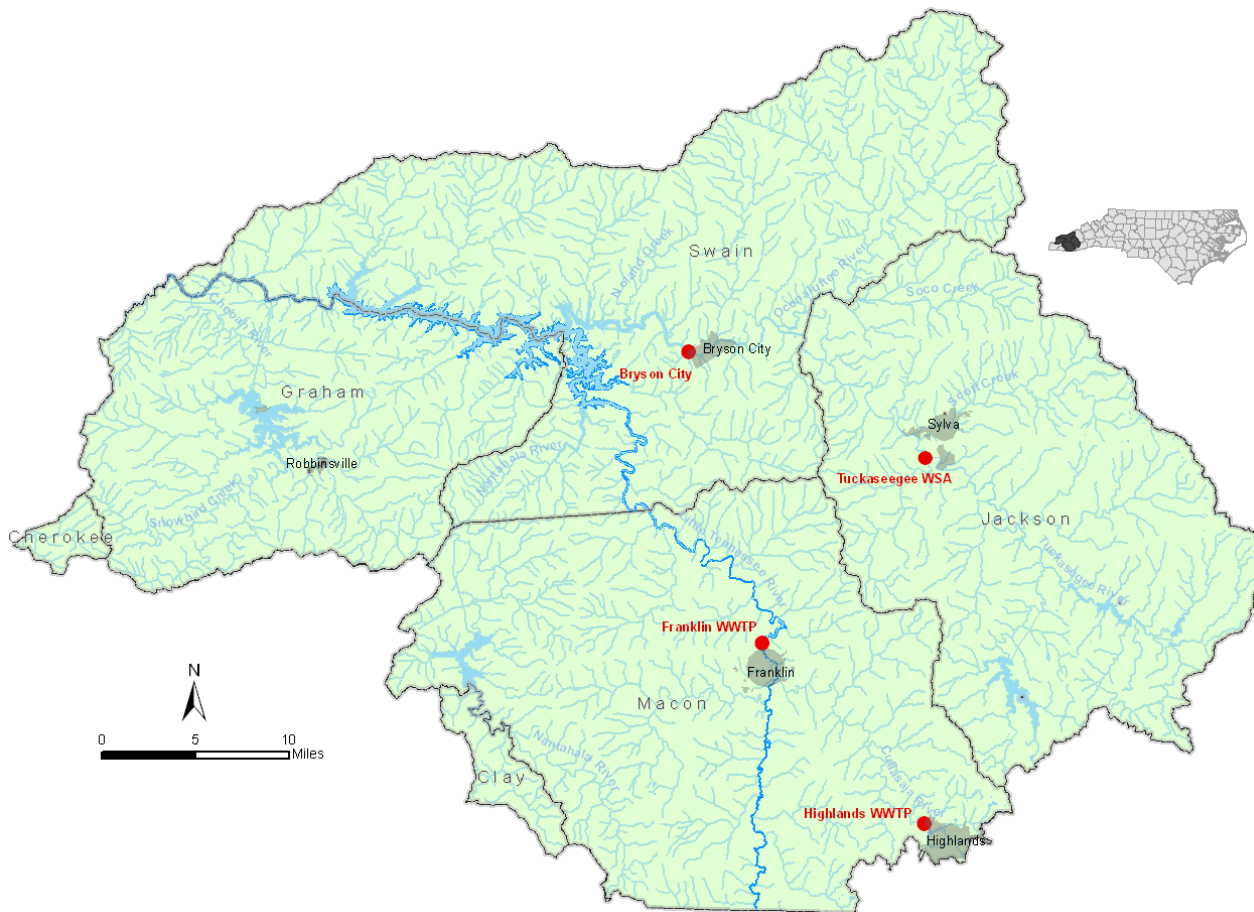


Table 1. Little Tennessee River basin facilities required to conduct whole effluent toxicity testing

Facility	NPDES Permit No.	Receiving Stream	County	Flow (MGD)	IWC (%)	7Q10 (cfs)	2005- 2009 Passes	2005- 2009 Fails
Bryson City WWTP	NC0026557/001	Tuckasegee	Swain	0.6	0.25	365	20	0
Franklin WWTP	NC0021547/001	Little Tenn	Macon	1.7	1.6	157	24	0
Highlands WWTP	NC0021407/001	Cullasaja	Macon	1.5	24	-	20	0
Tuckasegee WWTP	NC0039578/001	Tuckasegee	Jackson	1.5	1.5	150	24	0

All the facilities in this basin have been compliant for WET testing during this 5 year basin cycle for the period 2005 through 2009.