French Broad River Basin Basinwide Assessment Report Whole Effluent Toxicity Program 2008-2012

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. All facilities are complaint for the 5-year basin cycle for the period of 2008-2012.

WET Monitoring in the French Broad River Basin - 2008-2012

2.5 5

Thirty-six facility permits in the French Broad River basin currently require whole effluent toxicity (WET) monitoring (Figure 1). While twenty-five facility permits have a WET limit, the other eleven facilities do not have a permitted WET limit but are required to monitor their discharge. Some of these facilities have more than one permit because they have multiple outfalls. While the majority of facilities in this basin have been consistently in compliance, there have been a few instances of exceedances among the dischargers. All follow-up tests for the initial failures were compliant.

RALNOT MOUNTAINS

WALNOT MOUNTAINS

REACH

RESIDENCE

Months

REACH

REA

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

Key

1	MB Industries	13	SKF USA Incorporated	25	Burnsville WWTP
2	Transportation, NC Dept of	14	Maggie Valley WWTP	26	Spruce Pine WWTP
3	EBDC,LLC-Mill in Pisgah	15	Ridgeview Acres MHP	27	K-T Feldspar
4	Brevard WWTP	16	Silver-Line Plastics Corp.	28	Unimin Corp. Red Hill Plant
5	Hendersonville WWTP	17	Asheville DeBruhl WTP	29	Unimin Corp-Mica Operations
6	Henderson Co. Schools	18	Buncombe County MSD	30	Unimin Corp. Red Hill Plant
7	Camp Highlander WWTP	19	Asheville Northfork WTP	31	Brevard WTP
8	Mt. Pisgah Lodge/Recreation Area	20	Woodfin Sanitary WTP	32	Henderson WTP
9	CP&L-Asheville Ash Pond	21	N. Buncombe High School	33	Mars Hill WTP
10	Tyco Electronic Corporation	22	Marshall WWTP	34	Spruce Pine WTP
11	Blue Ridge Paper Products	23	Unimin CorpCrystal Operation	35	Waynesville WTP
12	Maggie Valley WWTP	24	Feldspar Corp.	36	Weaverville Ivy River WTP