

**White Oak Basin
Basinwide Assessment Report
Whole Effluent Toxicity Program
2010-2014**

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 a 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 2010-2014.

WET Monitoring in the White Oak River Basin – 2010-2014

Sixteen facility permits in the White Oak River basin currently require whole effluent toxicity (WET) monitoring (Figure 1). While 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. The majority of facilities in this basin have been consistently in compliance, with only one instance of exceedances among those dischargers with a permitted WET limit.

Table 1. White Oak River basin facilities required to conduct whole effluent toxicity testing

Map #	Facility	NPDES #	Receiving Stream	County	Flow (MGD)	IWC (%)	7Q10 (cfs)	2010-2014 Passes	2010-2014 Fails
1	Atlantic Beach WTP	NC0044806/001	Bogue Sound	Carteret	na	90	Tidal	Monitoring Only	
2	Beaufort WWTP	NC0021831/001	Taylor Creek	Carteret	1.5	90	Tidal	20	0
3	Bogue Banks WTP	NC0083089/001	Bogue Sound	Carteret	0.48	20	Tidal	Monitoring Only	
4	Dixon WTP-ONWASA	NC0083551/001	UT to Stones Creek	Onslow	na	90	Tidal	Monitoring Only	
5	Glenda Drive WTP- Town of Beaufort	NC0072702/001	UT Turner Creek	Carteret	na	90	Tidal	Monitoring Only	
6	Hubert WTP	NC0083321/001	Queen Creek	Onslow	0.518	90	Tidal	Monitoring Only	
7	Jacksonville Nano-filtration WTP	NC0088455/001	New River	Onslow	2.7	10	Tidal	Monitoring Only	
8	Laurel Road WTP	NC0086975/001	Feltons Creek	Carteret	na	90	Tidal	Monitoring Only	
9	Morehead City WWTP	NC0026611/001	Calico Creek	Carteret	1.7	90	Tidal	20	0
10	Newport WWTP	NC0021555/001	Newport River	Carteret	1.2	82	0.4	No Flows	
11	Pine Knoll Shores WTP	NC0082520/001	Pine Knoll Shores Canal	Carteret	1.2	90	Tidal	Monitoring Only	
12	Pine Street WTP	NC0083551/001	Town Creek	Onslow	na	90	Tidal	Monitoring Only	
13	Snug Harbor on Nelson Bay WWTP	NC0028827/001	Salters Creek	Carteret	na	90	Tidal	6	0
14	USMC Camp Lejeune Hadnot Pt WWTP	NC0063029/001	New River	Onslow	15	5	Tidal	19	1
15	West Carteret WTP	NC0077143/001	E.Prong Sanders Creek	Carteret	0.084	90	Tidal	Monitoring Only	
16	Weston Inc.-ABC One Hour Cleaners	NC0084395/001	Northeast Creek	Onslow	0.216	90	Tidal	4	0

Figure 1. Facilities within the White Oak River Basin conducting WET testing

