White Oak 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 DWQs Aquatic Toxicology Laboratory. If toxicity is detected, DWQ may include aquatic toxicity testing upon permit renewal.

DWQs 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 White Oak River Basin: 2005-2009

Thirteen facility permits in the White Oak River basin require whole effluent toxicity (WET) monitoring (Figure 1 and Table 1). Of these thirteen, only 4 have permit limits. The other permits stipulate monitoring only with no limits associated with permit.

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

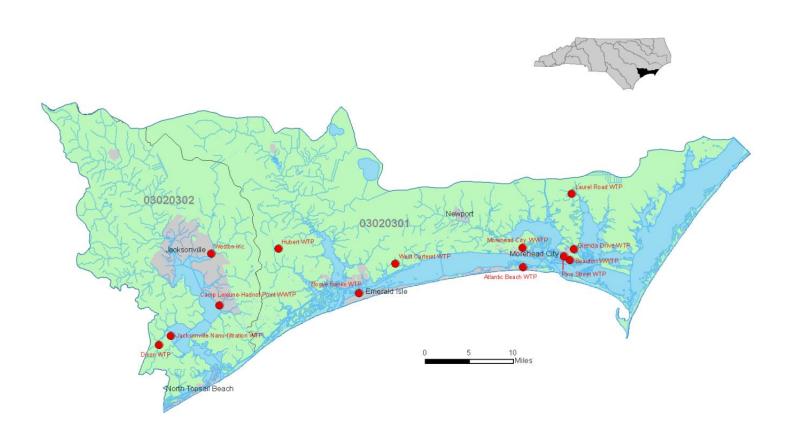


Table 1. White Oak River basin facilities required to conduct whole effluent toxicity testing

Facility	NPDES Permit No.	Receiving Stream	County	Flow (MGD)	IWC (%)	7Q10 (cfs)	2005- 2009 Passes	2005- 2009 Fails
Morehead City	NC0026611/001	Calico Cr.	Carteret	1.7	NA	Tidal	23	0
Beaufort WWTP	NC0021831/001	Taylor Cr.	Carteret	1.5	NA	Tidal	21	0
USMC Camp Lejeune Hadnot Pt WWTP	NC0063029/001	New River	Onslow	15	5	Tidal	20	0
Weston Inc	NC0084395/001	Northeast Cr	Onslow	0.22	90	Tidal	14	0
West Carteret WTP	NC0077143/001	East Prung Sanders Cr	Carteret	0.08	NA	Tidal	Monitoring only	
Jacksonville WTP	NC0088455/001	New River	Onslow	2.7	NA	NA	Monitoring only- No Flow	
Town of Beaufort WTP	NC0072702/001	UT Turner Cr	Carteret	NA	NA	NA	Monitoring only	
Atlantic Beach WTP	NC0044806/001	Bogue Sound	Carteret	NA	NA	NA	Monitoring only	
Dixon WTP	NC0083551/001	UT Stones Cr	Onslow	NA	NA	NA	Monitoring only	
Laurel Rd WTP	NC0086975/001	Feltonos Cr	Carteret	NA	NA	NA	Monitoring only	
Pine Street WTP	NC0072699/001	Town Cr	Carteret	NA	NA	NA	Monitoring only	
Bogue Banks WTP	NC0083089/001	Bogue Sound	Carteret	NA	NA	NA	Monitoring only- No Flow	
Hubert WTP	NC0083321/001	Queen Cr	Onslow	NA	NA	NA	Monitoring only	

All facilities are compliant for the 5 year basin cycle for the period 2005 through 2009.