

Water Quality Assessment Summary

Waccamaw River Basin

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TERMS USED IN TABLES

AQUATIC LIFE USE SUPPORT (AL) - The degree to which aquatic life is protected is assessed by comparing important water quality characteristics and the concentrations of potentially toxic pollutants with standards. Aquatic life use support is based on the percentage of standards excursions at a sampling site.

For dissolved oxygen and pH:

If the percentage of standard excursions is 10% or less, then uses are *fully supported*.

If the percentage of standard excursions is greater than 10% and less than or equal to 25%, then uses are *partially supported*.

If the percentage of standard excursions is greater than 25%, uses are *not supported* (see p.12 for further information).

For toxins (heavy metals, priority pollutants, chlorine, ammonia):

If the chronic or acute aquatic life standard for any individual toxicant is not exceeded more than once, uses are *fully supported*.

If the appropriate acute or chronic aquatic life standard is exceeded more than once (i.e. ≥ 2), but is less than or equal to 10% of the samples, uses are *partially supported*.

If the appropriate acute or chronic aquatic life standard is exceeded more than once (i.e. ≥ 2), and is greater than 10% of the samples, aquatic life uses are *not supported* (see p.12 for further information).

For turbidity and waters with numeric total phosphorus, total nitrogen, and chlorophyll-a:

If the percentage of standard excursions is 25% or less, then uses are *fully supported*.

If the percentage of standard excursions is greater than 25%, then uses are *not supported* (see p.13 for further information).

RECREATIONAL USE SUPPORT (REC) - The degree to which the swimmable goal of the Clean Water Act is attained (recreational use support) is based on the frequency of fecal coliform bacteria excursions, defined as greater than 400/100 ml for all surface water classes.

If 10% or less of the samples are greater than 400/100 ml, then recreational uses are said to be *fully supported*.

If the percentage of standards excursions is greater than 10% and less than or equal to 25%, then recreational uses are said to be *partially supported*.

If the percentage of standards excursions is greater than 25%, then recreational uses are said to be *nonsupported* (see p.14 for further information).

Excursion - The term excursion is used to describe a measurement that does not comply with the appropriate water quality standard.

Table 1. Fully Supported Sites in the Waccamaw River Basin 2006-2010

* = Station not evaluated for Recreational Support; TD=TMDL Developed; TI=TMDL Implementation; Trend Data 1994-2008

Watershed	Waterbody Name	Station #	Improving Trends	Other Trends
03040206-07	Buck Creek	PD-362		Increasing BOD5, Turbidity, Total Nitrogen; Decreasing Dissolved Oxygen, pH
	Waccamaw River	MD-124	Decreasing Turbidity	Increasing BOD5, pH
03040206-09	Waccamaw River	PD-373 ^{TD}		
		MD-110		
		MD-111		
		MD-136	Increasing Dissolved Oxygen	
	AIWW	MD-088 ^{TD}		
		MD-089 ^{TD}		
		MD-127 ^{TD}	Decreasing Turbidity	Increasing BOD5, pH
03040206-10	Waccamaw River	MD-146		Increasing pH
		MD-137		Increasing Turbidity
		MD-138	Increasing Dissolved Oxygen; Decreasing Total Phosphorus	Increasing BOD5, Turbidity
		MD-142		Increasing pH
		RO-09364		

Table 2. Impaired Sites in the Waccamaw River Basin 2006-2010

REC=Recreational; AL=Aquatic Life; FS=Fully Supported Standards; PS=Partially Supported Standards; NS=Nonsupported Standards; *=Station not evaluated for Recreational Support; **=Station not evaluated for Aquatic Life Support; TD=TMDL Developed; TI=TMDL Implementation; Trend Data 1996-2010

Watershed	Waterbody Name	Station #	Use	Status	Water Quality Indicator	Improving Trends	Other Trends	
03040206-07	Simpson Creek	PD-363	REC	PS	Fecal Coliform		Increasing BOD5, Turbidity	
03040206-08	Brown Swamp	RS-10389	AL	NS	Dissolved Oxygen			
		Crab Tree Swamp	RS-04375	REC	NS	Fecal Coliform		
	Kingston Lake		MD-158 TD, TI	AL	NS	Dissolved Oxygen		Decreasing Dissolved Oxygen
		REC		NS	Fecal Coliform			
	03040206-09	Waccamaw River	PD-369 ^{TD}	REC	PS	Fecal Coliform	Decreasing Turbidity	Increasing Fecal Coliform; Decreasing Dissolved Oxygen
			MD-145 ^{TD}	AL	PS	Dissolved Oxygen		Increasing Total Phosphorus; Decreasing Dissolved Oxygen
Steritt Swamp		RS-06165	AL	NS	Dissolved Oxygen			
			REC	NS	Fecal Coliform	Decreasing Fecal Coliform		

Table 3. Changes in Use Support Status

Waccamaw River Basin Sites that Improved from 2004 to 2010

REC= Recreational; AL=Aquatic Life; FS=Fully Supported Standards; PS=Partially Supported Standards; NS=Nonsupported Standards; TD=TMDL Developed; TI=TMDL Implementation

Watershed	Waterbody Name	Station #	Use	Status		Water Quality Indicator	
				2004	2010	2004	2010
03040206-07	Waccamaw River	MD-124	AL	NS	FS	Copper	
	Simpson Creek	PD-363	AL	NS	FS	Zinc	
03040206-09	Waccamaw River	PD-369 ^{TD}	AL	PS	FS	Dissolved Oxygen	
		MD-111	AL	NS	FS	Dissolved Oxygen	
		MD-136	AL	NS	FS	Dissolved Oxygen	
03040206-10	Waccamaw River	MD-146	AL	NS	FS	Dissolved Oxygen	
		MD-137	AL	NS	FS	Dissolved Oxygen	
		MD-138	AL	PS	FS	Dissolved Oxygen	
		MD-142	AL	PS	FS	Dissolved Oxygen	

Table 4. Changes in Use Support Status

Waccamaw River Basin Sites that Degraded from 2004 to 2010

REC= Recreational; AL=Aquatic Life; FS=Fully Supported Standards; PS=Partially Supported Standards; NS=Nonsupported Standards; TD=TMDL Developed; TI=TMDL Implementation

Watershed	Waterbody Name	Station #	Use	Status		Water Quality Indicator	
				2004	2010	2004	2010
03040206-07	Simpson Creek	PD-363	REC	FS	PS		Fecal Coliform
03040206-08	Crab Tree Swamp	MD-158 TD, TI	AL	FS	NS		Dissolved Oxygen
			REC	PS	NS	Fecal Coliform	Fecal Coliform
	Kingston Lake	MD-107 TD, TI	AL	FS	NS		Dissolved Oxygen
			REC	FS	NS		Fecal Coliform
03040206-09	Waccamaw River	PD-369 ^{TD}	REC	FS	PS		Fecal Coliform