

Water Quality Assessment Summary

Edisto 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 Edisto River Basin 2002-2006

* = Station not evaluated for Recreational Support; TD=TMDL Developed; TI=TMDL Implementation; TI*=TMDL Implementation after 2006; Trend Data 1992-2006

Watershed	Waterbody Name	Station #	Improving Trends	Other Trends
03050203-01	Lightwood Knot Creek	E-605*		
	Black Creek	E-604*		
		E-103	Decreasing Turbidity	Increasing BOD ₅ , Total Nitrogen; Decreasing pH
03050203-02	North Fork Edisto River	E-104	Decreasing Turbidity	Increasing BOD ₅ ; Decreasing pH
	Bull Swamp Creek	E-042	Decreasing Turbidity	Increasing BOD ₅ ; Decreasing pH
03050203-03	North Fork Edisto River	E-007A	Decreasing Turbidity, Total Phosphorus	Increasing BOD ₅ ; Decreasing pH
		E-007C	Decreasing Turbidity	Increasing BOD ₅ ; Decreasing pH
		E-008A	Decreasing Turbidity, Total Phosphorus, Fecal Coliform	Increasing BOD ₅ ; Decreasing pH
03050204-01	First Branch	E-001	Decreasing Turbidity, Total Phosphorus	
	South Fork Edisto River	E-090	Decreasing Turbidity, Total Phosphorus, Total Nitrogen	Increasing BOD ₅ ; Decreasing pH
		E-021	Decreasing Turbidity, Fecal Coliform	Increasing BOD ₅ ; Decreasing pH
	McTier Creek Tributary	RS-03518		
	McTier Creek	E-578*		
	Shaw Creek	RS-02480		
		E-579*		
		E-106	Decreasing Turbidity	Increasing BOD ₅ ; Decreasing pH
03050204-02	Dean Swamp Creek	E-107	Decreasing Turbidity, Fecal Coliform	Increasing BOD ₅ ; Decreasing pH
03050204-03	South Fork Edisto River	E-011	Decreasing Turbidity	Increasing BOD ₅ , Fecal Coliform; Decreasing pH

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Watershed	Waterbody Name	Station #	Improving Trends	Other Trends
03050204-03 (continued)-	South Fork Edisto River	E-012	Decreasing Turbidity, Total Phosphorus	Increasing BOD ₅ ; Decreasing pH
	03050205-02	Sandy Run Tributary	RS-02473	
	Cedar Swamp	E-596*		
03050205-03	Four Hole Swamp	E-015A		Increasing BOD ₅
03050206-01	Edisto River	E-013A	Decreasing Turbidity	Increasing BOD ₅ ; Decreasing pH
		E-014	Increasing Dissolved Oxygen; Decreasing Fecal Coliform	Increasing pH
		E-086	Increasing Dissolved Oxygen; Decreasing Fecal Coliform	Increasing BOD ₅
03050206-02	Indian Field Swamp	E-597*		
03050206-03	Edisto River	E-015	Increasing Dissolved Oxygen; Decreasing Total Phosphorus, Fecal Coliform	Increasing BOD ₅ , pH
		RS-05584		
		MD-119	Decreasing Total Phosphorus, Total Nitrogen	Increasing pH, Turbidity
	South Edisto River	RO-036043		
		MD-244	Decreasing Total Nitrogen	Increasing BOD ₅ , Total Phosphorus; Decreasing pH
		RO-06311		
	Scott Creek	RT-052105		
	Pine Island Creek	RT-06007		

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Watershed	Waterbody Name	Station #	Improving Trends	Other Trends
03050206-04	Younges Island Creek	MD-261	Decreasing Total Nitrogen	
	Wadmalaw River Tributary	RT-042075		
	Wadmalaw River	RO-036039		
		RO-056091		
	Sand Creek	RT-02021		
	Westbank Creek	RO-02013		
	Leadenwah Creek Tributary	RT-042077		
	Leadenwah Creek	RO-06315		
	North Edisto River	MD-262	Decreasing Total Nitrogen	
	Adams Creek	RT-052095		
	Bohicket Creek	MD-210		
	Ocella Creek	RO-056093		

Table 2. Impaired Sites in the Edisto River Basin 2002-2006

REC=Recreational; AL=Aquatic Life; DW= Drinking Water; PS=Partially Supported Standards; NS=Nonsupported Standards; *=Station not evaluated for Recreational Support; TD=TMDL Developed; TI=TMDL Implementation; TI*=TMDL Implementation after 2006; Trend Data 1992-2006

Watershed	Waterbody Name	Station #	Use	Status	Water Quality Indicator	Improving Trends	Other Trends
03050203-01	Chinquapin Creek	E-091 ^{TD}	REC	NS	Fecal Coliform	Decreasing Turbidity	Decreasing Dissolved Oxygen
		E-606	AL	PS	Macroinvertebrates		
	Lightwood Knot Creek	E-101	REC	NS	Fecal Coliform	Decreasing Turbidity	Increasing pH; Decreasing Dissolved Oxygen
	North Fork Edisto River	E-084 ^{TD}	AL	PS	Ammonia	Decreasing Turbidity, Total Phosphorus	Increasing BOD ₅
		E-102 ^{TD}	REC	PS	Fecal Coliform		Increasing BOD ₅ ; Decreasing pH
03050203-02	North Fork Edisto River	E-092	REC	PS	Fecal Coliform	Decreasing Turbidity	Increasing BOD ₅ ; Decreasing pH
	Bull Swamp Creek	E-034	AL	NS	Dissolved Oxygen		Increasing BOD ₅ ; Decreasing pH
		E-035	REC	PS	Fecal Coliform	Decreasing Turbidity, Total Phosphorus	
03050203-03	North Fork Edisto River	E-099	REC	PS	Fecal Coliform	Decreasing Turbidity, Total Phosphorus, Fecal Coliform	Increasing BOD ₅ ; Decreasing pH
		E-007	AL	NS	pH	Decreasing Turbidity, Total Nitrogen	Increasing BOD ₅ ; Decreasing pH
		E-007B	REC	PS	Fecal Coliform	Decreasing Turbidity, Total Phosphorus	Increasing BOD ₅ ; Decreasing pH
		E-008	REC	PS	Fecal Coliform	Decreasing Turbidity, Total Phosphorus	Increasing BOD ₅ ; Decreasing pH
	Caw Caw Swamp	E-105	REC	PS	Fecal Coliform	Decreasing Turbidity	Increasing BOD ₅

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Watershed	Waterbody Name	Station #	Use	Status	Water Quality Indicator	Improving Trends	Other Trends
03050204-01	South Fork Edisto River	E-002 ^{TD}	REC	NS	Fecal Coliform	Decreasing Turbidity	Increasing Fecal Coliform
		E-113	REC	PS	Fecal Coliform		
	Hillyer Branch	RS-03344	AL	NS	Macroinvertebrates pH		
	Shaw Creek	E-094	AL	NS	pH	Decreasing Turbidity	Increasing BOD ₅ ; Decreasing pH
03050204-03	Goodland Creek	E-036 ^{TD}	REC	PS	Fecal Coliform	Decreasing Turbidity, Total Phosphorus	Increasing BOD ₅ , Fecal Coliform; Decreasing pH
	Windy Hill Creek	E-029*	AL	PS	Macroinvertebrates		
	Roberts Swamp	E-039 ^{TD}	REC	NS	Fecal Coliform	Decreasing Total Phosphorus, Total Nitrogen	
03050205-01	Gramling Creek	E-022 ^{TD}	REC	NS	Fecal Coliform	Decreasing Turbidity	Decreasing Dissolved Oxygen
	Little Bull Creek	E-076 ^{TD}	AL	NS	pH	Decreasing Turbidity	Decreasing Dissolved Oxygen, pH
			REC	NS	Fecal Coliform		
	Little Bull Swamp	E-589*	AL	PS	Macroinvertebrates		
	Four Hole Swamp	E-059 ^{TD}	REC	NS	Fecal Coliform	Decreasing Turbidity, Total Nitrogen	Increasing BOD ₅
		E-111	REC	PS	Fecal Coliform	Decreasing Turbidity, Total Phosphorus	
	Four Hole Swamp Tributary	RS-04537	AL	PS	Macroinvertebrates		
REC			NS	Fecal Coliform			
Cow Castle Creek	E-050 ^{TD}	REC	NS	Fecal Coliform		Increasing pH	

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Watershed	Waterbody Name	Station #	Use	Status	Water Quality Indicator	Improving Trends	Other Trends
03050205-02	Dean Swamp	E-030	REC	PS	Fecal Coliform	Decreasing Total Phosphorus, Total Nitrogen	Increasing pH, Fecal Coliform
03050205-03	Providence Swamp	E-051 ^{TD}	AL	NS	Dissolved Oxygen, Copper	Decreasing Turbidity, Total Phosphorus	Increasing BOD ₅
			REC	PS	Fecal Coliform		
	Horse Range Swamp	RS-02303	REC	NS	Fecal Coliform		
		E-052 ^{TD}	REC	PS	Fecal Coliform		Increasing BOD ₅
	Four Hole Swamp	E-112	AL	NS	Dissolved Oxygen	Decreasing Turbidity	Increasing pH
E-100		REC	PS	Fecal Coliform		Increasing pH	
03050206-01	Edisto River	E-013	REC	PS	Fecal Coliform	Decreasing Turbidity, Total Nitrogen	Increasing BOD ₅ ; Decreasing pH
		RS-06180	REC	PS	Fecal Coliform		
	Cattle Creek	E-108 ^{TD}	REC	NS	Fecal Coliform	Increasing Dissolved Oxygen; Decreasing Turbidity	
03050206-02	Gum Branch	RS-05572	REC	NS	Fecal Coliform		
	Indian Field Swamp	E-032 ^{TD}	AL	PS	Dissolved Oxygen		Increasing pH
			REC	PS	Fecal Coliform		
	Polk Swamp	E-016 ^{TD}	AL	NS	Dissolved Oxygen	Decreasing Total Nitrogen	Decreasing Dissolved Oxygen
E-109 ^{TD}		REC	PS	Fecal Coliform	Decreasing BOD ₅ , Turbidity	Increasing pH	
03050206-03	South Edisto River	MD-260	AL	NS	Turbidity, Copper		

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Watershed	Waterbody Name	Station #	Use	Status	Water Quality Indicator	Improving Trends	Other Trends
	Pine Island Creek Tributary	RT-02019	AL	NS	Copper		
03050206-04	Church Creek	MD-195	AL	PS	Dissolved Oxygen	Increasing Dissolved Oxygen; Decreasing Total Nitrogen	Increasing pH
	Fishing Creek	RT-02005	AL	NS	Turbidity		
	Dawho River	MD-120	AL	NS	Dissolved Oxygen	Decreasing Total Nitrogen, Fecal Coliform	Increasing BOD ₅ , pH
	Bohicket Creek	RO-036041	AL	NS	Dissolved Oxygen		
		MD-209	AL	NS	Dissolved Oxygen	Decreasing Total Nitrogen	Increasing BOD ₅ , Turbidity; Decreasing pH

Table 3. Changes in Use Support Status

Edisto River Basin Sites that Improved from 2002 to 2006

REC= Recreational; AL=Aquatic Life; FS=Fully Supported Standards; PS=Partially Supported Standards; NS=Nonsupported Standards; TD=TMDL Developed; TI=TMDL Implementation; TI*=TMDL Implementation after 2006

Watershed	Waterbody Name	Station #	Use	Status		Water Quality Indicator	
				2002	2006	2002	2006
03050203-03	North Fork Edisto River	E-007A	REC	PS	FS	Fecal Coliform	
		E-007C	AL	NS	FS	pH	
03050204-03	Goodland Creek	E-036 ^{TD}	REC	NS	PS	Fecal Coliform	Fecal Coliform
	Roberts Swamp	E-039 ^{TD}	AL	PS	FS	Macroinvertebrates	
03050205-01	Gramling Creek	E-022 ^{TD}	AL	NS	FS	Dissolved Oxygen	
	Four Hole Swamp	E-111	AL	NS	FS	Dissolved Oxygen	
03050205-03	Four Hole Swamp	E-100	AL	PS	FS	Chromium	
03050206-02	Polk Swamp	E-016 ^{TD}	REC	NS	FS	Fecal Coliform	
		E-109 ^{TD}	AL	NS	FS	Dissolved Oxygen	
03050206-04	Church Creek	MD-195	AL	NS	PS	Dissolved Oxygen	Dissolved Oxygen
	Younges Island Creek	MD-261	AL	NS	FS	Turbidity	

Table 4. Changes in Use Support Status

Edisto River Basin Sites that Degraded from 2002 to 2006

REC= Recreational; AL=Aquatic Life; FS=Fully Supported Standards; PS=Partially Supported Standards; NS=Nonsupported Standards; TD=TMDL Developed; TI=TMDL Implementation; TI*=TMDL Implementation after 2006

Watershed	Waterbody Name	Station #	Use	Status		Water Quality Indicator	
				2002	2006	2002	2006
03050203-01	Lightwood Knot Creek	E-101	REC	FS	NS		Fecal Coliform
	North Fork Edisto River	E-084 ^{TD}	AL	FS	PS		Ammonia
		E-102 ^{TD}	REC	FS	PS		Fecal Coliform
03050203-02	North Fork Edisto River	E-092	REC	FS	PS		Fecal Coliform
	Bull Swamp Creek	E-035	REC	FS	PS		Fecal Coliform
03050203-03	Caw Caw Swamp	E-105	REC	FS	PS		Fecal Coliform
	North Fork Edisto River	E-007B	REC	FS	PS		Fecal Coliform
		E-008	REC	FS	PS		Fecal Coliform
03050204-01	South Fork Edisto River	E-002 ^{TD}	REC	FS	NS		Fecal Coliform
		E-113	REC	FS	PS		Fecal Coliform
03050204-03	Roberts Swamp	E-039 ^{TD}	REC	FS	NS		Fecal Coliform
03050205-01	Little Bull Creek	E-076 ^{TD}	REC	PS	NS	Fecal Coliform	Fecal Coliform
	Four Hole Swamp	E-059 ^{TD}	REC	PS	NS	Fecal Coliform	Fecal Coliform
	Cow Castle Creek	E-050 ^{TD}	REC	PS	NS	Fecal Coliform	Fecal Coliform
03050205-02	Dean Swamp	E-030	REC	FS	PS		Fecal Coliform
03050205-03	Providence Swamp	E-051 ^{TD}	AL	PS	NS	Dissolved Oxygen	Dissolved Oxygen, Copper
			REC	FS	PS		Fecal Coliform
03050206-01	Edisto River	E-013	REC	FS	PS		Fecal Coliform
	Cattle Creek	E-108 ^{TD}	REC	PS	NS	Fecal Coliform	Fecal Coliform
03050206-03	South Edisto River	MD-260	AL	FS	NS		Turbidity, Copper