

What is a 303(d) list?

The Clean Water Act calls on each state to list its polluted waterbodies and to set priorities for their clean up. Waterbodies qualify for these “impaired waters lists” when they are too polluted or otherwise degraded to support their designated and existing uses (like drinking water, swimming, recreation, and fishing). The impaired waters list is also called the 303(d) list, named after the section in the Clean Water Act that requires it. The state must complete TMDLs (Total Maximum Daily Loads) for each listed parameter for each waterbody on the list.

The new federal TMDL regulations call for states to submit 303(d) lists every four years. Until the new regulations are enforced, states must complete every two years.

303(d) Pollutant List Definitions

- **OE/DO (Organic Enrichment/Low Dissolved Oxygen)** - Excessive organic material decay results in the depletion of the amount of oxygen available in the water, vital to fish and other aquatic life.
- **Ammonia**—Ammonia is present naturally in surface waters and wastewaters. A compound of nitrogen and hydrogen (NH₃) it is very soluble in water. The amount of oxygen available in the water is depleted by bacteria as they convert ammonia to nitrate, a compound of nitrogen. Ammonia can also exhibit toxicity to aquatic organisms.
- **Siltation**—Excessive amounts of sediment which degrade the habitat of aquatic organisms and interfere with the stream's aquatic community.
- **Turbidity**—A cloudy condition in water due to suspended silt or organic matter. The clarity of a natural body of water is an important determinant of its condition and productivity.
- **Nutrients**—Any substance assimilated by living things that promotes growth. Nitrogen and phosphorus are the two major nutrients. All plants require nutrients for growth.
- **Pathogens**—Microorganisms (e.g., bacteria) that can cause disease in humans and animals. Fecal coli form are commonly used as an indicator for the possible presence of these organisms.
- **pH**—An expression of the intensity of the basic or acidic condition of a liquid; may range from 0 to 14 where 0 is the most acid and 7 is neutral. Natural waters usually have a pH between 6.5 and 8.5.
- **Metals**—A chemical element as distinguished from an alloy (e.g., copper, iron, aluminum). This term can apply to one or more specific elements. Some metals are essential to plant and animal growth while others may adversely affect receiving waters. The benefits versus toxicity of some metals depend on their concentrations in waters.
- **Zinc**—A chemical element classified as being a metal.
- **Mercury**—A chemical element classified as being a metal. Methyl mercury is the form which accumulates in animals, including fish and humans, and can pose a health risk at sufficiently high concentrations.
- **Pesticides**—Substances or mixture thereof intended for preventing, destroying, repelling, or mitigating any pest. Also, any substance or mixture intended for use as a plant regulator, defoliant, or desiccant. Pesticides can be persistent in the environment and may cause toxicity in receiving waters as rainfall runoff enters streams during rain events.
- **Chlorodane**—A pesticide commonly used for termite control.
- **Priority and Non-Priority Organics**—Compounds containing carbon. Priority organics for this listing generally refers to PCBs and DDT, both of these compounds have been shown to be persistent in the environment. Non-priority organics generally refer to the organic compounds: benzene, ethyl benzene, toluene, and xylene (BETX).
- **Color**—Color change in the stream as a result of wastewater discharges that affects the aesthetic value of the stream.
- **Chlorides**—A compound of chlorine with another element or radical (e.g., salt (NaCl)). The presence of chlorides at certain levels in freshwater streams can result in toxicity to freshwater organisms.
- **Biology**—Plant and/or animal life which is adversely impacted.
- **Other Habitat Alteration**—The habitat for aquatic organisms has been changed as a result of stream channel modifications (i.e., channelization) or changes in the stream's hydrograph (i.e. greater peak flows or extended low-flow periods).

Contacts & More Information

Federal Contacts for TMDLs in Alabama:
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State Contact for TMDLs in Alabama:
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(334) 271-7827

Websites of Interest:

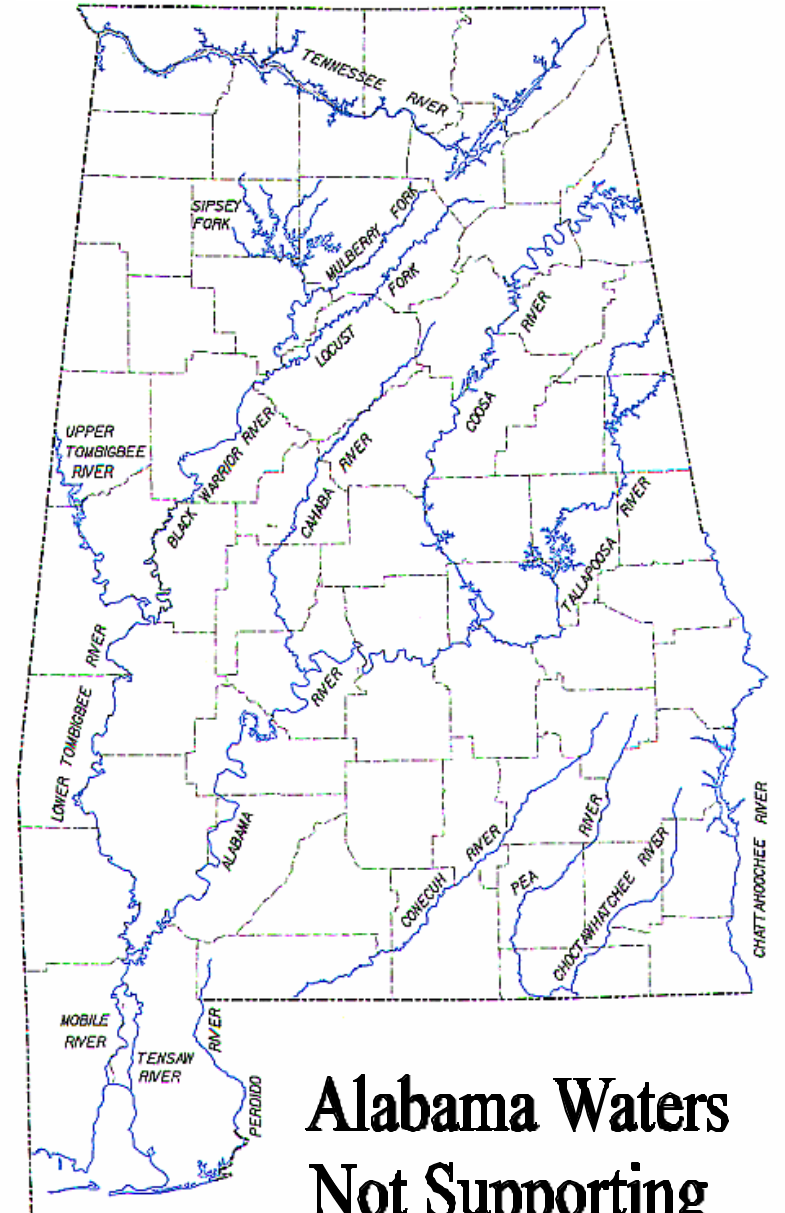
- EPA's TMDL page: www.epa.gov/OWOW/tmdl
- National Wildlife Federation's Saving Our Watersheds: A field guide to watershed restoration using TMDLs: www.nwf.org/Northwest/watersheds
- The Clean Water Network: www.cwn.org
- ADEM's TMDL Webpage: ww.adem.state.al.us/enviroprotect/water/surface/TMDL/TMDL.htm



Alabama Clean Water Partnership
Working Together to Protect, Improve, and Preserve
the Water Quality of Alabama's Rivers

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Alabama's 303(d) List



**Alabama Waters
Not Supporting
Their Designated Uses**

1 A variety of water quality data and related information can be used to determine the use support status of a waterbody. In most cases chemical water quality data will serve as the basis for the use support determination. However, biological data such as macroinvertebrate community indices, fish community indices, trophic status, bioassay results, or bacteriological indicators are often used in addition to chemical data to provide a more comprehensive use support determination. Fish consumption advisories and shellfish harvesting closures can also serve as the basis for a waterbody's use support determination.

The EPA guidelines for preparation of the 1998 §305(b) Water Quality Report to Congress offer the following guidance regarding use support determinations using conventional water quality parameters (i.e. dissolved oxygen, temperature, pH).

Fully Supporting - For any one pollutant or stressor the criteria is exceeded in < 10 percent of the measurements.

Partially Supporting - For any one pollutant or stressor the criteria is exceeded in 11 to 25 percent of the measurements.

Not Supporting - For any one pollutant or stressor the criteria is exceeded in > 25 percent of the measurements.

For toxicants (i.e. priority pollutants, metals, chlorine, and ammonia) the guidelines suggest the following criteria:

Fully Supporting - For any one pollutant, no more than 1 exceedance of acute or chronic criteria in a 3-year period based on 10 or more samples.

Partially Supporting - For any one pollutant, acute or chronic criteria exceeded more than once in a 3-year period but in < 10 percent of the samples based on 10 or more samples.

Not Supporting - For any one pollutant, acute or chronic criteria exceeded in > 10 percent of the samples based on 10 or more samples.

In those cases where the applicable water quality criteria is less than the method detection limit for a particular pollutant the waterbody will be considered unassessed for that pollutant. When the number of samples collected in a 3-year period is between 5 and 10 the use support status will be based on best professional judgment using the available information and applying the same guidelines as for conventional parameters.

2 Waterbody ID

Waterbody identification is based on the Hydraulic Unit Code. Example: 03150201 - 080_01. 03 is the region, 15 is the sub-region, 02 is the accounting unit, 01 is the cataloging unit, 080 refers to the USDA - NRCS subwatershed, and 01 indicates the designated reach of the stream. Reach numbers are assigned by ADEM.

3 Support Status

Support Status refers to partial or non-supporting.

4 Waterbody name

River & creek names are listed alphabetically for each section.

5 WBTYPE

Waterbody type consists of L = Lake, R = River, and E = Estuary.

6 Rank

Rank refers to the importance placed on the support status (H = High, M = Medium, and L = Low).

7 River Basin

River Basin refers to the basin in which the waterbody is located. There are 14 river basins located in Alabama.

8 County

County refers to the county in which the impaired section is located.

9 Uses

Water Use Classification (or designated use) is the crux of the 303(d) list. There are water quality standards attached to each designated use, and when a water is found not to meet these criteria (see number 1) the water is listed. All of Alabama's waters are currently classified as having one or more of the following uses: Outstanding National Resource Water, Outstanding Alabama Water, Public Water Supply,

Swimming and Other Whole Body Water-Contact Sports, Shellfish Harvesting, Fish and Wildlife, Limited Warm Water Fishery, and Agricultural and Industrial Water Supply. The State of Alabama also has a special designation of Outstanding National Resource Water.

10 Causes

This column identifies the water quality parameter that is violated. A list of code definitions can be found within this primer. A Total Maximum Daily Load (TMDL) must be developed for each parameter listed in this column. Keep an eye on whether subsequent 303(d) lists retain all of the parameters listed.

11 Sources

This column indicates the cause of the "criterion violated". Again, the code definitions are listed in this primer. No one knows a community better than the people who live there! If you notice discrepancies, falsehoods, or mistakes, let your state agency know.

12 Date of data

Date the data was collected.

1 1998 §303(d) List for Alabama **															
2 WaterbodyID	3 Support Status	4 Waterbody Name	5 WBTYPE	6 Rank	7 River Basin	8 County	9 Uses	10 Causes	11 Sources	12 Date of Data	13 Size	14 Downstream / Upstream Locations	15 Draft TMDL Date	16 Final TMDL Date	
AL/03150201-080_01	Partial	Catoma Creek	R	M	Alabama	Montgomery	Fish & Wildlife	OE/DO	Urban runoff/Storm sewers	1990-91	23.2 miles	Alabama River /	1-Jun-03	29-Sep-03	
									Pasture Grazing	1996-97		Ramer Creek			
AL/03150203-180_01	Non	Cub Creek	R	H	Alabama	Wilcox	Fish & Wildlife	Nutrients	Unknown source	1998	8.1 miles	Beaver Creek /			
								OE/DO				Its Source			
AL/Alabama_R_01	Partial	Alabama River	R	L	Alabama	Wilcox	Public Water Supply	Nutrients	Dam construc.	1991	5.0 miles	Beaver Creek /	1-Dec-03	30-Mar-04	
								OE/DO	Flow reg/mod			Rockwest Creek			
AL/Alabama_R_02	Partial	Alabama River	R	L	Alabama	Wilcox	Public Water Supply	Nutrients	Industrial	1991	12.6 miles	Bear Creek /	1-Jun-04	29-Sep-04	
								OE/DO	Nonirrigated Crop prod.			Pursley Creek			
									Pasture Grazing						
AL/03160109-020_01	Non	Duck Creek	R	H	Black Warrior	Cullman	Fish & Wildlife	pH	Pasture Grazing	1991	6.4 miles	Duck River /	1-Dec-98	31-Mar-99	
								OE/DO	Int. animal feeding oper.	1997		Its Source			
AL/03160109-020_02	Partial	Long Branch	R	M	Black Warrior	Cullman	Fish & Wildlife	Ammonia	Int. animal feeding oper.	1990	2.0 miles	Wolf Creek /	1-Jun-99	29-Sep-99	
								OE/DO	Pasture Grazing	1997		Its Source			
								Pathogens							
AL/03160109-030_01	Non	Brindley Creek	R	M	Black Warrior	Cullman	Public Water Sup	Ammonia	Urban runoff/Storm sewers	1996	18.8 miles	Broglen River /	1-Dec-98	31-Mar-99	
								Siltation				Its Source			
								OE/DO							
								Pathogens							
AL/03160109-040_01	Partial	Eightmile Creek	R	L	Black Warrior	Cullman	Fish & Wildlife	Pathogens	Urban runoff	1991	23.0 miles	Broglen River /	1-Dec-98	31-Mar-99	
									Pasture Grazing	1996		Its Source			
AL/03160109-050_01	Partial	Broglen River	R	M	Black Warrior	Cullman	Fish & Wildlife	Pathogens	Urban runoff	1991	12.0 miles	Mulberry Fork /	1-Dec-98	31-Mar-99	
									Pasture Grazing	1996		Its Source			
AL/03160109-050_02	Non	Mulberry Fork	R	H	Black Warrior	Blount	Fish & Wildlife	Siltation	Unknown source	1974-83	18.4 miles	Broglen River /			
						Cullman		Other habitat alteration				Blount Co. Rd. 6			

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13 Size

The number of impaired river miles. This is where the notion of "segments" comes in. Portions of a waterbody can be listed. When mapped you can see that listed segments sometimes fall in the middle of the length of waterways, and sometimes near the source; sometimes near the mouth.

14 Downstream / Upstream Locations

Location descriptions are provided so that the reader can determine which segment of the water is being listed. Finding exactly where the segments are delineated is a challenge for everyone. If you contact the ADEM the precise latitude and longitude of the upstream and downstream locations of the impaired segment can be given to you.

15 Draft TMDL Date

Proposed date for the draft TMDL.

16 Final TMDL Date

Proposed date for the final TMDL.