DUBIOUS DE-LISTINGS:

Mississippi's Push To Remove Protections For Polluted Waters

A report by the Gulf Restoration Network
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Introduction

Clean Water Act Requirements

With the adoption of the Clean Water Act in 1972, the laws protecting this nation's rivers, lakes, and streams were created. For the first time, our government was mandated to clean up all unfishable and unswimmable waters in this country-- waters that are contaminated with both polluted runoff and point source pollution. Nearly thirty years later, about 40% of the waters in this country are still polluted.

Section 305(b)

Section 305(b) of the Clean Water Act requires each state to assess the quality of the state's waters every two years and submit their findings, in the form of a report, to Congress. Until recently, the Mississippi Department of Environmental Quality (DEQ) was gathering water quality data in all areas of the state every year. Now, under a "rotating basin approach," the state only monitors one out of five regions in the state each year. This means that most waterbodies in the state are only monitored once every five years.

Section 303(d)

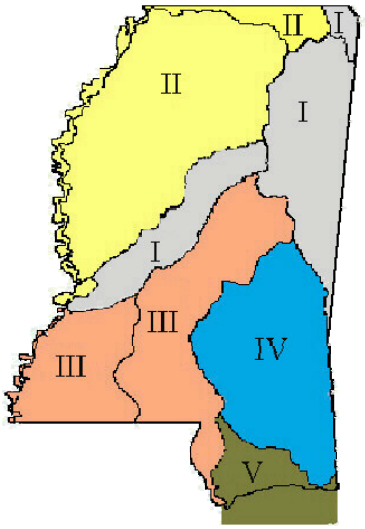
Section 303(d) of the Clean Water Act calls on the state to list its polluted water bodies and to set priorities for their cleanup. This list, commonly referred to as the "303(d) list," is submitted to Congress every two years and is based on information in the state's 305(b) water quality assessment. For every waterbody on this list, DEQ is required to develop a cleanup plan, also known as a "Total Maximum Daily Load," or "TMDL." The TMDL is both a calculation of the maximum amount of a pollutant that a waterbody can handle and still be safe for swimming and fishing, as well as a plan for cleaning up the water to meet water quality standards. The Environmental Protection Agency (EPA) is responsible for reviewing and approving TMDLs, and is held responsible for the state's progress in addressing water pollution problems in a timely manner.

Litigation and Consent Decree

Unfortunately, as recently as 1998, the state of Mississippi failed to develop cleanup plans for polluted waters listed on the 303(d) list. Because of a lawsuit brought by Earthjustice Legal Defense Fund on behalf of the Sierra Club, EPA Region 4 in Atlanta entered into a consent decree in 1998, which set forth a schedule for completing cleanup plans for all waters listed on the state's 303(d) list (see Table 1).

Table 1. Schedule for Development of TMDLs

Water Basins	**Date TMDLs Are Supposed to Be Completed for Monitored Waters**
Pascagoula River Basin	12/31/99
Coastal, North Independent Streams, Tennessee Basins	12/31/00
Pearl and South Independent Streams	12/31/01
Yazoo	12/31/02
Big Black	12/31/03



I. Big Black, Tombigbee, and Tennessee River Basins

II. Yazoo River and North Independent Streams Basins

III. Pearl River and South Independent Streams Basins

IV. Pascagoula River Basin

V. Coastal Streams Basin

Now that DEQ has started to develop these TMDLs, it is up to members of the public to make sure that these plans actually help clean up polluted waters throughout the state. It is also essential that the public take an active role in encouraging DEQ to include all polluted waters in the 2002 303(d) list, so that these waters will be in line for cleanup.

The 1998 303(d) List of Polluted Waters[1]

Assessment Statistics

According to Mississippi's 1998 305(b) Water Quality Assessment, DEQ has monitored only 46% of a total of 84,003 miles of streams and rivers found in the state. Of the rivers

[1] 1998 Section 303(d) List Fact Sheet for Mississippi. U.S. EPA Office of Water. http://oaspub.epa.gov/waters/state_rept.control?p_state=MS. April 15, 2002.

and streams assessed, only 2% meet water quality standards. DEQ estimated that it has monitored only 58% of about 500,000 acres of freshwater lakes. Of the total acres assessed, only 41%, or 120,000 acres, meet all water quality standards. DEQ has monitored 40% of the state's 760 square miles of estuaries, mostly for bacteria. Only 32% are safe for fish, wildlife, and recreation activities. Finally, DEQ has assessed about 74% of the state's total 245 miles of coastal shoreline, mostly for bacteria. Only about 15%, or about 37 miles, are safe for swimming and fishing.

Pollutant Types and Sources

Mississippi's 1998 305(b) report documents 2,241 water quality problems in streams, creeks, rivers, lakes, reservoirs, ponds, coastlines, and estuaries throughout the state. The top ten pollutants that are contaminating the waters of Mississippi are listed in Table 2.

Table 2. Top Ten Impairments Found in Mississippi Waters

Pollutant Name	**# Problems Reported**	**Percent of Total**
Sediment/Siltation	484	21.6%
Nutrients	470	21%
Pesticides	435	19.4%
Organic Enrichment/Low Dissolved Oxygen	403	18%
Pathogens	228	10.2%
Biological Criteria	57	2.5%
pH	52	2.3%
Metals	41	1.8%
Salinity	25	1.1%
Nonpriority Organics	9	0.4%

The sources of these pollutants range from agricultural farm runoff of sediment, nutrients, and pesticides to overwhelmed sewer treatment plants and faulty septic tanks that serve as a significant source of disease-causing bacteria and viruses (pathogens). Many of these pollutants threaten both the health of humans who swim and fish in these waters, as well as the health of the aquatic environment.

Polluted Waters By Basin

According to DEQ's 1998 303(d) list, the largest number of pollution problems occur in the Mississippi Delta region of the state. Watersheds in this region include the Big Sunflower watershed, the Upper Yazoo watershed, the Coldwater River watershed, and the Deer Creek and Steele Bayou watersheds. Many of these impairments consist of pesticide and nutrient pollution, which are directly related to the heavy agricultural activity in the Mississippi River Delta. The coastal region of the state (i.e., Hancock, Harrison, and Jackson counties) also contains a large number of impaired water bodies, many polluted with bacteria from the large number of improperly-maintained septic tanks

and overwhelmed sewage treatment plants that can not handle the growing number of people who take up residence along the coast.

Table 3 documents the number of impairments found in the ten most polluted watersheds in the state of Mississippi.

Table 3. Top Ten Polluted Watersheds in the State of Mississippi

Watershed Name	**# Water Bodies Polluted**	**Percent of Total**
Mississippi Coastal	58	8%
Big Sunflower	54	7.5%
Upper Yazoo	50	6.9%
Coldwater	42	5.8%
Yalobusha	40	5.5%
Little Tallahatchie	36	5%
Upper Big Black	29	4%
Upper Pearl	25	3.5%
Middle Pearl-Strong	24	3.3%
Deer Creek-Steele Bayou	23	3.2%

The 2002 303(d) List of Polluted Waters

As mentioned earlier, the Clean Water Act requires all states in the U.S. to submit a list of polluted waters (known as the "303(d) List") to EPA on April 1 of every even-numbered year. This means that the past two lists should have been submitted to EPA in April 2000 and April 2002. For various reasons, however, most states were not required to submit a 2000 303(d) list. In addition, EPA made the decision to delay the deadline for the states to submit their 2002 303(d) list to October 1, 2002. In short, Mississippi DEQ has not finalized a polluted waters list in about four years.

Currently, DEQ is in the process of compiling their new 2002 polluted waters list. It will be largely left up to the public to make sure that the 2002 list is an accurate listing of all known polluted waters in the state of Mississippi, which is based on the best available information and accurately reflects changes in water quality (for the better or worse) that have taken place over the last four years.

While DEQ intends to meet the October 1 deadline imposed by EPA, they do not know when the list will be fully compiled and released for a 30-day public comment period. Unfortunately, this 30-day comment period will be the ONLY opportunity for members of the public to ensure that all polluted waters are listed and that no waters are inappropriately removed, or "de-listed" from this list.

Dubious De-listings

DEQ has publicly announced that they will be removing or "de-listing" as many waters from the 2002 polluted waters list as possible, claiming that many waters were inappropriately listed in the first place. Waters that are de-listed will not receive a cleanup plan. Therefore, it is very important that waters are not removed from this list if they are still polluted. While this may be true for some waters, DEQ's motivations for removing many of these waters are questionable, as outlined in the four case studies discussed below. In addition, DEQ's attempts to obtain "preliminary approval" from EPA for many de-listings, without any opportunity for the public to provide input, signifies that DEQ dedicated to a wholesale de-listing from the 1998 polluted waters list, no matter what the public may think. Because local residents are often the most well-informed about local water quality problems, they should have a strong say in whether or not their local stream, creek, or lake is declared clean by DEQ and removed from the state's list of polluted waters. Therefore, approval of de-listings—even "preliminary" approval-- should not take place until the public has been notified and their comments have been fully considered.

Implications of De-listing Polluted Waters

As described earlier, a TMDL sets a pollution cap for a waterbody and sets out a plan for reducing levels of pollution to a safe level. If a waterbody is removed from the 303(d) list, it will not receive a cleanup plan, also referred to as a TMDL. As a result, sources of pollution such as industry and agriculture will not be reduced, and the water will never be cleaned up.

Another, less obvious result of removing a polluted waterbody from this list, is that the waterbody is, in effect, declared clean and is left open to receive additional pollution inputs from industries and development. If a waterbody is not listed on the list of polluted waters, it is much easier for new pollution sources to obtain permits to discharge pollutants into a waterbody. In short, inappropriately removing a polluted water from the 303(d) list can have dire consequences, both for the people who depend on these waters for drinking water supply, recreation, and food, as well as the ecosystem health at large.

Overview of Proposed De-listings in Each Basin

Since the last 303(d) list was approved in 1998, DEQ has proposed 188 de-listings throughout the state of Mississippi (see Attachment 1). Table 4 includes the number of de-listings proposed, approved, denied, and still under review by EPA Region 4 as of June 5, 2002.

Table 4: Proposed De-listings Since 1998 303(d) List[2]

# Proposed De-listings	**188**
# Approved by EPA	138
# Denied by EPA	34
# Under review	16

Case Study 1: Bayou Casotte, Coastal Streams Basin

Bayou Casotte, located at the mouth of the Pascagoula River in Jackson County, is considered by many to be one of the most polluted waterbodies in Mississippi. Bayou Casotte is located in one of the most industrialized regions of the state of Mississippi, and is the receiving waterbody for many toxic pollutants both directly and indirectly related to industrial activities.

Despite documented sediment contamination problems in Bayou Casotte, it appears that the interests of the industries that pollute Bayou Casotte are outweighing the need to clean up this bayou. In November 2001, DEQ requested "preliminary approval" from EPA for the removal of Bayou Casotte from the state's impaired waters list, saying it is no longer polluted by metals, priority organics other than phenols, and unionized ammonia. However, much of the data that MDEQ submitted to show that Bayou Casotte is clean, was taken by MS Phosphates Corporation, one of the most polluting industries in the Bayou Casotte watershed.

Obviously, this is a conflict of interest. If Bayou Casotte is removed from the polluted waters list for metals and ammonia, MS Phosphates will not be forced to go through the costly process of reducing the amount of copper, zinc, chromium, arsenic, cadmium, and ammonia nitrogen that it is currently permitted to discharge into Bayou Casotte. In fact, in December of 1999, MS Phosphates Corporation requested MDEQ to remove permit limits for copper and zinc based on their data that show the bayou is meeting water quality standards for these metals (see Attachment 2). Removing permit limits would be disastrous; industries would be able to increase production of these pollutants without any regulations in place to ensure water quality is protected.

In short, DEQ's proposed de-listing of Bayou Casotte appears to be in the best interest of the corporations who are making a profit off of polluting this bayou. De-listing would come at the expense of the public health, sediment quality, water quality, and aquatic life that depend on this waterbody.

Before Bayou Casotte can be considered clean, DEQ must 1) base its assessment on data that do not represent a conflict of interest and 2) test the quality of the bottom sediments of the bayou, where the heavy metals and priority organics are most likely to collect and contaminate the fish that live in these waters.

[2] Written correspondence with EPA Region 4. Update of Mississippi's Intents to Delist/Modify. As of May 17, 2002.

Case Study 2: Turkey Creek, Coastal Streams Basin

Turkey Creek is in the Coastal Streams Basin, and runs through the wetlands of North Gulfport into Bernard Bayou, which eventually feeds into the Back Bay of Biloxi. The Turkey Creek watershed has been the focus of much development in the past decade, and developers continue to seek permits to fill in hundreds of acres of wetlands in this area. Increased development, however, has taken its toll on water quality in Turkey Creek. The creek was listed by DEQ on the 1998 impaired list for bacteria contamination, based on water quality data that indicated the water was polluted.

Recently, DEQ attempted to obtain "preliminary approval" for de-listing Turkey Creek for bacteria contamination. In a letter submitted to EPA in September 2001, DEQ requested the removal of Turkey Creek from the polluted waters list, despite the fact that data indicate the water is not safe for swimming and fishing. In this letter, DEQ clearly stated that the listing of Turkey Creek as a polluted water would have "serious repercussions on existing and new permitting activity in the area." Unfortunately, this letter underlines DEQ's efforts to put development interests before environmental protection. Thankfully, EPA turned down DEQ's request to remove Turkey Creek from the polluted waters list, and required them to develop a cleanup plan to address bacteria contamination in the Turkey Creek watershed. Nonetheless, DEQ's cleanup plan requires no cleanup and essentially de-lists Turkey Creek. By doing so, DEQ is opening the doors to development that will only serve to further exacerbate an already-occurring water quality problem.

If the TMDL proposed by DEQ is approved by EPA, it would set a bad precedent that could be used by MDEQ to justify inadequate cleanup plans for other waterbodies that it wishes to remove from the 303(d) list of impaired waters. **TMDLs for polluted waters that require no reductions in pollution should not be accepted or approved by EPA. These TMDLs serve to effectively de-list polluted waters.**

Case Study 3: Wolf River, Coastal Streams Basin

Many waters throughout the state have already had TMDLs, or cleanup plans, developed for them. While TMDLs are *supposed* to outline a plan for cleaning up a waterbody for a particular pollutant, many of these plans do not describe detailed steps for achieving clean water goals. As a result, these plans are very hard to implement, and essentially do nothing to clean up polluted waters. Many states in the U.S., including Mississippi, believe that once a TMDL is completed, the waterbody can be removed from the polluted waters list (i.e., de-listed), despite the fact that the water may still be severely polluted. This policy makes it difficult to use the 303(d) list as an accurate measure of the status of water quality in the state; just because a TMDL plan was completed, doesn't mean it was successfully implemented to clean up the polluted water.

A good example of this type of de-listing is the Wolf River in the Coastal Streams Basin. Listed in the Mississippi Scenic Streams Program, the Wolf River is a breathtakingly beautiful river used by boaters, fishermen, and swimmers alike. Unfortunately, the river is also polluted with high levels of bacteria, which threaten the health of people who use this river for recreation. In November of 2000, DEQ proposed a TMDL for this waterbody, which concluded that a 40% reduction in bacteria entering the Wolf River watershed was necessary for this waterbody to be clean enough for recreational use (see Attachment 3).

However, this TMDL was never implemented, and the Wolf River remains polluted. By removing this water from the list, DEQ is sending false signals to the public that the water is now clean and safe to use. **Wolf River, and other impaired waters for which TMDL plans have been developed but not successfully implemented, should remain on the 2002 impaired waters list until they are clean and meeting water quality standards.**

Case Study 4: Proposed De-listings in the Yazoo River Basin

The Yazoo River Basin, more commonly known as the Mississippi Delta, contains some of the most polluted waters in the entire state, in large part because of the intensive agricultural activities that contribute high amounts of both pesticides and nutrients to the waterbodies that flow through this region. In fact, toxic pesticides such as DDT and Toxaphene, which were banned from use in the U.S. decades ago, are still being found at dangerous levels in fish throughout the Delta. The levels of pesticides in these fish are so alarming (levels of Toxaphene in catfish were measured to be over 25 times the safe limit) that DEQ issued a Delta-wide fish consumption advisory in June 2001, advising people to limit their consumption of four species of fish: Buffalo, Catfish over 22 inches long, Gar, and Carp.

This information points to the threats posed by polluted runoff (i.e., pesticides and nutrients that flow off of the land into rivers, streams, and lakes during rainstorms) and its effect on human health. Despite these known problems, DEQ intends to de-list roughly 50 waterbodies in the Yazoo Basin for, in many cases, these very same pollutants: pesticides and nutrients.

It is unknown how much water quality and fish tissue data DEQ has collected for these waters. Given that DEQ is still in the process of formulating an approach to monitoring waters in the Yazoo Basin, it seems unlikely that they have collected sufficient data to support the removal of these 50 waterbodies, over 50% of these waters for pesticide contamination, from the 2002 list of impaired waters. **Adequate sampling of the fish and water need to take place before a wholesale de-listing of waterbodies in one of the most polluted regions in the state is approved by EPA.**

Recommendations

Five recommendations for DEQ and EPA's development of the 2002 impaired waters list are provided below. These recommendations *must* be put into place if we are to ensure that all polluted waters in the state are cleaned up.

1. Waters should only be removed from the 303(d) list with accurate and adequate water quality data, which prove that they are clean and meeting water quality standards;
2. Sediment and fish tissue data need to be considered before a waterbody is proposed for de-listing for pollutants that tend to accumulate in the sediments and bioaccumulate up the food chain;
3. Data that represent a conflict of interest (i.e., data that are taken by a polluter) should not be considered when making de-listing proposals;
4. De-listing should not taken place until the waterbody is meeting water quality standards, even when cleanup plans (TMDLs) have been developed; and
5. Cleanup plans (TMDLs) for polluted waters that require no reductions in pollution, which essentially de-list the waterbody, should not be accepted or approved by EPA.