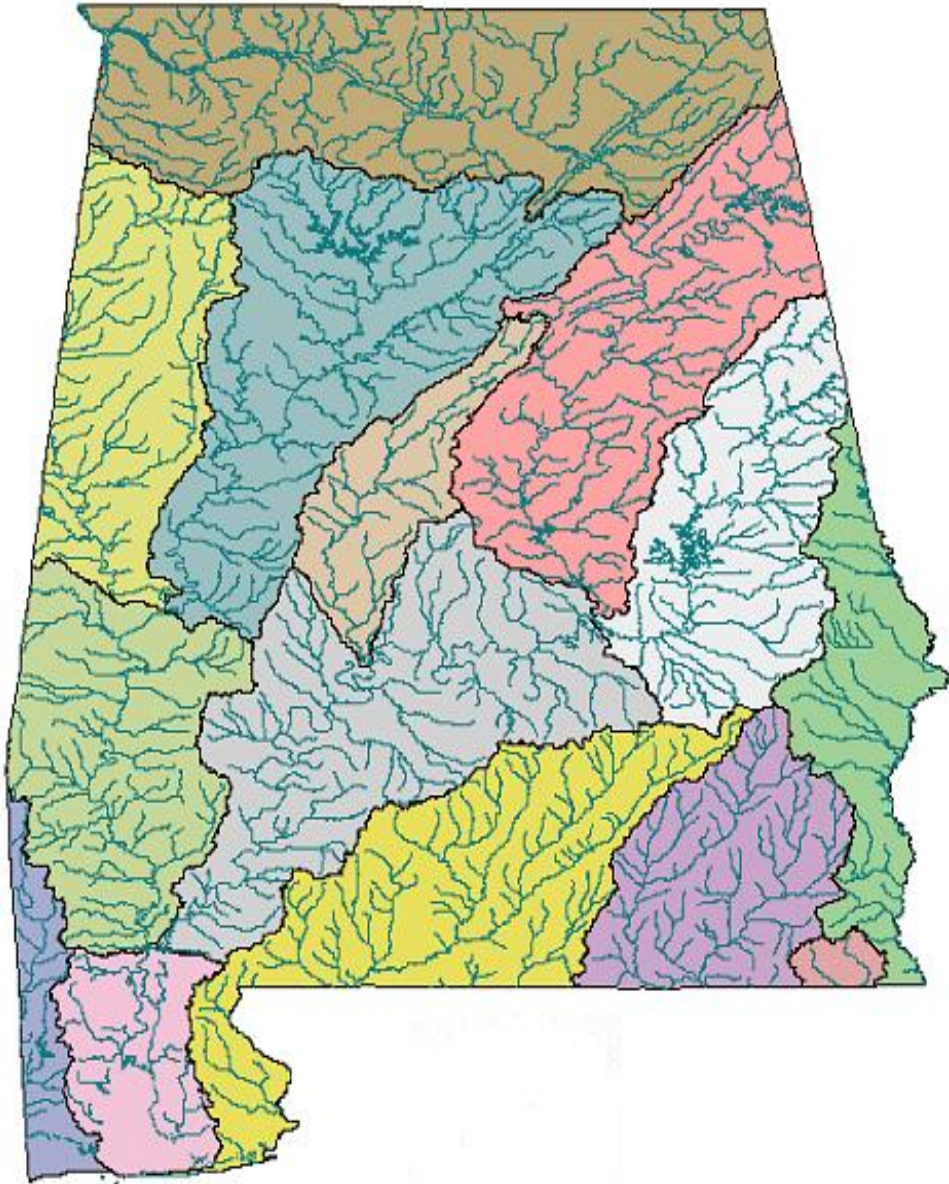


State of Alabama
Prioritization Framework Document



Alabama Department of Environmental Management
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Section 303(d) of the Clean Water Act requires states to identify waterbodies within their boundaries that are not in compliance with applicable water quality standards. For those waterbodies identified as not meeting water quality standards, states are required to develop a Total Maximum Daily Load (TMDL) for the pollutant which is not in compliance with the applicable standard. A TMDL is the maximum amount of a pollutant (from point and nonpoint sources) that can be released into a waterbody without causing a violation of water quality standards.

The United States Environmental Protection Agency (EPA) has recently developed a new framework for implementing the Section 303(d) program – “A Long-Term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program.” The Vision encourages states to establish and focus on priority waters for restoration or protection.

The Alabama Department of Environmental Management (Department) utilized EPA’s Recovery Potential Screening (RPS) Tool for prioritizing waters for restoration through TMDL development or through an alternative approach. The tool utilizes Microsoft Excel and provides us with a mechanism to rank our impaired (§303(d) listed) waterbodies.

The Department has a significant number of waterbodies on the §303(d) list with impairments for nutrients and/or siltation. As such, the Department has chosen to focus a significant amount of effort during the Vision process on addressing a number of the waterbodies with these impairments. In order to prioritize these waterbodies, several indicators were selected for input into the RPS tool. The indicators fell under one of three categories: ecological, stressor, or social.

For siltation, each of the HUC12 watersheds that contained a waterbody segment impaired for siltation was selected in the RPS tool. A number of indicators, several supplied by EPA and several input by the Department, were utilized in the RPS tool. The following indicators were identified as significant factors related to siltation impairments and were selected in the RPS tool:

- Ecological – percent barren land in watershed; slope, mean value in watershed; percent of watershed in a strategic habitat unit; watershed stream length of critical habitat for threatened and endangered species
- Stressor – percent developed, high intensity in watershed; percent agriculture in watershed; percent human use change in watershed; number of road crossings in watershed; number of permitted mining outfalls in watershed; mean soil erodibility
- Social – percent of watershed in Clean Water Partnership HUC12; number of stations sampled (2009-2014) in watershed; environmental justice area in watershed; watershed stream length classified as public water supply; watershed stream length classified as swimming

For nutrients, the same process was utilized, except the indicators were modified to reflect factors deemed impactful to nutrient impairments. The following indicators were identified as significant factors related to nutrient impairments and were selected in the RPS tool:

- Ecological –percent of watershed in a strategic habitat unit; watershed stream length of critical habitat for threatened and endangered species; macroinvertebrate scores in watershed

- Stressor – percent contiguous agriculture in watershed; percent contiguous urban in watershed; total nitrogen deposition in watershed; number of concentrated animal feeding operations in watershed; number of wasteload allocations completed for municipal facilities in watershed
- Social – percent of watershed in Clean Water Partnership HUC12; number of stations sampled (2009-2014) in watershed; environmental justice area in watershed; watershed stream length classified as public water supply; watershed stream length classified as swimming

The RPS tool generated rankings for recovery potential based on the indicators that were selected. The results (rankings) from the RPS tool were then evaluated by the Department's TMDL staff to determine which of the ranked waterbodies would be selected as priorities for TMDL development. There were many waterbodies considered by the RPS tool; it was determined that the Department could not include all nutrient and/or siltation impairments on the priorities list based on available resources. As such, the top ranked waterbodies from each of the RPS tool runs (nutrients and siltation) were evaluated for inclusion on the priorities list. Some factors that were considered included: available resources for TMDL development, ability to develop TMDL within timeframe of Vision (data concerns, modeling limitations, etc.), and the presence of stakeholders that may be interested in TMDL implementation.

In addition to the nutrient and/or siltation impaired waterbodies selected for prioritization based on the RPS tool, several waterbodies with other impairments were evaluated for inclusion on the priorities list. Waterbodies where quality data was available, the sources(s) of impairment were thought to be known, or with pathogen impairments were considered as possibilities for prioritization. The best professional judgment of the Department's TMDL staff was utilized to determine which of these waterbodies should be chosen as priorities.

Alabama has a significant number of waterbodies on the §303(d) list that are impaired for mercury due to atmospheric deposition. These waterbodies will not be listed as official priorities at this time due to the fact that the Department has plans to develop a statewide mercury TMDL in the future that will address all of these impairments at once.

TMDL development will most likely begin with those waterbodies for which data is readily available and any required modeling is already underway. TMDLs that will require model development and/or additional data collection will follow in the upcoming years.

EPA's National and Regional priorities were considered as we determined which indicators would be used in our execution of the RPS tool. Several of these priorities, such as environmental justice, source water protection, and effluent-dominated waterbodies, were included in the RPS tool scenarios.

In order to ensure that the public has some involvement in our prioritization process, the Department also included as an indicator in the RPS tool those HUC12s nominated during the Alabama Clean Water Partnership's stream prioritization project. Stakeholders nominated waterbodies for inclusion on the Clean Water Partnership's list, and those were considered as we prioritized waterbodies through the RPS tool.

Another way we plan to involve the public is to include our priority areas with the 2016 Integrated Report, which is made available for public review and comment. The Department will consider any comments we receive regarding our priority list and make any changes that may be warranted based on the comments provided.

Over the last several years, the Department has utilized a five year rotating basin approach for water quality monitoring and TMDL development. Under this approach, each of the state's five major basins was sampled once every five years. TMDLs were typically scheduled to be drafted two years after the basin containing the impaired waterbody was sampled.

In FY2015, the Department transitioned to an annual statewide monitoring plan, where monitoring occurs at various locations throughout the state during each year. This should allow the Department to utilize our resources more efficiently and provide for more targeted monitoring according to the data needs of various sections within the Department. TMDLs will most likely still be scheduled to be drafted two years after monitoring is conducted; however, we should have the ability to plan our monitoring throughout the state according to our TMDL priorities instead of waiting until a particular basin is scheduled to be sampled once every five years.

One goal of the new Vision is integration among programs within the Department and with other agencies. As mentioned above, the TMDL program is already working closely with the monitoring program in order to ensure that data needs for TMDL development will be met. In addition, the TMDL program will work closely with the nonpoint source program to try to align goals so that we can utilize our resources in the most efficient manner possible. The Department will also work with EPA Region 4 throughout the process of determining priorities and developing plans for restoration of our impaired waterbodies. As the Vision process continues, the Department will attempt to include the programs within our own agency and any other agencies that may be affected by or have an interest in our prioritization plan and plans for restoration.

The prioritization list will need to be revisited periodically due to the fact that the §303(d) list is updated every two years. As new waterbodies are added to the §303(d) list, they will be evaluated using the RPS tool or the best professional judgment of Departmental staff to determine if they should be added to our list of prioritized waterbodies. If new waterbodies need to be added, the Department will work with EPA to make sure these new priorities can be appropriately captured in our reporting of progress. In addition, the Department recognizes that some of our priority waterbodies may be delisted or could possibly be replaced by newly listed waterbodies that need to be given higher priority. If this occurs, the Department will communicate with EPA to ensure that any changes in our prioritization areas are appropriately captured.

The Department's TMDL program is looking forward to continually working with stakeholders and other affected programs and agencies in the prioritization of our restoration efforts throughout the state. We believe that our strategy will be effective in determining which waterbodies should be prioritized for restoration, and we are hopeful that the new Vision will allow us to use all of our resources efficiently and effectively to bring about improvements in water quality.