



Fact Sheet: The 303(d) List of Impaired or Threatened Water Bodies for FY2004

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The Clean Water Act and the "303(d)" List

The federal Clean Water Act requires states to undertake specific activities to protect the quality of their rivers, streams, lakes and estuaries.

In Guam, the Guam Environmental Protection Agency (GEPA) has the responsibility for developing water quality standards that protect *beneficial uses* such as drinking water supply, propagation of wildlife, fish and aquatic life and for agricultural, industrial and recreational uses. The Guam EPA must monitor water quality and review available data and information to determine if the standards are being met and water is protected for what it will be used for.

Section 303(d) of the Clean Water Act requires each state to develop a list of water bodies that do not meet standards, and to submit an updated list to the U.S. Environmental Protection Agency (EPA) every two years. The "303(d) list" provides a way for Guam EPA to identify and prioritize water quality problems. The list also serves as a guide for developing and implementing watershed recovery plans to protect beneficial uses while achieving federal and state water quality standards.

The list is meant only as a means of identifying water quality problems, not the cause of water quality problems.

Causes of water quality problems are determined when water quality management plans are developed for the watersheds in which the listed segments are located. These plans are often referred to as a *Total Maximum Daily Load* or *TDML*. A TDML identifies allowable pollutant loads to a water body from both *point* (end of pipe) and *non-point sources* (runoff) that will prevent a violation of water quality standards. A TMDL also includes a margin of safety to ensure protection of the water.

Guam EPA compiles the 303(d) list using existing scientific data and best professional judgment to assess water quality and determine which water bodies should be listed. GEPA develops a draft list and presents the list for public comment. After all

public comments are reviewed and taken into consideration, a final list is developed and sent to the EPA for approval. The final list is accompanied by a list of priorities that target resources for correcting water quality problems.

How does GEPA determine which water bodies should be on the list?

GEPA seeks all available information on whether Guam's surface water is violating water quality standards. The 303(d) list includes data submitted by individuals, organizations and government agencies as well as Guam EPA's own monitoring data. GEPA also actively contacts agencies that collect data as part of their land and resource management activities.

Guam EPA follows federal criteria, state water quality standards and scientific protocols in developing the list.

Guam EPA reviews all data submitted to make sure the submissions meet specified minimum quality assurance requirements:

- Sampling and analysis must be conducted under a written Quality Assurance / Quality Control Plan or by established and approved protocols.
- Data must demonstrate that field instruments were operated according to accepted methods.
- Data must demonstrate that biological monitoring followed standardized protocols.
- Data must demonstrate that certain other testing methods complied with accepted practices.

To learn more about what makes' data acceptable for the 303(d) list visit Guam EPA's Web site at www.guamepa.govguam.net

EPA listing guidelines require that Guam demonstrate good cause for *not* placing a water body on the list. If available data indicates a water body is not meeting water quality standards, and the data meets listing guidelines, then GEPA must assume that the water body is *water quality limited*.

Guam EPA does not have information on all Guam water bodies. Those with no information, or information not compatible with the EPA guidelines, are not included on the 303(d) list. Streams and rivers with suspected problems are identified as “Water Bodies of Potential Concern.” Streams and rivers will not be placed on the 303(d) list until sufficient data is available that indicates a violation of *water quality standards*.

What are the Water Quality Standards?

Guam EPA is mandated to protect water quality by establishing standards to protect beneficial uses. While there may be competing beneficial uses in a water body, federal law requires GEPA to protect the most sensitive of these beneficial uses.

Guam EPA’s standards include parameters such as bacteria, pH (acidity level), turbidity, dissolved gas, certain toxic and carcinogenic compounds, habitat and flow modification, and aquatic weeds or algae that affect aquatic life.

What happens when a water body is placed on the list?

Once a water body is placed on the 303(d) list GEPA must develop a TMDL for that water body. GEPA has committed to develop TMDLs on all within 10 years. This time frame takes into account the urgency to protect public health, safeguard Guam’s drinking water sources, and the desire of landowners to begin working on restoration efforts.

Guam EPA’s comprehensive watershed approach for protecting water quality includes developing TMDLs for both point and non-point sources.

When establishing *limits for pipes* (point sources), Guam EPA monitors to determine what pollutant is causing water quality problems and in what amounts it is entering the water. The monitoring also attempts to determine how much of the pollution comes from non-point pollution, such as surface runoff, and how much is naturally occurring.

Guam EPA also uses computer models to determine what effect point source pollution is having on the water body, and how much of the pollutant can be discharged without exceeding water quality standards in the watershed.

Guam EPA uses computer modeling to establish permit limits on the amount of pollutant each pipe can discharge.

When controlling pollution from non-point sources, several factors must combine to form a comprehensive approach to TMDL development.

The Clean Water Act also requires the state to develop a *water quality management plan* to reduce pollution on each water body on the 303(d) list.

Who develops water quality management plans?

Water quality management plans to restore water bodies to water quality standards will be developed by government agencies in cooperation with landowners.

If the land is agricultural, then the Guam Department of Agriculture and the Natural Resources Conservation Service (NRCS) of the U.S. Department of Agriculture would work with the landowners in the watershed to devise and implement a management plan.

Federal agencies (such as the U.S. Navy and the Air Force) would have responsibility to develop water quality management plans of federal lands with oversight by Guam EPA.

In urban and rural areas not covered by state or federal agencies, affected entities would develop water quality management plans working closely with local watershed planning groups.

The above plans are sent to Guam EPA for inclusions in an overall watershed plan-which Guam EPA would then submit to EPA for approval.

How are water bodies removed from the list?

Those watersheds that have management plans approved by EPA will have their water bodies or water body segments removed from the 303(d) list.

A water body is removed from the list when there is evidence that:

- A TMDL has been approved;
- Water quality standards are met;
- Water quality standards are violated due only to naturally conditions (meaning that there is no human-caused influence);
- The original listing was in error.

Guam EPA will continue to evaluate water bodies taken off the list to ensure that management plans are being implemented, and water quality standards achieved.

For more information

For more information on the 303(d) list, please contact the Water Pollution Control Program at (671) 475-1635/1658 or e-mail at dcabusao@guamepa.govguam.net.