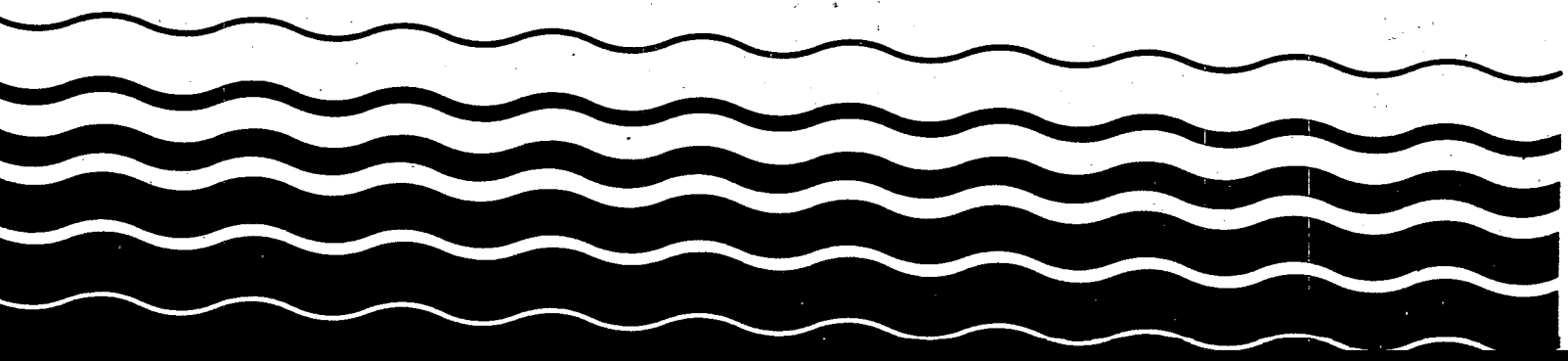




Water

State Water Quality Standards Summary: Guam



DISCLAIMER

This publication was prepared by Battelle under contract to the U.S. Environmental Protection Agency (Contract 68-03-3534). Secondary information sources were used to compile data presented in this document. Each State was given an opportunity to review and provide comments on a draft of this information document. In no event shall either the United States or Battelle have any responsibility or liability for any use, misuse, or reliance upon the information contained herein, nor does either warrant or otherwise represent in any way the accuracy, adequacy, efficacy, or applicability of the contents hereof.

The reader should consult the water quality standards of a particular State for exact regulatory language applicable to that State. Copies of State water quality standards may be obtained from the State's Water Pollution Control Agency or its equivalent.

Additional information may also be obtained from the:

Standards Branch
Criteria and Standards Division (WH-585)
Office of Water Regulations and Standards
U.S. Environmental Protection Agency
Washington, D.C. 20460
202-475-7315

This document may be obtained only from the National Technical Information Service (NTIS) at the following address:

National Technical Information Service
5285 Front Royal Road
Springfield, Virginia 22161
703-487-4650

The NTIS order number is: PB89-141774.

GUAM

Responsible Agency:

Guam Environmental Protection Agency
P.O. Box 2999

Agana 96910
671-646-8863

State Contact:

Mr. Charles P Chrisostomo
Administrator
Guam Environmental Protection Agency
P.O. Box 2999

Agana 96910 671-646-8863

Standards Available From:

Charles P. Chrisostomo, Administrator
Guam Environmental Protection Agency
P.O. Box 2999

State Contact:

Agana 96910
671-646-8863 Fee: no Mailing List: no

State Narrative Language For: Antidegradation

Waters whose existing quality was better than the established standards as of April 1968, will be maintained at the same high quality existing at that time.

Waters whose existing quality is less than the established standards for their use due the presence of substances, conditions, or combinations thereof attributable to domestic, commercial and industrial discharges or agricultural, construction and other land use practices, shall be improved to comply with the established standards. However, in such cases where the natural conditions are of lower quality than the criteria assigned, the natural conditions shall constitute the water quality criteria. Water quality criteria in boundary areas shall be established so that the most stringent standard applies. When more than one set of Water Quality criteria apply, including overlap of category designation or at a boundary water between two categories, the more stringent Water Quality Standards shall apply.

Waters will not be lowered in quality unless and until it has been affirmatively demonstrated to the Administrator of the Guam Environmental Protection Agency that such a change is justifiable as a result of necessary social, environmental, or economic development, and that such development will not interfere with or become injurious to any uses made of, or potentially possible in, such waters. Any industrial, public or private project or development will require, as part of the initial project design, provision for the pollutant removal or control technology necessary to protect the designated use of the receiving waters or maintain the existing high quality of the receiving waters.

The purpose of these Water Quality Standards is to prevent degradation of water resources resulting from pollution sources. It is not the intent of these standards to restrict activities which may cause pollution but rather to regulate such activities or practices that may cause a water resource to be degraded.

State Narrative Language For: Toxics

All waters shall be free from substances, conditions or combinations thereof attributable to domestic, commercial and industrial discharges or agricultural, construction and land-use practices or other human activities that are toxic or harmful to humans, animals, plants or desirable aquatic life.

Effects of toxic or other deleterious substances at levels or combinations sufficient to be toxic or harmful to human, animal, plant or aquatic life or in amounts sufficient to interfere with any beneficial use of the water, shall be evaluated as a minimum, by use of a 96-hour bioassay as described in the most recent edition of Standard Methods for the Examination of Water and Wastewater. Survival of test organisms shall not be less than that of controls which utilize appropriate water. Failure to determine the presence of toxic substances by this method shall not preclude determination of excessive levels of toxic substances on the basis of other criteria or methods.

In order to provide maximum protection for the propagation of fish and wildlife, concentrations of toxic substances (persistent or non-persistent, cumulative or non-cumulative); (a) shall not exceed 0.05 of the 96-hour LC50 at any time or place, nor should the 24-hour average concentration exceed 0.01 of the 96-hour LC50 or, (b) shall not exceed levels calculated by multiplying the appropriate application factor by the 96-hour LC50 values determined by using the most sensitive species of aquatic organism affected. Whichever value (a or b) is less shall be the maximum allowable concentration, unless this value exceeds the Maximum

DISCLAIMER

This publication was prepared by Battelle under contract to the U.S. Environmental Protection Agency (Contract 68-03-3534). Secondary information sources were used to compile data presented in this document. Each State was given an opportunity to review and provide comments on a draft of this information document. In no event shall either the United States or Battelle have any responsibility or liability for any use, misuse, or reliance upon the information contained herein, nor does either warrant or otherwise represent in any way the accuracy, adequacy, efficacy, or applicability of the contents hereof.

The reader should consult the water quality standards of a particular State for exact regulatory language applicable to that State. Copies of State water quality standards may be obtained from the State's Water Pollution Control Agency or its equivalent.

Additional information may also be obtained from the:

Standards Branch
Criteria and Standards Division (WH-585)
Office of Water Regulations and Standards
U.S. Environmental Protection Agency
Washington, D.C. 20460
202-475-7315

GUAM

Numerical Limit, then the numerical limit shall constitute the maximum allowable concentration. Whenever natural concentrations of any toxic substance or element occur and exceed the limits established in these standards, this greater concentration shall constitute the limit, provided that this natural concentration was not directly affected by man-induced causes.

State Narrative Language For: Free From

All waters shall meet generally accepted aesthetic qualifications, shall be capable of supporting desirable aquatic life, and shall be free from substances, conditions or combinations thereof attributable to domestic, commercial and industrial discharges or agricultural, construction and land-use practices or other human activities that:

1. cause visible floating materials, debris, oils, grease, scum, foam or other floating matter;
2. produce visible turbidity, settle to form deposits or otherwise adversely affect desirable aquatic life;
3. produce objectionable color, odor, or taste, directly or by chemical or biological action;
4. are toxic or harmful to humans, animals, plants or desirable aquatic life; and
5. induce the growth of undesirable aquatic life.

State Narrative Language For: Mixing Zones

Whenever a Water Quality Standard is more restrictive than the corresponding effluent standard then an opportunity may be allowed by the Agency for the mixture of an effluent with its receiving water provided that the zone in which mixing occurs will not adversely affect the designated uses of the receiving waters. If mixing zones are used, Water Quality Standards for a receiving water must be met at every point outside of the boundaries of the designated mixing zone. The following criteria apply to all mixing zones:

1. Whenever mixing zones are allowed, zones of passage, i.e., continuous water routes of the volume, area and quality necessary to allow passage of free-swimming and drifting organisms with no significant effects produced on their populations, shall be provided.
2. Where two or more mixing zones are in close proximity, they shall be so defined that a continuous zone of passage for aquatic life is available.
3. Biologically important areas, including spawning and nursery areas, shall be protected.
4. No criteria shall be set aside in the mixing zone which shall cause conditions in the mixing zone to be lethal to aquatic life and wildlife which may enter the zone or injurious to human health.
5. The area or volume of an individual mixing zone shall be limited to such that will minimize impacts.
6. The discharge shall not violate the basic standards applicable to all waters (Sections II A and III E) nor shall it unreasonably interfere with any actual or probable use of the water within the mixing zone.
7. For those water quality criteria eligible for a mixing zone, alternate limits will be established if the limits in II B are to be revised in the zone of mixing.

GUAM

Classifications:

- | | |
|-----------------------------|---|
| Category M-1
(Excellent) | The uses to be protected in this category of waters are conservation of wilderness areas including protection of natural aquatic life, marine scientific research, aesthetic enjoyment and recreation activities which are compatible with the intended use. This category of water shall remain free from pollution attribution to domestic, commercial and industrial discharges, shipping and intensive boating, maricultural, construction and other practices which may impair their intended use. Furthermore, there shall be no zones of mixing within this category of water. |
| Category M-2
(Good) | The uses of these waters are intended to protect the propagation and survival of a balanced and indigenous population of marine organisms particularly shellfish and coral reefs. Other important and intended uses include mariculture activities, aesthetic enjoyment and compatible recreation inclusive of whole body contact and related activities. |
| Category M-3
(Fair) | General use, commercial and industrial uses are intended for this category of marine water. Specific intended uses include the following: shipping and navigation, marinas, protection of aquatic life, industrial cooling, water supply, aesthetic enjoyment and compatible recreation of a limited body contact nature. |
| Category S-1
(High) | Surface waters within this zone are used for drinking water resources, conservation of wilderness areas, and propagation and preservation of aquatic life and aesthetic enjoyment. It is the objective that these waters shall be kept free of substances or conditions attributable to domestic, commercial and industrial discharges, or agricultural, construction or other land-use practices into S-1 waters via discharge or as a result of land uses adjacent to S-1 waters. Mixing zones will not be allowed within the boundaries of Category S-1. |
| Category S-2
(Medium) | Surface waters within this zone are used for recreational purposes including water contact recreation, for use as potable water supply after adequate treatment is provided, and for propagation and preservation of aquatic wildlife and aesthetic enjoyment. |
| Category S-3
(Low) | Surface waters within this zone are primarily used for commercial, agricultural and industrial water supply. Aesthetic enjoyment and compatible recreation are acceptable in this zone, as well as maintenance of aquatic life. Compatible recreation may include limited body contact activities. All discharges within this zone which are not required to have construction and or discharge permits under existing regulations may be required by the Agency to obtain such permits under these regulations. |

GUAM

	All Classes	Category M-1	Category M-2	Category M-3
Physical				
pH				
Upper Value	8.5			
Lower Value	6.5			
Secondary Upper Limit	9.0			
Dissolved Oxygen				
Lower Value	Narr.			
Temperature Change				
Upper Value	1.0 C			
Turbidity				
Upper Value		Narr.	Narr.	Narr.
Total Dissolved Solids				
Upper Value		Narr.	Narr.	Narr.
Nutrients				
Nitrate				
Upper Value		0.10 mg/L	0.20 mg/L	0.50 mg/L
Phosphate (Orthophosphate)				
Upper Value		0.025 mg/L	0.05 mg/L	0.10 mg/L
Toxic Metals				
Iron				
Upper Value	0.05 mg/L			
Secondary Upper Limit	3.0 mg/L			
Barium				
Upper Value		0.05 mg/L	0.5 mg/L	0.5 mg/L
Boron				
Upper Value		5.0 mg/L	5.0 mg/L	5.0 mg/L
Manganese				
Upper Value		0.02 mg/L	0.02 mg/L	0.02 mg/L
Pesticides				
Organics				
Bacteria				
Total Coliform				
Upper Value		Narr.	Narr.	Narr.

GUAM

	Category S-1	Category S-2	Category S-3
Physical			
Turbidity			
Upper Value	Narr.	Narr.	Narr.
Chlorides			
Upper Value	250 mg/L	250 mg/L	250 mg/L
Sulfates			
Upper Value	250 mg/L	250 mg/L	250 mg/L
Total Dissolved Solids			
Upper Value	500 mg/L	500 mg/L	500 mg/L
Nutrients			
Nitrate			
Upper Value	0.20 mg/L	0.50 mg/L	0.50 mg/L
Phosphate (Orthophosphate)			
Upper Value	0.05 mg/L	0.10 mg/L	0.10 mg/L
Toxic Metals			
Pesticides			
Organics			
Bacteria			
Total Coliform			
Upper Value	Narr.	Narr.	Narr.