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Office of Water
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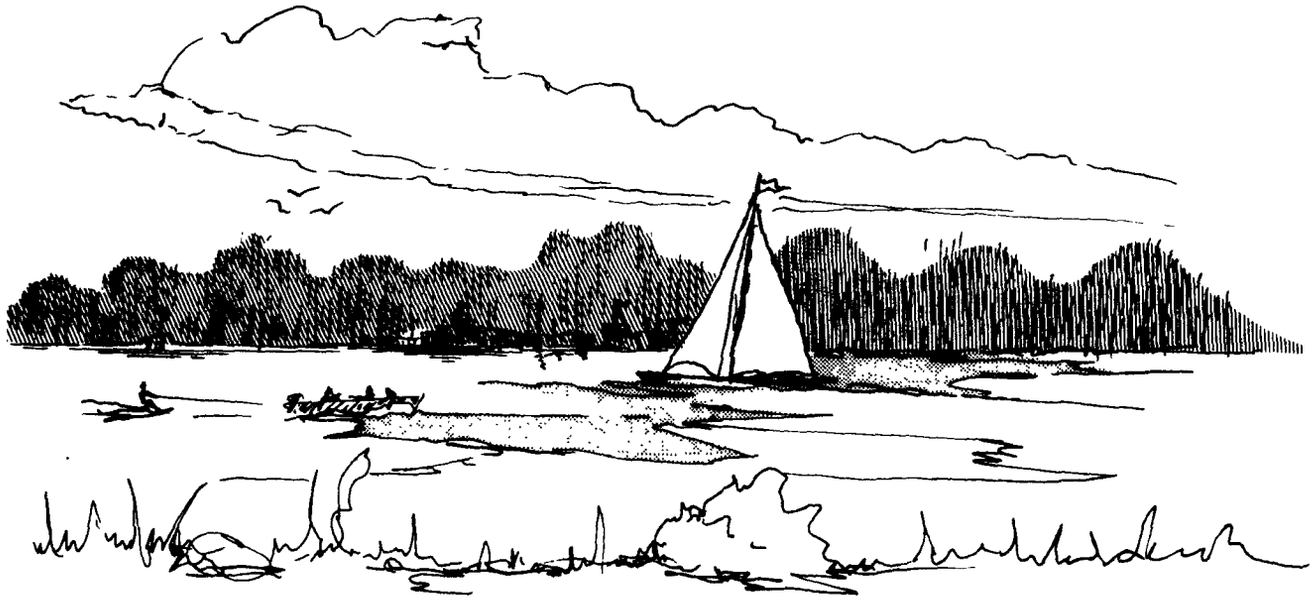
Water

EPA

Designated Uses

Water Quality Standards Criteria Digest A Compilation of State/Federal Criteria



DESIGNATED USES

Water Quality Standards
Criteria Digest
A Compilation of State/Federal Criteria

United States Environmental Protection Agency
Office of Water Regulations and Standards
Washington, D. C. 20460
1980

Chicago, Illinois

U.S. Environmental Protection Agency

INTRODUCTION

This digest is compiled to provide general information to the public as well as to Federal, State, and local officials. It contains excerpts from the individual Federal-State water quality standards establishing pollutant specific criteria for interstate surface waters. The water quality standards program is implemented by the U.S. Environmental Protection Agency where responsibility for providing water quality recommendations, approving State-adopted standards for interstate waters, evaluating adherence to the standards, and overseeing enforcement of standards compliance, has been mandated by Congress.

Standards, a nationwide strategy for surface water quality management, contain three major elements: the use (recreation, drinking water, fish and wildlife propagation, industrial, or agricultural) to be made of the navigable water; criteria to protect these uses; and an antidegradation statement to protect existing high quality waters, from degradation by the addition of pollutants.

Water quality criteria (numerical or narrative specifications) for physical, chemical, temperature, and biological constituents are stated in the July 1976 U.S. Environmental Protection Agency publication Quality Criteria for Water (QCW), available from the Government Printing Office, Washington, D.C. The 1976 QCW, commonly referred to as the "Red Book," is the most current compilation of scientific information used by the Agency as a basis for assessing water quality. This publication is subject to periodic updating and revisions in light of new scientific and technical information.

Through their water quality standards, a State must establish stream use designations which will reflect the goals of the Clean Water Act. Once established, the use must be maintained by means of the criteria guidance incorporated into the standards. However, where designated uses and their specific criteria are less protective than the existing stream quality, the State must upgrade that stream to reflect the criteria levels needed. At the very least, current designated stream uses must be maintained in the State water quality standards. Less restrictive uses may be imposed on a stream only when attainment of the designated use would be impractical because of: 1) a high natural background of water constituent(s); 2) irretrievable man-induced conditions producing high levels of constituent(s); or 3) substantial and widespread adverse economic and social impact which would result from a greater degree of municiple or industrial wastewater treatment.

Since water quality standards experience revisions and upgrading from time to time, following procedures set forth in the Clean Water Act, individual entries in this digest may be superseded. As these revisions are accomplished and allowing for the States to revise their standards accordingly, this digest will be updated and reissued. Because this publication is not intended for use other than as a general information resource, to obtain the latest information and special purposes and applications, the reader needs to refer to the existing approved water quality standards. These can be obtained from the State water pollution control agencies or the EPA Regional Offices.

Individual State-adopted uses follow :

WATER USE CLASSIFICATIONS

ALABAMA:

SECTION VI - SPECIFIC WATER QUALITY CRITERIA

A. PUBLIC WATER SUPPLY

Best Usage of Waters: Source of water supply for drinking or food-processing purposes.*

Conditions Related to Best Usage: The waters, if subjected to treatment approved by the State Department of Public Health equal to coagulation, sedimentation, filtration and disinfection, with additional treatment if necessary to remove naturally present impurities, and which meet the requirements of the State Department of Public Health, will be considered safe for drinking or food-processing purposes.

B. SWIMMING AND OTHER WHOLE BODY WATER-CONTACT SPORTS

Best Usage of Waters: Swimming and other whole body water-contact sports.*

Conditions Related to Best Usage: The waters, under proper sanitary supervision by the controlling health authorities, will meet accepted standards of water quality for outdoor swimming places and will be considered satisfactory for swimming and other whole body water-contact sports. The quality of waters will also be suitable for the propagation of fish, wildlife and aquatic life. The quality of salt waters and estuarine waters to which this classification is

assigned will be suitable for the propgation and harvesting of shrimp and crabs.

C. SHELLFISHING HARVESTING

Best Usage of Waters: Propagation and harvesting of shellfish for sale or use as a food product.

Conditions Related to Best Usage: Waters will meet the sanitary and bacteriological standards included in the latest edition of the National Shellfish Sanitation Program Manual of Operations, Sanitation of Shellfish Growing Areas, published by the Public Health Service, U.S. Department of Health, Education, and Welfare, and the requirements of the State Department of Public Health. The waters will also be of a quality suitable for the propagation of fish and other aquatic life, including shrimp and crabs.

D. FISH AND WILDLIFE

Best Usage of Waters: Fishing, propagation of fish, aquatic life, and wildlife, and any other usage except for swimming and water-contact sports or as a source of water supply for drinking or food-processing purposes.

Conditions Related to Best Usage: The waters will be suitable for fish, aquatic life and wildlife propagation. The quality of salt and estuarine waters to which this classification is assigned will also be suitable for the propagation of shrimp and crabs.

E. AGRICULTURAL AND INDUSTRIAL WATER SUPPLY

Best Usage of Waters: Agricultural irrigation, livestock watering, industrial cooling and process water supplies, and any other usage, except fishing, bathing, recreational activities, including water-contact sports, or as a source of water supply for drinking or food-processing purposes.

Conditions Related to Best Usage: The waters, except for natural impurities which may be present therein, will be suitable for agricultural irrigation, livestock watering, industrial cooling waters, and fish survival. The waters will be usable after special treatment, as may be needed under each particular circumstance, for industrial process water supplies. The waters will also be suitable for other uses for which waters of lower quality will be satisfactory.

This category includes watercourses in which natural flow is intermittent and non-existent during droughts and which may, of necessity, receive treated wastes from existing municipalities and industries, both now and in the future. In such instances, recognition must be given to the lack of opportunity for mixture of the treated wastes with the receiving stream for purposes of compliance. It is also understood in considering waters for this classification that urban runoff or natural conditions may impact any waters so classified.

F. INDUSTRIAL OPERATIONS

Best Usage of Waters: Industrial cooling and process water supplies, and any other usage, except fishing, bathing, recreational activities including water-contact sports or as a source of water supply for drinking or food-processing purposes.

Conditions Related to Best Usage: The waters, except for natural impurities which may be present therein, will be suitable for industrial cooling waters and will be usable after special treatment, as may be needed under each particular circumstance, for industrial process water supplies. The waters will also be suitable for other uses for which waters of lower quality will be satisfactory.

This category includes watercourses in which natural flow is intermittent and non-existent during droughts and which may, of necessity, receive treated wastes from existing municipalities and industries, both now and in the future. In such instances, recognition must be given to the lack of opportunity for mixture of the treated wastes with the receiving stream for purposes of compliance. It is also understood in considering waters for this classification that urban runoff or natural conditions may impact any waters so classified.

G. NAVIGATION

Best Usage of Waters: Navigation and related activities.

Conditions Related to Best Usage: Waters will be of a quality suitable for navigation and, after special treatment as may be needed under each particular circumstance, could be usable for agricultural irrigation, livestock watering, industrial cooling and industrial process water supply.

This category includes watercourses in which natural flow is intermittent and non-existent during droughts and which may, of necessity, receive treated wastes from existing municipalities and industries, both now and in the future. In such instances, recognition must be given to the lack of opportunity for mixture of the treated wastes with the receiving stream for purposes of compliance. It is also understood in considering waters for this classification that urban runoff or natural conditions may impact any waters so classified.

ALASKA:

(a) There are established 14 protected water uses in two major categories designated as follows:

(1) Fresh Waters

(A) Water Supply

(i) drinking, culinary and food processing

(ii) agriculture, including irrigation and stock watering

(iii) aquaculture

(iv) industrial (other than food processing)

(B) Water Recreation

(i) contact recreation

(ii) secondary recreation

(C) Growth and Propagation of Fish, Shellfish and Other Aquatic Life, and Wildlife Including Waterfowl and Furbearers

(2) Marine Waters

(A) Water Supply

(i) aquaculture

(ii) seafood processing

(iii) industrial (other than food processing)

(B) Water Recreation

(i) contact recreation

(ii) secondary recreation

(C) Growth and Propagation of Fish, Shellfish and Other Aquatic Life, and Wildlife Including Seabirds, Waterfowl and Furbearers

(D) Harvesting for Consumption of Raw Mollusks or Other Aquatic Life

ARIZONA:

Surface Water Beneficial Uses

Full Body Contact

Partial Body Contact

Domestic & Industrial Water Supply

Cold Water Fishery

Warm Water Fishery

Agricultural

Aquatic Life & Wildlife

Aesthetics

Other

ARKANSAS:

USE CLASSIFICATIONS

(a) Substantially all waters of the State are presently suitable for recreational uses in and/or on the water and for the preservation and propagation of desirable species of aquatic biota. The few exceptions noted in the use classifications established herein are of limited extent and are the result of natural salinity, stream channelization, pH, oil field brines, and similar unusual factors. These exceptions will be periodically reviewed and the use classification upgraded as feasible.

(b) The surface waters of the State, both interstate and intrastate, are classified for use and fisheries. As set forth in Appendix A attached hereto, the most stringent criteria specified for each parameter shall be applicable where waters are classified for multiple uses. Where stream segments are not specifically stated, the standards apply from the headwaters to the mouth.

(c) The use classifications are defined as follows:

Class AA: Extraordinary recreational and aesthetic value. Suitable for primary contact recreation, propagation of desirable species of fish, wildlife and other aquatic life, raw water source for public water supplies, and other compatible uses.

Class A: Suitable for primary contact recreation, propagation of desirable species of fish, wildlife and other aquatic life, raw water source for public water supplies, and other compatible uses.

Class B: Suitable for desirable species of fish, wildlife and other aquatic and semi-aquatic life, raw water source for public water supplies, secondary contact recreation and other uses.

(d) The fisheries classifications are defined as follows:

W - Warm Water Fishery; S - Smallmouth Bass Fishery;

T - Trout Fishery

CALIFORNIA:

Modifications, largely administrative in nature, to the list of beneficial uses result from the State Board's adoption of new designations for uniform statewide consideration of beneficial uses. Standard designations for beneficial uses for surface waters and groundwater were based on the many uses shown and incorporate comments from the public, the regional boards, the Office of Technical Coordination of the State Water Resources Control Board and the State Board staff. The following definitions for beneficial uses are applicable throughout the entire state.

Municipal and Domestic Supply (MUN)--Includes usual uses in community or military water systems and domestic uses from individual water systems.

Agricultural Supply (AGR)--Includes crops, orchard and pasture irrigation, stock watering, support of vegetation for range grazing and all uses in support of farming and ranching operations.

Industrial Process Supply (PROC)--Includes process water supply and all uses related to the manufacturing of products.

Industrial Service Supply (IND)--Includes uses that do not depend primarily on water quality such as mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection and oil well repressurization.

Groundwater Recharge (GWR)--Natural or artificial recharge for future extraction for beneficial uses and to maintain salt balance or halt salt water intrusion into freshwater aquifers.

Freshwater Replenishment (FRSH)--Provides a source of freshwater for replenishment of inland lakes and streams of varying salinities.

Navigation (NAV)--Includes commercial and naval shipping.

Water Contact Recreation (REC-1)--Includes all recreational uses involving actual body contact with water, such as swimming, wading, waterskiing, skindiving, surfing, sport fishing, uses in therapeutic spas, and other uses where ingestion of water is reasonably possible.

Non-Contact Water Recreation (REC-2)--Recreational uses that involve the presence of water but do not require contact with water, such as picnicking, sunbathing, hiking, beachcombing, camping, pleasure boating, tidepool and marine life study, hunting and aesthetic enjoyment in conjunction with the above activities as well as sightseeing.

Ocean Commercial and Sport Fishing (COMM)--The commercial collection of various types of fish and shellfish, including those taken for bait purposes, and sport fishing in oceans, bays, estuaries and similar nonfreshwater areas.

Warm Freshwater Habitat (WARM)--Provides a warm water habitat to sustain aquatic resources associated with a warm water environment.

Cold Freshwater Habitat (COLD)--Provides a cold water habitat to sustain aquatic resources associated with a cold water environment.

Preservation of Areas of Special Biological Significance (ASBS)--Area of Special Biological Significance are those areas designated by the State Water Resources Control Board as requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable.

Saline Water Habitat (SAL)--Provides an inland saline water habitat for aquatic life resources. Soda Lake in the Central Coastal Basin is a saline habitat typical of desert lakes in inland sinks.

Wildlife Habitat (WILD)--Provides a water supply and vegetative habitat for the maintenance of wildlife.

Preservation of Rare and Endangered Species (RARE)--Provides an aquatic habitat necessary, at least in part, for the survival of certain species established as being rare and endangered species.

Marine Habitat (MAR)--Provides for the preservation of the marine ecosystem including the propagation and sustenance of fish, shellfish, marine mammals, water fowl and vegetation such as kelp.

Fish Migration (MIGR)--Provides a migration route and temporary aquatic environment for anadromous or other fish species.

Fish Spawning (SPWN)--Provides a high quality aquatic habitat especially suitable for fish spawning.

Shellfish Harvesting (SHELL)--The collection of shellfish such as clams, oysters, abalone, shrimp, crab and lobster for either commercial or sport purposes.

Hydropower Generation (POW)--Used for hydropower generation. No such sites are presently located in San Francisco Bay Basin.

COLORADO:

STATE USE CLASSIFICATIONS

Waters are classified according to the uses for which they are presently suitable or intended to become suitable. When the term "waters" is used without the modifiers "surface" or "ground," it includes both surface and groundwater.

(1) Classifications

(a) Recreation

(i) Class 1 - Primary Contact

These surface waters are suitable or intended to become suitable for prolonged and intimate contact with the body or for recreational activities when the ingestion of small quantities of water is likely to occur. Such waters include but are not limited to those used for swimming.

(ii) Class 2 - Secondary Contact

These surface waters are suitable or intended to become suitable for recreational uses on or about the water which are not included in the primary contact subcategory.

(b) Agriculture

These waters are suitable or intended to become suitable for irrigation of crops usually grown in Colorado and which are not hazardous as drinking water for livestock.

(c) Aquatic Life

These surface waters are suitable or intended to become suitable for the protection and maintenance of aquatic life forms as described below:

(i) Class I - Cold Water Aquatic Life

These waters provide, or could provide, a habitat consisting of water quality levels and other considerations such as flow and stream bed characteristics which do or could protect and maintain a wide variety of cold water biota, including sensitive species. Cold water biota are considered to be life forms, including trout, in water where temperatures do not normally exceed 20°C. If there are limitations to the potential variety of life forms, they are due primarily to uncorrectable water quality conditions. This information will be considered in assigning specific standards.

(ii) Class 1 - Warm Water Aquatic Life

These waters provide, or could provide, a habitat consisting of water quality levels and other considerations such as flow and stream bed characteristics which do or could protect and maintain a wide variety of warm water biota, including sensitive species. Warm water biota are considered to be the life forms in waters with temperatures frequently exceeding 20°C. If there are limitations to the potential variety of life forms, they are due primarily to uncorrectable water quality conditions. This information will be considered in assigning specific standards.

(iii) Class 2 - Cold and Warm Water Aquatic Life

These are waters where the potential variety of life forms is presently limited primarily by flow and stream bed characteristics. Standards will be assigned to protect existing species and encourage the establishment of more sensitive species which are compatible with the flow and stream bed characteristics.

(d) Domestic Water Supply

These waters are suitable or intended to become suitable for potable water supplies. There may be waters which do not fit into either the Class 1 or Class 2 classifications but which may be suitable for domestic water supplies after special treatment.

(i) Class 1 - Uncontaminated Groundwaters

These are groundwaters which receive a high degree of natural protection and meet, without treatment, all Colorado drinking water regulations and any revision, amendments, or supplements thereto. Colorado drinking water regulations require disinfection of all domestic water supplies regardless of source unless a waiver has been obtained.

(ii) Class 2 - Waters Requiring Disinfection and/or Standard Treatment

These are waters which, after receiving approved disinfection such as simple chlorination or its equivalent or which after receiving standard treatment (defined as coagulation, flocculation, sedimentation, filtration, and disinfection with chlorine or its equivalent) will meet Colorado drinking water regulations and any revisions, amendments, or supplements thereto. This class may include groundwaters which, due to natural or human causes, do not meet the requirement for Class 1 waters.

(e) Existing High Quality Waters

Waters currently of a quality higher than necessary to support primary contact recreation and propagation of fish, shellfish, and wildlife and are generally suitable for agriculture and domestic water supply may be classified as high quality waters. This classification precludes the

necessity to classify for other beneficial uses.

(i) Class 1 - These are high quality waters which constitute an outstanding state or national resource such as waters in national and state parks and forests, wildlife refuges, and waters of exceptional recreational and ecological significance.

For example, waters which provide a unique habitat for an endangered or threatened species or rivers designated under the Wild and Scenic Rivers Act may be designated as outstanding state or national resource waters. No degradation of these waters will be allowed; thus, these waters will be protected and maintained at their existing quality.

(ii) Class 2 - These are other high quality waters which are not classified as outstanding state or national resources. These waters shall be maintained and protected at their existing quality unless the Commission chooses, after full intergovernmental coordination and public participation, to allow lower water quality as a result of necessary and justifiable economic or social development. In no event, however, may degradation of water quality interfere with or become injurious to existing instream water uses.

(2) Qualifiers

The following qualifiers may be appended to any classification to indicate special considerations. Where a qualifier applies, it will be appended to the use classification; for example, "Class 1, Warm Water Aquatic Life (Goal)."

(a) Goal

A qualifier which indicates that the waters are presently not fully suitable but are intended to become fully suitable for the classified use. "Goal" will be used to indicate that a temporary modification for one or more of the underlying numeric standards has been granted.

(b) Seasonal

A qualifier which indicates that the water may only be suitable for a classified use during certain periods of the year.

(c) Interrupted Flow

A qualifier which indicates that due to natural or human-induced conditions the continuity of flow is broken, not necessarily according to a seasonal schedule. This qualifier appended to a classification indicates that the flow conditions still permit the classified use during periods of flow.

(3) Areas Requiring Special Protection

In special cases where protection of beneficial uses requires standards not provided by the classification above, special standards may be assigned after full public notice and hearings. Cases where special protection may be needed include

but are not limited to wildlife preserves and waterbodies endangered by eutrophication.

CONNECTICUT:

Freshwater

Class AA - Existing or proposed water supply impoundments and tributary surface waters.

Class A - May be suitable for drinking water supply and/or bathing; suitable for all other water uses.

Class B - Suitable for bathing, other recreational purposes, agricultural uses, certain industrial processes and cooling; excellent fish and wildlife habitat; good aesthetic value.

Class C - Suitable for fish and wildlife, recreational boating, and certain industrial processes and cooling; good aesthetic value.

Marine Waters

Class SA - Shellfish harvesting for direct consumption; bathing and other contact sports, and suitable for all other sea water uses.

Class SB - Shellfish harvesting for consumption after depuration; excellent fish and wildlife habitat; bathing and

other recreational uses; industrial cooling; good aesthetic value.

Class SC - Fish, shellfish and wildlife habitat; non-contact recreation; industrial cooling; and good aesthetic cooling.

DELAWARE:

Water Uses

Public Water Supply

Industrial Water Supply

Primary Contact Recreation

Secondary Contact Recreation

Fish, Aquatic Life & Wildlife

Shellfish

Agriculture

Navigation

Drainage

Anadromous Fish

DISTRICT OF COLUMBIA:

WATER USE DESIGNATIONS

Primary Water Contact Recreation: any activities that require prolonged intimate water contact and involve risks of ingestion. Included are swimming, wading and any water contact sports.

Secondary Water Contact Recreation: any activities on or near the water. Included are recreational boating, fishing and recreation along the shores.

Propagation of Aquatic Life and Wildlife.

Public Water Supply.

Industrial Water Supply.

Navigation.

FLORIDA:

<u>CLASS I-A WATERS - POTABLE WATER SUPPLIES SURFACE WATERS</u>

Specific criteria are listed for surface waters designated for use as a potable supply. The standards contained in Sections 17-3.051 and 17-3.061 shall apply to all waters of this class, unless more stringent levels are specified

For the designated use.

CLASS I-B WATERS - POTABLE AND AGRICULTURAL WATER SUPPLIES AND STORAGE - GROUNDWATERS

As stated in Section 17-3.161, all groundwaters with total dissolved solids levels of less than 10,000 milligrams per litre ((mg)/l) are classified as Class 1-B. The criteria contained in Section 17-3.071 apply to all waters in this classification unless more stringent levels are specified.

CLASS II WATERS - SHELLFISH PROPAGATION OR HARVESTING - SURFACE WATERS

Specific criteria are listed for surface waters classified as Class II. The standards contained in Sections 17-3.051 and 17-3.061 also shall apply to all waters of this class, unless additional or more stringent levels are specified for the designated use.

CLASS III WATERS - RECREATION - PROPAGATION AND MANAGEMENT OF FISH AND WILDLIFE - SURFACE WATERS

Specific criteria are listed for surface waters classified as Class III. The standards contained in Sections 17-3.051 and 17-3.061 also apply to all waters of this classification, unless additional or more stringent criteria are specified for the designated use.

CLASS IV WATERS - AGRICULTURAL SUPPLIES - SURFACE WATERS

The criteria listed below are for surface waters classified as Class IV. The standards established in Sections 17-3.051 and 17-3.061 also apply to all waters of this classification, unless additional or more stringent criteria are specified.

CLASS V-A WATERS - NAVIGATION, UTILITY AND INDUSTRIAL USE - SURFACE WATERS

Specific criteria are listed for surface waters classified as Class V-A. The standards contained in Sections 17-3.051 and 17-3.061 also apply to all waters of this classification, unless additional alternative or more stringent criteria are specified.

CLASS V-B WATERS - FRESHWATER STORAGE AND UTILITY AND INDUSTRIAL SUPPLY - GROUNDWATER

As stated in Section 17-3.061, all groundwaters with total dissolved solids equal to or greater than 10,000 milligrams per litre ((mg)/l) are classified as Class V-B. Standards contained in 17-3.051(1) and 17-3.071 apply to all waters of this classification and the standards contained in 17-3.101 apply if waters are used or can reasonably be expected to be used for a potable supply.

GEORGIA:

A. Drinking Water Supplies:

1. Those waters approved by the Environmental Protection Division and requiring only approved disinfection and meeting the requirements of the Federal Drinking Water Standards; or waters approved by the Environmental Protection Division for human consumption and food-processing or for any other use requiring water of a lower quality.

2. Those raw water supplies requiring approved treatment that meet the requirements of the Environmental Protection Division and the Federal Drinking Water Standards or which are approved by the Environmental Protection Division for human consumption and food-processing; or for any other use requiring water of a lower quality.

B. Recreation:

1. General recreational activities such as water skiing, boating, and swimming, or for any other use requiring water of a lower quality. These criteria are not to be interpreted as condoning water contact sports in proximity to sewage or industrial waste discharges regardless of treatment requirements.

C. Fishing, Propagation of Fish, Shellfish, Game and Other Aquatic Life:

1. Suitable for these uses and any use requiring water

of a lower quality.

D. Agricultural:

1. For general agricultural uses such as stock watering and irrigating; or for any other use requiring water of a lower quality.

E. Industrial:

1. For processing and cooling water with or without special treatment; or for any other use requiring water of a lower quality.

F. Navigation:

1. To provide for commercial ship traffic and protection of seamen or crews.

G. Wild River:

1. This classification will be applicable to any waters of the State when so designated by an authorized State or Federal Agency and will be effective simultaneously with that Agency's proper designation.

H. Scenic River:

1. This classification will be applicable to any waters of the State when so designated by an authorized State or Federal Agency and will be effective simultaneously with that Agency's proper designation.

I. Urban Stream:

1. This classification is applicable to streams in highly developed urban areas.

HAWAII:

A. Classification of Coastal Water Uses. Coastal waters are classified in accordance with the uses to be protected in each class as follows:

1. Class AA waters. The uses to be protected in this class of waters are oceanographic research, the support and propagation of shellfish and other marine life, conservation of coral reeds and wilderness areas, compatible recreation, and aesthetic enjoyment.
It is the objective of this class of waters that they remain in as nearly their natural, pristine state as possible with absolute minimum of pollution from any source. To the extent possible, the wilderness character of such areas shall be protected. No zones of mixing will be permitted in these waters.
The classification of any water areas as Class AA shall not preclude other uses of such waters compatible with these objectives and in conformance with the standards applicable to them.

2. Class A waters. The uses to be protected in this class of waters are recreational (including fishing, swimming, bathing, and other water-contact sports), aesthetic enjoyment, and the support and propagation of aquatic life.

It is the objective for this class of waters that their use for recreational purposes and aesthetic enjoyment not be limited in any way. Such waters shall be kept clean of any trash, solid materials, or oils, and shall not act as receiving waters for any effluent which has not received the best degree of treatment or control practicable under existing technology and compatible with the standards established for this class.

3. Class B waters. The uses to be protected in this class of waters are small boat harbors, commercial and industrial shipping, bait fishing, compatible recreation, the support and propagation of aquatic life, and aesthetic enjoyment.

   It is the objective of this class of waters that discharges of any pollutant be controlled to the maximum degree possible and that sewage and industrial effluents receive the best degree of treatment control practicable under existing technology and compatible with the standards established for this class.

   The Class B designation shall apply only to a limited area next to boat docking facilities in bays and harbors. The rest of the water area in such bay or harbor shall be Class A unless given some other specific designation in Section 5.

B. Classification of Fresh Water Uses. Fresh waters are classified in accordance with the uses to be protected as follows:

1. Class 1 waters. The uses to be protected in this class of waters are drinking water supply, food processing, the support and propagation of aquatic life, and compatible recreation.

   It is the objective of this class of waters that they remain in as nearly their natural state as possible with an absolute minimum of pollution from any source. To the extent possible, the wilderness character of such areas shall be protected. Waste discharges into these waters are prohibited.

2. Class 2 waters. The uses to be protected in this class of waters are bathing, swimming, the support and propagation of aquatic life, compatible recreation, and agricultural and industrial water supply.

   It is the objective of this class of waters that their use for recreational purposes, propagation of fish and other aquatic life, and agricultural and industrial water supply not be limited in any way. Such waters shall be kept clean of trash, solid material or oils, and shall not act as receiving waters for any effluent which has not received the best degree of treatment or control practicable under existing technology and compatible with the standards established for this class.

IDAHO:

WATER USE CLASSIFICATION

Use Classifications. Waters are designated according to the uses for which they are presently suitable or intended to become suitable. The designated uses for which the waters of the State are to be protected shall include, but not necessarily be limited to:

(a) Agricultural Water Supplies: Waters which are suitable or intended to be made suitable for the irrigation of crops or as drinking water for livestock.

(b) Domestic Water Supplies: Waters which are suitable or intended to be made suitable for drinking water supplies.

(c) Cold Water Biota: Waters which are suitable or intended to be made suitable for protection and maintenance of viable communities of aquatic organisms and populations of significant aquatic species which have optimal growing temperatures below 18°C.

(d) Warm Water Biota: Waters which are suitable or intended to be made suitable for protection and maintenance of viable communities of aquatic organisms and populations of significant aquatic species which have optimal growing temperatures above 18°C.

(e) Salmonid Spawning: Those waters which provide or could provide a habitat for active self-propagating populations of salmonid fish.

(f) Primary Contact Recreation: Surface waters which are

suitable or intended to be made suitable for prolonged and intimate contact by humans or for recreational activities when the ingestion of small quantities of water is likely to occur. Such waters would include but not be restricted to those used for swimming, water skiing or skin diving.

(g) Secondary Contact Recreation: Surface waters which are suitable or intended to be made suitable for recreational uses on or about the water which are not included in the primary contact category. These waters may be used for fishing, boating, wading and other activities where ingestion of raw water is not probable.

GENERAL WATER USE DESIGNATIONS. The following use-designations are provided:

Unspecified Waters. Surface waters not specified in Manual Sections 1-2110 -- 1-2160 are designated as primary contact recreational waters, unless the physical characteristics of a water body prevent primary contact recreation. In those cases, the water body is designated a secondary contact recreational water.

Industrial Water Supplies, Wildlife Habitats, and Aesthetics. All State waters are designated for the uses of industrial water supplies, wildlife habitat and aesthetics. Water quality standards for those uses will generally be maintained by the general water quality standards (Manual Section 1-2200). Should specificity be desirable or necessary to

protect a specific use, appropriate criteria will be adopted in Manual Sections 1-2250 or 1-2275 -- 1-2299.

Man-Made Waterways. Unless designated in Manual Sections 1-211- -- 1-2160, man-made waterways are to be protected for the use for which they were developed.

Private Waters. Unless designated in Manual Sections 1-2110 -- 1-2160, lakes, ponds, pools, streams and springs outside public lands but located wholly and entirely upon a person's land are not protected specifically or generally for any beneficial use.

ILLINOIS:

General Use Waters

All waters of the State of Illinois are designated for general use except those designated as Secondary Contact and Indigenous Aquatic Life Waters.

Secondary Contact and Indigenous Aquatic Life Waters

Secondary Contact and Indigenous Aquatic Life Waters are those waters which will be appropriate for all secondary contact uses and which will be capable of supporting an indigenous aquatic life limited only by the physical configuration of the body of water, characteristics and origin of the water and the presence of contaminants in amounts that do not exceed the applicable standards. The following are designated as Secondary Contact

and Indigenous Aquatic Life Waters.

Public and Food Processing Water Supply

All waters of Illinois are designated for Public and Food Processing Water Supply use except those designated as Secondary Contact and Indigenous Aquatic Life Waters, and other exceptions.

INDIANA:

(Recreational Use) All lakes and reservoirs, the St. Joseph River in Elkhart and St. Joseph Counties, the St. Joseph River in Allen County, the Wabash River where forming the common boundary with Illinois, the Whitewater River after its confluence with the East Fork of the Whitewater River, the Ohio River and any stream reaches incorporated into the Natural, Scenic, and Recreational Rivers System by the Indiana Department of Natural Resources are designated for whole body contact recreation. All other streams are designated for partial body contact recreation in addition to any other applicable use designation.

(Aquatic Life) All waters will be capable of supporting a well-balanced, warm water fish community; except that all waters, where the natural temperatures will permit, will be capable of supporting put-and-take trout fishing; and, where now possible, the natural reproduction of trout and salmon.

(Domestic and Industrial Use) All waters which are used for potable or industrial water supply must meet the standards for those uses at the points where the water is withdrawn. This use designation and its corresponding water quality standards are not to be construed as imposing a user restriction on those exercising or desiring to exercise the use.

(Agricultural Use) All waters which are used for agricultural purposes must meet the standards established in subsection 6(a).

(Multiple Use) Where multiple uses have been designated for a body of water the most protective of all simultaneously applicable standards will apply.

IOWA:

Class A Waters

Waters which are designated as Class A Waters are to be protected for primary contact recreation.

Class B Waters

Waters which are designated as Class B Waters are to be protected for wildlife, fish, aquatic and semi-aquatic life and secondary contact recreation. This class is subdivided into coldwater and warmwater fisheries.

Class C Waters

Waters which are designated as Class C Waters are to be protected as a raw water source of potable water supply.

High Quality Waters

Waters which exceed the water quality criteria necessary to protect existing water uses.

KANSAS:

Water use classifications for all waters of the state are listed in Section VIII of the criteria. Water uses shall be grouped into the following two categories:

A. Class A waters shall be protected for the following water uses:

1. Body contact recreation. These waters are intended for uses where the human body may come in direct contact with the raw water to the point of complete submergence with the possibility of ingestion, such as swimming, water skiing, and skin diving.
2. The preservation and propagation of desirable species of fresh warm water aquatic biota, semi-aquatic life, waterfowl, and wildlife.
3. Public water supply.
4. Industrial water supply.

5. Agricultural purposes.

B. Class B waters shall be protected for the following water uses:

1. Secondary contact recreation. These waters are intended for uses such as fishing, wading, boating or other activities where ingestion of the water is not probable.
2. The preservation and propagation of desirable species of fresh warm water aquatic biota, semi-aquatic life, waterfowl, and wildlife.
3. Public water supply.
4. Industrial water supply.
5. Agricultural purposes.

KENTUCKY:

(1) Domestic water supply.

Surface water that with conventional treatment will be suitable for human consumption, culinary purposes, or in any food or beverage processing industry and meet State and/or Federal regulations for drinking water.

(2) Aquatic life.

(A) Warmwater aquatic habitat.

Protective of productive warmwater aquatic communities, fowl, animal wildlife, arborous growth, agriculture, and industrial uses.

(B) Coldwater aquatic habitat.

Protective of productive coldwater aquatic communities and "put and take" trout streams.

(3) Recreation.

(A) Primary contact recreation.

Waters are suitable for full body contact recreation during the recreation season of May 1 through October 31.

(B) Secondary contact recreation.

Waters are suitable for partial body contact recreation with minimal threat to public health.

LOUISIANA:

WATER USE CLASSIFICATION

Policy:

It is the policy of the State of Louisiana that all state waters should be protected for recreational uses in and/or on the water and for the preservation and propagation of desirable species of aquatic biota such as indigeneous species of fish, shellfish and wildlife. Use and value of water for public water supplies, agricultural, industrial, and other purposes as well as navigation, shall also be considered in setting standards, but in no case, except as provided below, shall the criteria supporting these uses be permitted to interfere with recreational uses and the preservation of indigenous species of fish, shellfish, wildlife and desirable species of other aquatic biota.

Recreational uses will be specified as either "primary contact" or "secondary contact." Desirable species of fish, shellfish, wildlife and other aquatic biota will be specified as "fresh warm water," or "marine waters." All future designations of stream uses and their associated criteria must, at a minimum, adhere to these classifications except as provided below.

Exceptions:

Some waters, because of naturally occurring poor quality, man-made pollution or technological limitations may qualify for an excepted classification. This determination, however, will be made on a case-by-case basis following the analysis of each such area. In all cases where exceptions are proposed, the concurrence of the Regional Administrator of the United States Environmental Protection Agency will first be obtained. In any case where the exception is based on technological limitations, the exception will be temporary, i.e., the exception will be reviewed at least every three years as required by Section 303(c) of Public Law 92-500 to determine the possibility of upgrading.

In applying this policy, the terms "recreational uses" and "desirable species of aquatic biota" will be given common sense application. The existence of man-made pollution will be reviewed as a problem to be solved, not as an impediment against assigning this use classification. "Desirable Species of Aquatic Biota" refers to a diverse and naturally occurring range of aquatic biota and not to species that exist in the

area in question in disproportionate numbers as a result of man's waste discharges.

The most stringent criteria specified for each parameter shall be applicable where waters are classified for multiple uses.

CLASS A: WATER CONTACT RECREATION AND OTHER USES (PRIMARY CONTACT)

A surface raw water source intended for uses where the human body may come in direct contact with the raw water to the point of complete body submergence. The raw water may be ingested accidentally and certain sensitive body organs such as eyes, ears, nose, etc., may be exposed to the water. Although the water may be ingested accidentally, it is not intended to be used as a potable supply unless acceptable treatment is applied. Water may be used for swimming, water skiing, skin diving, other similar activities, or as a raw water source for public water supply, support and propagation of aquatic fish and wildlife, agricultural, industrial and navigational uses.

CLASS B: FISH, WILDLIFE AND OTHER AQUATIC AND SEMI-AQUATIC LIFE, SECONDARY CONTACT RECREATION AND OTHER USES

A surface raw water source, suitable for the growth and propagation of fish, other aquatic and semi-aquatic life both marine and fresh water; waterfowl, fur bearers; and wildlife. This water may be used for warm water fish habitat, wildlife habitat, and other similar uses. This water is also suitable for secondary water contact recreation such as fishing, wading,

boating, or activities where ingestion of the water is not probable or as a raw water source public water supply, agricultural, industrial and navigational uses.

Criteria for Class A and B are equal to or more stringent than those applicable for public water supply use as stated in the report of the National Technical Advisory Committee to the Secretary of the Interior on the Water Quality Criteria. However, when a water body is used as a public water supply, it shall be identified as such in the standards for the stream and/or segment where the use occurs.

MAINE:

Standards of classification of fresh waters

Class A shall be the highest classification and shall be of such quality that it can be used for recreational purposes, including bathing, and for public water supplies after disinfection.

Class B, the 2nd highest classification, shall be divided into two designated groups as B-1 and B-2.

B-1. Waters of this class shall be considered the higher quality of the Class B group and shall be acceptable for recreational purposes, including water contact recreation, for use as potable water supply after

adequate treatment and for a fish and wildlife habitat.

B-2. Waters of this class shall be acceptable for recreational purposes including water contact recreation, for industrial and potable water supplies after adequate treatment, and for a fish and wildlife habitat.

Class C waters, the 3rd highest classification, shall be of such quality as to be satisfactory for recreational boating and fishing, for a fish and wildlife habitat and for other uses except potable water supplies and water contact recreation, unless such waters are adequately treated.

Class D waters shall be assigned only where a higher water classification cannot be attained after utilizing the best practicable treatment or control of sewage or other wastes. Waters of this class may be used for power generation, navigation and industrial process waters after adequate treatment.

Standards of classification of great ponds

Class GP-A shall be the highest classification and shall be of such quality that it can be used for recreational purposes, including bathing, and for public water supplies after disinfection.

Class BP-B, the 2nd highest classification, shall be acceptable for recreational purposes, including water contact

recreation, for use as potable water supply after adequate treatment, and for a fish and wildlife habitat.

Tidal or marine waters

Class SA shall be suitable for all clean water usages, including water contact recreation, and fishing. Such waters shall be suitable for the harvesting and propagation of shellfish and for a fish and wildlife habitat.

Class SB-1 shall be suitable for all clean water usages including water contact recreation, and fishing. Such waters shall be suitable for the harvesting and propagation of shellfish, and for a fish and wildlife habitat.

Class SB-2 shall be suitable for recreational usages, including water contact, and fishing. Such waters shall be suitable for the harvesting and propagation of shellfish, for a fish and wildlife habitat, and suitable for industrial cooling and process uses.

Class SC, the 4th highest classification, shall be of such quality as to be satisfactory for recreational boating, fishing and other similar uses except primary water contact. Such waters may be used for the propagation of indigenous shellfish to be harvested for depuration purposes, for a fish and wildlife habitat, and for industrial cooling and process uses.

Class SD waters shall be assigned only where a higher water classification cannot be attained after utilizing the best

practicable treatment or control of sewage or other wastes. Waters of this class may be used for power generation, navigation, industrial process waters or cooling waters, and for migration of fish.

MARYLAND:

The following water use classes are established for the waters of the state:

CLASS I: WATER CONTACT RECREATION AND AQUATIC LIFE
Waters which are suitable for water contact sports, play and leisure time activities where the human body may come in direct contact with the surface water; also suitable for the growth and propagation of fish (other than trout), other aquatic life and wildlife.

CLASS II: SHELLFISH HARVESTING
Waters where shellfish are propagated, stored or gathered for marketing purposes; includes actual or potential areas for the harvesting of oysters, softshell clams, hardshell clams, and brackish water clams.

CLASS III: NATURAL TROUT WATERS
Waters which are suitable for the growth and propagation of trout, and which are capable of supporting natural trout

populations and their associated food organisms.

CLASS IV: RECREATIONAL TROUT WATERS

Waters which are capable of holding or supporting adult trout for put-and-take fishing, and which are managed as a special fishery by periodic stocking and seasonal catching.

MASSACHUSETTS:

Classes for Inland Waters

Class A - Waters assigned to this class are designated for use as a source of public water supply.

Class B - Waters assigned to this class are designated for the uses of protection and propagation of fish, other aquatic life and wildlife; and for primary and secondary contact recreation.

Class C - Waters assigned to this class are designated for the uses of protection and propagation of fish, other aquatic life and wildlife; and for secondary contact recreation.

Classes for Coastal and Marine Waters

Class SA - Waters assigned to this class are designated for the uses of protection and propagation of fish, other aquatic life and wildlife; for primary and secondary contact recreation; and for shellfish harvesting

without depuration in approved areas.

Class SB - Waters assigned to this class are designated for the uses of protection and propagation of fish, other aquatic life and wildlife; for primary and secondary contact recreation; and for shellfish harvesting with depuration (Restricted Shellfish Areas).

Class SC - Waters assigned to this class are designated for the protection and propagation of fish, other aquatic life and wildlife; and for secondary contact recreation.

MICHIGAN:

PROTECTIVE USES.

(1) As a minimum, all waters of the state shall be protected for agricultural uses, navigation, industrial water supply, warmwater fish, other aquatic life, wildlife.

(2) All waters of the state are to be protected for total body contact recreation except in high risk areas adjacent to or downstream from urban areas identified by the commission. The standards specified in Rule 62 shall apply in such areas, except in the mixing zone.

(3) All Great Lakes and their connecting waters, except the entire Keweenaw Waterway including Portage Lake, Houghton County, shall be protected for coldwater fish.

(4) All Great Lakes and their connecting waters shall be protected for public water supply.

(5) All waters of the state used or proposed for use as a raw water source for public water supply shall be protected for such use at the point of water intake and in such defined contiguous areas as the commission may be on a case by case basis and may include, but not be limited to, consideration of factors such as flow volume, water quality, sources and character of point and nonpoint discharges, and ability of the affected public water supply facilities to adequately treat the raw water for assured public protection using conventional water treatment technology.

(6) All waters of the state designated as trout streams by the director of the department pursuant to section 8 of Act No. 165 of the Public Acts of 1929, being §301.8 ET. SEQ. of the Michigan Compiled Laws, shall be protected for coldwater fish.

(7) All inland lakes identified in "Coldwater Lakes of Michigan," as published by the department shall be protected for coldwater fish.

(8) All lakes designated as trout lakes by the Natural Resources Commission under the authority of Act No. 165 of the Public Acts of 1929, as amended, being §301.1 et. seq. of the Michigan Compiled Laws, and Act No. 230 of the Public Acts of 1925, being §300.1 et. seq. of the Michigan Compiled Laws.

(9) All waters of the state serving as principal migratory routes for anadromous salmonids shall be protected for those species during the periods of their migrations.

Multiple designated uses.

When a particular portion of the waters of the state is designated for more than 1 use, the most restrictive water quality standards for 1 or more of those designated uses shall apply to that portion.

MINNESOTA:

(b) WATER USE CLASSIFICATIONS - ALL INTRASTATE WATERS OF THE STATE
Based on considerations of best usage in the interest of the public and in conformance with the requirements of the applicable statutes, the intrastate waters of the state shall be grouped into one or more of the following classes:

(1) Domestic Consumption. To include all intrastate waters which are or may be used as a source of supply for drinking, culinary or food processing use or other domestic purposes, and for which quality control is or may be necessary to protect the public health, safety or welfare.

(2) Fisheries and Recreation. To include all intrastate waters which are or may be used for fishing, fish culture, bathing or any other recreational purposes, and for which quality control is or may be necessary to protect aquatic or terrestrial life, or the public health, safety or welfare.

(3) Industrial Consumption. To include all intrastate waters which are or may be used as a source of supply for industrial process or cooling water, or any other industrial or commercial purposes, and for which quality control is or may be necessary to protect the public health, safety or welfare.

(4) Agriculture and Wildlife. To include all intrastate waters which are or may be used for any agriculture purposes, including stock watering and irrigation, or by waterfowl or other wildlife, and for which quality control is or may be necessary to protect terrestrial life or the public health, safety or welfare.

(5) Navigation and Waste Disposal. To include all intrastate waters which are or may be used for any form of water transportation or navigation, disposal of sewage, industrial waste or other waste effluents, or fire prevention, and for which quality control is or may be necessary to protect the public health, safety or welfare.

(6) Other Uses. To include intrastate waters which are or may serve the above listed uses or any other beneficial uses not listed herein, including without limitation any such uses in this or any other state, province, or nation of any intrastate waters flowing through or originating in this state, and for which quality control is or may be necessary for the above declared purposes, or to conform with the require-

ments of the legally constituted state or national agencies having jurisdiction over such intrastate waters, or any other considerations the Agency may deem proper.

MISSISSIPPI:

1. PUBLIC WATER SUPPLY:

Water in this classification is for use as a source of raw water supply for drinking and food processing purposes. The water treatment process shall be approved by the Mississippi State Board of Health. The raw water supply will be such that after approved treatment process it will satisfy the regulations established pursuant to Section 1412 of the Public Health Service Act as amended by the Safe Drinking Water Act (Pub. L. 93-523).

2. SHELLFISH HARVESTING AREAS:

Waters classified for this use are for propagation and harvesting shellfish for sale or use as a food product. These waters will meet the requirements set forth in the latest edition of the National Shellfish Sanitation Program, Manual of Operations, Part I, Sanitation of Shellfish Growing Areas, as published by the U.S. Public Health Service.

3. RECREATION:

The quality of waters in this classification is to be suitable for recreational purposes, including such water contact activities as swimming and water skiing. The waters shall also be suitable for use for which waters of lower quality will be satisfactory.

4. FISH AND WILDLIFE:

Waters in this classification are intended for fishing and for propagation of fish, aquatic life, and wildlife.

MISSOURI:

Stream-flow Classification

1. Class P: Streams that maintain permanent flow even in drought periods.
2. Class P1: Standing-water reaches of Class P streams, including impoundments.
3. Class C: Streams that may cease flow in dry periods, but maintain permanent pools which support aquatic life.

Beneficial water uses.

1. Irrigation: Application of water to cropland or directly to plants that may be used for human or livestock consumption. Occasional supplemental irrigation, rather than continuous irrigation, is assumed.

2. Livestock watering and wildlife watering (LW,WW): Maintenance of conditions to support health in livestock and wildlife.
3. Protection of warm-water aquatic life: Maintenance of conditions to sustain warm-water fish and other warm-water aquatic life, including critical stages of reproduction and early life. It will include warm-water sport fishing.
4. Coldwater sport fishery (CWSF): Maintenance of conditions to support the propagation or stocking of trout.
5. Whole-body contact recreation (WBCR): Activities in which there is direct human contact with the raw surface water to the point of complete body submergence. The raw water may be ingested accidentally and certain sensitive body organs, such as the eyes, ears, and the nose, will be exposed to the water. Although the water may be ingested accidentally, it is not intended to be used as a potable supply unless acceptable treatment is applied. Water so designated is intended to be used for swimming, water skiing or skin diving.
6. Drinking water supply (DWS): Maintenance of a raw water supply which will yield potable water by common treatment processes.
7. Industrial process water and industrial cooling water: Water to support various industrial uses;

since quality needs will vary by industry, no specific criteria are set in these standards.

8. Commercial Fishery: Aquatic life criteria and Food and Drug Administration limits for fish consumption are applicable.

9. Boating and canoeing: Activities in which very little contact with water is assumed.

Outstanding national resource waters: Waters which have outstanding recreation and ecological significance. These waters shall receive special protection against any degradation in quality. Rivers of the Ozark National Scenic Riverways and the Wild and Scenic Rivers system are so designated.

Losing Streams - Streams that distribute 50 percent or more of their flow into ground water.

Protected Streams - Streams in Metropolitan St. Louis and Kansas City which are not to receive polluted effluents.

High Quality Waters - Recognized high quality waters.

MONTANA:

A-Closed classification.

(i) Water-use description. Water supply for drinking, culinary and food processing purposes suitable for use after

simple disinfection. Public access and activities such as livestock grazing and timber harvest are to be controlled by the utility owner under conditions prescribed and orders issued by the department. Only those waters on which access is presently controlled by the utility owner have been classified as A-Closed. If other uses are permitted, the waters are to be reclassified A-Open-D_1.

<u>A-Open-D_1 classification</u>.

(i) Water-use description. Water supply for drinking, culinary and food processing purposes suitable for use after simple disinfection and removal of naturally present impurities. Water quality is to be maintained suitable for bathing, swimming and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply. Where the waters are used for swimming or other water-contact sports, analyses are to be made by the utility owner and the department to determine if a higher degree of treatment is required for potable water use.

Waters, if shown to meet the A-Closed criteria, may be so classified by the department at the request of the utility owner. State waters within the boundaries of national parks and nationally designated wild, wilderness

or primitive areas in the state are classified A-Open-D_1 except those adjacent to developed areas such as Snyder Creek through the community of Lake McDonald and Swiftcurrent Creek below the Many Glacier Chalet, both in Glacier National Park. Also, Georgetown, Flathead and Whitefish lakes and Lake Mary Ronan are classified A-Open-D_1 as are some streams presently used for domestic water supply.

B-D_1 classification.

(i) Water-use description. The quality is to be maintained suitable for drinking, culinary and food processing purposes after adequate treatment equal to coagulation, sedimentation, filtration, disinfection and any additional treatment necessary to remove naturally present impurities; bathing, swimming and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.

B-D_2 classification.

(i) Water-use description. The quality is to be maintained suitable for drinking, culinary and food processing purposes after adequate treatment equal to coagulation, sedimentation, filtration, disinfection and any additional treatment necessary to remove naturally present impurities; bathing, swimming and recreation; growth and marginal

propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.

B-D_3 classification.

(i) Water-use description. The quality is to be maintained suitable for drinking, culinary and food processing purposes after adequate treatment equal to coagulation, sedimentation, filtration, disinfection and any additional treatment necessary to remove naturally present impurities; bathing, swimming and recreation; growth and propagation of non-salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.

C-D_1 classification.

(i) Water-use description. The quality is to be maintained suitable for bathing, swimming and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers, and agricultural and industrial water supply.

C-D_2 classification.

(i) Water-use description. The quality is to be maintained for bathing, swimming and recreation; growth and marginal propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and

industrial water supply.

E-F classification.

(i) Water-use description. The quality is to be maintained for agricultural and industrial water uses other than food processing.

NEBRASKA:

(a) Full Body Contact A full body contact use occurs when the human body may come in direct contact with the raw surface water to the point of complete body submergence. The raw water may be ingested accidentally and certain sensitive body organs, such as the eyes, ears, nose, etc., may be exposed to the water. Although the water may be ingested accidentally, it is not intended to be used as a potable supply unless acceptable treatment is applied. This water may be used for swimming, water skiing, skin diving, and other similar activities.

(b) Partial Body Contact

The partial body contact use occurs when the body may come in direct contact with the raw surface water but normally not to point of complete submergence. It is very unlikely that this water will be ingested nor will critical organs such as eyes, ears, and nose normally be exposed to the

water. This water may be used for fishing, hunting, trapping, boating, and other similar activities.

(c) Fish and Wildlife Protective

The use of the raw surface water body shall be suitable for the growth and propagation of fish, waterfowl, furbearers, other aquatic life, semiaquatic life, and wildlife.

This water may be used for fish habitat, wildlife habitat, and other similar uses. This is subdivided into warm and cold waters.

(d) Water Supply

The raw surface water body shall be suitable for use as a potable water supply. It is suitable for treatment by coagulation, sedimentation, filtration, and chlorination to yield a finished water suitable for human consumption. After such treatment, this water may be used for domestic drinking water supply, food processing, liquid ingredient in beverages, and other similar uses.

(e) Agricultural

The raw surface water supply shall be suitable for general agricultural usage. It may be used for irrigation, livestock watering and other similar uses.

(f) Industrial

The raw surface water supply shall be suitable for use in manufacturing processes other than food, beverage or similar processing. This water may be used for cooling purposes, a liquid ingredient in products other than food products, equipment washing, power generation, and similar activities.

NEVADA:

INTERSTATE

Same waters have separate use designations while others are designated by Class.

Class A Waters.

This classification is intended primarily to include waters or portions thereof located in areas of little human habitation; no industrial development or intensive agriculture; and where the watershed is relatively undisturbed by man's activity.

Beneficial Uses.

Drinking water supply with treatment by disinfection only, suitable for aquatic life habitat, wildlife propagation, agricultural use, recreation, boating and aesthetics.

Class B Waters.

This classification includes waters or portions thereof which are located in areas of light or moderate human habitation, little industrial development, light to moderate agricultural

development, and where the watershed is only moderately influenced by man's activity.

Beneficial Uses.

Drinking water supply with treatment by disinfection and filtration only, for agricultural use, aquatic life and wildlife propagation, recreation, industrial supply and aesthetics.

Class C Waters.

This classification includes waters or portions thereof which are located in areas of moderate to urban human habitation, industrial developments present in moderate amounts, intensive agricultural practices and the watershed considerably altered by man's activity.

Beneficial Uses.

Domestic water supply following complete treatment, agricultural use, aquatic life, wildlife propagation, recreation, aesthetics, and industrial supply.

Class D Waters.

This classification includes waters or portions thereof located in areas of urban development, highly industrialized or intensively used for agriculture or combination of all the above and where effluent sources include a multiplicity of waste discharges from the highly altered watershed.

Beneficial Uses.

Boating and aesthetics, agricultural use and industrial supply except for food processing purposes, and

INTRASTATE

Municipal Water

Industrial Water Processing and Cooling

Recreation Body Contact

Fish and Wildlife

Aesthetics

Irrigation and Stock Watering

Power Generation fish and wildlife.

NEW HAMPSHIRE:

Class A - These waters are of the highest quality and are potentially acceptable for water supply uses after disinfection.

Class B - Waters having this classification are potentially of the second highest quality and are acceptable for: swimming and other recreation, fish habitat, and for use as water supply following adequate treatment.

Class C - Waters associated with this classification are potentially of the third highest quality and are

potentially acceptable for boating, fishing or industrial water supply following appropriate treatment.

NEW JERSEY:

Fresh Waters

Class FW-1

Definition: Fresh surface waters designated by authorized State agencies as being set aside for posterity to represent the natural aquatic environment and its associated biota.

Class FW-2

Definition: Fresh surface waters approved as sources of public potable water supply. These waters are to be suitable for public potable water supply after such treatment as shall be required by the State Department of Health. These waters shall be suitable also for all recreational purposes including fishing, the propagation of native fish species desired for angling and other fish and aquatic life necessary thereto as well as any other reasonable uses.

Class FW-3

Definition: Fresh surface waters suitable for all purposes provided for under Class FW-2 except public potable water supply.

Tidal Waters

The tidal surface waters of the State, including interstate waters, are herein classified as Classes TW-1, TW-2 and TW-3. For each classification there follow definitions and stream quality criteria.

Class TW-1

Definition: Tidal surface waters suitable for all recreational purposes, as a source of public potable water supply where permitted, and, where shellfishing is permitted, to be suitable for such purposes. Waters must be suitable for propagation of natural and established biota.

Class TW-2

Definition: Tidal waters approved as sources of public water supply. These waters shall be suitable for public potable water supply after such treatment as shall be required by law or regulation. These waters shall be suitable for secondary contact recreation; the population and maintenance of fish populations; the migration of anadromous fish; the maintenance of wildlife and other reasonable uses.

Class TW-3

Definition: Tidal surface waters used primarily for navigation, not recreation. These waters, although not expected to be used for fishing, shall provide for the maintenance of fish and other wildlife, along with fish migration and other reasonable uses.

Coastal Waters

The waters of the Atlantic Ocean within 1500 feet from mean low tide or to a depth of 15 feet, whichever is more distant from the mean low tide line, are classified as CW-1.

The waters of the Atlantic Ocean not included under Class CW-1 are classified as CW-2, out to the three (3) mile limit.

Class CW-1

Definition: Ocean waters expected to be suitable for all recreational purposes including fishing, the propagation and migration of native fish species desired for angling and other fish and aquatic life necessary thereto as well as any other reasonable use. These waters shall be suitable for shellfish harvesting where permitted.

Class CW-2

Same as CW-1 except that these waters are not for all recreational purposes. These waters shall be suitable for secondary contact recreation (wading, navigation, fishing).

NEW MEXICO:

Designated Uses

Industrial water supply; irrigation; livestock and wildlife watering; secondary contact recreation; warmwater fishery; or

primary contact plus above; limited warmwater fishery; coldwater fishery; marginal coldwater fishery; high quality cold water fishery; domestic water supply; fish culture; irrigation storage; municipal water supply.

NEW YORK:

Quality Standards for Class "N" Waters

Best usage of waters. Enjoyment of water in its natural condition and where compatible, as source of water for drinking or culinary purposes, bathing, fishing and fish propagation, recreation and any other usages except for the discharge of sewage, industrial wastes or other wastes or any sewage or waste effluent.

Class AA

Best usage of waters. Source of water supply for drinking, culinary or food processing purposes and any other usages.

Conditions related to best usage of waters. The waters, if subjected to approved disinfection treatment, with additional treatment if necessary to remove naturally present impurities, will meet New York State Department of Health drinking water

standards and will be considered safe and satisfactory for drinking water purposes.

Class AA-Special

Best usage of waters. Any usage except for disposal of sewage, industrial wastes or other wastes.

Class A

Best usage of waters. Source of water supply for drinking, culinary or food processing purposes and any other usages.

Conditions related to best usage of waters. The waters, if subjected to approved treatment equal to coagulation, sedimentation, filtration and disinfection, with additional treatment if necessary to reduce naturally present impurities will meet New York State Department of Health drinking water standards and will be considered safe and satisfactory for drinking water purposes.

Class B

Best usage of waters. Primary contact recreation and any other uses except as a source of water supply for drinking, culinary or food processing purposes.

Class C

Best usage of waters. Suitable for fishing and all other uses except as a source of water supply for drinking, culinary or food processing purposes, and primary contact recreation.

Class D

Best usage of waters. These waters are suitable for secondary contact recreation, but due to such natural conditions as intermittency of flow, water conditions not conducive to propagation of game fishery or stream bed conditions, the waters will not support the propagation of fish.

Class SA

Best usage of waters. The waters shall be suitable for shellfishing for market purposes and primary and secondary contact recreation.

Class SB

Best usage of waters. The waters shall be suitable for primary and secondary contact recreation and any other use except for the taking of shellfish for market purposes.

Class SC

Best usage of waters. The waters shall be suitable for fishing and all other uses except for primary contact recreation and for the taking of shellfish for market purposes.

Class SD

Best usage of waters. All waters not primarily for recreational purposes, shellfish culture or the development of fishlife and because of natural or man-made conditions cannot meet the requirements of these uses.

Class I

Best usage of waters. The waters shall be suitable for secondary contact recreation and any other usage except for primary contact recreation and shellfishing for market purposes.

NORTH CAROLINA:

FRESH SURFACE WATER CLASSIFICATIONS AND QUALITY STANDARDS

General. The standards of water quality peculiar to each of the respective classifications shall be those specified in (b) through (e) of section .0211.

Class A-I Waters.

(1) Best usage of waters: Source of water supply for drinking, culinary, or food processing purposes or any other usage requiring waters of lower quality.

(2) Conditions related to best usage: This class is intended primarily for waters having watersheds which are uninhabited and otherwise protected as required by the Division of Health Services and which require only approved disinfection, with additional treatment when necessary to remove naturally present impurities, in order to meet the National drinking water regulations and will be considered safe for drinking, culinary, and food processing purposes.

Class A-II Waters.

(1) Best usage of waters. Source of water supply for drinking, culinary, or food processing purposes and any other best usage specified by the "C" classification.

(2) Conditions related to best usage. The waters, if subjected to approved treatment equal to coagulation, sedimentation, filtration and disinfection with additional treatment if necessary to remove naturally present impurities, will meet the National drinking water regulations and will be considered safe for drinking, culinary, or food processing purposes.

Class B Waters.

(1) Best usage of waters. Primary recreation and any other best usage specified by the "C" classification.

(2) Conditions related to best usage. The waters will meet accepted standards of water quality for outdoor bathing

places and will be of sufficient size and depth for primary recreation purposes. Also, suitable for other uses requiring waters of lower quality.

Class C Waters.

(1) Best usage of waters. Fishing, secondary recreation, agriculture, and any other usage except for primary recreation or as a source of water supply for drinking, culinary or food processing purposes.

(2) Conditions related to best usage: The waters will be suitable for fish and wildlife propagation. Also, suitable for secondary recreation, agriculture, and other uses requiring waters of lower quality.

TIDAL SALT WATER CLASSIFICATIONS AND QUALITY STANDARDS

General. The standards of water quality peculiar to each of the respective classifications shall be those specified in (b) through (e) of section .0212.

Class SA Waters.

(1) Best usage of waters. Shellfishing for market purposes and any other usage specified by the "SB" or "SC" classification.

(2) Conditions related to best usage. Waters will meet the sanitary and bacteriological standards given in the 1965 revision of the National Shellfish Sanitation Program Manual of Operations: Part 1, Sanitation of Shellfish Growing Areas, recommended by the Public Health Service and will be considered safe and suitable for shellfish culture.

Class SB Waters.

(1) Best usage of waters. Bathing and any other usage specified by the "SC" classification.

(2) Conditions related to best usage. The waters will meet accepted sanitary standards of water quality for outdoor bathing places and will be of sufficient size and depth for primary recreation purposes.

Class SC Waters.

(1) Best usage of waters. Fishing, secondary recreation, and any other usage except primary recreation or shellfishing for market purposes.

(2) Conditions related to best usage. The waters will be suitable for fishing, fish and wildlife propagation, secondary recreation, and other uses requiring waters of lower quality.

NORTH DAKOTA:

Class I Streams

The quality of waters in this class shall be such as to permit the propagation and/or life of resident fish species and shall be suitable for boating, swimming, and other water recreation. The quality shall be such that after treatment consisting of coagulation, settling, filtration, and chlorination, or equivalent treatment processes, the treated water shall meet the bacteriological, physical, and chemical requirements of the State

Health Department for municipal use. The quality of water shall be such as to permit its use for irrigation, stock watering, and wildlife use without injurious effects.

Class IA Streams

The quality of this class of waters shall be such that its uses shall be the same as those identified for Class I, except that treatment for municipal use may also require softening to meet the chemical requirements of the North Dakota State Department of Health. The physical and chemical criteria shall be those for Class I, with some exceptions.

Class II Streams

The quality of this class of waters shall be such that its uses shall be the same as those identified for Class I, except that additional treatment may be required over that noted in Class IA to meet the drinking water requirements of the North Dakota State Department of Health.

Class III Streams

The quality of this class of waters shall be suitable for industrial and agricultural uses, i.e. cooling, washing, irrigation, and stock watering. These streams all have low average flows, and generally, prolonged periods of no flow. The physical and chemical criteria shall be those for Class II, with some exceptions.

OHIO:

WATER USE DESIGNATIONS

(A) WARMWATER HABITAT

These are waters capable of supporting reproducing populations of fish, normally referred to as warmwater species, and associated vertebrate and invertebrate organisms and plants on an annual basis. These standards will apply outside the mixing zone.

(B) EXCEPTIONAL WARMWATER HABITAT

These are waters capable of supporting exceptional or unusual populations of fish, normally referred to as warmwater species, and associated vertebrate and invertebrate organisms and plants on an annual basis. These would include waters of exceptional chemical quality that are capable of supporting sensitive species of fish and other aquatic organisms. Waters supporting Salmonid migration and waters having a high diversity of aquatic organisms should be included. These standards will apply outside the mixing zone.

(C) COLDWATER HABITAT

These are waters capable of supporting populations of fish, normally referred to as coldwater species and associated vertebrate and invertebrate organisms and plants on an annual basis. These waters are not necessarily capable of

supporting successful reproduction of Salmonids and may be stocked periodically. These standards will apply outside the mixing zone.

(D) SEASONAL WARMWATER HABITAT

These are waters capable of supporting the propagation and habitation of aquatic organisms on a seasonal basis. These waters have a minimum annual seven day average flow that has a recurrence period of once in ten years (not attributable to discharges and other hydraulic alterations) of one cubic foot per second or less and having more than 50 percent of the total flow under such conditions composed of wastewater effluents. Mixing zone standards, Rule 3745-1-06 of the Ohio Administrative Code will not apply.

(E) LIMITED WARMWATER HABITAT

These are waters incapable of meeting criteria necessary for the support of populations of fish and associated vertebrate and invertebrate organisms and plants either on a seasonal or year around basis. This degraded condition may be due to relative low stream flow coupled with heavily populated and/or industrialized areas that have outdated sewer systems and/or waste treatment facilities. However, exceptions from Warmwater Habitat criteria will apply only to specific criterion during specified time periods and/or flow conditions. This will be determined on a case-by-case basis and comply with all federal and state water quality

statutes. This designation must be justified by significant economic or technological rationale and is to be used only as a temporary classification with upgrading of use designation at the earliest possible time prior to July 1, 1983, where attainable.

(F) PUBLIC WATER SUPPLY

These are waters that with conventional treatment will be suitable for human intake and meet federal regulations for drinking water.

(G) AGRICULTURAL WATER SUPPLY

These waters are suitable for irrigation and livestock watering without treatment.

(H) INDUSTRIAL WATER SUPPLY

These are waters suitable for commercial and industrial uses, with or without treatment. Standards for the support of this use designation will vary with the type of industry involved.

(I) BATHING WATERS

These are waters suitable for swimming where a lifeguard and/or bathhouse facilities are present, during the recreation season.

(J) PRIMARY CONTACT RECREATION

These are waters suitable for full body contact recreation, such as, but not limited to; swimming and scuba diving with minimal threat to public health as a result of water quality, during the recreation season.

(K) SECONDARY CONTACT RECREATION

These are waters suitable for partial body contact recreation, such as, but not limited to; canoeing and wading with minimal threat to public health as a result of water quality during the recreation season.

OKLAHOMA:

PUBLIC AND PRIVATE WATER SUPPLIES

The quality of the waters of the State shall be protected, maintained and improved, when feasible, so that they can be used as a source of raw public and private water supplies.

Drinking water standards dictate the quality of water that should be achieved in a municipal water distribution system without reference to desirable raw water quality. Although it is possible to renovate highly polluted surface waters to these standards, the process required would be both complex and expensive. Raw water quality criteria have been developed to aid

in the selection of water sources so that the water supply chosen can, by commonly proven applied treatment processes, achieve the drinking water standards, all within reasonable economic limits.

EMERGENCY PUBLIC AND PRIVATE WATER SUPPLIES

During emergencies, those waters designated Emergency Public and Private Water Supplies may be put to use. Each emergency will be handled on a case by case basis, and be thoroughly evaluated by the appropriate State agencies and/or local health authorities.

FISH AND WILDLIFE PROPAGATION

There are not generalized water quality standards applicable for all kinds of fish and wildlife. Generally, unpolluted waters support a more diverse aquatic community while only tolerant species can survive in comparatively polluted waters. The impact of a given chemical or physical constituent on a biological community is not mutually exclusive of other constituents since synergistic interactions are common. The General Standards found in Sections 6 and 7, respectively.

AGRICULTURE (LIVESTOCK AND IRRIGATION)

Proper water quality is essential for irrigation and livestock consumption. Excessive concentration of minerals in irrigation water results in damage to crops and produces undesirable soil

conditions. High salinity water should be used with best management practices as outlined in "Diagnosis and Reclamation of Saline Soils," United States Department of Agriculture Handbook #60, 1958.

The intake of highly mineralized water by animals can cause physiological disturbances of varying degrees. Lactation and reproduction are disturbed by continuous use of water of unfavorable mineral composition. In some cases, particular ions within total salinity such as nitrate, fluoride, selenium salts and molybdenum may be harmful to livestock. The levels established in the General Standards found in Section 7, are designed to protect this use.

HYDRO-ELECTRIC POWER GENERATION

This beneficial use is not generally dependent upon water quality.

INDUSTRIAL AND MUNICIPAL COOLING WATER

Quality criteria for water used for cooling purposes vary with the type of industrial or municipal processes involved. This use will be protected by application of the Water Quality Standards.

PRIMARY BODY CONTACT RECREATION

Primary Body Contact Recreation involves direct body contact with the water where a possibility of ingestion exists. In these cases, the water shall not contain substances in concentrations that are irritating to skin or sense organs or are toxic or cause illness upon ingestion by human beings.

SECONDARY BODY CONTACT RECREATION

The water quality requirements for Secondary Body Contact Recreation are usually not so stringent as the Primary Body Contact Recreation. Secondary body contact recreational activities include boating, fishing, wading or other activities where ingestion of water is not anticipated.

NAVIGATION

This beneficial use is generally more dependent on water quantity than water quality.

AESTHETICS

To be aesthetically enjoyable, the waters of the State must be free from floating materials and suspended substances that produce objectionable color and turbidity. The waters must also be free from noxious odors and tastes, and from materials that

settle to form objectionable deposits, and discharges that produce undesirable or nuisance aquatic life.

SMALLMOUTH BASS FISHERIES (EXCLUDING LAKE WATERS)

Water which will support Smallmouth Bass Fisheries is characterized by a lower temperature and higher dissolved oxygen concentration. Presence of smallmouth bass, generally, indicates clean water conditions.

TROUT FISHERIES (PUT AND TAKE)

The maintenance of trout fisheries (put and take) generally requires cool and high quality waters. Specific references to these fisheries is found in Sections 7.3, 7.5 and 7.6.

SECTION 5 - BENEFICIAL USE LIMITATIONS

All streams and bodies of water designated as (a) are protected by prohibition of any new point source except under conditions described in Section 3.

All streams included under the State Scenic Rivers Act of 1974, and such tributaries of those streams as may be appropriate will be so designated. Best management practices for control of nonpoint source discharges should be initiated when feasible.

OREGON:

Domestic Water Supply

Industrial Water Supply

Irrigation

Livestock Watering

Anadromous Fish Passage

Salmonid Fish Rearing

Salmonid Fish Spawning

Resident Fish and Other Aquatic Life

Hunting and Wildlife

Fishing

Water Skiing and Swimming

Pleasure Boating

Aesthetic Qualities

Commercial Navigation and Transportation

Hydropower

PENNSYLVANIA:

Protected Use

Aquatic Life

Cold Water Fishes - Maintenance and/or propagation of fish species including the family Salmonida and additional flora and fauna which are indigenous to a cold water habitat.

Warm Water Fishes - Maintenance and propagation of fish species and additional flora and fauna which are indigenous to a warm water habitat.

Migratory Fishes - Passage, maintenance and propagation of anadromous and catadromous fishes and other fishes which ascend to flowing waters to complete their life cycle.

Trout Stocking - Maintenance of stocked trout from February 15 to July 31 and maintenance and propagation of fish species and additional flora and fauna which are indigenous to a warm water habitat.

Water Supply

Potable Water Supply - Use by humans after conventional treatment for drinking, culinary, and other purposes, such as inclusion into foods (either directly or indirectly).

Industrial Water Supply - Use by industry for inclusion into nonfood products, processing and cooling.

Livestock Water Supply - Use by livestock and poultry for drinking and cleansing.

Wildlife Water Supply - Use for waterfowl habitat and for drinking and cleansing by wildlife.

Irrigation - Used to supplement precipitation for growing crops.

Recreation

Boating - Use of the water for power boating, sail boating, canoeing, and rowing for recreational purposes when surface water flow or impoundment conditions allow.

Fishing - Use of the water for the legal taking of fish.

Water Contact Sports - Use of the water for swimming and related activities.

Esthetics - Use of the water as an esthetic setting to recreational pursuits.

Special Protection

High Quality Waters - A stream or watershed which has excellent quality waters and environmental or other features that require special water quality protection.

Exceptional Value Waters - A stream or watershed which constitutes an outstanding national, state, regional or local resource, such as waters of national, state or county parks or forests, or waters which are used as a source of unfiltered potable water supply, or waters of wildlife refuges or state game

lands, or waters which have been characterized by the Fish Commission as "Wilderness Trout Streams," and other waters of substantial recreational or ecological significance.

Other

Navigation - Use of the water for the commercial transfer and transport of persons, animals and goods.

RHODE ISLAND:

Fresh Water -

Class A - (drinking) water supply

Class B - public water supply with appropriate treatment
- agricultural uses
- bathing, other primary contact recreational activities
- fish and wildlife habitat

Class C - boating, other secondary contact recreational activities
- fish and wildlife habitat
- industrial processes and cooling

Class D - migration of fish

- good aesthetic value

Class E Nuisance conditions; uses limited to:

- certain industrial processes and cooling
- power
- navigation

<u>Sea Water</u> -

Class SA - bathing and contact recreation

- shellfish harvesting for direct human consumption
- fish and wildlife habitat

Class SA(m-1) - marinas and similar anchorages where boats are docked or moored for the period 1 June to 30 September

- shellfish harvesting for human consumption after depuration
- bathing, other primary contact recreational activities
- fish and wildlife habitat

Class SA(m) - Class SA uses - 1 October to 31 May

Class SB - shellfish harvesting for human consumption after depuration

- bathing, other primary contact recreational activities

- fish and wildlife habitat

Class SC - boating, other secondary contact recreational activities
- fish and wildlife habitat
- industrial cooling
- good aesthetic value

SOUTH CAROLINA:

Class AA

Waters suitable for use for domestic and food processing purposes with treatment levels as specified by the Department of Health and Environmental Control, or waters which constitute an outstanding recreational or ecological resource. Suitable, where specified, in the document, Stream Classifications for the State of South Carolina, for trout fishing ("fishing" as defined in Section I of this document). Also suitable for uses requiring water of lesser quality.

Class A

Waters suitable for direct water contact use. Suitable also for other uses requiring waters of lesser quality.

Class B

Waters suitable for domestic supply after conventional treatment in accordance with requirements of the South Carolina State Board of Health and Environmental Control. Suitable also for

propagation of fish, industrial and agricultural uses and other uses requiring water of lesser quality.

Class SAA

Waters suitable for uses that require the absence of pollution (South Carolina Pollution Control Act Section I(7)) and/or waters which constitute an outstanding recreational or ecological resource. Suitable also for use requiring water of lesser quality.

Class SA

Waters suitable for propagation, survival, and harvesting of shellfish for market purposes as designated by the Department of Health and Environmental Control. Suitable also for uses requiring water of lesser quality.

Class SB

Waters suitable for direct water contact and for survival and propagation of shellfishing except shellfishing for market purposes. Suitable also for uses requiring water of lesser quality.

Class SC

Waters suitable for crabbing, commercial fishing and for the survival and propagation of marine fauna and flora.

SOUTH DAKOTA:

Beneficial uses of public waters established. All lakes and streams are hereby classified for their beneficial uses. Classifications established in this section are not to be construed as

limiting the actual use of such waters. The classifications shall designate whether the quality lakes and streams shall be maintained for:

(1) Domestic water supply waters;

(2) Cold water permanent fish life propagation waters;

(3) Cold water marginal fish life propagation waters;

(4) Warm water permanent fish life propagation waters;

(5) Warm water semipermanent fish life propagation waters;

(6) Warm water marginal fish life propagation waters;

(7) Immersion recreation waters;

(8) Limited contact recreation waters;

(9) Wildlife propagation and stock watering waters;

(10) Irrigation waters; or

(11) Commerce and industry waters.

TENNESSEE:

A. Domestic Raw Water Supply

B. Industrial Water Supply

C. Fish and Aquatic Life

D. Recreation

E. Irrigation

F. Livestock Watering and Wildlife

G. Navigation

TEXAS:

DESCRIPTION OF STANDARDS

The General Statement is an integral part of the standards and the standards shall be interpreted in accord with the General Statement.

These standards consist of three parts:

1. General Criteria applicable to all surface waters of the State at all times to the maximum extent feasible
2. Numerical Criteria applicable to specific surface waters designated in the standards
3. Water Uses deemed desirable for specific surface waters designated in the standards

The designation of a segment as desirable for a particular water usage reflects the objective of the Texas Department of Water Resources to attain and/or maintain a quality of water appropriate to a specific water usage for a stream segment.

a. Contact recreation waters

Surface waters suitable for contact recreation shall not exceed a logarithmic mean (geometric mean) fecal coliform content from a representative sampling of not less than 5 samples collected over not more than 30 days, as determined by either multiple-tube fermentation or membrane filter techniques, of 200/100 ml, nor shall more than 10 percent of toal samples during any

30-day period exceed 400/100 ml.

Simple compliance with bacteriological standards does not insure that waters are safe for primary contact recreation, such as swimming. Longstanding public health principles mandate that watershed sanitary surveys be conducted in order to adequately evaluate the sanitary hazard potentially present on any natural watercourse.

b. Noncontact recreation waters

Surface waters for general or noncontact recreation should, with specific and limited exceptions, be suitable for human use in recreation activities not involving significant risks of ingestion. These waters shall not exceed a logarithmic mean (geometric mean) fecal coliform content of 2,000/100 ml, nor equal or exceed 4,000/100 ml in more than 10 percent of the samples, except in specified mixing zones adjacent to outfalls.

c. Domestic raw water supply

It is the goal that the chemical quality of all surface waters used for domestic raw water supply conform to the U.S. Public Health Service, Drinking Water Standards, revised 1962 or latest revision. However, it must be realized that some surface waters are being used that cannot meet these standards. Since in these cases it is the only source available, these surface waters may be deemed suitable for use as a domestic raw water

supply, where the chemical constituents do not pose a potential health hazard.

National primary drinking water regulations are to be established by the Environmental Protection Agency pursuant to the Safe Drinking Water Act. These regulations shall specify a maximum contaminant level or require the use of specific treatment techniques for contaminants. Domestic raw water supply quality should be consistent with the findings of EPA regarding maximum contaminants and treatment techniques.

It is desirable that the total coliform content should not exceed 100/100 ml and the fecal coliform content 20/100 ml; however, domestic water supplies should not not be considered unacceptable if an adequate number of samples show monthly arithmetic averages for total coliform to be less than 10,000/100 ml and fecal coliform to be less than 2,000/100 ml.

The evaluation of raw water cannot be reduced to simply counting bacteria of any kind and the foregoing must be used with judgment and discretion and this paragraph is not intended to limit the responsibilities and authorities of responsible local governments or local health agencies.

d. Propagation of fish and wildlife

The water quality requirements necessary to support the

propagation of fish and wildlife are too diverse to be defined by a single set of numerical criteria. Different, but equally desirable, biological communities may have substantially different water quality requirements. Also, the impact of a given chemical or physical component on a biological community can be assessed only when the other components of the system are known since synergistic and antagonistic interactions are common. Determination of the suitability of a stream for the propagation of fish and wildlife is most effectively accomplished by an assessment which considers both the physical/chemical parameters of the stream and the biological community present in the stream.

Specific criteria do exist with respect to shellfish waters. In shellfish areas in the bays and outside the buffer zones, the coliform criteria shall be limited and quided by the U.S. Public Health Service Manual, "Sanitation of Shellfish Growing Areas," 1965 revision, or latest revision.

UTAH:

Class 1 - protected for use as a raw water source for domestic water systems.

a. Class 1A - protected for domestic purposes without treatment.

b. Class 1B - protected for domestic purposes with prior disinfection.

c. Class 1C - protected for domestic purposes with prior treatment by standard complete treatment processes as required by the Utah State Division of Health.

Class 2 - protected for in-stream recreational use and aesthetics.

a. Class 2A - protected for recreational bathing (swimming).

b. Class 2B - protected for boating, water skiing, and similar uses, excluding recreational bathing (swimming).

Class 3 - protected for in-stream use by beneficial aquatic wildlife.

a. Class 3A - protected for cold water species of game fish and other cold water aquatic life, including the necessary aquatic organisms in their food chain.

b. Class 3B - protected for warm water species of game fish and other warm water aquatic life, including the necessary aquatic organisms in their food chain.

c. Class 3C - protected for non-game fish and other aquatic life, including the necessary aquatic organisms in their food chain. Standards for this class will be determined on a case-by-case basis.

d. Class 3D - protected for waterfowl, shorebirds and other water-oriented wildlife not included in Classes 3A, 3B, or 3C, including the necessary aquatic organisms in their food chain.

Class 4 - protected for agricultural uses including irrigation of crops and stockwatering.

Class 5 - protected for industrial uses including cooling, boiler

make-up, and others with potential for human contact or exposure. Standards for this class will be determined on a case-by-case basis.

Class 6 - protected for uses of waters not generally suitable for the uses identified in Sections 2.6.1 through 2.6.5, above. Standards for this class will be determined on a case-by-case basis.

VERMONT:

Class A

Public water supply with disinfection; uniformly excellent

Class B

Public water supply with treatment; water contact recreation; irrigation and agricultural uses; good fish habitat; good aesthetic value

Class C

Fish and wildlife; noncontact recreation; irrigation of crops consumed after cooking; and such industrial uses as are consistent with other class uses

VIRGINIA:

PRIMARY CLASSIFICATION OF WATERS WITHIN THE STATE

Geographical Area or Other Description of Waters

Major Class

I Open Ocean (Seaside of the Land Mass)

II Estuarine (Tidal Water - Coastal Zone to Fall Line)

III Free Flowing Streams (Coastal Zone and Piedmont Zone to the Crest of the Mountains)

IV Mountainous Zone

V Put and Take Trout Waters

VI Natural Trout Waters

Subclasses to Complement Major Water Class Designations

Subclass A

Waters generally satisfactory for use as public or municipal water supply, secondary contact recreation, propagation of fish and aquatic life, and other beneficial uses.

Subclass B

Waters generally satisfactory for use as public or municipal water supply, primary contact recreation (prolonged intimate contact; considerable risk of ingestion), propagation of fish and other aquatic life, and other beneficial uses.

WASHINGTON:

CLASS AA (EXTRAORDINARY).

(a) General Characteristic. Water quality of this class shall markedly and uniformly exceed the requirements for all or substantially all uses.

(b) Characteristic Uses. Characteristic uses shall include, but are not limited to, the following:

(i) Water supply (domestic, industrial, agricultural).

(ii) Wildlife habitat, stock watering.

(iii) General recreation and aesthetic enjoyment (picnicking, hiking, fishing, swimming, skiing, and boating).

(iv) General marine recreation and navigation.

(v) Fish and shellfish reproduction, rearing, and harvesting.

CLASS A (EXCELLENT).

(a) General Characteristic. Water quality of this class shall meet or exceed the requirements for all or substantially all uses.

(b) Characteristic Uses. Characteristic uses shall include, but are not limited to, the following:

(i) Water supply (domestic, industrial, agricultural).

(ii) Wildlife habitat, stock watering.

(iii) General recreation and aesthetic enjoyment (picnicking, hiking, fishing, swimming, skiing, and boating).

(iv) Commerce and navigation.

(v) Fish and shellfish reproduction, rearing, and harvesting.

CLASS B (GOOD).

(a) General Characteristic. Water quality of this class shall meet or exceed the requirements for most uses.

(b) Characteristic Uses. Characteristic uses shall include, but are not limited to, the following:

(i) Industrial and agricultural water supply.

(ii) Fishery and wildlife habitat.

(iii) General recreation and aesthetic enjoyment (picnicking, hiking, fishing, and boating).

(iv) Stock watering.

(v) Commerce and navigation.

(v) Shellfish reproduction and rearing, and crustacea (crabs, shrimp, etc.) harvesting.

CLASS C (FAIR).

(a) General Characteristic. Water quality of this class shall meet or exceed the requirements of selected and essential uses.

(b) Characteristic Uses. Characteristic uses shall include, but are not limited to, the following:

(i) Cooling water.

(ii) Commerce and navigation.

(iii) Fish passage.

(iv) Boating.

LAKE CLASS.

(a) General Characteristic. Water quality of this class shall meet or exceed the requirements for all or substantially all uses.

(b) Characteristic Uses. Characteristic uses for waters of this class shall include, but are not limited, to the following:

(i) Water supply (domestic, industrial, agricultural).

(ii) Wildlife habitat, stock watering.

(iii) General recreation and aesthetic enjoyment (picnicking, hiking, fishing, swimming, skiing, and boating).

(iv) Fish and shellfish reproduction, rearing, and harvesting.

WEST VIRGINIA:

Category A. Water Contact Recreation:
This category includes swimming, fishing, water skiing, and certain types of pleasure boating such as sailing in very small craft and small outboard motor boats.

Category B1. Water Supply, Public:
This category is used to describe all waters used for public supplies. It does not include water for cooling.

Category B2. Water Supply, Industrial:

This category is used to describe all waters used for industrial supplies. It does not include water for cooling.

Category B3. Water Supply, Agricultural:
This category includes all water used for agriculture, includes irrigation as well as livestock watering. It is understood that these waters would also be suitable for wildlife watering.

Category C. Propagation of Fish and Other Aquatic Life:
This category is self-explanatory and does recognize the importance of other aquatic life in addition to fish.

Category D. Water Transport, Cooling and Power:
This category includes commercial and pleasure vessel activity, expect those small craft included in Category A. Cooling water is that water used for industrial cooling. Power production in this definition is hydropower.

Category E. Treated Wastes Transport and Assimilation:
This category includes water of such quality as to assure safe passage of fish.

WISCONSIN:

WISCONSIN WATER QUALITY STANDARDS

FISH AND AQUATIC LIFE		VARIANCE	
RECREATIONAL USE		INTERMEDIATE	MARGINAL
		Continuous Streams	Diffused Surface Waters
Lakes and Flowages		Non-continuous Streams	Wet lands
			Waste Water Effluent Channels
Trout Streams	Continuous Streams		Continuous Streams
			Non-continuous Streams

GENERAL CRITERIA

Wisconsin surface waters shall not have objectionable shore or bottom deposits, floating or submerged debris, oil, unsightly color, odor, taste or toxic concentrations of chemicals.

WYOMING:

Chapter I of Wyoming's Water Quality Regulations, entitled "Quality Standards for Wyoming Surface Waters," designates all Wyoming waters as belonging to one of the following four classes:

Class I: Those surface waters which shall be maintained at their existing quality and in which no further water quality degradation by discharges will be allowed.

Class II: Those surface waters, other than those classified as

Class I, which are determined by the Wyoming Game and Fish Department to be presently supporting game fish or have the hydrologic and natural water quality potential to support game fish.

Class III: Those surface waters, other than those classified as Class I, which are determined by the Wyoming Game and Fish Department to be presently supporting non-game fish or have the hydrologic and natural water quality potential to support non-game fish.

Class IV: Those surface waters, other than those classified as Class I, which are determined by the Wyoming Game and Fish Department to not have the hydrologic or natural water quality to support fish.

GUAM:

I. CATEGORIES OF WATERS - The following categories of waters relate to the different liquid components of the hydrologic cycle.

A. Coastal Waters

1. Category AA Waters

The uses to be protected in this category of waters are marine research, propagation of aquatic life (particularly coral reef organisms), conservation of wilderness areas, aesthetic enjoyment, and such recreational activities as do

not impair the other established uses. This category of waters shall remain free from pollution attributable to domestic, commercial, and industrial discharges or agricultural, construction and other land-use practices that impair their protected use. No pollutant discharges will be permitted therein. Wherever recreational facilities currently exist in these areas, such as Tarague Beach, such uses may continue with their pollutant impacts controlled to prevent destruction of other water uses.

The categorization of any water area as Category AA shall not preclude other uses of such waters compatible with these objectives and in conformance with the standards applicable to them.

2. Category A Waters

The uses to be protected in this category of waters are recreation (including swimming, surfing, skin and SCUBA diving, skiing, and other primary contact sports), aesthetic enjoyment, propagation of aquatic and associated wildlife, commercial, industrial, and navigational uses. It is the objective that discharges of any pollutant be controlled to the degree necessary to protect the waters for their specified uses.

B. Fresh Waters

1. Category I Waters are defined as all groundwaters.

   1a. This subcategory is the basal water lens and the perched water systems. Basal water lens refers to fresh groundwater which is in hydraulic continuity with sea water on which it floats; perched water systems refer to fresh groundwaters in aquifers whose impermeable lower boundaries lie above sea level.

   Zone 1a-I; Waters within this use-zone are those that are currently used or potentially developable as drinking water resources. Waters within this zone shall be protected for use as drinking water.

   Zone 1a-II; Waters within this use-zone are those that are proven to be not potentially developable as a drinking water resource. These waters may flow into adjoining coastal waters and act as a buffer to prevent damage to inland drinking water resources by the intrusion of salt water. Within this zone, treated waste may be discharged if it is positively demonstrated that such discharge will not adversely affect groundwaters that are either currently or potentially developable for drinking water. Zone 1a-II shall be defined as all groundwaters between the Line of Mean High Water and a line on a horizontal plan and 2,000

feet inland from the Line of Mean High Water, excluding waters currently used or potentially usable as a drinking water resource.

1b. This subcategory is groundwaters descending vertically to waters identified as 1a waters. The use of these waters is replenishment of 1a waters to ensure the quality and quantity of drinking water resources necessary to supply the current and future needs of the people of Guam. Three use-zones are established within this subcategory.

Zone 1b-I (Conservation Zone). Groundwaters within this zone replenish 1a-I waters. They shall be kept free from pollution. The watershed shall be maintained as a conservation area. No pollutant discharges will be permitted.

Land within boundaries identified as 1b-I which are owned by the Government of Guam shall be maintained at their current land use. Privately owned lands shall be maintained at their permitted densities and uses as of the effective date of these standards.

Zone 1b-II (Resource Zone). Groundwaters within this zone replenish 1a waters that are developable for drinking water. POllutant discharges shall be

treated to the degree necessary to protect 1a waters for this use.

Zone 1b-III (Recharge Zone). Groundwaters within this zone replenish waters that are not economically developable for drinking water use and are, therefore, categorized for treated discharge. Discharges within this zone shall be treated to the extent necessary to protect 1a-II waters for this categorized use.

2. Category 2 Waters are defined as all surface fresh waters. There are three subcategories.

   2a. This subcategory is composed of waters that flow continuously over the land surface in a defined channel or bed, such as streams and rivers.

   2b. This subcategory is composed of standing waters in basins such as lakes, marshes, swamps, and ponds, either natural or man-made.

   Two use-zones are established for 2a and 2b waters.

   Zones 2a-I and 2b-I; The uses for these zones are 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 that impair their use. No pollutant discharges will be permitted. A management program shall be implemented for any watershed of waters categorized as 2a-I or 2b-I.

Lands within boundaries identified as 2a-I and 2b-I which are owned by the Government of Guam shall be maintained at their current land-use. Privately owned lands shall be maintained at their permitted densities and uses as of the effective date of these standards.

Zones 2a-II and 2b-II: The uses for these zones are primary body contact recreation, aesthetic enjoyment, protection and propagation of aquatic life; commercial, agricultural, and industrial water supply. Waste discharges shall be controlled to the degree necessary to protect these uses.

2c. This subcategory comprises all waters flowing over the land, either as unconfined sheet runoff, or as runoff confined to channels with intermittent flow. These waters shall be kept free from pollution associated with human land-use

activities to the extent that the designated uses of waters receiving 2c waters are not impaired.

3. Drinking Water

All public and domestic water supplies used for human consumption, either directly or indirectly through food or beverage processing, are categorized as "Drinking Water." These waters shall be treated as necessary to provide water of good quality for consumption by the people of Guam. Specific standards applicable to drinking water are listed under Section III, C.

PUERTO RICO:

Class SA

A. Usages and/or description:

Coastal waters whose existing characteristics should not be altered in order to preserve the existing natural phenomena. Toward that end these waters are not intended to be used for any activity, such as swimming, boating and skiing, that might be detrimental to the existing natural phenomena.

Class SB

A. Usages and/or description:

Coastal waters intended for uses where the human body may come in direct contact with the water (such as complete body submergence); and for use in propagation and preservation of desirable species.

Class SC

A. Usages and/or description:

Coastal waters intended for uses where the human body may in indirect contact with the water (such as fishing, boating, etc.), and for use in propagation and maintenance of desirable species.

Class SD

A. Usages and/or description:

Surface waters intended for use as a raw water source for public water supply, and in propagation and preservation of desirable species. These waters cannot be safely used for primary or secondary contact recreation, unless they comply with Section 2.2.4B. 10.

VIRGIN ISLANDS:

Class A

(a) Best usage of waters: Preservation of natural phenomena requiring special conditions, such as the

Natural Barrier Reef at Buck Island, St. Croix and the Under Water Trail at Trunk Bay, St. John.

Class B

(a) Best usage of waters: For propagation of desirable species of marine life and for primary contact recreation (swimming, water skiing, etc.).

Class C

(a) Best usage of waters: For the propagation of desirable species of marine life and secondary contact recreation (boating, fishing, wading, etc.).

AMERICAN SAMOA:

Identification of waters and beneficial uses.

(a) Coastal Waters

The coastal waters of the Territory are considered to be among the Territory's most valuable resources. All coastal waters serve to propagate fish and other marine life, contributing to the subsistence of the people. Accessible waters are also used for swimming and other forms of recreation. Additionally, clean coastal waters, clean beaches and natural reefs are among the Territory's prime tourist attractions.

Therefore:

All coastal waters shall be protected for the present and future uses of industrial water supply, propagation of fish

and other aquatic life and wildlife (including conservation of native marine biota, shellfish propagation, and commercial and sports fishing), esthetic enjoyment, and primary contact recreation.

(b) Domestic Water Supplies

Until ground water resources can be fully explored and developed, Samoa will continue to rely heavily upon natural streams, springs, small reservoirs and constructed storage tanks for the bulk of its water requirements. It is imperative that existing resources be protected for the public benefit. The Commission considers these regulations and existing public health laws generally adequate to assure this protection. In addition, fresh waters may provide beneficial aquatic life and opportunities for recreation. All fresh waters shall be protected for public or domestic water supply, primary contact recreation, propagation of fish and other aquatic life and wildlife, and esthetic enjoyment.

TRUST TERRITORIES:

Classification

The following water classifications, according to recognized beneficial uses, are hereby designated (order of listing is not intended to imply relative rank of importance):

4.1 Public or Domestic Water Supply

4.2 Industrial Water Supply

4.3 Agricultural Water Supply

4.4 Propagation of Fish and Other Aquatic Life and Wildlife

4.5 Special classes-- (a) Waters reserved for conservation of native marine biota; (b) Shellfish propagation; (c) Commercial and sports fishing.

4.6 Aesthetic Enjoyment

4.7 Recreation

4.8 Special Class-Primary Water Contact

4.9 Navigation, including harbors, small boat harbors, marinas and waters adjacent to piers and docks.

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