

# Wyoming Surface Water Quality Standards Triennial Review

## Compilation of Designated Uses From Other States<sup>1</sup>

### Background on Designated Uses – Clean Water Act

- Clean Water Act Section 101(a)(2) describes a national goal of, wherever attainable, water quality that provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water
  - This has been interpreted to mean that primary contact recreation (full body contact recreation), aquatic life, and consumption of aquatic organisms must be designated on all waters unless it can be demonstrated that these uses are not existing uses and are not attainable with the imposition of technology based effluent limits or cost-effective and reasonable best management practices for nonpoint sources
- Clean Water Act Section 303(c)(2)(A) describes standards shall protect the public health or welfare, enhance the quality of water and serve the purposes of the Act. Such standards shall take into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and also taking into consideration their use and value for navigation.
- Federal Regulations (40 CFR 131.2 and 131.10) describe the following:
  - Must take into consideration the water quality standards of downstream waters
  - Can adopt subcategories of designated uses to reflect varying needs (e.g., warmwater fisheries, coldwater fisheries)
  - Can adopt seasonal uses
  - May remove or modify fishable and swimmable uses
    - Cannot remove an existing use
    - Must complete a use attainability analysis demonstrating that the use is not attainable based on at least one of six factors
    - Must designated the highest attainable use, defined as the use is the use that can be achieved after imposing technology based effluent limits for point sources and cost-effective and reasonable best management practices for nonpoint source

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<sup>1</sup> Summary was compiled by reviewing a subset of Surface Water Quality Standards from other states. The summary is not comprehensive, but is intended to provide a cross-section of different approaches.

## Wyoming Surface Water Quality Standards Triennial Review

**Table 1. Summary of Colorado's Designated Uses.**

Designated Use	Subcategory
Recreation	Existing Primary Contact Use
	Potential Primary Contact Use
	Not Primary Contact Use
	Undetermined Use
Agriculture	
Aquatic Life	Class I - Cold Water Aquatic Life
	Class 1 - Warm Water Aquatic Life
	Class 2- Cold and Warm Water Aquatic Life
Domestic Water Supply	
	Direct Use Water Supply Lakes and Reservoirs Sub-classification
Wetlands	

**Table 2. Summary of Idaho's Designated Uses.**

Designated Use	Subcategory
Recreation	Primary Contact
	Secondary Contact
Aquatic Life	Cold Water
	Salmonid Spawning
	Seasonal Cold Water
	Warm Water
	Modified
Water Supply	Domestic Water Supply
	Agricultural
	Industrial
Wildlife Habitats	
Aesthetics	

## Wyoming Surface Water Quality Standards Triennial Review

**Table 3. Summary of Ohio's Designated Uses.**

Designated Use	Subcategory
Recreation	Bathing Waters
	Primary Contact
	Secondary Contact
Aquatic Life	Warm Water
	Limited Warm Water
	Exceptional Warm Water
	Warm Water
	Modified Warm Water
	Seasonal Salmonid
	Cold Water
	Limited Resource Water
Water Supply	Public
	Agricultural
	Industrial

## Wyoming Surface Water Quality Standards Triennial Review

**Table 4. [Colorado](#)'s Designated Uses and Definitions.**

Designated Use	Subcategory	Definition
Recreation	Exiting primary contact use	These surface waters are used for primary contact recreation or have been used for such activities since November 28, 1975.
	Potential Primary Contact Use	These surface waters have the potential to be used for primary contact recreation. This classification shall be assigned to water segments for which no use attainability analysis has been performed demonstrating that a recreation class N classification is appropriate, if a reasonable level of inquiry has failed to identify any existing primary contact uses of the water segment, or where the conclusion of a UAA is that primary contact uses may potentially occur in the segment, but there are no existing primary contact uses.
	Not Primary Contact Use	These surface waters are not suitable or intended to become suitable for primary contact recreation uses. This classification shall be applied only where a use attainability analysis demonstrates that there is not a reasonable likelihood that primary contact uses will occur in the water segment(s) in question within the next 20-year period.
	Undetermined Use	These are surface waters whose quality is to be protected at the same level as existing primary contact use waters, but for which there has not been a reasonable level of inquiry about existing recreational uses and no recreation use attainability analysis has been completed. This shall be the default classification until inquiry or analysis demonstrates that another classification is appropriate.
Agriculture		These surface 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.
Aquatic Life		These surface waters presently support aquatic life uses as described below, or such uses may reasonably be expected in the future due to the suitability of present conditions, or the waters are intended to become suitable for such uses as a goal
	Class I - Cold Water Aquatic Life	These are waters that (1) currently are capable of sustaining a wide variety of cold water biota, including sensitive species, or (2) could sustain such biota but for correctable water quality conditions. Waters shall be considered capable of sustaining such biota where physical habitat, water flows or levels, and water quality conditions result in no substantial impairment of the abundance and diversity of species.
	Class 1 - Warm Water Aquatic Life	These are waters that (1) currently are capable of sustaining a wide variety of warm water biota, including sensitive species, or (2) could sustain such biota but for correctable water quality conditions. Waters shall be considered capable of sustaining such biota where physical habitat, water flows or levels, and water quality conditions result in no substantial impairment of the abundance and diversity of species.

## Wyoming Surface Water Quality Standards Triennial Review

Designated Use	Subcategory	Definition
	Class 2- Cold and Warm Water Aquatic Life	These are waters that are not capable of sustaining a wide variety of cold or warm water biota, including sensitive species, due to physical habitat, water flows or levels, or uncorrectable water quality conditions that result in substantial impairment of the abundance and diversity of species.
Domestic Water Supply		These surface waters are suitable or intended to become suitable for potable water supplies. After receiving standard treatment (defined as coagulation, flocculation, sedimentation, filtration, and disinfection with chlorine or its equivalent) these waters will meet Colorado drinking water regulations and any revisions, amendments, or supplements thereto.
	Direct Use Water Supply Lakes and Reservoirs Sub-classification	(A) For the purpose of this section, “plant intake” means the works or structures at the head of a conduit through which surface water is diverted from a source (e.g., lake) into the treatment plant. (B) Direct Use Water Supply Lakes and Reservoirs (DUWS) are those water supply lakes and reservoirs where: (I) There is a plant intake located in the lake or reservoir or a man-made conveyance from the lake or reservoir that is used regularly to provide raw water directly to a water treatment plant that treats and disinfects raw water, or CODE OF COLORADO REGULATIONS 5 CCR 1002-31 Water Quality Control Commission 46 (II) The Commission, based on evidence in the record, determines that the reservoir will meet the criteria in 31.13(1)(d)(i)(B)(I) in the future.
Wetlands		<p>(i) The provisions of this section do not apply to constructed wetlands.</p> <p>(ii) Compensatory wetlands shall have, as a minimum, the classifications of the segment in which they are located.</p> <p>(iii) Created wetlands shall be considered to be initially unclassified, and shall be subject only to the narrative standards set forth in section 31.11, unless and until the Commission adopts the “wetlands” classification described below and appropriate numeric standards for such wetlands. (iv) Tributary wetlands shall be considered tributaries of the surface water segment to which they are most directly connected and shall be subject to interim classifications as follows: such wetlands shall be considered to have the same classifications, except for drinking water supply classifications, as the segment of which they are a part, unless the “wetlands” classification and appropriate site-specific standards have been adopted to protect the water quality dependent functions of the wetlands. Interim numeric standards for these wetlands are described in section 31.7(1)(b)(iv).</p> <p>(v) The Commission may adopt a “wetlands” classification based on the functions of the wetlands in question. Wetland functions that may warrant site-specific protection include groundwater recharge or discharge, flood</p>

## Wyoming Surface Water Quality Standards Triennial Review

Designated Use	Subcategory	Definition
		flow alteration, sediment stabilization, sediment or other pollutant retention, nutrient removal or transformation, biological diversity or uniqueness, wildlife diversity or abundance, aquatic life diversity or abundance, and recreation. Because some wetland functions may be mutually exclusive (e.g., wildlife abundance, recreation), the functions to be protected or restored will be determined on a wetland-by-wetland basis, considering natural wetland characteristics and overall benefits to the watershed. The initial adoption of a site-specific wetlands classification and related standards to replace the interim classifications and standards described above shall not be considered a downgrading.

## Wyoming Surface Water Quality Standards Triennial Review

**Table 5. [Idaho](#) Designated Uses and Definitions.**

Designated Use	Subcategory	Definition
Recreation	Primary Contact Recreation (EPA Approved)	Water quality appropriate for prolonged and intimate contact by humans or for recreational activities when the ingestion of small quantities of water is likely to occur. Such activities include, but are not restricted to, those used for swimming, water skiing, or skin diving.
	Primary Contact Recreation (Not EPA Approved)	Primary contact recreation (PCR): water quality appropriate for prolonged and intimate contact by humans or for recreational activities when the ingestion of small quantities of water is likely to occur. Such activities include, but are not restricted to, those used for swimming, water skiing, or skin diving. PCR includes all activities associated with secondary contact recreation (SCR).
	Secondary Contact Recreation	Water quality appropriate for recreational uses on or about the water and which are not included in the primary contact category. These activities may include fishing, boating, wading, infrequent swimming, and other activities where ingestion of raw water is not likely to occur.
Aquatic Life	Cold Water	Water quality appropriate for the protection and maintenance of a viable aquatic life community for cold water species.
	Salmonid Spawning	Waters which provide or could provide a habitat for active self-propagating populations of salmonid fishes.
	Seasonal Cold Water	Water quality appropriate for the protection and maintenance of a viable aquatic life community of cool and cold water species, where cold water aquatic life may be absent during, or tolerant of, seasonally warm temperatures.
	Warm Water	Water quality appropriate for the protection and maintenance of a viable aquatic life community for warm water species.
	Modified	Water quality appropriate for an aquatic life community that is limited due to one (1) or more conditions set forth in 40 CFR 131.10(g) which preclude attainment of reference streams or conditions.
Water Supply	Domestic	Water quality appropriate for use as untreated raw water (as defined under IDAPA 58.01.08, "Idaho Rules for Public Drinking Water Systems") for public drinking water.
	Agricultural	Water quality appropriate for the irrigation of crops or as drinking water for livestock. This use applies to all surface waters of the state.
	Industrial	Water quality appropriate for industrial water supplies. This use applies to all surface waters of the state.
Wildlife Habitats		Water quality appropriate for wildlife habitats. This use applies to all surface waters of the state.
Aesthetics		This use applies to all surface waters of the state

## Wyoming Surface Water Quality Standards Triennial Review

**Table 6. [Ohio](#) Designated Uses and Definitions.**

Designated Use	Subcategory	Definition
Aquatic Life Habitat	Warmwater	These are waters capable of supporting and maintaining a balanced, integrated, adaptive community of warmwater aquatic organisms having a species composition, diversity, and functional organization comparable to the twenty-fifth percentile of the identified reference sites within each of the following ecoregions: the interior plateau ecoregion, the Erie/Ontario lake plains ecoregion, the western Allegheny plateau ecoregion and the eastern corn belt plains ecoregion. For the Huron/Erie lake plains ecoregion, the comparable species composition, diversity and functional organization are based upon the ninetieth percentile of all sites within the ecoregion. For all ecoregions, the attributes of species composition, diversity and functional organization will be measured using the index of biotic integrity, the modified index of well-being and the invertebrate community index as defined in "Biological Criteria for the Protection of Aquatic Life: Volume II, Users Manual for Biological Field Assessment of Ohio Surface Waters," as cited in paragraph (B) of rule 3745-1- 03 of the Administrative Code. In addition to those water body segments designated in rules 3745-1-08 to 3745-1-32 of the Administrative Code, all 3745-1-07 2 upground storage reservoirs are designated warmwater habitats. Attainment of this use designation (except for upground storage reservoirs) is based in the criteria in table 7-1 of this rule. A temporary variance to the criteria associated with this use designation may be granted as described in paragraph (F) of rule 3745-1-01 of the Administrative Code.
	Limited Warmwater	These are waters that were temporarily designated in the 1978 water quality standards as not meeting specific warmwater habitat criteria. Criteria for the support of this use designation are the same as the criteria for the support of the use designation warmwater habitat. However, individual criteria are varied on a case-by-case basis and supersede the criteria for warmwater habitat where applicable. Any exceptions from warmwater habitat criteria apply only to specific criteria during specified time periods or flow conditions. The adjusted criteria and conditions for specified stream segments are denoted as comments in rules 3745-1-08 to 3745-1-30 of the Administrative Code. Stream segments currently designated limited warmwater habitats will undergo use attainability analyses and will be redesignated other aquatic life habitats. No additional stream segments will be designated limited warmwater habitats.
	Exceptional Warmwater	These are waters capable of supporting and maintaining an exceptional or unusual community of warmwater aquatic organisms having a species composition, diversity, and functional organization comparable to the seventy-fifth percentile of the identified reference sites on a statewide basis. The attributes of species composition, diversity and functional organization will be measured using the index of biotic integrity, the modified index of well-being and the invertebrate community index as defined in "Biological Criteria for the



## Wyoming Surface Water Quality Standards Triennial Review

		Protection of Aquatic Life: Volume II, Users Manual for Biological Field Assessment of Ohio Surface Waters," as cited in paragraph (B) of rule 3745-1-03 of the Administrative Code. In addition to those water body segments designated in rules 3745-1-08 to 3745-1-32 of the Administrative Code, all lakes and reservoirs, except upground storage reservoirs, are designated exceptional warmwater habitats. Attainment of this use designation (except for lakes and reservoirs) is based on the criteria in table 7-1 of this rule. A temporary variance to the criteria associated with this use designation may be granted as described in paragraph (F) of rule 3745-1-01 of the Administrative Code.
	Modified Warmwater	These are waters that have been the subject of a use attainability analysis and have been found to be incapable of supporting and maintaining a balanced, integrated, adaptive community of warmwater organisms due to irretrievable modifications of the physical habitat. Such modifications are of a long lasting duration (i.e., twenty years or longer) and may include the following examples: extensive stream channel modification activities permitted under sections 401 and 404 of the act or Chapter 6131. of the Revised Code, extensive sedimentation resulting from abandoned mine land runoff, and extensive permanent impoundment of free flowing water bodies. The attributes of species composition, diversity and functional organization will 3745-1-07 3 be measured using the index of biotic integrity, the modified index of wellbeing and the invertebrate community index as defined in "Biological Criteria for the Protection of Aquatic Life: Volume II, Users Manual for Biological Field Assessment of Ohio Surface Waters," as cited in paragraph (B) of rule 3745-1-03 of the Administrative Code. Attainment of this use designation is based on the criteria in table 7-1 of this rule. Each water body designated modified warmwater habitat will be listed in the appropriate use designation rule (rules 3745-1-08 to 3745-1-32 of the Administrative Code) and will be identified by ecoregion and type of physical habitat modification as listed in table 7-1 of this rule. The modified warmwater habitat designation can be applied only to those waters that do not attain the warmwater habitat biological criteria in table 7-1 of this rule because of irretrievable modifications of the physical habitat. All water body segments designated modified warmwater habitat will be reviewed on a triennial basis (or sooner) to determine whether the use designation should be changed. A temporary variance to the criteria associated with this use designation may be granted as described in paragraph (F) of rule 3745-1-01 of the Administrative Code.
	Seasonal Salmonid	These are rivers, streams and embayments capable of supporting the passage of salmonids from October to May and are water bodies large enough to support recreational fishing. This use will be in effect the months of October to May. Another aquatic life habitat use designation will be enforced the remainder of the year (June to September). A temporary variance to the criteria associated with this use designation may be granted as described in paragraph (F) of rule 3745-1-01 of the Administrative Code.
	Coldwater	These are waters that meet one or both of the characteristics described in paragraphs (B)(1)(f)(i) and (B)(1)(f)(ii) of this rule. A temporary variance to the criteria associated with this use designation may be granted as described in paragraph (F) of rule 3745-1-01 of the Administrative Code. (i) "Coldwater habitat,

## Wyoming Surface Water Quality Standards Triennial Review

		<p>inland trout streams" - these are waters which support trout stocking and management under the auspices of the Ohio department of natural resources, division of wildlife, excluding waters in lake run stocking programs, lake or reservoir stocking programs, experimental or trial stocking programs, and put and take programs on waters without, or without the potential restoration of, natural coldwater attributes of temperature and flow. The director shall designate these waters in consultation with the director of the Ohio department of natural resources. (ii) "Coldwater habitat, native fauna" - these are waters capable of supporting populations of native coldwater fish and associated vertebrate and invertebrate organisms and plants on an annual basis. The director shall designate these waters based upon results of use attainability analyses.</p>
	Limited Resource Water	<p>These are waters that have been the subject of a use attainability analysis and have been found to lack the potential for any resemblance of any other aquatic life habitat as determined by the biological 3745-1-07 4 criteria in table 7-1 of this rule. The use attainability analysis must demonstrate that the extant fauna is substantially degraded and that the potential for recovery of the fauna to the level characteristic of any other aquatic life habitat is realistically precluded due to natural background conditions or irretrievable human induced conditions. For water bodies in the lake Erie drainage basin, the designation of water bodies as limited resource waters shall include demonstrations that the "Outside Mixing Zone Average" water quality criteria and values and chronic whole effluent toxicity levels are not necessary to protect the designated uses and aquatic life pursuant to rule 3745-1-39 of the Administrative Code. All water body segments designated limited resource water will be reviewed on a triennial basis (or sooner) to determine whether the use designation should be changed. Limited resource waters are also termed nuisance prevention for some water bodies designated in rules 3745-1-08 to 3745-1-30 of the Administrative Code. A temporary variance to the criteria associated with this use designation may be granted as described in paragraph (F) of rule 3745-1-01 of the Administrative Code. Waters designated limited resource water will be assigned one or more of the following causative factors. These causative factors will be listed as comments in rules 3745-1-08 to 3745-1-30 of the Administrative Code. (i) "Acid mine drainage" - these are surface waters with sustained pH values below 4.1 s.u. or with intermittently acidic conditions combined with severe streambed siltation, and have a demonstrated biological performance below that of the modified warmwater habitat biological criteria. (ii) "Small drainageway maintenance" - these are highly modified surface water drainageways (usually less than three square miles in drainage area) that do not possess the stream morphology and habitat characteristics necessary to support any other aquatic life habitat use. The potential for habitat improvements must be precluded due to regular stream channel maintenance required for drainage purposes. (iii) Other specified conditions.</p>
Water Supply	Public	<p>These are waters that, with conventional treatment, will be suitable for human intake and meet federal regulations for drinking water. Criteria associated with this use designation apply within five hundred yards of surface water intakes. Although not necessarily included in rules 3745-1-08 to 3745-1-30 of the</p>

## Wyoming Surface Water Quality Standards Triennial Review

		Administrative Code, the bodies of water with one or more of the following characteristics are designated public water supply: (i) All publicly owned lakes and reservoirs, with the exception of Piedmont reservoir. (ii) All privately owned lakes and reservoirs used as a source of public drinking 3745-1-07 5 water. (iii) All surface waters within five hundred yards of an existing public water supply surface water intake. (iv) All surface waters used as emergency water supplies.
	Agricultural	These are waters suitable for irrigation and livestock watering without treatment.
	Industrial	These are waters suitable for commercial and industrial uses, with or without treatment. Criteria for the support of the industrial water supply use designation will vary with the type of industry involved.
Recreation		These use designations are in effect only during the recreation season, which is the period from May first to October thirty-first. The director may require effluent disinfection, as a term or condition of a national pollutant discharge elimination system (NPDES) permit, administrative findings and orders or a judicial order, during the months outside the recreation season if necessary to protect an unusually high level of water based recreation activity such as, but not limited to, canoeing, kayaking, scuba diving, or sport fishing during spawning runs and, in the normal pursuit of the recreation activity, there is a strong likelihood of exposure to water borne pathogens through ingestion of water or from dermal exposure through fresh cuts or abrasions.
	Bathing Waters	These are waters that, during the recreation season, are heavily used for swimming. The bathing water use applies to all waters in areas where a lifeguard or bathhouse facilities are present, and to any additional water bodies designated bathing waters in rules 3745-1-08 to 3745-1-32 of the Administrative Code.
	Primary Contact	These are waters that, during the recreation season, are suitable for one or more full body contact recreation activities such as, but not limited to, wading, swimming, boating, water skiing, canoeing, kayaking, and scuba diving. All surface waters of the state are designated as primary contact recreation unless otherwise designated as bathing waters or secondary contact recreation.
	Secondary Contact	These are waters that result in minimal exposure potential to water borne pathogens because the waters are: rarely used for water based recreation such as, but not limited to, wading; situated in remote, sparsely populated areas; have restricted access points; and have insufficient depth to provide full body immersion, thereby greatly limiting the potential for water based recreation activities. Waters designated secondary contact recreation are identified in rules 3745-1-08 to 3745-1-30 of the Administrative Code.