



# MISSOURI DEPARTMENT OF NATURAL RESOURCES

## Chapter 7—Water Quality

10 CSR 20-7

(M) Hypolimnion—Zone beneath the zone of atmospheric mixing in a thermostratified lake.

(N) Lethal concentration<sub>50</sub> (LC<sub>50</sub>)—Concentration of a toxicant which would be expected to kill fifty percent (50%) of the individuals of the test species organisms in a test of specified length of time.

(O) Losing stream—A stream which distributes thirty percent (30%) or more of its flow during low flow conditions through natural processes, such as

geologic materials within two (2) mile streams of an existing flow measurement of water loss must be the 7Q10 stream drainage way has an flow insufficient to with this rule, it may losing stream on the opposite, valley con development, dye tr characteristics, geologic factors. Located in the digital geologic STREAM" developed by the Missouri Department of Natural Resources Geological Survey; as determined to be the Department of Natural Resources.

(P) Low-flow class this regulation in the low-flow condition mean amount of an immediately upstream change and available, attenuation of wastes

1. Seven- (7-) day year low flow (7Q10) flow for seven (7) out probable recurrence (30) years.

2. Sixty- (60-) day year low flow (60Q) flow for sixty (60) out probable recurrence (2) years.

3. Thirty- (30-) (30-) year low flow average flow for thirty that has a probable recurrence interval of once-in-ten (10) years.

4. One- (1-) day, one- (1-) in-ten- (10-) year low flow (1Q10)—The lowest average flow for one (1) day that has a probable recurrence interval of once-in-ten (10) years.

(Q) Missouri Use Designation Dataset—A digital geospatial dataset used in conjunction with geographic information systems and maintained by the department. This dataset

documents the names and locations of the state's rivers, streams, lakes, and reservoirs which have been assigned designated uses. The initial version of this dataset, as adopted on November 6, 2013, reflects Tables G and H plus any additional prescriptive uses described in section (2). The dataset will also include information regarding both pending and approved determinations, variances, use attainability analyses, and water quality standards revisions. The dataset uses the geospatial processes, such as

in a natural condition with respect to its water quality, biological integrity and designated watershed land use, and riparian conditions.

(X) Reference stream reaches—Stream reaches determined by the department, the best available representation of stream waters in a natural condition, with respect to habitat, water quality, biological integrity, diversity, watershed land use, and riparian conditions.

(Y) Regulated-flow stream—A stream

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Branch, PO Box 176, Jefferson City, MO 65102-0176. Effluent monitoring commitments for CSOs shall be addressed in the long term control plans required under EPA's CSO Control Policy.

**AUTHORITY:** section 644.026, RSMo 2016. \* Original rule filed June 6, 1974, effective June 16, 1974. Amended: Filed April 1, 1975, effective April 11, 1975. Rescinded: Filed Oct. 16, 1979, effective July 11, 1980. Readopted: Filed Feb. 4, 1980, effective July 11, 1980. Rescinded and readopted: Filed

are pursuant to the national goal of protection of fish, shellfish, and wildlife and recreation in and on the water as outlined in Section 101(a)(2) of the Act.

**PUBLISHER'S NOTE:** The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available

- (IV) Creek
- (V) Headwater
- (VI) Lake or reservoir
- B. Cool Water Habitat (CLH)—Waters in which naturally-occurring water quality and habitat conditions allow the maintenance of a wide variety of cool-water biota. These waters can support a sensitive, high-quality sport fishery (i.e., smallmouth bass and rock bass).
- (I) Large River
- (II) Small River
- (III) Creek

# What did we do for the Triennial Review?

Victoria Bushan WQS Unit Chief

## 10 CSR 20-7.001 WATER QUALITY STANDARDS

**PURPOSE:** This rule identifies uses of waters of the state, criteria to protect those uses, and defines the undegraded policy. It is developed in response to the Missouri Clean Water Law and the federal Clean Water Act, Section 303(c)(1) and (2), which requires that state water quality standards be reviewed at least once every three (3) years. These revisions

concerning aquatic habitat protection uses based on limnological characteristics (such as temperature) and biological assemblages.

A. Warm Water Habitat (WWH)—Waters in which naturally-occurring water quality and habitat conditions allow the maintenance of a wide variety of warm-water biota.

- (I) Great River
- (II) Large River
- (III) Small River

(WBC)—Activities involving direct human contact with waters of the state to the point of complete body submergence. The 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. Waters

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Division 20—Clean Water Commission

are intended to be used for water skiing, or skin diving.

Category A (WBC-A)—This applies to waters that have been by the property owner as public areas welcoming access by the swimming purposes and waters where existing whole body contact use(s) by the public. Examples of include, but are not limited to: bathing beaches and property

wildlife species, including rare and endangered species (WHIP)—Wetlands and other waters that provide essential breeding, nesting, feeding, and predator escape habitats for wildlife including waterfowl, birds, mammals, fish, amphibians, and reptiles;

10. Recreational, cultural, educational, scientific, and natural aesthetic values and uses (WBC)—Wetlands and other waters that serve as recreational sites for fishing, hunting, and observing wildlife; waters of historic or

poses, publicly-owned L3 lakes are those for which a substantial portion of the surrounding lands are publicly owned or managed.

4. Class P—Streams that maintain permanent flow even in drought periods.

5. Class C1—Standing-water reaches of Class P streams.

6. Class C—Streams that may cease flow in dry periods but maintain permanent pools which support aquatic life.

7. Class E—Streams that do not maintain

surface flow or permanent surface flow or precipitation events. stands that are waters of criteria in the Corps of Definition Manual subsequent federal revisions. Class W waters do that are artificially constrained for the treatment, stormwater control, with road construction, riparian, or agricultural

of fish—The pre-hatch post-hatch fish embryo larval period during feeds. Juvenile fish, ally rather similar to larval an early life stage. congenious dense areas in ecosystems and in the ability of environmental designed to serve as a research, assessment, and monitoring of system components. By differences in the trials of ecosystems, the environment by its is disturbance (Bryce, 1999).

of atmospheric mixed lake. (E, col)—A type of a found in the intestines. The presence of E. coli is an indication of recent waste contamination, many types of disease-causing agents).

(L) Eutrophication—The process by which a body of water becomes enriched in dissolved nutrients, such as nitrogen and phosphorus, that stimulate the excessive growth of algae and other plants. Eutrophication may be accelerated by human activities.

(L) Existing uses—Those uses actually attained in the water body on or after November 28, 1975, whether or not they are identified in the water quality standards.

# Out with the Old Process

## Triennial Review & Rulemaking

- **When?** About every three years
- **What?** Scoping, research, development, and incorporation of updates to the WQS rule; follows formal rulemaking process set forth by DNR
- **Stakeholder engagement** is all encompassing:
  - Notice of Intent (NOI) to begin rulemaking seeks input from the public for prioritization
  - Stakeholder meetings (DNR rulemaking process) focus on relaying technical aspects to attendees and presenting our recommendations for rule revisions
- **Public hearing** held per state statute; satisfies the federal triennial review requirement
- **End product** is the revised rule and submittal to EPA

## Research and Development

- **When?** Occurs either during or outside of the rulemaking process
- **What?** Technical development and review prioritized through triennial review findings, management input, and resource availability
- **Stakeholder engagement** focused on technical aspects of WQS projects; meetings usually take place as a part of the formal rulemaking process
- **End products** are varied (reports, rationale documents, white papers, etc.)

# In with the New Process

## Triennial Review

- **When?** Every three years on a set schedule
- **What?** Identification and prioritization of needed WQS revisions; unit conducts required review per CFR
- **Stakeholder engagement** focused on general public input and interest in WQS revisions; surveys; starts informally then moves to public hearing
- **Public hearing** held to satisfy the federal triennial review requirement
- **End products** are triennial review report (public input), gap analysis, project inventory/prioritization document

## Rulemaking

- **When?** No set schedule for when we start; no required frequency; start the process when there are sufficient revisions to be made to the rule either in number or significance
- **What?** Formal rulemaking process set forth by the DNR
- **Stakeholder engagement** focused on specific revisions in rule text/tables/formatting; technical aspects will have been worked out in R&D phase
- **Public hearing** held per state statute
- **End product** is the revised rule and submittal to EPA

## Research and Development

- **When?** Ongoing; project plans set schedules for specific projects
- **What?** Technical development and review prioritized through triennial review findings, management input, and resource availability
- **Stakeholder engagement** focused on technical aspects of WQS projects; multiple, informal public meetings possible to work through technical details
- **End products** are technical documents, fact sheets, and recommendation to move to rulemaking

# Topics we covered in our Triennial Review

- Aluminum
- Selenium
- Cobalt
- Cyanotoxins
- 1,4 Dioxane
- Human Health Protection
- *Escherichia coli*





# Topics Moving Forward to Rulemaking

- 2013 recommended AQL criteria for Ammonia
  - Excluding the Missouri and Mississippi Rivers
- Update to fish consumption rate
  - 6.5 grams/day to 14.3 grams/day
- General edits clarifying bioaccumulative pollutants
- Potential recreational UAA



# Triennial Review Rulemaking Estimate

2025

- Ammonia (excluding Big Rivers)
- Fish Consumption Rate
- Bioaccumulation
- Metropolitan No-Discharge

2027

- MUDD Corrections
- Aluminum
- General Edits
  - Losing Streams
  - Hardness

2028

- Ammonia for Big Rivers
- PFAs ?
  - DWS
  - HHP
  - AQL

2030

- MUDD Corrections



# Questions?

**Contact:**

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**Workgroup Webpage:**

<https://dnr.mo.gov/about-us/forums-stakeholder-groups/water-quality-standards>



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