

# ARKANSAS POLLUTION CONTROL AND ECOLOGY COMMISSION



## REGULATION NO. 2

### REGULATION ESTABLISHING WATER QUALITY STANDARDS FOR SURFACE WATERS OF THE STATE OF ARKANSAS

DRAFT



Arkansas Pollution Control and Ecology Commission  
Regulation No. 2, As Amended

**Regulation Establishing Water Quality Standards for Surface Waters  
of the State of Arkansas**

**TABLE OF CONTENTS**

|            |                                                                                                                                                                        |        |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Reg. 2.101 | Authority.....                                                                                                                                                         | 1-1    |
| Reg. 2.102 | Purpose .....                                                                                                                                                          | 1-1    |
| Reg. 2.103 | Commission Review.....                                                                                                                                                 | 1-2    |
| Reg. 2.104 | Policy for Compliance .....                                                                                                                                            | 1-2    |
| Reg. 2.105 | Environmental Improvement Projects .....                                                                                                                               | 1-2    |
| Reg. 2.106 | Definitions .....                                                                                                                                                      | 1-2    |
| Reg. 2.201 | Existing Uses .....                                                                                                                                                    | 2-1    |
| Reg. 2.202 | High Quality Waters.....                                                                                                                                               | 2-1    |
| Reg. 2.203 | Outstanding Resource Waters .....                                                                                                                                      | 2-1    |
| Reg. 2.204 | Thermal Discharges.....                                                                                                                                                | 2-1    |
| Reg. 2.301 | Introduction .....                                                                                                                                                     | 3-1    |
| Reg. 2.302 | Designated Uses .....                                                                                                                                                  | 3-1    |
| Reg. 2.303 | Use Attainability Analysis.....                                                                                                                                        | 3-6    |
| Reg. 2.304 | Physical Alteration of Habitat .....                                                                                                                                   | 3-7    |
| Reg. 2.305 | Short Term Activity Authorization.....                                                                                                                                 | 3-7    |
| Reg. 2.306 | Procedures for Removal of Any Designated Uses Except<br>Fishable/Swimmable, and Modification of Water Quality Criteria<br>Not Related to Fishable/Swimmable Uses ..... | 3-8    |
| Reg. 2.307 | Use Subcategories.....                                                                                                                                                 | 3-<8>9 |
| Reg. 2.308 | Site Specific Criteria.....                                                                                                                                            | 3-9    |
| Reg. 2.309 | Temporary Variance .....                                                                                                                                               | 3-9    |
| Reg. 2.401 | Applicability .....                                                                                                                                                    | 4-1    |
| Reg. 2.402 | Nuisance Species .....                                                                                                                                                 | 4-1    |
| Reg. 2.403 | Methods .....                                                                                                                                                          | 4-1    |
| Reg. 2.404 | Mixing Zones.....                                                                                                                                                      | 4-1    |
| Reg. 2.405 | Biological Integrity.....                                                                                                                                              | 4-2    |
| Reg. 2.406 | Color .....                                                                                                                                                            | 4-2    |
| Reg. 2.407 | Taste and Odor.....                                                                                                                                                    | 4-2    |
| Reg. 2.408 | Solids, Floating Material and Deposits.....                                                                                                                            | 4-2    |
| Reg. 2.409 | Toxic Substances .....                                                                                                                                                 | 4-2    |
| Reg. 2.410 | Oil and Grease .....                                                                                                                                                   | 4-3    |
| Reg. 2.501 | Applicability .....                                                                                                                                                    | 5-1    |
| Reg. 2.502 | Temperature.....                                                                                                                                                       | 5-1    |
| Reg. 2.503 | Turbidity .....                                                                                                                                                        | 5-2    |
| Reg. 2.504 | pH .....                                                                                                                                                               | 5-2    |
| Reg. 2.505 | Dissolved Oxygen.....                                                                                                                                                  | 5-2    |
| Reg. 2.506 | Radioactivity.....                                                                                                                                                     | 5-4    |
| Reg. 2.507 | Bacteria.....                                                                                                                                                          | 5-4    |

|            |                                                           |      |
|------------|-----------------------------------------------------------|------|
| Reg. 2.508 | Toxic Substances .....                                    | 5-5  |
| Reg. 2.509 | Nutrients .....                                           | 5-7  |
| Reg. 2.510 | Oil and Grease .....                                      | 5-8  |
| Reg. 2.511 | Mineral Quality.....                                      | 5-8  |
| Reg. 2.512 | Ammonia .....                                             | 5-12 |
|            | DESIGNATED USES: OZARK HIGHLANDS ECOREGION.....           | A-6  |
|            | SPECIFIC STANDARDS: OZARK HIGHLANDS ECOREGION.....        | A-7  |
|            | DESIGNATED USES: BOSTON MOUNTAINS ECOREGION.....          | A-14 |
|            | SPECIFIC STANDARDS: BOSTON MOUNTAINS ECOREGION.....       | A-15 |
|            | DESIGNATED USES: ARKANSAS RIVER VALLEY ECOREGION .....    | A-20 |
|            | SPECIFIC STANDARDS: ARKANSAS RIVER VALLEY ECOREGION ..... | A-21 |
|            | DESIGNATED USES: OUACHITA MOUNTAIN ECOREGION .....        | A-26 |
|            | SPECIFIC STANDARDS: OUACHITA MOUNTAIN ECOREGION .....     | A-27 |
|            | DESIGNATED USES: GULF COASTAL ECOREGION .....             | A-32 |
|            | SPECIFIC STANDARDS: GULF COASTAL ECOREGION .....          | A-33 |
|            | DESIGNATED USES: DELTA ECOREGION.....                     | A-40 |
|            | SPECIFIC STANDARDS: DELTA ECOREGION.....                  | A-41 |

may be found in the November 1983 EPA publication entitled *Technical Support Manual: Waterbody Surveys and Assessments for Conducting Use Attainability Analysis*. Other scientific methods, including the use of existing technical data, may be used for justifying the removal of a designated use; provided the methods are agreed upon prior to the study. Such other methods may include the use of information previously gathered through technical studies and/or use attainability analysis. Use attainability analysis procedures may be found in the State of Arkansas Continuing Planning Process document (CPP). Any waterbody on which a use attainability analysis is approved shall be so listed in Appendix A with appropriate criteria.

#### **Reg. 2.304     Physical Alteration of Habitat**

Significant physical alterations of the habitat within extraordinary resource waters, ecologically sensitive waterbodies or natural and scenic waterways are not allowed; provided, however, that such alterations may be allowed for the purpose of providing for drinking water needs if: (i) the alteration is requested by a regional water distribution district, public facilities board, public water authority, or other public entity; (ii) the alteration is part of a proposal that has been certified by the Natural Resources Commission to be in compliance with the State Water Plan; (iii) an environmental impact statement is prepared and submitted to the Commission which meets the standards for environmental impact statements in 40 C.F.R. Part 1502 as of December 9, 2005; (iv) public notice of the proposed alteration is published and members of the public and the Arkansas Department of Environmental Quality are afforded at least 45 days in which to submit comments; and (v) the Commission approves the proposed alteration as providing benefits that justify the anticipated adverse effects. In other waters, where significant physical alterations of the habitat are proposed, the Department must be assured that no significant degradation of any existing use or water quality necessary to protect that use will occur. In order to make such determinations, the Department may require an evaluation of an practicable alternatives to the project including: an environmental assessment of the impacts of each alternative, an engineering and economic analysis, and a socio-economic evaluation of the project in the local area.

#### **Reg. 2.305     Short Term Activity Authorization**

The Director may authorize, with whatever conditions deemed necessary and without public notice, short term activities which might cause a violation of the Arkansas Water Quality Standards. This authorization is subject to the provisions that such activity is essential to the protection or promotion of the public interest that no permanent or long-term impairment of beneficial uses is likely to result from such activity. Nothing herein shall be intended to supersede existing state and federal permitting processes or requirements.

Activities eligible for authorization include, but are not limited to:

- (A)     wastewater treatment facility maintenance;
- (B)     fish eradication projects;
- (C)     mosquito abatement projects;
- (D)     algae and weed control projects;

- (E) dredge and fill projects;
- (F) construction activities;
- (G) tracers used in hydrological studies; or
- (H) activities which result in overall enhancement or maintenance of beneficial uses.

The Director shall specify the degree of variance from the standards, the time limit of activity and restoration procedures where applicable.

Such authorization shall not be granted for activities which result in the adverse impact on any federally threatened or endangered species or on critical habitat of such species.

**Reg. 2.306    Procedures for Removal of any Designated Use Except  
Fishable/Swimmable, and Modification of Water Quality Criteria not  
Related to Fishable/Swimmable Uses**

This procedure is applicable in those cases where the Commission chooses to establish less stringent water quality criteria without affecting a fishable/swimmable use or when the Commission chooses to remove a use other than fishable/swimmable which is not an existing use.

The Commission may allow a modification of the water quality criteria or the removal of a use which is not a fishable/swimmable use to accommodate important economic or social development in a local area, if existing uses are maintained and protected fully and the requirements for public participation in the Continuing Planning Process are met. As a minimum, the following information shall be submitted to the Department Director before initiation of the public participation process:

- (A) Technological or economic limits of treatability.
- (B) Economic analysis of the impact on the local area.
- (C) Documentation that the use being removed is not an existing use and that all other designated uses will be protected.

Modifications made pursuant to this section may be required to be rejustified for continued support. As community water needs change, or technological advancement, including long-term environmental improvement projects, make treatment options more practicable, the Commission may reevaluate the need for the establishment of the more stringent water quality criteria or the removed use.

Any waterbody on which such alterations are approved will be so listed in Appendix A with the applicable changes noted.

**Reg 2.307 Use Subcategories**

The Commission may adopt sub-categories of a use and set the appropriate criteria to reflect varying needs of such sub-categories of uses, for instance, to differentiate between cold and warm water fisheries or agricultural and domestic water supply.

**Reg. 2.308 Site Specific Criteria**

In establishing criteria:

- (A) Establish numerical criteria values based on:
  - (1) 304(a) Guidance; or
  - (2) 304(a) Guidance modified to reflect site conditions [WER] or
  - (3) other scientifically defensible methods;
- (B) Establish narrative criteria or criteria based upon biomonitoring methods where numerical criteria cannot be established or to supplement numerical criteria.

**Reg. 2.309 Temporary Variance**

A temporary variance to the water quality standards may be allowed for an existing permitted discharge facility. The variance will be for specified constituents and shall be no longer than a three year period. A variance must be approved by the Arkansas Pollution Control and Ecology Commission and the U.S. Environmental Protection Agency. A variance will be considered when it is determined that a standard, including designated use, can ultimately be attained or when preliminary evidence indicates that a site specific amendment of the standards may be appropriate. A variance may be granted only to the applicant and will not apply to other discharges into the specified waterbody.