

Administrative Procedures – Scientific Information Statement

Instructions:

In completing the Scientific Information Statement, an agency shall provide a brief summary of the scientific information including reference to any scientific studies upon which the proposed rule is based, for the purpose of validity.

This form is only required when a rule relies on scientific information for its validity.

1. TITLE OF RULE FILING:

Vermont Water Quality Standards

2. ADOPTING AGENCY:

Agency of Natural Resources

3. BRIEF EXPLANATION OF SCIENTIFIC INFORMATION:

The Vermont Water Quality Standards consist of a collection of policy statements, narrative or numeric criteria, and water quality classifications for individual surface waters. The criteria are developed from scientific studies. The Final Proposed Rule Cover Sheet describes the proposed rule amendments. Of these, five of the amendments are based upon scientific studies and principles, references for which may be found in number 4, below. They are:

1. Incorporation of the concept of dynamic stream equilibrium;

2. Improved water temperature criteria;

3. Incorporation of previously-authorized biological assessment procedures;

4. Updates to toxic chemical criteria; and

5. Reclassification of certain Vermont surface waters in the Green Mountain National Forest to Class A(1).

4. CITATION OF SOURCE DOCUMENTATION OF SCIENTIFIC INFORMATION:

1. Dynamic Stream Equilibrium. Please see the Vermont Surface Water Management Strategy, Chapters One (Introduction) and Two (Channel Erosion; Encroachment; Flow Alteration), at:

<http://dec.vermont.gov/watershed/map/strategy>

http://dec.vermont.gov/sites/dec/files/documents/WSMD_s wms_Chapter_1_Introduction_V8.pdf

http://dec.vermont.gov/sites/dec/files/documents/WSMD_s wms_StressorPlan_Channel%20Erosion_Web_V3.pdf

http://dec.vermont.gov/sites/dec/files/documents/WSMD_s wms_StressorPlan_FlowAlt_V4.pdf

http://dec.vermont.gov/sites/dec/files/documents/WSMD_s wms_StressorPlan_Encroachment_V4.pdf.

2. Improved Temperature Criteria. The proposed criteria for surface waters designated as Class B(1) for fishing were identified based upon a robust analysis of long-term temperature records maintained by the Vermont Department of Fish and Wildlife. That analysis is available upon request from the Agency of Natural Resources.

3. The proposed biological assessment appendix summarizes a long-standing technical guidance published by the Agency of Natural Resources in 2004, which was peer-reviewed by EPA. The EPA review is available upon request from the Agency of Natural Resources. The full scientific analysis from which the proposed appendix comes may be found in these three documents:

http://dec.vermont.gov/sites/dec/files/wsm/Laws-Regulations-Rules/bs_wadeablestream1a.pdf

http://dec.vermont.gov/sites/dec/files/wsm/Laws-Regulations-Rules/bs_wadeablestream1b.pdf

http://dec.vermont.gov/sites/dec/files/wsm/Laws-Regulations-Rules/bs_wadeablestream2.pdf

4. For the technical revisions to toxic substances criteria contained within Appendix C of the VWQS, EPA maintains a comprehensive website documenting and referencing the scientific studies that support all the toxic substances criteria promulgated under Section 304 of the federal Clean Water Act. Individual water quality criteria recommendations are maintained by EPA in the National Recommended Water Quality Criteria compendium, presented online at:

<http://water.epa.gov/scitech/swguidance/standards/criteria/current/index.cfm>.

Specific criteria for aquatic life are developed in accordance with EPA, 1985, Guidelines for Deriving Numerical National Water Quality Criteria for the Protection Of Aquatic Organisms and Their Uses. EPA-PB85-227049. Washington, D.C.

Criteria for the protection of human health are developed in accordance with EPA, 2000, Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health. EPA-822-B-00-004. Washington, D.C.

5. For the justifications for the reclassifications see "Reclassification of Certain Vermont Surface Waters in the Green Mountain National Forest to Class A(1) Pursuant to the Vermont Water Quality Standards," available at:

http://dec.vermont.gov/sites/dec/files/wsm/Laws-Regulations-Rules/2016-06-13FinalUSFS_A1Proposal.pdf

5. INSTRUCTIONS ON HOW TO OBTAIN COPIES OF THE SOURCE DOCUMENTS OF THE SCIENTIFIC INFORMATION FROM THE AGENCY OR OTHER PUBLISHING ENTITY:

The Agency of Natural Resources has posted links to scientific documentation on various pages of the Watershed Management Division website as noted above. The documents are also available to the public for review at the Agency's Watershed Management Division offices in Montpelier, VT, or by request.