

# 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 Stream Alteration Rule

2. ADOPTING AGENCY:

Agency of Natural Resources

3. BRIEF EXPLANATION OF SCIENTIFIC INFORMATION:

The proposed amendments to the Vermont Stream Alteration Rule are intended to clarify the existing technical application of Vermont stream equilibrium and connectivity standards (already established in the Rule) as applied when issuing individual stream alteration permits. These standards typically result in larger replacement stream crossing where the dimensions of the structure are matched with the dimensions of the stream and the design flow assigned to the roadway. The empirical data that Vermont has collected after floods since approximately 2009 is that these stream geomorphic-based crossings (achieving both sediment and flow conveyance) are far more likely to survive disasters like Tropical Storm Irene than those designed strictly with hydrologic-based designs.

4. CITATION OF SOURCE DOCUMENTATION OF SCIENTIFIC INFORMATION:

The 2015 Vermont Agency of Transportation's Hydraulics Manual and the 2014 Department of Environmental Conservation's Vermont Standard River Management Principles and Practices contain detailed scientific explanations of applying stream geomorphic science in the design of stream crossings and include bibliographies.

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

Web URLs to access the above sources are:

Hydraulics Manual:

<http://vtrans.vermont.gov/sites/aot/files/highway/documents/structures/VTrans%20Hydraulics%20Manual.pdf>

Vermont Standard River Management Principles and Practices:

[http://dec.vermont.gov/sites/dec/files/wsm/rivers/docs/SRMPP\\_1.3\\_lowres.pdf](http://dec.vermont.gov/sites/dec/files/wsm/rivers/docs/SRMPP_1.3_lowres.pdf)