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:

   Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont

2. ADOPTING AGENCY:

   Department of Forests, Parks and Recreation; Agency of Natural Resources

3. BRIEF EXPLANATION OF SCIENTIFIC INFORMATION:

   Vermont's water quality management practices are largely based on research conducted by the eastern U.S. Forest Service Research Stations. Research started in the late 1950's and is presently being continued on the Fernow Experimental Forest in West Virginia,Coweeta Hydrologic Laboratory in North Carolina and Hubbard Brook Experimental Forest in New Hampshire. Guidance and recommendations that have resulted from this research can be found in the current water quality regulations of many state agencies, including Vermont. They address principles of water resource protection including 1) planning the operation, 2) controlling water flow, 3) stabilizing disturbed soil, 4) managing chemical pollutants and 5) minimizing biological impacts. The information contained in the new table 2A and 2B for permanent bridges and culvert sizing on perennial streams are consistent with Vermont Stream Alteration General Permit (VTSAGP) design criteria. Temporary bridge minimum spans on perennial streams are consistent with the VTSAGP design criteria; minimum

heights are based on field observations of the ordinary high water mark as defined in this document. Permanent culvert minimum sizing on intermittent streams are based on the field measured active channel stream width. The Active Channel is defined herein and considered to be 75% of bank full width. The width of the active channel is measured perpendicular to streamflow, and is a short-term geomorphic feature formed by prevailing stream discharges. It is narrower than the bank full channel and is defined by a break in bank slope that also typically is the edge of permanent vegetation (information from DEC Rivers Management).

4. CITATION OF SOURCE DOCUMENTATION OF SCIENTIFIC INFORMATION:

Selected citations include but are not limited to the following:

Haussman, R.F. and Pruett, E.W. Permanent Logging Roads for Better Woodlot Management, 1973, USDA Forest Service, State and Private Forestry, Upper Darby, Pennsylvania.

Kochenderfer, J.N., Erosion Control on Logging Roads in the Appalachians, Research Paper NE-158, 1970, USDA Northeastern Forest Experiment Station, Upper Darby, Pennsylvania.

Lawlor, Sean M., Determination of Channel-Morphology Characteristics, Bank full Discharge, and Various Design-Peak Discharges in Western Montana, 2004, U.S. Geological Survey, Reston, Virginia.

Landowner's Guide to Building Forest Access Roads; Richard L. Wiest; USDA Forest Service, Northeastern Area State and Private Forestry; NA - TP - 06 - 98, Radnor PA July 1998

Filter Strip Widths for Forest Roads in the Southern Appalachians, 1986, Lloyd W. Swift, Jr., USDA Forest Service, Revised July 1, 2015, Southeastern Forest Experiment Station, Coweeta Hydrologic Laboratory,Otto, NC 28763.

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

   Contact Vermont Department of Forests, Parks and Recreation, Forestry Division: (802) 828-1531

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