

**STATE OF VERMONT
DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

**REGULATORY REQUIREMENTS
FOR STREAM CROSSING STRUCTURES**



Purpose:

This publication is intended to provide information to the public with regard to the legal obligations associated with the placement or construction of stream crossing structures. For the purposes of this publication, **Stream Crossing Structures** include any structure type; i.e., bridge, box, arch, culvert, truss or other type structure, intended to convey people, animals, vehicles or materials from one side of the stream to another. This does not include private, non-commercial footbridges, pole mounted aerial electric or telecommunications lines; nor does it include below grade utility lines authorized by a Stream Alteration Permit issued pursuant to 10 V.S.A. Chapter 41 by the Vermont Department of Environmental Conservation (VT DEC). Stream Crossing Structures do include other above grade utility lines such as individually supported aerial sewer or water supply pipelines (not suspended on an existing structure).

Background:

Unregulated stream crossings, constructed with inadequate attention to engineering standards, in combination with the physical adjustments of stream channels over time, have been linked with significant public safety hazards, avoidable economic loss, and degradation of water quality during and following flood events (Options for State Flood Control Policies and a Flood Control Program; VT DEC, February, 1999).

The construction of Stream Crossing Structures is regulated by VT DEC under the authority of 10 V.S.A. Chapter 41 and by the US Army Corps of Engineers (the Corps) under the authority of Section 404 of the Clean Water Act.

The Corps, after public notice, on December 27, 2002, reissued the Section 404 Vermont General Permit (GP#58) with amendments.

The VT DEC, after public notice, on November 19, 2002, issued a Section 401 Water Quality Certification, with conditions, for activities authorized under the jurisdiction of GP#58 including stream crossings.

With some geographic-based exceptions, construction of Stream Crossing Structures which include less than 3,000 square feet of area impacted by fill placement below Ordinary High Water (OHW) qualify as a Category A (non-reporting) activity under GP#58 subject to the conditions of the state 401 Certification. Stream crossings that involve greater than 3,000 square feet of area impacted by fill placement below OHW trigger reporting requirements to the Corps under GP#58 Category B or require authorization by the Corps under a Section 404 Individual Permit.

The amended GP#58 and conditions of the state 401 Certification represent a significant reduction of the regulatory obligations of persons wishing to construct stream crossing structures in comparison with the provisions of GP#58 prior to amendment. Previously, all stream crossing proposals, regardless of drainage area triggered reporting requirements to the Corps as a Category B activity.

Regulatory Requirements and Obligations:

For the purpose of avoiding the public safety hazards, economic losses and water quality degradation associated with unregulated stream crossings, yet allow for the majority of stream crossing proposals to qualify as a Category A non-reporting activity under GP#58; the conditions of the 401 Certification require a state level review of all proposals to construct Stream Crossing Structures; with the following exceptions:

- a. The proposed stream crossing is located at a point on a stream where the drainage area is less than one square mile; or
- b. The stream crossing is a temporary installation consistent with “Acceptable Management Practices for Maintaining Logging Jobs in Vermont”; or
- c. The stream crossing is in association with a project constructed by the VT Agency of Transportation (subject to 19 V.S.A., Section 10(12)).

For the purpose of determining whether the proposed stream crossing satisfies (b) above, consult with the appropriate district office of the VT Department of Forests, Parks & Recreation.

For projects not subject to the jurisdiction of 10 V.S.A. Chapter 41 (project is located where there is less than 10 square miles drainage **or** project involves less than 10 cubic

yards of fill or excavation inside the top of banks); if more than 15 calendar days elapse without a response from the date of receipt by the VT DEC of **complete information** describing the crossing location and design, the project may proceed without DEC approval. This does not, however, preclude the statutory obligation to comply with the VT Water Quality Standards and 10 V.S.A., Section 4607 regarding maintenance of fish passage.

If the proposed stream crossing structure does not qualify for (a-c) above, and is not subject to the jurisdiction of 10 V.S.A. Chapter 41, persons proposing stream crossing structures must complete an **Application for Approval for Stream Crossing Structure** (available from VT DEC). For the purpose of satisfying the requirement for **complete information** supportive of project design and review, the application shall include sketch plans and profiles providing the following technical information:

- a. the size (length along the stream, span length, opening size, etc.) and type of structure including any structural treatments, stone fill, headwalls, etc.
- b. any proposed changes in the stream channel bed elevation
- c. existing and proposed channel dimensions
- d. elevations of structural elements (headwalls, stringers, etc.) relative to streambed and top of bank
- e. watershed size at the location of the crossing
- f. USGS location map

Sketch plans and profiles, except in special cases, may generally be provided based on tape and hand level accuracy field survey data. If not drawn to scale, all dimensions and elevations must be noted on the drawings. Information shall be submitted to the VT DEC Stream Alteration Engineer located at the appropriate VT Agency of Natural Resources district office.

For projects subject to the jurisdiction of 10 V.S.A. Chapter 41 (project is located where there is greater than 10 square miles drainage **and** the project involves greater than 10 cubic yards of fill or excavation inside the top of banks); persons proposing stream crossing structures must complete a Stream Alteration Permit Application with adequate supporting technical information as indicated on the application form and instructions.

It is recommended that the project manager contact the Stream Alteration Engineer and conduct a site inspection prior to preparing the supporting information and plans so that project review can proceed more efficiently.

Direct any inquiries to the DEC Stream Alteration Engineer at the appropriate DEC regional office.

For projects in northeastern Vermont including the Lake Memphremagog watershed, and the Upper Connecticut River downstream to Wilder Dam including the Leach Creek, Nulhegan, Passumpsic, Stevens, Wells, Waits, and Ompompanoosuc Rivers, and Bloody Brook watersheds, contact or send to:

Barry Cahoon, P.E., River Management Engineer
1229 Portland Street
St. Johnsbury, VT 05819

Phone: 802-751-0129
Fax: 802-748-6687
E-mail: barry.cahoon@state.vt.us

For projects in northwest, north central, and southwest Vermont including the Lake Champlain tributaries: Rock, Missisquoi, Lamoille, the Winooski River watershed only upstream to Bolton Falls dam, LaPlatte, Lewis Creek, Otter Creek, Poultney and Mettowee River watersheds, and the Hudson River Basin tributaries including the Batten Kill and Hoosic River watersheds, contact or send to:

Chris Brunelle, Stream Alteration Engineer
111 West Street
Essex Jct., VT 05452

Phone: 802-879-5631
Fax: 802-879-3871
E-mail: chris.brunelle@state.vt.us

For projects in central and southeastern Vermont including the Upper Winooski River watershed from Bolton Falls dam upstream, the Connecticut River and its tributaries from Wilder Dam to the Massachusetts state line including the White, Ottauquechee, Black, Williams, Saxtons, West, Green, North, and Deerfield River watersheds, contact or send to:

Patrick Ross, P.E., Stream Alteration Engineer
5 Perry Street, Suite 80
Barre, VT 05641

Phone: 802-476-2679
Fax: 802-476-0131
E-mail: patrick.ross@state.vt.us