



“RIVERS AND ROADS” Training Program
Presented by the VT DEC Rivers Program,
VT DF&W Fisheries Division and
the VTTrans Local Roads Program

Considering the River in the Design, Construction and
Maintenance of Transportation Infrastructure in Vermont

Tier One

Tier One is a short, easy to access, easy to follow and interesting training designed to create an overall awareness and understanding of fundamental river processes: what is meant by river equilibrium, what causes rivers to be stable or unstable, how transportation infrastructure can play a role in river stability and why it is in our best interest in flood resiliency to work towards stability of our rivers and streams. The Tier One training is an online self-guided course for VTTrans, towns, construction contractors, design consultants and regional planning commissions (RPCs) in which the fundamentals of river processes are explained using a combination of text, graphics, photographs and narrated video clips. The online course can be completed in an hour, question and answer sections are not recorded, and Tier One is a prerequisite for taking the Tier Two training and go to <http://dec.vermont.gov/watershed/rivers/river-management#training> to access and view the web training presentation.

Tier Two

Tier Two trainings are offered each Spring and Fall to build on Tier One and create a more in-depth understanding of river processes in one-day and two-day events. The Tier Two events are a combination of classroom, indoor river flume table exercises and field trips to observe rivers and streams at work.



Classroom



River Flume Table



Field Trip

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Tier Two focuses on requirements for river equilibrium with a specific application to emergency flood response and recovery operations when design-level technical support may not be readily available to reconstruct roads consistent with the VT Rivers Program Standards for Stream Alterations. The Tier Two trainings are intended to share ideas and also to forge relationships that will benefit Vermont’s rivers and transportation system well into the future. Attendees will have an opportunity to share ideas of “Irene Lessons Learned” and develop an efficient and effective dialogue with VT ANR River Management Engineers when discussing projects impacting river systems after Irene and in the future.

Tier Three

The Tier Three training program is currently under development with VT ANR, VTrans, NY DEC and a consulting team for presentation to VTrans, towns, RPCs and the consulting community in 2017. The Tier Three training program will be a more in-depth technical understanding of the design of road and river reconstruction techniques in consideration of river processes in four categories of specific techniques for recovery of transportation infrastructure following the next flood.

Training Program and Contact Information

The Vermont Rivers and Roads Training Program has been developed to promote community flood resiliency as a result of our common “Lessons Learned” after Tropical Storm Irene hit Vermont in 2011. The training is for a wide range of state, municipal and private sector transportation staff. Participants leave the training with the knowledge and skills to distinguish between stable and unstable rivers, identify various types of river instability, forecast a rivers response to alternative structural elements and design and build those treatments for more robust repairs to our roadway infrastructure.

The first three years of training events have received unanimous praise and participants have expressed that the afternoon field trips to the river brought home the information from the class room and river flume table exercises indoors. Participants should be prepared for afternoon field classes with sneakers or water proof footwear and raincoats for the opportunity to observe our rivers and streams at work.

Training events will be held annually across the state in Spring and Fall. More information on the Roads and Rivers training opportunities can be found at the following web site:

<http://dec.vermont.gov/watershed/rivers/river-management#training>

Questions, comments and training schedule inquiries can be directed to Todd Menees at (802) 345-3510 and/or email to todd.menees@vermont.gov

