Natural Resources Committee  
November 16, 2011 meeting  
Approved Minutes

Attendance  
Commissioners: Maggie Bartenhagen, Nick Bartenhagen, Lynette Hamilton, Jenna Pugliese, Andy Toepfer, John Whitman  
Staff: Dinah Reed.

The November meeting of the Natural Resources Committee was folded into the quarterly meeting of the Windham County Road Foremen Network Meeting on Wednesday, 11/16, at the Town of Putney Fire Station.

This meeting included a presentation of Staci Pomeroy, River Resource Specialist with ANR, using a large physical model of a streambed and floodplain that demonstrated how water flows normally and during extreme events, such as Tropical Storm Irene. The discussion/presentation included gravel removal within stream beds, culvert sizing, bank stabilization permitting, funding, and lessons learned from Tropical Storm Irene (TSI).

Some of the points made and discussed during the presentation included:

*Riprap as one way to stabilize streambanks, but it must be big enough to do the job.

*Gravel removal from streambed may be one way to gain gravel needed for road repair, but it is not a strategy that works in all areas. It is almost always unwise to remove all traces of gravel sandbars ~ which would tend to change the configuration of the flow of the waterway both at that spot and downstream. Mass excavation of gravel from channel is not beneficial.

*If community is part of the National Flood Insurance Program ~ "berming" is not permitted ("berming" is pushing dirt & riverbed material up along he sides of the streambank ~ effectively narrowing the river bed)

*Some sections of a river are much more sensitive to "tinkering" than others ~ necessitating a more "systems" approach to the waterway, where a particular site is in relation to the river system and the watershed.
*A vital bit of information conveyed during this presentation is that streams/rivers are SYSTEMS, change one thing ~ and other areas are affected. When Towns attempt to fix something, they should always be looking up and downstream to make sure they're not just "shunting the problem somewhere else".

*Too small culverts can't accommodate large water flows ~ but changing just one on a waterway is going to affect what happens downstream (see comment above!)

*Select Boards and Planning Commissions need to make sure driveway ordinances are enforced ~ re: size of culverts and other guidelines.

*Side-of-road ditches are subject to the same dynamics as river/stream flows during weather events.

*Communities could consider installing "overflow shutes" in appropriate areas to help handle extreme weather events.

*It is important for communities to monitor debris blocks to see if and where they move. Debris piles as a result of TSI in rivers/streams are of immediate ~ or at least imminent ~ concern. If possible, the most potentially damaging of these piles should be removed or mitigated in some way. "Plucking out" may work on some, but if there is ponding behind the jam, or gravel build up, this kind of removal could cause flooding downstream.

*Towns need to develop strategies that will inform communities what to do if there are debris movements.

*Hydrology studies are necessary as Towns approach repair and mitigation of TSI flood damage. Hydrology study needs to take into account the impact downstream, which is FEMA's primary concern ~ not necessarily flow capacity of culverts.

*Towns would be wise to identify spots where there are repeat failures over several events and assess what new approach needs to happen there.

*Towns would also be wise to have a current culvert inventory ~ this would include a current and ongoing assessment of how they're working re: flow, debris collection, etc.

*Another important point made was that Towns should be considering ways to incorporate or preserve habitat in rivers/streams when working in them.

*It was stressed how important documentation is for communities ~ especially in light of the damage caused by TSI and compensation from the State & Feds for repair and mitigation. It is important for Towns to record when and how often the weak spots go ~ and how much time and money has been spent to repair these areas each time. Benefit/Cost analysis here is very important!
*In aftermath of the damage done by TSI, one solution that Towns may need to consider is to close or move a road, or perhaps reclassify the road. This is especially important if the road in question repeatedly is needing repair after weather events.

*Another point stressed was that Towns should think about coordinating with abutting Towns to address culverts and/or debris damage ~ with the idea of sharing costs and time of work crews in repair efforts.

*Finally, some additional points made were: that there ought to be a road person on the hazard planning team and that Towns need to have an "emergency action plan" in place that instructs and guides Town officials and volunteers on what to do in an emergency for evacuating people, etc.