Post-Flood Emergency Repair Guidelines

1. Reestablish stream channels to pre-flood, bank-full dimensions in the near section.
2. Remove debris and material from post-flood channels.
3. Reestablish riparian and floodplain conditions.

3. Reestablish the stream channel to pre-flood, bank-full dimensions in the near section.
2. Remove debris and material from post-flood channels.
3. Reestablish riparian and floodplain conditions.

Guidelines for Post-flood Stream Construction

What to do and not do after a major storm

- Never attempt to deepen or widen the channel. Over time, the channel will do this and the channel will cause greater damage and erosion in adjacent areas.
- Do not build permanent berms on top of stream banks. Berms block streams from spilling into their natural floodplains and increase the risk of flooding to the site or downstream areas.
- Do not attempt to remove flood debris from stream channels. Instead, collect gravel deposits, clogging the stream.
- Do not use clear gravel deposits to grade level only. Remove all gravel deposits to areas where gravel was scoured away.
- When possible, reinforce stream banks with natural or artificial materials to prevent further damage and erosion.
- Do not remove the amount of debris necessary to re-establish original stream channel dimensions.
- Do not use clear gravel deposits to pre-flood, bank-full dimensions in the next section.

Permits Information

For information on the necessary permits to conduct work in and around waterbodies, please contact the NYSDEC regional office for your county or the United States Army Corps of Engineers. See "Permits Information" for contact information.

New York State Department of Environmental Conservation

Covering DEC Regions 1, 2, and 3:
US Army Corps of Engineers NY District
ATTN: Regulatory Branch
26 Federal Plaza, Room 1937
New York, NY 10278-0090

For DEC Regions 1 & 2 and Westchester and Rockland counties in Region 3, call (917) 790-8411; or for other counties in Region 3, call (917) 790-8511.
E-mail: CENAN.PublicNotice@usace.army.mil

Covering DEC Regions 4 & 5:
Department of the Army
ATTN: CENAN-ROD
NY District, Corps of Engineers
1 Buffalo Street
Building 10, 3rd Floor
Wataugavny, NY 12180-4000
Call (518) 266-6350 - Permits Team
Call (518) 266-6360 - Compliance Team
E-mail: cenan.rod@usace.army.mil

Covering DEC Regions 6, 7, 8 & 9:
US Army Corps of Engineers
Buffalo District
ATTN: Regulatory Branch
1776 Niagara Street
Buffalo, NY 14207-3199
Call (716) 879-4330
E-mail: LAB.Regulatory@usace.army.mil
1. Reconstruct the stream channel to pre-flood, bank-full dimensions
   • Proper stream-channel dimensions can be obtained by measuring an undamaged or “reference” stream reach immediately upstream or downstream of the planned worksite.
   Reconstruct the damaged channel using the bank-full depth, bank-full width, and floodplain width measurements from a comparable reach. See the Basic Stream-Channel Dimensions diagram for where to measure these dimensions.
   • After severe flooding, an undamaged stream reach comparable to a damaged section may be difficult to find. In these circumstances, stream-channel dimensions can be calculated using the Bank-full Hydraulic Geometry Tables for Selected Hydrologic Regions (Regional Tables). Find directions for using Regional Tables on DEC's website at www.dec.ny.gov/lands/86450.html

2. Avoid creating a head cut (an abrupt vertical drop)
   • Installing rock cross-vanes, or another similar in-stream structure, may be required to prevent head cutting.
   • Please seek technical assistance from your county's soil and water conservation district or NYSDEC.

3. Avoid scouring/down-cutting (increasing channel depth)
   • Reconstructing the channel to bank-full dimensions, the appropriate grade, and with as much floodplain access or bench as available room allows should minimize channel scouring and bank erosion afterwards.
   • Often, flooding causes an alternating damage pattern of scouring/down-cutting and gravel deposits in a stream. Therefore, a source of material for filling scour holes may be located downstream of the scoured/down-cut reach.

4. Repair eroded banks
   • If space allows, slope eroding banks to a stable slope, such as 3:1 (units of width to units of elevation) or flatter. Slope protection or erosion-control methods may be required. Slopes of as much as 2:1 may be considered when using rocks or other stable materials.
   • To prevent future erosion on a river bend, incorporate rock vanes to deflect current away from the bank.

Important Notes on Water Quality When Working Near Streams
   • All actions that cause erosion or affect water quality should be minimized to the greatest extent practicable, including the release of turbid (muddy) water.
   • Machinery should be operated from the stream banks, avoiding use in flowing water to the greatest extent practicable.
   • To avoid disruption of trout spawning, in-stream work should be avoided to the greatest extent practicable from November 1 - June 15.

NOTE: County soil and water conservation districts can be a great resource for information, training and help when working in and around waterbodies. Find a complete list of county contacts on the New York State Soil and Water Conservation Committee's website: www.nys-soilandwater.org/contacts/county_offices.html