

Steuben County Soil and Water Conservation District (607) 776-7398, ext. 3

NYS Department of Environmental Conservation Region 8

Environmental Permits: (585) 226-5400 Flood Control: (607)732-2214 Wildlife Office: (607) 622-8273

U.S. Army Corps of Engineers
Buffalo District
Auburn Field Office

Regulatory Branch: (315) 225-1492

USDA Natural Resources Conservation Service Bath Service Center (607) 776-7398, ext. 3

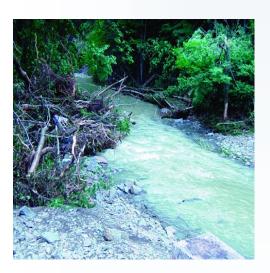
Southern Tier Central Regional Planning & Development Board (607) 962-5092

**Your Municipal Government** 



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# Guidelines for Managing Debris in Streams and Rivers



Effectively managing a section of stream without impacting upstream and downstream neighbors can be challenging. Although the landowner is responsible for the stream, it is generally recommended that a stream professional be consulted (much as you would consult professionals about pest or building problems). A permit (or permits) may be needed. And you could be liable if your actions cause damage to another property.

Steuben County, New York

# **Stream maintenance tips**

If a stream crosses your property, you are responsible for managing this resource.

Be a good neighbor. Keep in mind that streams are dynamic systems that adjust to changes. Disturbance to one section of a stream corridor (including the channel, banks, floodplain, riparian, and upland areas) may have damaging results to other sections, both upstream and downstream. This potential for harm imposes a legal obligation to protect adjacent landowners from damages that might arise from your activities.

When managing a stream, care is needed to avoid any adverse impacts on neighboring properties.

If trees and other natural debris in the stream do not pose an imminent threat to stream corridor development it is generally best to leave them alone and let nature take her course.



Keep structures and materials away from the top of the streambank, including debris that is removed from the stream. These can wash into the stream and contribute to problems during a flood event.

**Preserve and restore streambank vegetation,** which helps to hold streambanks in place and slow down flood waters.



# What types of stream work may be helpful or harmful?

If you are concerned about your stream, start by evaluating the situation. Is maintenance necessary? Keep in mind that when stream work is not properly designed, it can cause conditions to worsen in the next flood event.

<u>Man-made debris</u>: Tires, appliances, and other garbage should be removed from streams.



Woody debris: Leaves, branches, and even logs are a natural part of healthy stream systems, providing nutrients and improving in-stream habitat. Woody material can also contribute to channel stability by slowing down the flow and reducing erosion. The stream may change its path to flow around an obstruction or overflow onto the floodplain more frequently. If this occurs in a location where development is not threatened, then no action is needed.

Woody debris in developed areas: Downed trees in rivers and streams are not always harmless. In developed areas, debris removal may be desired to reduce the likelihood of future problems. Trees can be removed from the stream channel when diverted flow causes flooding or erosion damage to roads, bridges, and other development. However, because flooding is a natural process, any flood reduction benefits of debris removal may be minor or temporary.

Rooted trees: Leaning or fallen trees can be cut if there is a concern about flooding or erosion damage or to enable recreational use. However, the stumps should not be removed, as the root systems prevent streambank erosion.



<u>Sediment</u>: Sand, gravel, and boulders are naturally carried downstream during high flow events. Excess sediment is generally a consequence—rather than the cause—of an unstable stream system. Material should not be removed from the bed or banks of a stream without evaluation and guidance by a stream professional.

**Beaver:** Beavers and their dams alter the local environment, creating ponds and wetlands that are generally beneficial for water quality, downstream flooding, and wildlife. However, when their engineering projects threaten development it may be desirable to undertake actions to discourage or remove beavers.

<u>Streambank vegetation</u>: Whenever possible, preserve natural vegetation near a stream. The root systems hold the soil in place—preventing bank erosion—and the plants slow down the water during high flows—reducing the potential for erosion and downstream flooding. It may be beneficial to plant trees and other plants on streambanks and in riparian areas, especially native species.



Removing debris from the stream channel should generally be done in a way that avoids altering the stream channel or banks, including vegetation.

### Is a permit needed?

Regardless of who owns a stream, various government entities retain police power over activities that may impact navigation, public safety, the environment, or the rights of other property owners.

### **New York State**

- Start by finding the "classification" of the stream using the
  Department of Environmental Conservation (DEC)
  Environmental Resource Mapper: <a href="http://www.dec.ny.gov/gis/erm/">http://www.dec.ny.gov/gis/erm/</a>. A NYS Protection of Waters Permit is required for
  temporary or permanent disturbance of the bed or banks of
  a stream classified as AA, A or B, or with a classification of C
  with a standard of (T) or (TS).
- Can the work be accomplished without disturbing the stream channel? Using heavy equipment on the bed or banks of a "protected stream" (within 50 feet) generally constitutes a disturbance and requires a permit. A permit is generally not needed to remove trees or debris with hand equipment or to pull it out with machinery that is located away from the stream bank.
- A DEC permit is required for many actions on or near levees and other flood control lands. Regulated activities include new or altered structures, destruction of vegetation, adding gutters, paving, outdoor lighting, utilities, operating a motor vehicle or snowmobile, and other activities.
- A DEC permit is also required for removal of nuisance beavers or disturbance of a beaver dam.

<u>Federal</u>: A federal permit may be required if mechanized equipment will be used in or adjacent to "waters of the United States," including dredging, filling, excavating, land clearing using mechanized equipment, ditching, stream channelization and relocation, shore protection, and dock construction.

<u>Municipal</u>: Excavation, fill and any other development activities in a FEMA-designated floodplain require a Floodplain Development Permit from the local municipality. Other local land use regulations may also apply.

Maintenance of a stream on private property is the landowner's responsibility. However, government funding is sometimes available to cost-share projects with public benefits.

## Who can help?

If your project will disturb the channel or banks of a stream, it should not be implemented without assistance from a stream professional—even if no permit is required. Seek assistance from someone who is qualified to help with assessment, project design, permitting, and implementation.

<u>Steuben County Soil and Water Conservation District</u>: assists with developing project objectives, plans, location map, description of the proposed work, and obtaining a permit (if needed)

The SWCD is a tremendous resource for guidance on stream management issues. In addition, Steuben County funding enables the SWCD to cost-share and implement stream stabilization projects. However, resource constraints do not allow meeting all needs throughout the County.

NYS Department of Environmental Conservation: works with applicants to minimize environmental impacts of projects that require a state permit: activities that disturb the bed or banks of a "protected stream" or other watercourse, activities on flood control lands, construction and maintenance of dams, excavation or filling in "navigable waters," disturbance within or adjacent to a "state regulated wetland," and managing nuisance beavers

<u>US Army Corps of Engineers</u>: assists with federal permits for projects in or adjacent to "waters of the United States"

<u>USDA Natural Resources Conservation Service</u>: provides funding for emergency work such as debris removal or stormwater infrastructure stabilization with local government sponsorship

<u>Municipality</u>: issues floodplain development permits and enforces local land use regulations; may assist with stream maintenance if resources permit (particularly if there are potential impacts to local roads)

Southern Tier Central Regional Planning & Development Board: provides technical assistance with floodplain development, local land use regulations, outreach, and support in connecting individuals and municipalities with appropriate agencies