

## Cautions

While large woody material provides many benefits to the stream ecosystem, there are some circumstances where the woody material may not be favorable. Some areas where wood in streams may be a hazard include:

- Near roads where flooding or erosion is a hazard to the road
- Near stream crossings where clogging, flooding, and washouts are a risk
- Near personal property where flooding can be a hazard

In these cases, it may be necessary to remove part or all of the woody material to alleviate the problem, ultimately removing or altering only what is necessary to reduce the risk.



*Culvert obstructed with woody material*



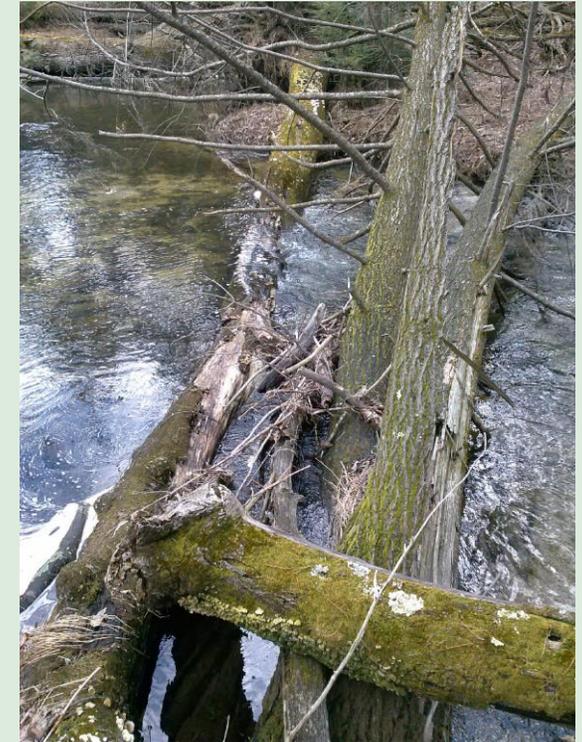
## For more information

DCNR Bureau of Forestry  
PO Box 8552  
Harrisburg, PA 17105-8552  
Phone: 717-787-3444  
<http://www.dcnr.pa.gov/stateforests>

Pennsylvania Fish and Boat Commission  
595 East Rolling Ridge Drive  
Bellefonte, PA 16823  
Phone: 814-359-5185



## Wood in Streams In Pennsylvania



## Introduction to Streams

Streams are one of Pennsylvania's most valued resources, providing recreational opportunities such as fishing, and beautiful scenery. Many species of wildlife depend on streams for water and sources of food.

Streams are dynamic in nature. It is natural for a stream meander, flood seasonally, and change over time. One often overlooked component of the stream system is the woody material in the channel resulting from trees falling into the stream. This is a natural process that is common in mature forests. In fact, wood may be the dominant habitat feature in streams that flow through mature forests.

The Pennsylvania Fish and Boat Commission and the Department of Conservation and Natural Resources are actively adding large woody material to forested streams where appropriate to mimic nature and provide some of the best habitat found in a stream.



## Ecological Benefits of Wood in Streams

**Woody material in streams can provide many ecological benefits to the stream system. These benefits include, but are not limited to:**

- Great habitat for fish and other stream life, including the insects that trout feed on
- Reconnecting the stream to the floodplain by slowing down floodwaters in the headwaters



- Keeping water in the headwater areas for longer time periods, allowing water to soak into the ground
- Reducing the ability of the stream to erode vulnerable banks since the water is slowed

## Downstream Benefits of Wood in Streams

**The presence of woody material in upstream areas can provide benefits downstream, especially to communities along the stream. These benefits include:**

- Reduced downstream peak storm flows since the water is kept upstream for longer durations
- Reduced erosion downstream since the speed of the stream can be slowed
- Reduced sedimentation downstream since sediment can deposit on upstream floodplains
- All of these benefits can result in lower risks to infrastructure downstream

