

SEDIMENT

When *sediment* enters a stream through erosion or stormwater *runoff*, the sand and clay particles settle to the bottom. Over time, they can accumulate as thick layers. The sand and clay effectively seals off the natural gravel stream bed, which is critical habitat for fish, aquatic plants, insects and other creatures in the watershed's food web. Excessive sedimentation can severely degrade an entire riparian system and has been identified as a major cause of degradation to aquatic life in many Michigan streams and rivers. Heavy concentrations of sediments can block critical sunlight for aquatic plants, ruin fish spawning areas, clog fish gills, increase water temperatures, and decrease the amount of oxygen in the water.

Significant sources of sediment to streams include the following activities that cause streambank erosion:

- road/stream crossings
- increased flow levels (and rapidly changing stream levels)
- boat traffic
- removing streamside vegetation
- users entering and exiting the river
- recreational trails that cross streams
- historical logging practices



Documented erosion site along the Boardman River. Photo courtesy of the Grand Traverse Conservation District

Other sources of sediment include clearing land for agriculture, development, or other purposes. Any kind of excavation, earth moving, drainage, bridging, tunneling, or other activity in which soil is disturbed can result in sediment transport to nearby streams. Agricultural grazing on or near streambanks also may contribute to increased sedimentation in streams.

Sedimentation caused by streambank erosion may increase channel widening and cause changes in stream water temperatures.