



## MYTHS & MISCONCEPTIONS ABOUT STREAM EROSION

**Myth: Flooding wouldn't happen if the creeks were straightened and dredged or if we could remove gravel bars.**

- Reality: Straightening, dredging and gravel bar removal may worsen flooding especially if the stream is widened. When a stream has bends and meanders, water is slowed down. Also, removing gravel bars does not address the source of the problem, which is increased runoff from surrounding land.

**Misconception: We used to be able to have gravel removed in past years. Can't we do that now?**

- Reality: In many instances, individuals would be able to remove gravel bars, with the proper permit. However, because streams can pick up and deposit sediment, gravel bars typically return to the same location. Also, continuously removing gravel bars reduces the amount of material available for the stream to move which causes the stream to erode its bed and banks to obtain that material. This leads to undercutting of the stream which causes further erosion.

**Myth: Maybe if the gravel is sold for use on the roadways, everyone benefits.**

- Reality: From a practical standpoint, the cost of gasoline makes maintenance removal of gravel cost-prohibitive on a large scale. Dredged gravel is not appropriate for use in road surfacing and has little value if not manipulated before use.

**Misconception: Hard armoring (such as riprapping, installing gabion baskets, etc.) is the most effective approach in stabilizing eroded banks.**

- Reality: Streambank stabilization methods need to be tailored to the individual site. Risks and rewards need to be assessed to determine whether hard armoring is required or if a less intrusive method of stabilization can be used. Today, gabion baskets are rarely used, as they lead to a loss of streamside habitat, may increase erosion downstream, and create an unnatural appearance. Instead structures such as log deflectors are used to direct flow away from the bank. Another effective practice is to slope the bank back so that it is not so steep, and then plant trees, shrubs and/or riparian buffers. In a pasture, a fence would be placed to keep animals from accessing (and harming) the newly vegetated bank.

**Myth: Materials from the creek and floodplain can be used to build the banks up, making a levee, which will protect the property from flooding.**

- Reality: Loose material such as floodplain soil or streambed gravel is not effective for flood prevention. It is easily picked up by a rising stream during a flood. This means that not only is the levee likely to break, leaving property vulnerable, but also that the spoil material washes away, making problems for neighbors downstream.



**Misconception: I can't get a permit to allow me to work in the stream.**

- Reality: Most permits to work in streams are possible to obtain, as long as you fill out the appropriate paperwork and pay the fee. Contact your local conservation district [visit [www.pacd.org/CD](http://www.pacd.org/CD)] for assistance. Conservation districts can guide you through the process or connect you with the appropriate individuals for further assistance.

**Myth: Somebody else is responsible for this erosion or flooding problem on my property.**

- Reality: While upstream practices do affect your property, it is also true that what you do on your property will protect you from erosion. You can prevent some bank erosion by not mowing right up to the streambank and by leaving a buffer of trees, native plants and shrubs. While it is your responsibility as a landowner to address the problem, your local conservation district is there to help. They may be able to connect you with some resources that could be of further assistance.

**Misconception: When we could clean and straighten streams, it never flooded like this.**

- Reality: Today we have stronger, wetter storms. We also have more development and less vegetation in many places. Trees use up and also slow down water flow. Therefore, if there are now more houses, roads and parking lots and fewer trees, more water will flow into the stream.

**Myth: The stream is moving! Thirty years ago it was over there. We should be able to move it back.**

- Reality: It is natural for streams to move. Water seeks the easiest path downhill and over time, this means that the stream may cut into your property where you don't want it to be. If this had been common knowledge years ago, perhaps more homes and structures would have been built far enough from streams to allow the stream space to meander. However, moving the stream back can actually worsen erosion. Practices such as maintaining riparian buffers, building on higher ground and not mowing up to the streambank are ways to help protect your property.

*For more assistance with streams and ways to avoid erosion, contact your local conservation district. Visit [www.pacd.org/led](http://www.pacd.org/led).*

