

# MORE INFORMATION

## STREAM TABLE

In today's stream table demonstration you may have learned about stream channel development, erosion, deposition, meandering streams, incision, delta formation, and channelization.

Understanding these processes, and how sediment, vegetation and water interact, is vital when it comes to restoring and managing streams. Our stream table has "sediment" that responds to flowing water just like sediment in a real stream, allowing it to accurately portray these stream processes. This demonstration allows you to see what could be a lifetime of change in a real stream, in just a matter of minutes.

Streams naturally tend to meander, and it may seem like this would increase stream bank erosion, however, water velocity increases greatly when a stream is straightened. In the past, Iowa was dominated by prairies and slower meandering streams. The root systems of the prairie plants coupled with slower water velocities helped to decrease stream bank erosion. However, when people began to dredge, straighten, and channelize streams, the stream systems were thrown out of balance. This, coupled by the removal of prairie to create agricultural land, thus removing the deep root systems that held the soil in place, increased stream bank erosion greatly.

Channelizing streams, although important for increasing waterway navigability, reducing flooding potential and increasing usable land, can cause some issues. The negatives of channelization can be an increase in stream bank erosion, a loss of farmland, and an increase of sediment pollution and harmful nutrients in the water. However, many different practices can be implemented to help decrease stream bank erosion and pollution. Planting grasses, shrubs, and trees along stream banks can help to stabilize the soil. Additionally, planting things like buffer strips and prairie strips can help decrease erosion and decrease the level of harmful nutrients that enter the waterways.

If you have any questions, or would like to learn more, please contact East Pottawattamie SWCD at (712) 482-6408, [swcdeducation@gmail.com](mailto:swcdeducation@gmail.com), or visit our website at [soilwaterconservationia.com](http://soilwaterconservationia.com)