



The landscape of the Georgia Piedmont has been dramatically altered since noted naturalist William Bartram passed through the area in the late 1700s.

Creeks and rivers that once ran clear over rocky shoals now flow turbid, especially after rains, over mostly sediment-covered bottoms. Why? Historic land-use practices are in part to blame.

The Southern Piedmont was once a dense hardwood forest. With European settlement came rapid deforestation and row-crop farming. Forest cover was found only at field margins adjacent to streambeds and within wetland areas too difficult to farm. This early exploitation of land was driven primarily by the abundance of cheap property coupled with declining soil conditions and the desire for maximum productivity from an expensive labor force. Rapid land clearing and intensive cultivation led to widespread accelerated erosion and sedimentation.

The most significant erosion occurred in the late 1800s and early 1900s. An average of more than seven inches of topsoil was lost across the state. Low-lying areas, including prime farmlands, became choked with sediment. A 1917 agricultural drainage report issued by the Geological Survey of Georgia indicated that stream beds in the Piedmont Plateau were filling rapidly or were already filled with soil from the contiguous hill slopes. Creeks and rivers subsequently lost their ability to transport floodwaters downstream. Farmlands experienced frequent flooding and often developed into swampy areas.

Drainage districts were formed across the state in the early 1900s in an effort to reclaim many of these areas. Contrary to current philosophies of stream management, many miles of waterways were channelized across Georgia during this period. While such activities may have been a short-term solution to flooding problems, they likely accelerated the long-

term erosion of stream channels and delivery of sediment to downstream areas.

It was not until the 1930s that the Soil Conservation Service was formed in an effort to conserve what little topsoil remained. By the mid-1950s, the number of farms and the total acreage of farmland in the Georgia Piedmont began to rapidly decrease and many areas began to revert back to forests. Today, many of these forested areas are rapidly being converted again, this time to development.

We live in a landscape that has rolling to steep terrain, soils vulnerable to erosion and intense rainfall patterns. These conditions set the stage for significant soil erosion during land-disturbing activities. Unstable sediments, largely laid down over a century ago, remain stored in floodplains and rivers. Consequently, our stream channels are highly susceptible to further erosion, particularly as the urbanization of watersheds increases. The good news is that there are ways to effectively control stormwater quantity and quality, particularly on new development sites, to minimize further damage to streams. That will be the topic of future articles. As with many things, however, it helps to understand the history.



This Etowah tributary was straightened in the past to prevent flooding of the surrounding property. The landowner says the stream channel was knee-high when he was a kid. Subsequent erosion has deepened the channel significantly.

For information about the Conservancy's work in the Etowah River watershed, visit www.nature.org/georgia. If you would like to be added to the Conservancy's E-mail updates list for the Etowah River Project, please call 770-704-7280.

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