

Longdale Park, DeKalb County, GA

Daylighting : Rediscovering an Urban Stream

Small streams are common features of forested landscapes, providing services like preventing flooding downstream and providing food for fish. In urban settings, many of these small streams are put into pipes and eliminated from the landscape. In 2000, the Georgia legislature passed a bill permitting Georgia landowners to pipe up to 200 feet of any small stream, even one feeding into a state-recognized trout stream. Even as many of these streams are being piped, there is a movement around the country to remove streams from pipes and return the small streams to the landscape, to "daylight" them. An example of a successful daylighting project is in Longdale Park, DeKalb County, Georgia .

What was done and why?

In 1994, DeKalb County Parks Department undertook a renovation project in Longdale Park. Initially, they had planned to just replace the collapsing culvert holding 200 feet of an unnamed tributary to Shoal Creek, but project supervisor Ginna Tiernan decided to try something different. Her plans for the stream called for reconstructing the stream channel where the pipe was, reshaping the channel upstream of the pipe, and planting native trees and plants in the area around the channel. The playing field beneath which the stream ran had not been usable for several years due to the collapsing pipe and a kudzu had begun to invade the area; Tiernan hoped that the new stream channel and area of native vegetation would become an attractive feature of the neighborhood park. In addition to removing the culvert, constructing a new channel, and planting native plants, the design added rock structures in the channel and coconut fiber matting along the banks to help prevent erosion as the plants began to grow.

Who was involved?

The project to daylight the small stream in Longdale Park cost \$14,500 funded by a grant from the EPA Section 319 Cleanwater program and DeKalb County Parks with construction assistance from DeKalb County Roads and Drainage Department.

Where can I see the results of this project?

Visit Longdale Park in southern DeKalb County, GA. Read more information in [Daylighting: New Hope for Buried Streams](#) published by the Rocky Mountain Institute.

Why is this a model project?

In the 10 years since this project was constructed, the stream has taken to its new channel and the vegetation has grown lushly. It is hard to tell that the site was

ever a playing field with a pipe running beneath it. This project is notable because it shows the benefits of preserving a small headwater stream and it shows that daylighting small streams is a relatively inexpensive method that can be aesthetically pleasing as well as ecologically successful.

Contact

Dr. Judy Meyer, Institute of Ecology, University of Georgia
(706) 542-3363
jlmeyer@uga.edu

Elizabeth Sudduth, Department of Biology, Duke University
(919) 660-7407
esudduth@duke.edu



Before daylighting , a playing field, a pipe, and kudzu (picture courtesy of DeKalb Parks Department).



One year after restoration, the stream has taken to its new channel-reshaped channel in the foreground, daylighted channel in the background (picture courtesy of DeKalb Parks Department).





10 years after restoration, the small channel looks naturally surrounded by river birch (pictures by Ginna Tiernan).