Example Invasive Perennial: Butterbur (*Petasites hybridus*)
Pink flower emerges before rhubarb-like leaves in spring. Spreads easily by rhizomes, horizontal underground plant stems that produce new plants. Shades out other vegetation and lacks the soil holding capabilities of native, deeper rooted streamside plants. If dug out by hand, the entire root system must be removed and disposed of in the trash. Glyphosate can be used as a foliar spray or painted directly onto the leaves.

Example Native Perennial: Buttonbush (*Cephalanthus occidentalis*)
Prefers wet soils. Can reach 7 feet tall and 15 feet wide. Round white flower clusters. Best to prune in dormant season or early spring before new growth begins.
Outcomes

1. 400 linear feet of streambank stabilized, helping reduce in-stream sedimentation
2. 7,500 square feet planted with deep-rooted, native plants to help stabilize the banks and filter out pollutants

To stabilize the bank and reduce scour, longitudinal peaked toe stone protection was installed and filled with smaller cobble/gravel.

This project also includes a series of seven short stone weirs made of two large boulder stones. They “lean” into each other to stay secure and help deflect the river’s energy away from the bank. The weirs promote natural deposition of material between the structures by enhancing sediment deposition and create in-stream habitat for fish and aquatic insects.

Non-native, invasive plants were treated with herbicide. The riverbank was planted with live stakes and posts as well as containers of native, woody plants. As they develop their fibrous root systems, the plants help provide long-term stabilization.

This project was financed in part through a grant from the State of Ohio Environmental Protection Agency and the United States Environmental Protection Agency, under the provisions of Section 319(h) of the Clean Water Act.