

For IMMEDIATE RELEASE (November 21, 2023)

Program Provides Cost-Share Assistance to Landowners for Streambank Stabilization Projects in the Chagrin River Watershed

This Fall, Chagrin River Watershed Partners (CRWP) completed a program which provided cost-share assistance to landowners wishing to stabilize eroding streambanks on their properties. The Chagrin River Watershed Landowner Cost-Share Streambank Stabilization Program was supported through a \$194,278.00 Great Lakes Sediment and Nutrient Reduction Program grant which paid for 50% of the construction costs, 100% of design and engineering costs, and technical assistance for the streambank stabilization work. The grant was awarded by the Great Lakes Commission and in cooperation with the U.S. Department of Agriculture's Natural Resource Conservation Service and the U.S. Environmental Protection Agency.

Eroding streambanks pose a variety of challenges for landowners. Along with being an aesthetic concern, eroding streambanks can threaten infrastructure such as large trees, driveways, bridges, decks, and even homes. Eroding streambanks also pollute waterways with sediment. Sediment impacts the ability for aquatic life to survive in the Chagrin River and transports phosphorous and other pollutants to Lake Erie. Sources of sediment in the Chagrin River watershed include streambank and streambed erosion, slope failure, construction, suspended solids carried from stormwater runoff, and runoff from agricultural lands in the watershed. Sediment and nutrient pollution leads to aquatic wildlife habitat impairments, algal blooms, and water infrastructure maintenance challenges for downstream communities. When landowners try to stabilize eroding streambanks with ineffective approaches, such as dumping concrete rubble or other hard materials along streambanks, these approaches will inevitably fail and can transfer the erosive force of stream flows downstream to neighboring properties. This is why CRWP recommends the use of a "bioengineering approach" which incorporates hard structures such as rock but also soft structures such as vegetation, which helps stabilize streambank soils and rock as the vegetation grows over time.

CRWP advertised the opportunity for cost-share assistance to interested landowners in the Chagrin River Watershed through a public meeting, direct mailings, and media outreach. Sites were selected based on factors such as erosion severity, potential pollutant reductions, and construction access considerations. Landowners at selected sites contributed a total of \$100,000 in cost-share funds. In 2022, CRWP conducted a competitive process to select an experienced design-build streambank stabilization contractor to complete the design, engineering, permitting, construction, and vegetative plantings at each site. Davey Resource Group and their construction partner Marks Construction were chosen as the design-build team for the program. The team has experience with many successful ecological restoration projects in Northeast Ohio.

In early 2023, Davey Resource Group designed the streambank stabilization site plans and obtained the necessary local, state, and federal permits for the work. Proposed stabilization methods included relaxing the angle of steep banks; creating floodplain benches to give streams an area to spread out during and after flood events; installing woody debris, bioengineering material, and natural rock structures to protect streambanks; and planting native seed and woody vegetation to stabilize soils. Landowner input was used to refine streambank stabilization plans and accommodate landowner requests while meeting the water quality goals of the program. Construction began in Fall 2023 and was

completed for all sites in early November. Each site included the installation of native plants, such as native dogwood and willow species, along the stabilized streambanks. These native plants will help stabilize streambank soils, soak in water, filter out pollutants, provide wildlife habitat, and provide cooling shade to the stream as they grow.

Although most streambank stabilization sites were owned by private individual landowners, one site was located at Cleveland Metroparks' Polo Field, where an eroding tributary to the Chagrin River was stabilized by excavating a floodplain bench, adding woody debris for grade control and streambank protection, and installing brush layering and streamside plantings. This program was supported by County Soil and Water Conservation District (SWCD) partners from the four counties across the Chagrin River Watershed. Cuyahoga, Lake, Geauga, and Portage SWCDs provided matching in-kind services such as site selection, design plan review, and construction oversight assistance. The program was also supported by the local communities where sites were selected, including the Village of Chagrin Falls, Village of Moreland Hills, City of Kirtland, and Village of Kirtland Hills.

The Chagrin River Watershed Landowner Cost-Share Streambank Stabilization Program stabilized a total of 2,000 linear feet of eroding streambanks. This work will reduce 2,880 tons of sediment and 2,880 pounds of phosphorus, a form of nutrient pollution, to the Chagrin River and ultimately to Lake Erie. In October, CRWP had the opportunity to highlight the Program at the Healing Our Watershed Great Lakes Coalition Conference. The 2023 Conference, held in Cleveland, hosted hundreds of environmental and conservation professionals from around the Great Lakes region.

The Great Lakes Commission was created by the eight Great Lakes states in 1955, recognizing the Great Lakes as environmental and economic assets to the United States and Canada and a need to protect these assets. The Great Lakes Commission recommends policies and practices to balance the use, development, and conservation of the water resources of the Great Lakes and brings the region together to work on issues that no single community, state, province, or nation can tackle alone. The Great Lakes Sediment and Nutrient Reduction Program is a state and federal partnership managed by the Great Lakes Commission in cooperation with the U.S. Department of Agriculture's Natural Resource Conservation Service, the U.S. Environmental Protection Agency, and the eight Great Lakes states. The Great Lakes Sediment and Nutrient Reduction Program provides grants to local and state units of government and nonprofit organizations to install erosion and sediment control practices in the Great Lakes basin.

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Chagrin River Watershed Partners is a nonprofit organization that uses a regional watershed approach to enhance quality of life by preserving rivers, planning for better development, and solving natural resource management problems. Sixteen communities, counties and park districts formed the Watershed Partners in 1996 to address rising infrastructure costs because of flooding, erosion, and water pollution. Today, the Partners' 35 members represent over 91% of the land area in the watershed

and it works with partner watershed organizations across Ohio's Central Lake Erie Basin. For more information about the Watershed Partners, visit www.crowp.org.

Please see attached photos.

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Figure 1. Eroding streambanks prior to stabilization work. Photo source: Chagrin River Watershed Partners.



Figure 2. Stabilized streambanks shown post-construction. Photo source: Davey Resource Group.



Figure 3. Streambank stabilization work is performed at a residential property by Davey Resource Group. Photo source: Davey Resource Group.