

## **Reforestation of Mine Sites – RIP Planting Approach C990002438 Western Pennsylvania Conservancy**

### **PROJECT DESCRIPTION**

This project reforested two previously coal-mined sites in Armstrong and Clarion counties, Pa. The trees are intended to reduce nutrient and sediment runoff, as well as alleviate flooding, in the Patterson Run and Allegheny River watersheds by re-establishing contiguous forested uplands and riparian buffers.

### **PROJECT GOALS**

This project's goals were to improve overall water quality in Patterson Run (HQ-CWF) and Limestone Run (WWF) watersheds. Patterson Run, is a natural reproducing trout stream with impairments in its headwaters from agricultural runoff and siltation. Patterson Run's TMDL lists sediment as a primary impairment. Unnamed Tributary (UNT) 48995 at Site 2 has been restored of its AMD impairments by the Armstrong Conservation District in 2010. These large, deforested sites allow runoff into stream segments within the watersheds. Research suggests that there are many long-term benefits from intact forests, including protection from accelerated erosion, protection from pollutants and nutrients entering streams, wildlife habitat, cooler stream temperatures and improvement of overall water quality through natural filtration. Reforested areas also alleviate downstream flooding problems.

### **PROJECT RESULTS**

This project reforested approximately 11 acres of two previously coal-mined sites in Armstrong and Clarion counties. A total of 8,255 trees, including silver maple, sugar maple, persimmon, white pine, red oak, white oak, and hybrid-chestnut seedlings were planted on the sites in spring of 2023 after mechanical decompaction of the soils was completed in fall of 2022 and allowed to overwinter through freeze-thaw cycles.

### **PICTURES**



*Soil decompaction 2022 (l); 2023 volunteers planting hybrid chestnut seedlings amongst other native tree species (c, r)*

### **PROJECT COSTS**

Growing Greener grant monies used to construct the project totaled \$48,973. Partners contributed \$24,122 in matching funds and in-kind services, for a total project cost of \$76,720. The project was successful due to landowner cooperation with the Armstrong Conservancy Inc. and generous support of the American Chestnut Foundation, Armstrong Conservation District, Clarion Conservation District, Green Forest Works, and dedicated volunteer stewards.

### **LESSONS LEARNED**

This project has demonstrated the potential to continue this vital watershed restoration work on abandoned mine lands through partnerships. The results of these restoration efforts in the watershed have inspired other landowners to improve water quality through additional planned reforestation projects.

### **PARTNERS**

Project partners included the American Chestnut Foundation, Armstrong Conservancy Inc., Armstrong Conservation District, Clarion Conservation District, Green Forest Works, Pennsylvania Department of Environmental Protection and Western Pennsylvania Conservancy who collaboratively worked together to design, permit, fund, and construct the project.

### **CONTACT INFORMATION**

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