

Mower Tract Ecological Restoration on the Greenbrier Ranger District

Over the last year, multiple partners have brought a 100 acre pilot restoration project to fruition. The Barton Bench area was mined for coal in the 1970s prior to becoming part of the National Forest system. This tract is a portion of the 40,856 acres acquired by the US Forest Service in the late 1980s that has become known as the Mower Tract. The federal standards followed by the coal companies for the cleanup operation left the area in a less than desirable condition. Among other things, the area was planted with predominately non-native grass species, resulting in a dense grass mat as the only vegetation, which has inhibited native species colonization. This is a permanent condition referred to as 'arrested succession' and was unlikely to correct itself without intervention. There are approximately 2,500 acres of previously mined land on the Mower Tract and 1,800 acres are in a similar vegetative state as the Barton Bench area.

The ultimate goal of this project is to commence ecological restoration efforts on the Mower Tract to restore native flora on previously strip-mined benches that currently are stuck in 'arrested succession' and dominated by a thick, non-native sod layer. The use of native vegetation is expected to reduce maintenance costs and increase the probability of success.

Benefits of this reforestation effort were threefold: provide early successional habitat (e.g. high stem density) in the short term, restore watershed conditions and native red spruce northern hardwood forest in the long term, and use the results of this project to implement restoration projects on more than 1,800 acres of reclaimed mine lands. Restoration efforts included terrestrial and aquatic restoration in that approximately 40 acres of non-native grasslands were deep ripped and 130 wetlands were created. Over 27,000 native plants were planted over the course of the last seven months. Approximately 17,000 plants were purchased from an Arbor Day Foundation grant, and planted on the deep ripped areas thanks to a National Civilian Conservation Crew (NCCC). The NCCC planting crew was awarded to the forest service as a result of our partnership with the Appalachian Regional Restoration Initiative and the Appalachian Coal Country Team. Approximately 10,000 plants were planted around the wetland restoration sites. All of these plants were propagated from local seed source by the Natural Resource Conservation Service's Alderson Plant Material Center (PMC), thanks to past NFN3 funding. The native species priority list was developed in collaboration by our partners with various interests, ranging from native species advocates, to wildlife game managers. Special emphasis was placed on native species most advantageous for pollinators or wildlife.

This restoration work will greatly benefit the federally-listed West Virginia northern flying squirrel and Cheat Mountain salamander, and other high-interest species including the snowshoe hare, white-tailed deer, black bear, golden eagles, woodcock, ruffed grouse, saw whet owl and a number of pollinating animals by providing a variety of food sources and niches. Once native species are established, the restoration site will develop into a red spruce-northern hardwood ecosystem, thus providing a native seed source.

As evidenced by the Arbor Day Foundation grant, WVDEP monies (\$330,000) and the NCCC planting crew, this project has catalyzed restoration efforts for the Mower Tract. We have already finished planning for the next area of restoration and have momentum for continued restoration efforts, despite declining forest service budgets.

2011 Accomplishments



Figure 1. Successful restoration projects demand collaboration and coordination of many partners.

Year Awarded: initial award in 2009

Project completion: est. 2012

Report number: 3 of 3

Expenditures (through 9/2011):

FY09 funding \$15,000, spent. \$15,000, \$0 remaining

FY10 funding \$23,500, spent. \$23,242, \$258 remaining

FY 11 funding \$20,000, spent \$20,000, \$0 remaining

**•Total funding \$58,500 total spent \$58,242;
\$258 total remaining**

Partners: Partners: USDA- NRCS Alderson Plant Material Center and Wes-Mon-Ty RCD, Arbor Day Foundation, National Civilian Conservation Corps, Americorps, Appalachian Regional Restoration Initiative and the Appalachian Coal Country Team, Central Appalachian Spruce Restoration Initiative (CASRI), WV Division of Natural Resources, WV Department of Environmental Protection, WV Division of Forestry, USFWS, USDI-Office of Surface Mining, Nature Conservancy, and West Virginia Highlands Conservancy.

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