Wildlife Preservation Fund

Purchase of Wetland, Sedge, Rush and Forb Seed
Bi-State Airport Authority Wetland Restoration Project, Lawrence County
(08-003W)

Final Report

The Bi-State Airport Authority has completed restoration of a 19-acre ephemeral wetland. The wetland had a diverse herbaceous flora that was being shaded by a dense growth of trees which had been deemed as a flight hazard by the FAA. Tree removal was slated to begin in early fall of 2007, but had to be delayed because of wet ground conditions. In accordance with USDA guidelines, black willow, cottonwood and other woody vegetation were cut to ground level and mulched during the latter part of 2007 and early 2008. Mulch was removed from the site in exchange for the cost of tree removal. Stumps and resprouts were treated with an appropriate herbicide. Debris that could not be mulched was piled using a C14 dozer and burned. A modified sedge meadow seed mix containing 26 species known to occur on the site or in Lawrence County was purchased from Spence Restoration Nursery to supplement the existing seed bank (Table 1). The response of the herbaceous species to tree removal has been better than expected with most area having about 75% aerial coverage. The area is now dominated by smartweed (*Polygonum*), rose mallow (*Hibiscus*), asters, and several species of sedges and rushes. The abundance of herbaceous structure is expected to provide significantly more cover and egg mass structure for herptofauna. The herbaceous community will be maintained by mowing and prescribed burning.

Photographs of the restoration site taken June 5, 2008 are included in this report and he Invoice from Spence Restoration Nursery and cancelled check for payment of the seed are attached.

Budget

Category	Project Total	Grant Funds Received	Cost Share Funds
Seed purchase	$1,995.00	$1,995.00	
Dozer (40 hours @ $66.20/hr)	$2,648.00		$2,648.00
Operator (40 hours @ $22)	$880.00		$880.00
Herbicide applicator (16 hours @ $15/hr)	$240		$240.00
Volunteer labor (2 hrs at $10.00)	$20.00		$20.00
Total	$5,783.00	$1,995.00	$3,788.00

Report submitted by: _____
Kurt Schwartz, Airport Manager
Bi-State Airport Authority

Table 1. Modified Sedge Meadow seed mix used in the Bi-State Airport Authority Wetland Restoration Project, Lawrence County.

Alsima subcordatum	Mud plantain
Aster novae-angliae	New England aster
Carex comosa	Bristly sedge
Carex cristatella	Crested sedge
Carex frankii	Frank's sedge
Carex lurida	Lurid sedge
Carex stipata	Awl-fruited sedge
Carex vulpinoidea	Fox sedge
Elymus virginicus	Virginia wild rye
Eupatorium maculatum	Spotted Joe-pye-weed
Eupatorium perfoliatum	Perfoliate boneset
Glyceria striata	Fowl manna grass
Helenium autumnale	Autumn sneezeweed
Leersia oryzoides	Rice cut-grass
Lobelia cardinalis	Cardinal flower
Lobelia siphilitica	Blue lobelia
Penstemon digitalis	Beardstongue
Pycnanthemum virginianum	Mountain mint
Rudbeckia hirta	Black-eyed Susan
Rudbeckia subtomentosa	Sweet black-eyed Susan
Scirpus atrovirens	Dark green bulrush
Silphium perfoliatum	Cupplant
Spartina pectinata	Cordgrass
Verbena hastata	Blue vervain
Vernonia fasciculata	Smooth ironweed
Zizia aureus	Golden alexander

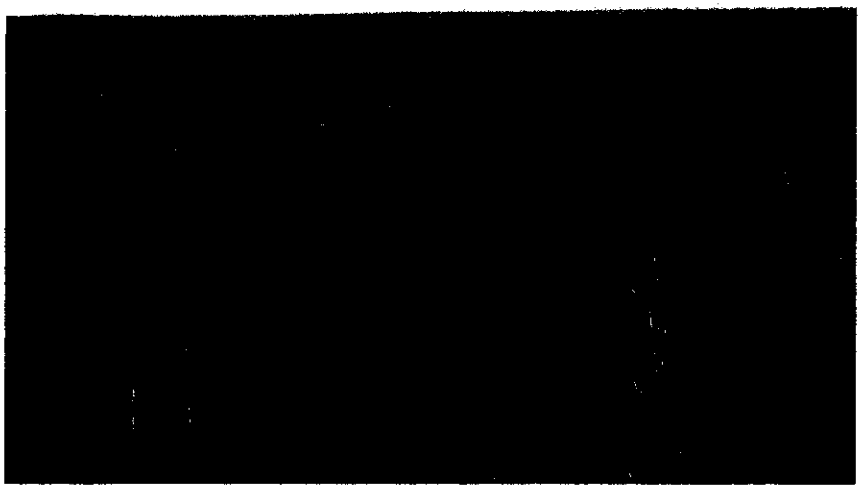

Figure 1. Northern portion of wetland after mulching and seeding looking to the north.

Figure 2. Central portion of wetland after mulching and seeding viewed from west to east.

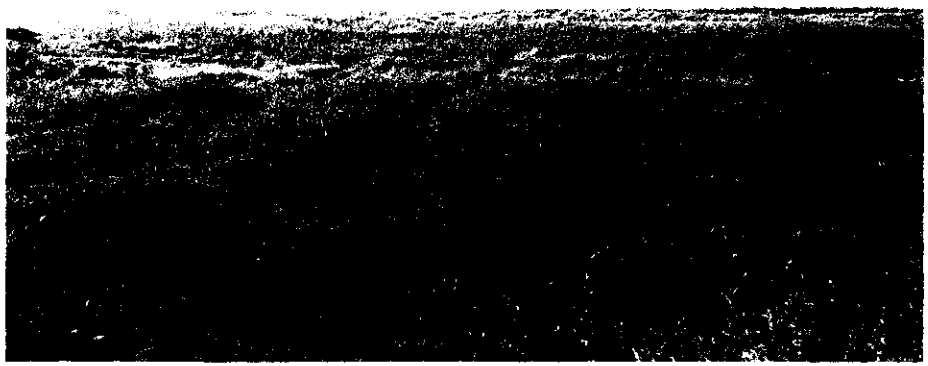

Figure 3. Central portion of wetland after mulching and seeding viewed from west to northeast.

Figure 4. South end of wetland after mulching and seeding.

Figure 1. Northern portion of wetland after mulching and seeding looking to the north.

Figure 2. Central portion of wetland after mulching and seeding viewed from west to east.

Figure 3. Central portion of wetland after mulching and seeding viewed from west to northeast.

Figure 4. South end of wetland after mulching and seeding.