

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 the 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:



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Bi-State Airport Authority

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

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

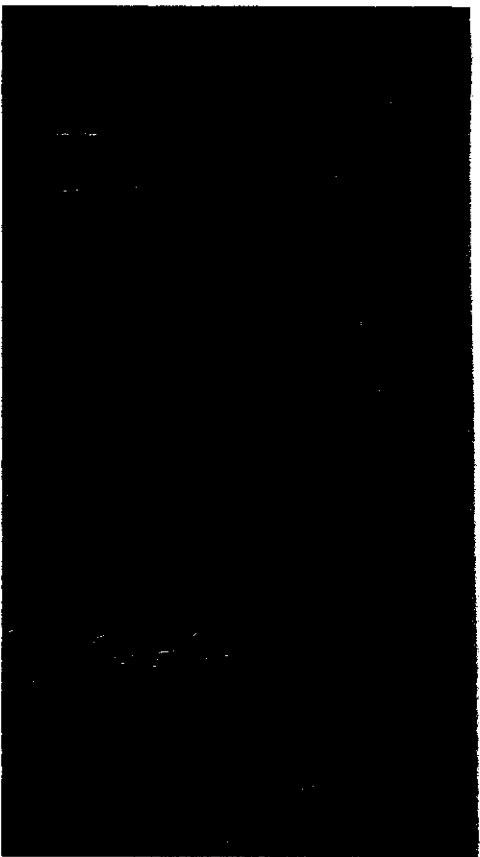


Figure 1. Northern portion of wetland after mulching and seeding looking to the north.



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

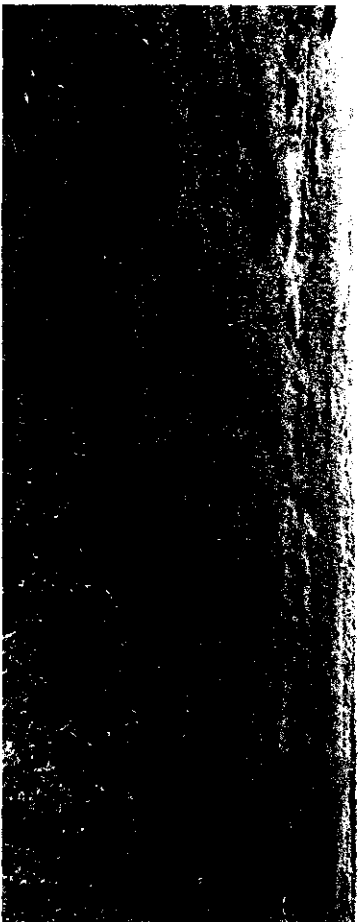


Figure 3. Central portion of wetland after mulching and seeding viewed from west to northeast.

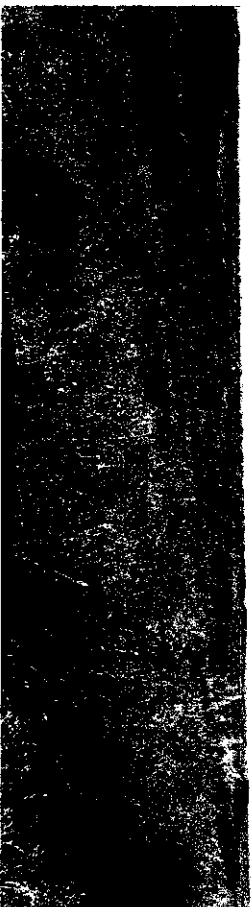


Figure 4. South end of wetland after mulching and seeding.



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



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



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



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