State of Illinois
Office of Resource Conservation

Final Report to USFWS – May 2019

Project Award Number: F12AF01125, T-81-D-1

Project Title: Statewide Public Lands Native Wetland Wildlife Habitat Restoration Project

General Summary:

The project was awarded in September 2012 and continued through December 2018. The grant was amended three times (Amendent #1 – added a site to the project, increased federal funding by $112,778 and extended the grant end date to September 30, 2017, and Amendment #2 - extended the deadline of the grant to December 2018). The grant approval letter, and subsequent amendment approvals, can be viewed in Appendix A.

The grant award provided $612,778.00 federal dollars, and we were commited to matching that with $329,957.00, for a grand total of $942,735.00. We actually spent 95% of the federal funds awarded ($584,284.00) and overmatched the federal funds by $13,725.00 ($329,957.00 required compared to $343,562.00 actually spent). All totaled, $928,146.00 federal and state dollars were spent over the duration of the grant. Federal fund expenditure by site can be viewed in Table 1. The total expenditure would have been significantly less if not for the USFWS providing a 15 month extension in September 2017. For that we are grateful to you for working with us to get that money spent to on critical management.

Table 1. Approximate federal grant expenditures at each site within the Public Lands Native Wetland Wildlife Habitat Restoration Project, T-81-D-1. Exact dollar amounts can be obtained from INDR's Federal Aid Billings Manager.

Federal Expenditure by Site	
Site	~ Dollars
Moraine Hills State Park	$170,000.00
Chain O'Lakes State Park	$150,000.00
Cache River State Natural Area	$170,000.00
Chauncey Marsh State Natural Area	$50,000.00
Flag Pond State Natural Area	$40,000.00
Spunky Bottoms State Natural Area	$0.00
SUM	**580,000.00**

The details of the project objective is outlined below.

Objective. *This project will maintain, enhance and develop 17,544 acres of wetland habitat and their adjacent buffers using ecosystem-based natural community and habitat management practices on 11 IDNR-owned and -managed lands statewide.*

In Illinois, only 6,800 acres of wetlands, not including floodplain forests (0.05%), are graded as high quality in Illinois. Therefore, sites were carefully chosen that would give us the largest return for the investment (Figure 1). Northern Illinois sites were chosen for their calcareous floating mats, graminoid fens, tall shrub fens, forested bogs and sedge meadows. The Cache River sites in southern Illinois were chosen for their rare swamp and shrub swamps. Flag Pond and Chauncey Marsh in southeastern Illinois were chosen for their undisturbed pond communities. Finally, Spunky Bottoms, in southwestern Illinois, was selected to be part of the grant because of its large scale wetland complex.

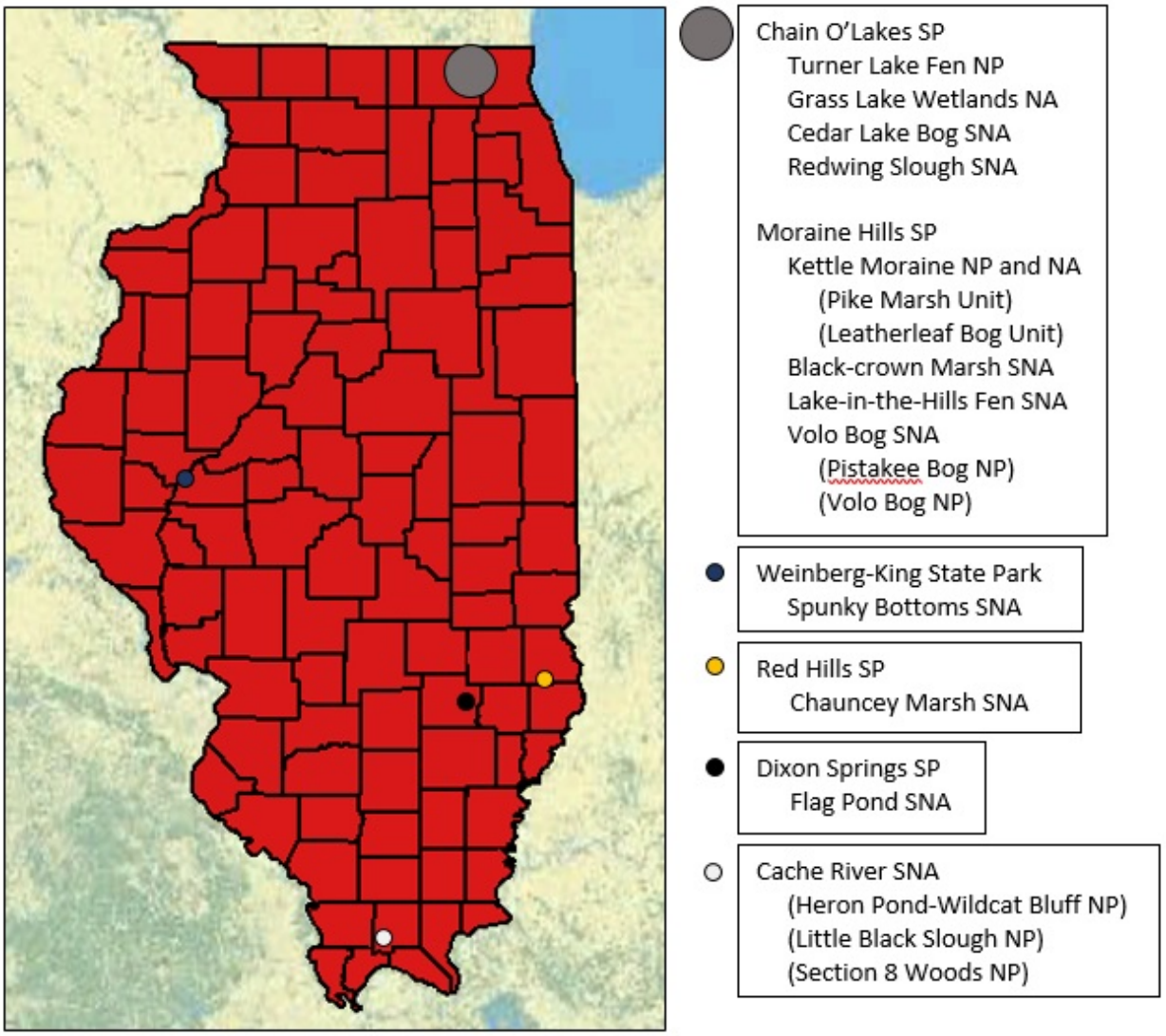

Figure 1. For State Wildlife Grant T-81-D-1, sites were carefully chosen across all of Illinois for their high quality significant features.

Management activities were broken down into several categories, including prescribed fire, woody invasive species control, invasive exotic plant control, habitat creation, erosion control, boundary protection and hydrology restoration. These were approved activites in the grant proposal and agreement. All sites combined received 17,538 acres of management during the tenure of this grant, or 99.96% of the acreage stated in the objectives. The number of acres treated by year, and by category, can be viewed in Table 2. Maintainence of firelines and administering contracts were part of our in-kind match, however, they were not counted in the overall acres treated.

Figure 2 indicates that prescribed fire was the most frequent management tool across the wetlands sites within the grant, accounting for 9700 acres (55%). Each site received prescribed fire. Hydrological restoration was conducted on almost 29% (5022 acres) of the acreage managed. This was primarily within the Cache River State Natural Area The remaining acreage treated was primarily invasive exotic plant control (phragmites, reed canary grass, willow, buckthorn, and bush honeysuckle).

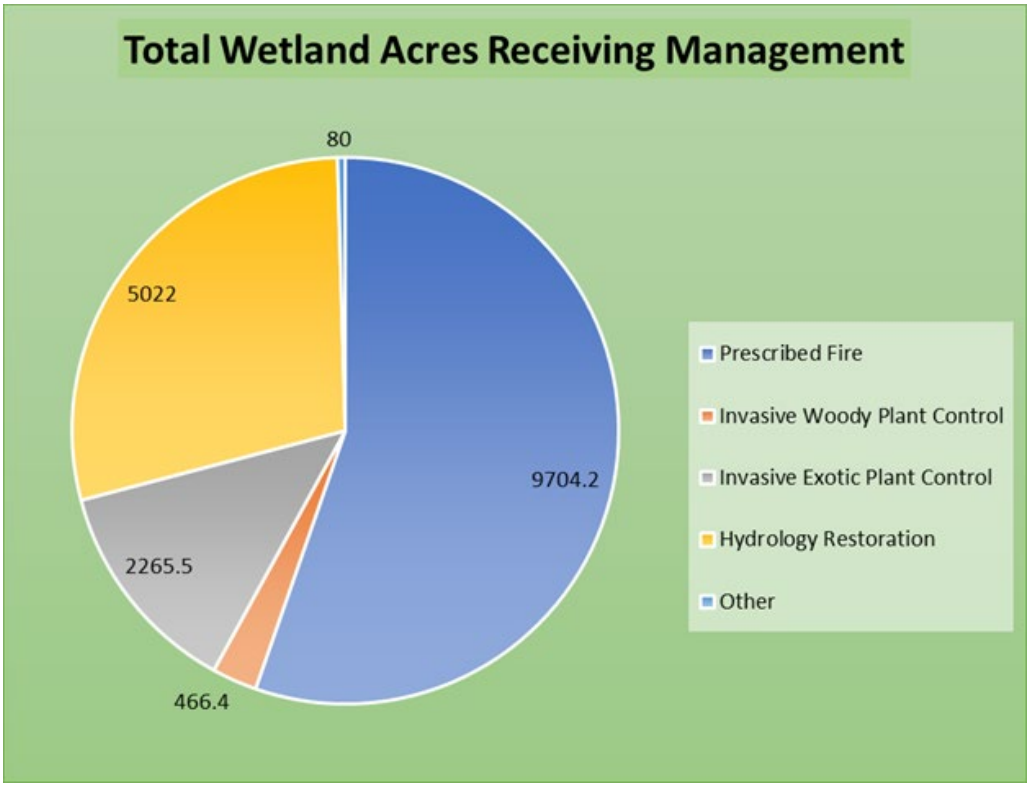

Figure 2. Prescribed fire was utilized most frequently within the grant, followed by hydrological restoration and invasive exotic plant control.

Table 2. The number of acres treated by management category, and by year, over the life of the grant (September 2012-December 2018).

Annual Progress Report Form										
1 Sept 2012 to 31 December 2018										
T-81-D-1 Statewide Public Lands Wetland Wildlife Habitat Restoration Project										
Management Actions	**Units**		**Wetland Units Accomplished FY13**	**Wetland Units Accomplished FY14**	**Wetland Units Accomplished FY15**	**Wetland Units Accomplished FY16**	**Wetland Units Accomplished FY17**	**Wetland Units Accomplished FY18**	**Wetland Units Accomplished FY19**	**Wetland Units Accomplished TOTAL**
Prescribed Fire										
Firelanes established / maintained	miles		19.8	20.8	37.46	13.27	17.77	21.95	20	**151.05**
Prescribed fire	acres		589	1308.5	2495	1221.7	2123	1881	86	**9704.2**
Invasive Woody Plant Control										
Mechanical removal	acres		25	16.2	32		5	116	127	**321.2**
Herbicide treatments	acres			1.2	12		5		127	**145.2**
Invasive Exotic Plant Control										
Mechanical Removal	acres		2	2.4	1	16		20	185	**226.4**
Herbicide treatments	acres		47	333.1	143	7	8	612	889	**2039.1**
Habitat Creation/Reconstruction/Enhancement										
Tree plantings (incl. tree & shrub plantings)	acres		0	0		0	0			
Shrub only plantings	acres		0	0		0	0			
Herbaceous plantings	acres		3	52	3	3				**61**
Vegetation maintainance (e.g. mowing CSG or b/t planted trees, hi-mow of prairie plantings)	acres		0	0		0	0	10		**10**
Edge Feathering for wildlife	acres					4				**4**
Erosion/Sediment Control										
Erosion/Sediment control	acres affected		3	1	1					**5**
Boundary Protection/Fencing										
Boundary protection/Fencing	miles		0.5	3.5	3	3		0.5		**10.5**
Hydrology Restoration										
Ephemeral pools created	each		0		2					**2**
Surface / groundwater hydrologic restoration	acres affected		691	3171	60	1100				**5022**
Project Administration										
Project administration	Office days		11.8	19.5	35	24	6	26	10	**132.3**
TOTAL ACRES			**1360**	**4885.4**	**2747**	**2351.7**	**2141**	**2639**	**1414**	**17538.1**

Figure 3 breaks down which sites received the management The Cache River State Natural Area, and the three dedicated nature preserves within it, accounted for 36% of all treated acres (6389.5). Chain O'Lakes and Moraine Hills State Parks accounted for 34% (5976 acres) and 24% (4173 acres) of all managed acres, respectively. While the remaining three sites only accounted for 6% of all acreage treated, this by no means diminishes their statewide significance. They are simply smaller sites with smaller significant features.

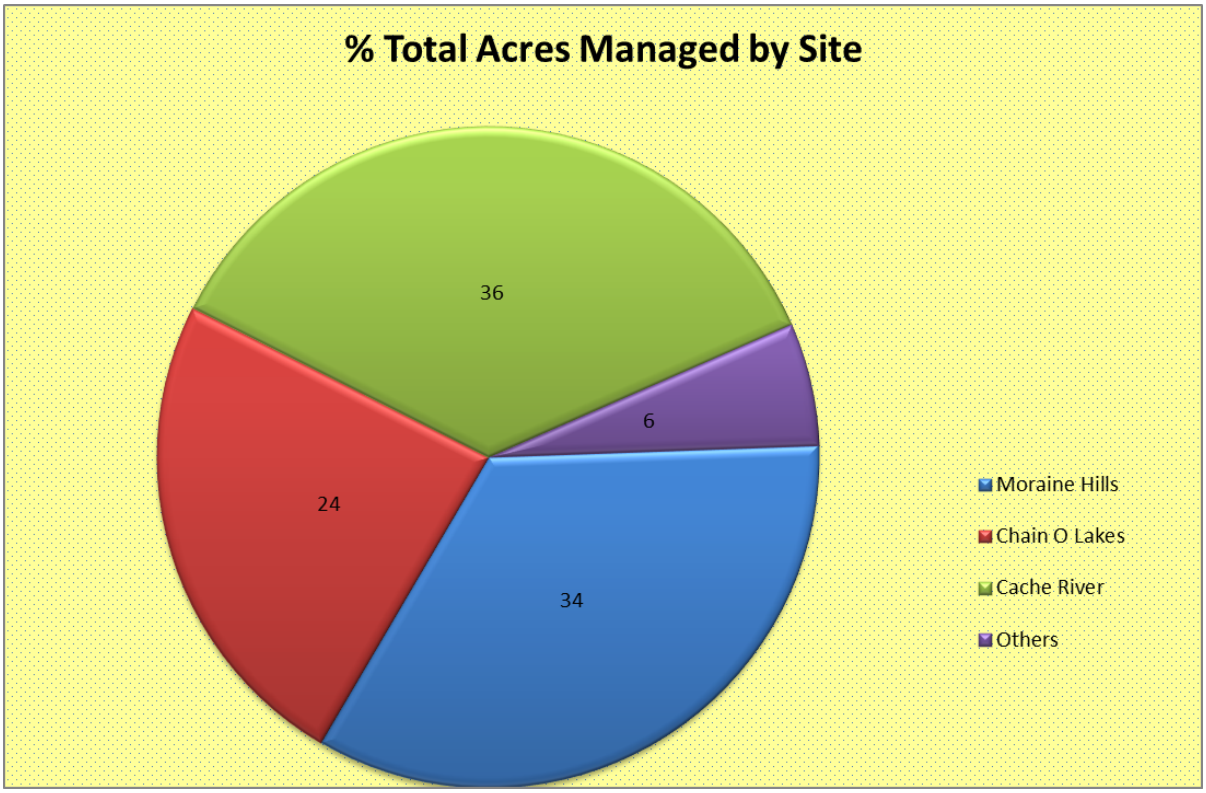

Figure 3. Ninety four percent (16,538) of the acres managed during this grant occurred at three state parks and their respective satellite sites.

Selected Management Items

Cache River State Natural Area

- Regular monitoring of swamp and river water levels at staff gages located throughout the Lower Cache River guides structural manipulation of the Diehl Water Control Structure. This maintains 3000 acres of forested swamp (dominated by bald cypress and water tupelo) levels in the Lower Cache River.
- Another 1100 acres of surface hydrology was restored on wetland areas disturbed by beaver activity (excessive and prolonged flooding).
- Two levees at the Jennifer Rose Tract Wetlands were repaired and seeded.
- A large debris jam was removed from Cypress Creek that threatened bank stability and approximately 200 acres of restored wetlands on the Cache River State Natural Area.
- Approximately 215 acres of invasive exotic plant control was completed at Boss Island.

Flag Pond State Natural Area

- Waterway erosion control - reshaped and reseeded.
- 77.5 lbs. of forb seed was added to the 52 acres of prairie restorations on this tract. This was the largest seeding operation of the grant.

Chauncey Marsh

- 15 acres of woody invasive material were controlled in the marsh.
- Significant time and effort was spent conducting growing season prescribed fire and follow up treatments to control exotic *Sericea lespedeza*.
- Two 20-acre tracts were surveyed and had their boundaries posted.

Spunky Bottoms State Natural Area

- ~400 acres received prescribed fire.

Chain O'Lakes State Park

- Multiple thousands of acres were treated with prescribed fire.
- Multiple thousands of acres of exotic species were treated.
- Levee repair following extensive spring flooding damage resulted in levee breach and compromised integrity. Trail closure and follow-up levee repair with costs of $45,000.

Moraine Hills State Park

- Multiple thousands of acres were treated with prescribed fire.
- Multiple thousands of acres of exotic species were treated.