MEMORANDUM OF UNDERSTANDING

for

Running Buffalo Clover Management at Congress Green Cemetery

Parties to this MOU

This Memorandum of Understanding (MOU) is between the Ohio Historical Society (OHS), the Ohio Department of Natural Resources/ Division of Natural Areas and Preserves (DNAP) and the Ohio Field Office of the U.S. Fish and Wildlife Service (FWS).

Purpose and Objectives

The purpose of the MOU is to ensure protection and management of Running Buffalo Clover (*Trifolium stoloniferum*) at Congress Green Cemetery. This MOU will implement recovery tasks aimed at providing management agreements for protected populations of Running Buffalo Clover.

The objectives of this MOU are to:

- 1. Ensure protection and management of Running Buffalo Clover at Congress Green while simultaneously keeping management compatible with a historic cemetery.
- 2. Ensure continued annual population surveys of Running Buffalo Clover at Congress Green.
- 3. Establish an effective coordination process between OHS, DNAP and FWS concerning management and surveys of the Running Buffalo Clover population at Congress Green.
- 4. Develop interpretive signage to help visitors understand and appreciate the presence of Running Buffalo Clover at Congress Green. This signage will include an explanation of the management requirements of the species (i.e. why the grass is kept long during the flowering season).

Background

Congress Green Cemetery is a 2.5-acre hillside cemetery managed by the Ohio Historical Society as a part of Harrison Tomb State Memorial. The Tomb consists of the family crypt and the attached monument which was erected in the twentieth century and is situated across the Cliff Road to its east. It is located in the village of North Bend, Ohio, within Miami Township, Hamilton County. The cemetery contains a very rich history, which was summarized in 1989 in an in-house report of the Ohio Historical Society, written by Theresa Andre and Melanie Pratt. The following brief summary is extracted from that report.

This small cemetery is a part of land purchased by Judge John Cleves Symmes of New Jersey from the Congress of the United States. The so-called Symmes Purchase is part of the land "between the Miami's" (rivers) that stretched north to the Greenville Treaty Line. Symmes original intent was to build a large city at North Bend, but this was frustrated by a number of issues. In 1789 he platted the town of North Bend with 48 lots. It is understood that he kept copious records, but that all those were destroyed in 1811 when his house burned to the ground.

A survey of the cemetery prepared for the Ohio Historical Society by Woolpert Consultants in 1988 shows 96 numbered gravestones. There were certainly other, unmarked graves within the cemetery. The earliest documented (marked) burial is that of John Cleves Symmes in 1814. Apparently the cemetery was primarily a family cemetery for the Symmes and Harrison families.

Prior to the Civil War, reference to the cemetery was mostly just as the "pasture graveyard." The name Congress Green entered into use sometime after the war. The land, as mentioned above, was purchased from Congress, and Symmes had originally intended this plot to become a public ground or village commons — hence "Congress Green." The cemetery became inactive in 1884 when Maple Grove Cemetery (actually in Whitewater Township) became the official Miami Township cemetery. Some burials continued to take place until 1903.

The historical importance of Congress Green Cemetery resides mostly with its connections to John Cleves Symmes and William Henry Harrison. Symmes' daughter, Anna "Nancy" Symmes married William Henry Harrison, the ninth president of the United States. Numerous members of both families are buried either within the cemetery proper or within the family crypt across the road.

The Andre and Pratt report was written as part of a restoration/conservation plan to conserve, repair and preserve surviving stones. At that time a variety of treatments were made to numerous stones, and those treatments are outlined in the report. Generally the approach was to use the least drastic method possible. Conservation was favored over restoration to preserve the original stones. The report recognizes that the significance of Congress Green is both historical and botanical, as by that time Running Buffalo Clover had recently been documented in the cemetery.

Running Buffalo Clover is a federally endangered plant species occurring in limited portions of Missouri, Indiana, Kentucky, West Virginia, and Ohio. As of 2005, 209 populations of Running Buffalo Clover were known to occur. In Ohio, Running Buffalo Clover is known from 18 populations in Lawrence, Brown, Clermont, and Hamilton Counties. One of the biggest sites in Ohio occurs at Congress Green Cemetery.

Running Buffalo Clover was discovered at Congress Green in 1988. Monitoring of this population has occurred at Congress Green on a regular basis. Since 1989 the Ohio Historical Society has applied a mowing schedule that benefits Running Buffalo Clover. In 2003, the OHS along with the FWS and others developed "Management Recommendations for Running Buffalo Clover" which standardized the mowing schedule used by the OHS at Congress Green. In 2004, the OHS and FWS began annual winter invasive plant control. To date, treatments have occurred on about one forth of Congress Green. The management of invasive plants has been additive, such that a new area is added each year while still going over the areas managed in years past.

Management

Under this MOU, OHS agrees to manage Congress Green to allow for the protection of Running Buffalo Clover. Management at the site will include a mowing regime and invasive plant control. Mowing Running Buffalo Clover benefits the species if the needs of the species are taken into consideration. Mowers should be set at no lower than 3 inches from the ground. Mowing should occur early in the growing season and again late in the season to reduce competition with other plant species. No mowing should occur when the plants are about to flower, during the flowering period, or before seeds can set. Thus no mowing should occur between May 7 and June 21. OHS will apply the following time frames for mowing at Congress Green:

- 1) Once in mid-April
- 2) Once during the first week of May
- 3) Once during the last week of June
- 4) Anytime after July 1st

Control of invasive ground cover at Congress Green, such as Japanese Honeysuckle, Periwinkle and Wintercreeper will occur each winter. Invasive plant control will consist of manual pulling or raking of plants, collecting them in trash bags, and disposing them off site. The area to be controlled in a given year will be decided annually and mapped. As new areas are added, areas that were managed in past years will continue to be spot treated by hand pulling any new invasive plants. Winter invasive plant control can occur anytime between December and February when no snow cover is on the ground.

Population Surveys

Running Buffalo Clover will be surveyed on an annual basis. This will occur in coordination with the FWS and DNAP staff. All plants (rooted crowns) will be counted and the number of flowering stems will be recorded. Plants are currently mapped into patches (A-I) within Congress Green and any new patches will be mapped. Particular note will be made of increases or decreases of Running Buffalo Clover plants and or the degree of flowering where winter invasive plant control has occurred. Surveys will occur during the last two weeks of May.

Table 1. Census Data for Running Buffalo Clover at Congress Green (dash indicates no data collected)

	1988	'89	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	2000	'01	'02	'03	'04	'05
# of rooted crowns (plants)	30	169	-	-	-	138	-	-	87	71	136	131	126	129	198	145	144	203
# of flowering stems	0	50	-	-	-	74	-	-	3	26	70	71	65	35	104	39	104	139

Coordination

The following coordination will occur annually between the OHS, DNAP, and FWS:

April – OHS coordinates mowing schedule internally

May – FWS and DNAP coordinate plans for surveying Running Buffalo Clover at Congress Green; a summary of the data will be provided to all parties upon completion

November – OHS provides FWS and DNAP a report with actual mowing dates for the period of April through June

December – OHS coordinates dates for winter invasive plant control; a summary of the data will provided to FWS and DNAP upon completion

Additional coordination between OHS, DNAP and FWS will occur as needed to promote public awareness of Running Buffalo Clover at Congress Green. FWS will assist OHS in developing educational opportunities for visitors.

Any party subject to this agreement may request that it be modified at any time. The terms of this agreement will be reviewed on an as needed basis. The terms of this agreement do not supercede, substitute, or replace any legal or regulatory standards under Ohio or Federal law.

The principal contacts for this agreement are:

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Approving the terms of this agreement are:	
George Kane, OHS, Director of Facilities Management	Date
Tom Linkous, Chief, ODNR, DNAP	Date
Mary M. Knapp, Ph.D., Field Supervisor, FWS	Date