

DRAFT Exotic Plant Management Plan and Environmental Assessment

Appendices I-N

Appendix I:	List of Cultural Resources	391
Appendix J:	Tribal Affiliation.....	411
Appendix K:	Park Maps	413
Appendix L:	Listed Federal and State Species.....	441
Appendix M:	Management Priorities	451
Appendix N:	Nationwide Rivers Inventory.....	467

DRAFT

Appendix I: List of Cultural Resources

List of Classified Structures,

Structures and Landscapes Eligible or on the National Register, and Identified Archeological Sites

The List of Classified Structures (LCS) is an evaluated inventory of all historic and prehistoric structures that have historical, architectural, and/or engineering significance within parks in which the National Park Service has, or plans to acquire, any legally enforceable interest. Structures are constructed works that serve some form of human activity and are generally immovable. They include buildings and monuments, dams, millraces and canals, nautical vessels, bridges, tunnels and roads, railroad locomotives, rolling stock and track, stockades and fences, defensive works, mounds, ruins of all structural types that still have integrity as structures, and outdoor sculpture. The full LCS for any park may be obtained at <http://www.hscl.cr.nps.gov/insidenps/summary.asp> (accessed March 7, 2012).

The Cultural Landscapes Inventory (CLI) is a comprehensive inventory of all culturally and historically significant landscapes within the National Park System. The CLI records each landscape's location, historical development, existing conditions, and management information. For landscapes found to be potentially eligible for the National Register of Historic Places, the CLI provides an analysis of landscape characteristics and features, allowing for an evaluation of historic integrity and significance. On an individual park level, the CLI provides park managers with a vast array of information specific to the landscape of their park. These inventories are not all accessible to the public.

The Archeological Sites Management Information System (ASMIS), compilation of the Cultural Sites Inventory (CSI) documentation notebooks, and digitizing of maps into a GIS provide the core of archeological data storage for the National Park System. The ASMIS holds the collection of site location data. The ASMIS site designations are presented here without the site locations, which must remain confidential for the protection of the resources.

ARPO

ARPO Identity	Name	Significance Level	Potential for impact and type
AC Marker	Osotouy Site Archeological Conservancy Marker	Not Sig. ¹	Mitigated
HB-4	Well	Contributing	Mitigated
HB-5	Road	Contributing	No expectation of impact
HB-6	Confederate Earthworks	Contributing	Mitigated
Mound A	Osotouy Mound A	National	Mitigated
Mound B	Osotouy Mound B	National	Mitigated
Mound C	Osotouy Mound C	National	Mitigated
Mound D	Osotouy Mound D	Contributing	Mitigated
Mound E	Osotouy Mound E	National	Mitigated

¹ Not Sig = Not Significant

BUFF LCS – unedited by park (totally inclusive)

BUFF Identity	Name	Significance Level	Potential for Impact
01B	Boxley Valley: Edgmon, Doy Feed House/Cattle Shed	State	Unknown
10A	Boxley Valley: Duty, Orphea House	State	Unknown
10B	Boxley Valley: Duty, Orphea Barn	State	Unknown
10C	Boxley Valley: Duty, Orphea Granary/Stable	State	Unknown
10D	Boxley Valley: Duty, Orphea Wash House	State	Unknown
10E	Boxley Valley: Duty, Orphea Smokehouse	State	Unknown
10F	Boxley Valley: Duty, Orphea Brooder House	State	Unknown
10G	Boxley Valley: Duty, Orphea Fruit Cellar/Garage	State	Unknown
10H	Boxley Valley: Duty, Orphea Old House	State	Unknown
10J	Boxley Valley: Duty, Orphea Barn in Field	State	Unknown
11A	Boxley Mill	State	Unknown
11B	Boxley Valley: Villines, Clyde and Nellie House	State	Unknown
11E	Clyde and Nellie Barn Near House	State	Unknown
11G	Boxley Valley: Villines, Clyde and Nellie Barn	State	Unknown
11H	Villines, Clyde and Nellie Fishing Cabin	State	Unknown
11I	Boxley Valley: Villines, Clyde & Nellie Stone Shed	State	Unknown
11J	Villines, Clyde and Nellie Fishing Cabin	State	Unknown
11K	Boxley Mill Pond & Dam	State	Unknown
11L	Boxley Mill Race	State	Unknown
11N	Boxley Valley: Villines, Clyde/Nellie Spring House	State	Unknown
12A	Boxley Valley: Villines, J.L. House	State	Unknown
12B	Boxley Valley: Villines, J.L. Barn	State	Unknown
12D	Boxley Valley: Villines, J.L. Smokehouse & Cellar	State	Unknown
12E	Boxley Valley: Villines, J.L. Garage	State	Unknown
13A	Boxley Valley: Villines, Robert House	State	Unknown
13B	Boxley Valley: Villines, Robert Barn	State	Unknown
13C	Boxley Valley: Villines, Robert Wagon Shed	State	Unknown
13D	Boxley Valley: Villines, Robert Second Farm House	State	Unknown
13E	Boxley Valley: Villines, Robert Fruit Cellar	State	Unknown
15A	Boxley Valley: Duty, Lieu House	State	Unknown
15B	Boxley Valley: Duty, Lieu Barn	State	Unknown
15C	Boxley Valley: Duty, Lieu Garage	State	Unknown
15E	Boxley Valley: Duty, Lieu Fruit Cellar	State	Unknown
15F	Boxley Valley: Duty, Lieu Smokehouse	State	Unknown
16A	Boxley Valley: Duty, Lieu Old House	State	Unknown
17A	Boxley Valley: Scroggins, Frank House	State	Unknown
17B	Boxley Valley: Scroggins, Frank Barn	State	Unknown
17C	Boxley Valley: Scroggins, Frank Pump House	State	Unknown
17D	Boxley Valley: Scroggins, Frank Shed	State	Unknown
18A	Boxley Valley: Ramsey, Audie House	State	Unknown
18B	Boxley Valley: Ramsey, Audie Spring House	State	Unknown
18C	Boxley Valley: Ramsey, Audie Cellar/Shed	State	Unknown
19A	Boxley Valley: Villines, R. Hezekiah House	State	Unknown
19B	Boxley Valley: Villines, R. Hezekiah Old Store	State	Unknown
19C	Boxley Valley: Villines, R. Hezekiah Garage	State	Unknown
19E	Boxley Valley: Villines, R. Hezekiah Barn	State	Unknown

BUFF Identity	Name	Significance Level	Potential for Impact
1A	Boxley Valley: Whiteley School	State	Unknown
1C	Boxley Valley: Edgmon, Doy Barn	State	Unknown
1D	Boxley Valley: Edgmon, Doy Rock Wall	State	Unknown
1F	Boxley Valley: Edgmon, Doy Fruit Cellar	State	Unknown
1G	Boxley Valley: Edgmon, Doy Low Water Crossing	State	Unknown
2-01 HB	Buffalo River SP CCC Housekeeping Cabin #6	State	Unknown
2-04 HB-2	Buffalo River State Park CCC Lodge	State	Unknown
2-10 HB	Buffalo River State Park CCC Pavilion	State	Unknown
2-27 HB-4	Buffalo River SP CCC Housekeeping Cabin #1	State	Unknown
2-28 HB-5	Buffalo River SP CCC Housekeeping Cabin #2	State	Unknown
2-29 HB-6	Buffalo River SP CCC Housekeeping Cabin #3	State	Unknown
2-30 HB-7	Buffalo River SP CCC Housekeeping Cabin #4	State	Unknown
2-31 HB-8	Buffalo River SP CCC Housekeeping Cabin #5	State	Unknown
20A	Boxley Valley: Villines, Waymon House	State	Unknown
20B	Boxley Valley: Villines, Waymon Study	State	Unknown
21A	Boxley Valley: Villines, Joe S. House	State	Unknown
24A	Boxley Valley: Shroll, Jess Barn	State	Unknown
25A	Boxley Valley: Villines, William Log Barn/House	State	Unknown
25B	Villines, William Harness Shed	State	Unknown
25C	Villines, William Corn Crib	State	Unknown
26B	Boxley Valley: Arrington Creek Barn	State	Unknown
26D	Boxley Valley: Arrington Creek Barn/Shop	State	Unknown
26H	Boxley Valley: Arrington Crk Frt Cellar/Stone Wall	State	Unknown
26I	Boxley Valley: Arrington Creek House #2	State	Unknown
27	Morning Star Roadbed With Retaining Walls	State	Unknown
27A	Boxley Valley: Villines, James A. House	State	Unknown
27B	Boxley Valley: Villines, James A. Barn	State	Unknown
27C	Boxley Valley: Villines, James A. Smokehouse	State	Unknown
27D	Boxley Valley: Villines, James A. Corn Crib	State	Unknown
27E	Boxley Valley: Villines, James A. WPA Outhouse	State	Unknown
27F	Boxley Valley: Villines, James A. Fruit Cellar	State	Unknown
27G	Boxley Valley: Villines, James A. Chicken House	State	Unknown
28	Morning Star Mines	State	Unknown
28A	Boxley Valley: Clark House	State	Unknown
28B	Boxley Valley: Clark, Sam Springhouse	State	Unknown
29A	Boxley Valley: Villines, Henry Springhouse	State	Unknown
2A	Boxley Valley: Edgmon, J.T House Ruin	State	Unknown
2B	Boxley Valley: Edgmon, J.T. Fruit Cellar	State	Unknown
2E	Boxley Valley: Edgmon, J.T. Barn	State	Unknown
2F	Boxley Valley: Edgmon, J.T. Scale House & Chute	State	Unknown
2G	Boxley Valley: Edgmon, J.T. Spring	State	Unknown
30	Morning Star Mine Trail	State	Unknown
31	Ben Carney Mine	State	Unknown
32	Capps Mine	State	Unknown
33	Capps Mine Roadbed	State	Unknown
36A	Boxley Valley: Fults/Seamon House	State	Unknown
36B	Boxley Valley: Fults/Seamon Chicken Coop	State	Unknown
36E	Boxley Valley: Fults/Seamon Outhouse	State	Unknown
37B	Boxley Valley: Eubank Well	State	Unknown
37D	Boxley Valley: Eubank Fruit Cellar	State	Unknown

BUFF Identity	Name	Significance Level	Potential for Impact
37E	Boxley Valley: Eubank Shed	State	Unknown
37F	Boxley Valley: Eubank Outhouse	State	Unknown
39C	Boxley Valley: Edgmon, Pickle Barn	State	Unknown
39E	Boxley Valley: Edgmon, Pickle Well	State	Unknown
39G	Boxley Valley: Edgmon, Pickle Stone Wall	State	Unknown
3A	Boxley Valley: Fowler, Troy House	State	Unknown
3B	Boxley Valley: Fowler, Troy Barn	State	Unknown
3C	Boxley Valley: Fowler, Troy Old House	State	Unknown
3G	Boxley Valley: Fowler, Troy Stone Walls	State	Unknown
3H	Boxley Valley: Fowler, Troy Saltpeter Kettle	State	Unknown
3I	Boxley Valley: Fowler, Troy Culvert	State	Unknown
4-62HB-22	Erbie District: Farmer, J.W. House	Local	Unknown
4-63HB-23	Erbie District: Farmer Cabin	Local	Unknown
4-64HB-24	Erbie District: Farmer Barn	Local	Unknown
4-65HB-25	Erbie District: Farmer Smokehouse	Local	Unknown
4-66HB-26	Erbie District: Farmer Feedhouse	Local	Unknown
4-67HB-27	Erbie District: Farmer Springhouse Ruin	Local	Unknown
4-68HB-28	Erbie District: Farmer Privy	Local	Unknown
4-84HB-44	Erbie District: Jones, Rulus Stock Pond & Dam	Local	Unknown
4-86HB-46	Erbie District: Hickman House Site	Local	Unknown
40A	Boxley Valley: Villines, Dennis Old House	State	Unknown
40D	Boxley Valley: Villines, Henry Outbuilding	State	Unknown
40E	Boxley Valley: Villines, Jeff Corn Crib	State	Unknown
41A	Boxley Valley: Ponca Low Water Bridge	State	Unknown
41B	Boxley Valley: Leatherwood Creek Culvert	State	Unknown
44A	Boxley Valley: Old Boxley Bridge Abutments	State	Unknown
47C	Hall Property Rock Shelter	State	Unknown
48	McIntosh Mine	State	Unknown
48A	Boxley Valley: Guthrie, Pleas House	State	Unknown
48C	Boxley Valley: Guthrie, Pleas Fruit Cellar	State	Unknown
49/50	McIntosh Mill Area Mine Shaft & Tunnel	State	Unknown
49A	Boxley Valley: Marion, Hurley House	State	Unknown
49D	Boxley Valley: Marion, Hurley Rock Wall	State	Unknown
4A	Boxley Valley: Edgmon, Marion House	State	Unknown
4B	Boxley Valley: Edgmon, Marion Old Barn	State	Unknown
4C	Boxley Valley: Edgmon, Marion Store/Garage	State	Unknown
4D	Boxley Valley: Edgmon, Marion Granary	State	Unknown
4E	Boxley Valley: Edgmon, Marion Caretaker's House	State	Unknown
58	White Eagle Mine	State	Unknown
62	New Town Road	State	Unknown
64	Edith Mine	State	Unknown
68	Red Cloud Mine	State	Unknown
70	Lonnie Boy Mine	State	Unknown
75	Silver Hollow Mine	State	Unknown
78	Ore Wagon Road	State	Unknown
79	Monte Cristo Mine	State	Unknown
7A	Boxley Valley: Casey, A.F. House	State	Unknown
7B	Boxley Valley: Casey, A.F. Spring House	State	Unknown
7C	Boxley Valley : Casey, A.F. Fruit Cellar	State	Unknown
7D	Boxley Valley: Casey, A.F. Log Building	State	Unknown

BUFF Identity	Name	Significance Level	Potential for Impact
7E	Boxley Valley: Casey, A.F. Outhouse	State	Unknown
7F	Boxley Valley: Casey, A.F. Smokehouse	State	Unknown
7H	Boxley Valley: Casey, A.F. Main Barn	State	Unknown
7L	Boxley Valley: Casey, A.F. Well	State	Unknown
8A	Boxley Valley: Casey, Arvel and Elsie House	State	Unknown
8B	Boxley Valley: Casey, Arvel and Elsie Store/Cafe	State	Unknown
8C	Boxley Valley: Casey, Arvel and Elsie Big Barn	State	Unknown
8D	Boxley Valley : Casey, Arvel and Elsie Barn	State	Unknown
8E	Boxley Valley: Casey, Arvel Sawmill	State	Unknown
8F	Boxley Valley: Casey, Arvel and Elsie Granary	State	Unknown
8G	Boxley Valley: Casey, Arvel and Elsie Pump House	State	Unknown
8I	Boxley Valley: Casey, Arvel and Elsie Smokehouse	State	Unknown
9A	Boxley Valley: Fowler, Junior Farmhouse	State	Unknown
A1	Brown School	Local	Unknown
A8	Old Arnold House	Local	Unknown
AB-South-1	Arnold Bend House South of Cemetery	Local	Unknown
AB-South-2	Arnold Bend House South of Cemetery Outbuilding	Local	Unknown
AB-South-3	Arnold Bend House South of Cemetery Well	Local	Unknown
B2-1	Morning Star Barn Ruin	State	Unknown
B2-10	Rush Creek Road	State	Unknown
B2-11	McIntosh Livery Ruins	State	Unknown
B2-12	Yellow Rose Mine	State	Unknown
B2-13	Yellow Rose Processing Mill	State	Unknown
B2-14	Red Cloud Processing Mill	State	Unknown
B2-15	Clabber Tunnels	State	Unknown
B2-16	Clabber Field Mine Shaft	State	Unknown
B2-17	Lonnie Boy Pumphouse	State	Unknown
B2-18	Rush Railroad Grade	State	Unknown
B2-19	Clabber Creek Roadbeds	State	Unknown
B2-2	Rush Smelter	State	Unknown
B2-20	McIntosh Road	State	Unknown
B2-21	Edith Mine Processing Mill	State	Unknown
B2-22	White Eagle Mill Piers	State	Unknown
B2-23	Morning Star Mill Piers	State	Unknown
B2-24	McIntosh Hotel	State	Unknown
B2-25	McIntosh Mill Piers and Foundation	State	Unknown
B2-3	Rush Blacksmith Shop	State	Unknown
B2-4	Hicks General Store Ruin	State	Unknown
B2-5	New Town Ruin	State	Unknown
B2-53H	Taylor-Medley General Store	State	Unknown
B2-54H	Storekeeper's House (#1)	State	Unknown
B2-55H	Brantley House Ruin	State	Unknown
B2-56H	Kastning House (#3)	State	Unknown
B2-57H	Wash House (#4)	State	Unknown
B2-58H	Bundy House (#5)	State	Unknown
B2-59	Chase & Mulholland Store Ruin	State	Unknown
B2-6	Morning Star Tramway	State	Unknown
B2-60	Courthouse Site Rock Retaining Wall	State	Unknown
B2-61	Hicks Hotel Building Foundation	State	Unknown
B2-62	Hicks Hotel Mortared Flowerbeds	State	Unknown

BUFF Identity	Name	Significance Level	Potential for Impact
B2-63	Hillside Prospects and Digs	State	Unknown
B2-64	Monte Cristo Mine Steam Compressor & Shed	State	Unknown
B2-65	Monte Cristo Mine Steel Piping	State	Unknown
B2-66	Monte Cristo Section - Clabber Creek Road	State	Unknown
B2-67	Morning Star Hotel Ruins	State	Unknown
B2-68	Morning Star Mill Manager's House Site	State	Unknown
B2-69	Morning Star Oil House Foundation Piers	State	Unknown
B2-7	Morning Star Mining Co. Office Foundation	State	Unknown
B2-70	Pop Campbell House Site Ruins	State	Unknown
B2-71	Raby House Ruins	State	Unknown
B2-72	Morning Star Pumphouse	State	Unknown
B2-73	Morning Star Rock House	State	Unknown
B2-75	White Eagle New Mill Piers	State	Unknown
B2-8	Footbridge Pillar	State	Unknown
B2-9	Hicks Hill Road	State	Unknown
B2-BP-1	Buffalo River State Park CCC Fireplaces	State	Unknown
B2-X	Buffalo River State Park CCC Culverts	State	Unknown
B3-09H	Collier Homestead House	State	Unknown
B3-10H	Collier Homestead Smokehouse	State	Unknown
B3-112H	Williams, Valentine and Mollie House	State	Unknown
B3-11H	Collier Homestead Barn	State	Unknown
B3-12H	Collier Homestead Cistern	State	Unknown
B3-14H	Luther Arnold House	Local	Unknown
B3-14H-1	Luther Arnold Pole Barn	Local	Unknown
B3-14H-2	Luther Arnold Wells	Local	Unknown
B4-111H	Evans-White House	Not Sig ²	Unknown
B4-112H	Evans-White Fruit Cellar	Not Sig	Unknown
B4-29H	Erbie District: Jones, Rulus Smokehouse	Local	Unknown
B4-45H	Erbie District: Reavis, John House	Local	Unknown
B4-51H	Parker-Hickman Chicken House	Local	Unknown
B4-52H	Parker-Hickman Machine Shed	Local	Unknown
B4-54H	Parker-Hickman Board Barn	Local	Unknown
B4-54H-A	Parker-Hickman Historic Fences & Cattle Guard	Local	Unknown
B4-54H-B	Parker-Hickman Stock Pen and Loading Chute	Local	Unknown
B4-55H	Parker-Hickman Log Barn	Local	Unknown
B4-56H	Parker-Hickman House	Local	Unknown
B4-57H	Parker-Hickman Smokehouse	Local	Unknown
B4-58H	Parker-Hickman WPA Outhouse	Local	Unknown
B4-60A	Henderson, Eva Barnes Well	Local	Unknown
B4-60B	Henderson, Eva Barnes Fruit Cellar	Local	Unknown
B4-60H	Henderson, Eva Barnes House	Local	Unknown
B4-74H-1	Erbie District: Erbie Church Rockwork	Local	Unknown
B4-74HB-34	Erbie District: Erbie Church	Local	Unknown
B4-77H	Erbie District: Jones, Rulus House	Local	Unknown
B4-78H	Erbie District: Jones, Rulus Barn	Local	Unknown
B4-80H	Erbie District: Jones, Rulus Pumphouse	Local	Unknown
B4-91H	Shaddox Cabin	Not Sig	Unknown
B4-96H	Henderson, Eva Barnes Log Cabin/Barn	Local	Unknown

² Not Sig = Not Significant

BUFF Identity	Name	Significance Level	Potential for Impact
B4-A	Old Villines Place	Not Sig	Unknown
B4-B	Old Villines Place/Springhouse	Not Sig ³	Unknown
B4-C	Old Villines Place/Hog Barn	Not Sig	Unknown
BC	Cold Springs School	Local	Unknown
BR-BP-12	Buffalo River State Park CCC Dry Laid Stone Walls	State	Unknown
BR-BP-13	Buffalo River State Park Duplex 11-12	Local	Unknown
BR-BP-14	Buffalo River State Park Duplex 13-14	Local	Unknown
BR-BP-15	Buffalo River State Park Duplex 7-8	Local	Unknown
BR-BP-16	Buffalo River State Park Duplex 9-10	Local	Unknown
BR-BP-17	Buffalo River State Park Historic Water Tank	Local	Unknown
BR-BP-2	Buffalo River State Park CCC Parking Pads	State	Unknown
BR-BP-21	Buffalo River State Park CCC Mortared Stone Walls	State	Unknown
BR-BP-23	Buffalo River State Park Water & Sewer System	Local	Unknown
BR-BP-3	Buffalo River State Park CCC Pumphouse	State	Unknown
BR-BP-4	Buffalo River State Park CCC Quarry Access Road	Local	Unknown
BR-BP-5	Buffalo River State Park CCC Roadways	State	Unknown
BR-BP-6	Buffalo River State Park CCC Utility Building	State	Unknown
BR-BP-7	Buffalo River State Park CCC Water Fountain	State	Unknown
BR-BP-8	Buffalo River State Park Concession Building	Local	Unknown
BR-BP-9	Buffalo River State Park Concrete Water Tank	Local	Unknown
CEM-1	Christy Cemetery Stones	Local	Unknown
CEM-13	Laffoon Cemetery 19th Century Grave Markers	State	Unknown
CEM-13-A	Laffoon Cemetery 20th Century Grave Markers	State	Unknown
CEM-13-B	Laffoon Cemetery Field Stone Grave Markers	State	Unknown
CEM-13-C	Laffoon Cemetery Laffoon Family Grave Markers	State	Unknown
CEM-18	Boxley Valley: Villines Cemetery Memorial	Not Sig	Unknown
CEM-19	Boxley Valley: Whiteley Cemetery Stones	Not Sig	Unknown
CEM-2	Lawrence Cemetery Stones	Local	Unknown
CEM-20	Erbie District: Cherry Grove Cemetery Stones	Local	Unknown
CEM-21	Erbie District: Jones Cemetery Stones	Local	Unknown
CEM-22	Erbie District: Young Cemetery Stones	Local	Unknown
CEM-23	Erbie District: Adair Cemetery Stones	Local	Unknown
CEM-23-A	Erbie District: Adair Family Grave Markers	Local	Unknown
CEM-23-B	Erbie District: Adair Cemetery Inscribed Markers	Local	Unknown
CEM-24	Erbie District: McFadin Cemetery Stones	Local	Unknown
CEM-25	Collins Cemetery Stones	Local	Unknown
CEM-25-A	Collins Cemetery Edgar Family Headstones	Local	Unknown
CEM-25-B	Collins Cemetery Collins Family Grave Markers	Local	Unknown
CEM-25-C	Collins Cemetery Fieldstone Grave Markers	Local	Unknown
CEM-25-D	Collins Cemetery Tiered Ledger Stones	Local	Unknown
CEM-25-E	Collins Cemetery: Riggs & Upton Grave Markers	Local	Unknown
CEM-25-F	Collins Cemetery Cast Concrete Grave Marker	Local	Unknown
CEM-26	Morris Cemetery Stones	Local	Unknown
CEM-27	Hensley Cemetery Stones	Local	Unknown
CEM-28	Nars Cemetery Stones	Local	Unknown
CEM-29	Arnold Cemetery	Local	Unknown
CEM-3	Slay Cemetery Stones	Local	Unknown
CEM-3-A	Slay Cemetery: Carter, John Rufus Grave Marker	Local	Unknown

³ Not Sig = Not Significant

BUFF Identity	Name	Significance Level	Potential for Impact
CEM-3-B	Slay Cemetery: Mitchell Family Grave Markers	Local	Unknown
CEM-3-C	Slay Cemetery: Moore Family Grave Markers	Local	Unknown
CEM-3-D	Slay Cemetery: Robertson Family Grave Markers	Local	Unknown
CEM-3-E	Slay Cemetery: White Family Grave Markers	Local	Unknown
CEM-3-F	Slay Cemetery: Manes Family Grave Markers	Local	Unknown
CEM-3-G	Slay Cemetery: Scott Family Grave Markers	Local	Unknown
CEM-4	Old Arnold Cemetery Stones	Local	Unknown
CEM-5	White Cemetery Stones	Local	Unknown
CEM-7	Horton Cemetery Stones	Not Sig ⁴	Unknown
CEM-Cow-1	Cow Creek Cemetery Stones	Not Sig	Unknown
CEM-Deff-1	Deffenbaugh Cemetery Stones	Not Sig	Unknown
CEM-HALL-1	Hall Cemetery Stones	Local	Unknown
CEM-HALL-2	Hall Cemetery 19th Century Commercial Markers	Local	Unknown
CEM-HALL-3	Hall Cemetery 20th Century Commercial Markers	Local	Unknown
CEM-HALL-4	Hall Cemetery Cast Concrete Grave Markers	Local	Unknown
CEM-HALL-5	Hall Cemetery Cast Iron Grave Marker	Local	Unknown
CEM-HALL-6	Hall Cemetery Coffin Stones	Local	Unknown
CEM-HALL-7	Hall Cemetery Stone Vaults	Local	Unknown
CEM-HALL-8	Hall Cemetery Vernacular Fieldstone Grave Markers	Local	Unknown
CEM-HAMILTON	Hamilton Cemetery Stones	Not Sig ⁵	Unknown
CEM-LANEBEND	Lane Bend Cemetery Stones	Not Sig	Unknown
CEM-SANDERS	Sanders Cemetery Stones	Not Sig	Unknown
CEM-SHADDOX	Shaddox Cemetery Stones	Local	Unknown
ER-15	Erbie District: Jones, Rulus Cattle Shed	Local	Unknown
ER-4	Parker-Hickman Feeding Structures	Local	Unknown
ER-7	Parker-Hickman Corn Crib	Local	Unknown
ER-McFadin-1	Erbie District: McFadin House Site Ruins	Local	Unknown
ER-Reavis-1	Erbie District: Reavis, John, Well & Cistern	Local	Unknown
ER-RJ-1	Erbie District: Jones, Rulus Cistern & Well	Local	Unknown
ER-Tinsley-1	Erbie District: Tinsley Barn Foundation	Local	Unknown
ER-Tinsley-2	Erbie District: Tinsley Milkhouse Foundation	Local	Unknown
ER-Tinsley-3	Erbie District: Tinsley Spring Box	Local	Unknown
HB-00	Erbie District: Shake Roof Cabin	Local	Unknown
HUCH-1	Erbie District: Huchingson Spring	Local	Unknown
Ponca-CP-1	Center Point School Ruin	Not Sig	Unknown
Valley-Y-1	Valley Y Ranch Main Dwelling/Guest House Addition	State	Unknown
Valley-Y-10	Valley Y Ranch Main Entrance Gate	State	Unknown
Valley-Y-11	Valley Y Ranch Access Road	State	Unknown
Valley-Y-12	Valley Y Ranch Front House Entrance Gate & Fencing	State	Unknown
Valley-Y-13	Valley Y Ranch Internal Road Network	State	Unknown
Valley-Y-14	Valley Y Ranch Culvert	State	Unknown
Valley-Y-15	Valley Y Ranch Main Dwelling Gutter System	State	Unknown
Valley-Y-16	Valley Y Ranch Spring Water Channel System	State	Unknown

⁴ Not Sig = Not Significant⁵ Not Sig = Not Significant

BUFF Identity	Name	Significance Level	Potential for Impact
Valley-Y-17	Valley Y Ranch Post and Rail Fencing	State	Unknown
Valley-Y-18	Valley Y Ranch Rock Walls	State	Unknown
Valley-Y-19	Valley Y Ranch Lampposts and Handrail	State	Unknown
Valley-Y-2	Valley Y Ranch Main Stable	State	Unknown
Valley-Y-20	Valley Y Ranch Sidewalks and Stairs	State	Unknown
Valley-Y-3	Valley Y Ranch Blacksmith Shop	State	Unknown
Valley-Y-4	Valley Y Ranch Wishing Well	State	Unknown
Valley-Y-5	Valley Y Ranch Spring House	State	Unknown
Valley-Y-6	Valley Y Ranch Manager's House	State	Unknown
Valley-Y-7	Valley Y Ranch Garage	State	Unknown
Valley-Y-8	Valley Y Ranch Machine Shop	State	Unknown
Valley-Y-9	Valley Y Ranch Tractor Shed	State	Unknown
XXXX	Hicks Wall	State	Unknown
	Buffalo River State Park Historic District		
	Collier Homestead		
	Erbie Area Landscape		
	Parker Hickman Log Cabin and Farm		
	Rush Historic District		
	Valley Y Ranch at Steel Creek		

CUVA LCS⁶

CUVA Identity	Name	Significance Level	Potential for Impacts
CUVA00276	Terra Vista Archeological Site 1	Local	Unknown
CUVA00277	Terra Vista Archeological Site 2	Local	Unknown
HS-102	Lock #24 (O. & E. Canal)	National	Unknown
HS-102A	Lock # 24 Spillway (O&E Canal)	Not Evaluated	Unknown
HS-103	Lock #25 (O. & E. Canal)	National	Unknown
HS-104	Lock #26-Pancake Lock (O. & E. Canal)	State	Unknown
HS-106	Lock #27-Johnny Cake Lock (O. & E. Canal)	State	Unknown
HS-106A	Lock # 27 Spillway	State	Unknown
HS-107	Lock #28-Deep Lock (O. & E. Canal)	State	Unknown
HS-107A	Lock #28 Spillway	State	Unknown
HS-109	Canal Structures,O. & E. ,Miscellaneous	Not Evaluated	Unknown
HS-110	Lock #29 & Aqueduct-Peninsula Lock (O. & E. Canal)	State	Unknown
HS-111	Lock-#30 Feeder Lock (O. & E. Canal)	State	Unknown
HS-112	Lock #31-Lonesome Lock (O. & E. Canal)	State	Unknown
HS-112A	Lock # 31 Spillway	State	Unknown
HS-113	Stumpy Basin (O. & E. Canal)	National	Unknown
HS-114	Lock #32 (O. & E. Canal)	State	Unknown
HS-114A	Spillway - Near Lock #32	Local	Unknown
HS-115	Lock #33 (O. & E. Canal)	State	Unknown
HS-116	Lock #34-Red Lock (O. & E. Canal)	State	Unknown
HS-117	Lock #35 (O. & E. Canal)	State	Unknown

⁶ Davis, Christopher. May 27, 2011. Email -- You will see many structures remain that might be affected; however, any such effects would be beneficial and would help CUVA improve and/or maintain the condition of listed structures. I coordinated these conclusions with Paulette Cossel, CUVA's historical architect/106 coordinator.

CUVA Identity	Name	Significance Level	Potential for Impacts
HS-118	Lock #36 (O. & E. Canal)	National	Unknown
HS-119	Canal Segment #36 (O. & E. Canal)	National	Unknown
HS-121	Lock #37 (14 Mile Lock) & Spillway (O. & E. Canal)	National	Unknown
HS-121A	Lock # 37 Spillway	State	Unknown
HS-122	Canal Segment #37a (O. & E. Canal)	National	Unknown
HS-124	Canal Segment #37b (O. & E. Canal)	National	Unknown
HS-126	Lock #38-12 Mile Lock & Spillway (O. & E. Canal)	National	Unknown
HS-126A	Lock # 38 Spillway	State	Unknown
HS-127	Canal Segment #38 (O. & E. Canal)	National	Unknown
HS-128	Lock #39-11 Mile Lock & Spillway (O. & E. Canal)	National	Unknown
HS-128A	Lock # 39 Spillway	State	Unknown
HS-129	Lock 39 Wasteway	State	Unknown
HS-241	Kendall Lake Toboggan Run Remnant (Va Kendall)	Local	Unknown
HS-245	Kendall Lake and Dam (Virginia Kendall Unit)	Local	Unknown
HS-254A	Ledges Trail System and Steps (Virginia Kendall)	Local	Unknown
HS-336	Brandywine Creek Mills Site	Local	Unknown
HS-336A	Brandywine Falls Bridge	Local	Unknown
HS-409C	Abraham Ulyatt Cistern	Local	Unknown
HS-414C	Nathaniel Point Walkways	Local	Unknown
HS-443B	George Stanford Earth Dam	Local	Unknown
HS-486A	Savacoal Walkway	Local	Unknown
HS-511	Jyurovat, Andrew Walkway	Local	Unknown

EFMO LCS

No treatment will occur on or in the immediate vicinity of any LCS listed structures, including all mounds. They are not individually listed here.

EFMO Identity	Name	Significance Level	Potential for Impacts
CLI	Yellow River landscape		
CLI	Sny Magill landscape		

GWCA LCS

GWCA Identity	Name	Significance Level	Potential for Impacts
HS-05	Carver, Moses, Late Period Dwelling	Contributing	Mitigated
HS-26	Carver, George Washington, Bust	Contributing	Mitigated
HS-27	Dedication Plaque	Contributing	Mitigated
HS-30	Carver, Boy, Statue	Contributing	Mitigated
HS-31	Carver, Moses, Family Cemetery	Contributing	Mitigated
HS-31A	Carver, Moses, Cemetery Wall	Contributing	Mitigated
HS-35	Monument Site Boundary Markers	Not Sig ⁷	Mitigated
HS-36	Williams Springhouse Foundation	Not Sig	Mitigated
HS-37	Williams Pond Dam	Not Sig	Mitigated
	Entire monument is a cultural landscape		

⁷ Not Sig = Not Significant

HEHO LCS

HEHO Identity	Name	Significance Level	Potential for Impacts
HS-50	Hoover Creek Retaining Wall	Contributing	Mitigated
	Entire historic site is a cultural landscape		

HOME LCS

HOME Identity	Name	Significance Level	Potential for Impacts
HS-09	Freeman School Girls Privy	Contributing	Mitigated
HS-10	Freeman School Boys Privy	Contributing	Mitigated
HS-16	Freeman, Daniel and Agnes, Foot Stones	Contributing	Mitigated
HS-17	DAR Monument	Contributing	Mitigated
HS-19	Freeman Family Grave Marker	Contributing	Mitigated
HS-7A	Freeman School Playground Equipment Pole	Contributing	Mitigated
CLI	Freeman Homestead Cabin Site		
CLI	Brick House Site		
CLI	Agnes Freeman Cabin Site		
CLI	Squatters Cabin Site		
CLI	Osage Orange Hedgerow		
CLI	Entire monument is a cultural landscape		

HOCU LCS

HOCU Identity	Name	Significance Level	Potential of Impacts
HB-E01	High Bank Works Group	National	Mitigated
HE-E01	Circle "A" Enclosure -Hopeton Earthworks	Contributing	Mitigated
HE-E02	Great Circle Enclosure - Hopeton Earthworks	Contributing	Mitigated
HE-E03	Square Enclosure - Hopeton Earthworks	Contributing	Mitigated
HE-E04	Circle "B" Enclosure - Hopeton Earthworks	Contributing	Mitigated
HE-E05	Circle "C" Enclosure - Hopeton Earthworks	Contributing	Mitigated
HE-E06	Parallel Walls Earthwork - Hopeton Earthworks	Contributing	Mitigated
HE-E07	Small Circle Enclosure - Hopeton Earthworks	Contributing	Mitigated
HMG-E01	Hopewell Site - Hopewell Mound Group	National	Mitigated
SE-E01	Seip Earthworks Unit	National	Mitigated
CLI	Mound City Group		
CLI	Hopeton Earthworks		
CLI	Hopewell Earthworks		

HOSP LCS

HOSP Identity	Name	Significance Level	Potential for Impact
40	Hot Springs Mountain Road Stonework	Contributing	Mitigated
41	Pagoda	Contributing	Mitigated
43	Gulpha Gorge Stone Walls	Local	Mitigated

HOSP Identity	Name	Significance Level	Potential for Impact
44	Gulpha Gorge Low Water Crossing	Local	Mitigated
45	Oertel Trail System	Contributing	Mitigated
52	Tank House Hot Springs Mountain	Contributing	Mitigated
55	Trail Shelter	Contributing	Mitigated
56	Trail Shelter	Contributing	Mitigated
HB-109.A	Stone Bridge	State	Mitigated
HB-109.C	Dam	State	Mitigated
HB-109.D	Mill	State	Mitigated
HB-109.E	Pedestrian Bridge	State	Mitigated
HS-81	Tank House West Mountain	Local	Mitigated
Q-41	Gulpha Gorge Ranger's Residence	Local	Mitigated
RD-1	West Mountain Drive, Route #0011	State	Mitigated
RD-1-A	West Mountain Summit Road-Rt. 101	Local	Mitigated
RD-1-B	West Mountain Parking Area	Local	Mitigated
RD-1-C	West Mountain Summit Parking Area	Local	Mitigated
RD-2	Hot Springs Mountain Road	State	Mitigated
SH-1	West Mountain Shelter House	Local	Mitigated
CLI	Bathhouse Row		Mitigated
CLI	Gulpha Gorge		

LIBO LCS

LIBO Identity	Name	Significance Level	Potential for Impacts
HS-01A	East and west culverts near railroad	Contributing	Mitigated
HS-01Ab	Culvert by parking meadow	Contributing	Mitigated
HS-01Ac	Culverts in memorial area	Contributing	Mitigated
HS-01B	Memorial Water System Access Structure	Contributing	Mitigated
HS-12	Spencer County Memorial Monument	Contributing	Mitigated
HS-12A	Birthplace Stone and Marker	Contributing	Mitigated
HS-12B	Jones Store Rock and Marker	Contributing	Mitigated
HS-12C	Vincennes Stone and Marker	Contributing	Mitigated
HS-12D	Berry-Lincoln Store Stone and Marker	Contributing	Mitigated
HS-12E	Lexington Kentucky Bricks and Marker	Contributing	Mitigated
HS-12G	Old Capitol Stone and Marker	Contributing	Mitigated
HS-12H	Gettysburg Rock and Marker	Contributing	Mitigated
HS-12I	White House Stone and Marker	Contributing	Mitigated
HS-12J	Anderson Cottage Stone and Marker	Contributing	Mitigated
HS-12K	Washington D.C. Peterson House Stone and Marker	Contributing	Mitigated
HS-12L	Trail of Twelve Stones	Contributing	Mitigated
HS-37	Walnut Tree Marker	Contributing	Mitigated
HS-38	Old Lincoln Trace	Not Sig ⁸	Mitigated
HS-39	State Road Culvert	Contributing	Mitigated
CLI	Entire memorial is a cultural landscape		

⁸ Not Sig = Not Significant

OZAR LCS

OZAR Identity	Name	Significance Level	Potential for Impacts
223B	Akers Ferry Old River Road	Local	Mitigated
223C	Akers Ferry Stone Steps	Local	Mitigated
247	Akers District: Mt. Zion Church	Local	Mitigated
247A	Akers District: Mt. Zion Church Privy	Local	Mitigated
247B	Akers Cemetery Fence	Local	Mitigated
445A	Partney Farm Privy	Local	Mitigated
445B	Partney Farm Stock Pond	Local	Mitigated
445D & 445E	Partney Farm Chilton Cemetery	Local	Mitigated
455	Partney Farm Root Cellar	Local	Mitigated
BS-new-A	Big Spring CCC Rock Quarry Remnants	State	Mitigated
BS-new-B	Big Spring CCC Quarry Powder Magazine	State	Mitigated
BS-new-C	Big Spring CCC Camp Ruin - Dining Hall Remnant	State	Mitigated
BS-new-D	Big Spring CCC Camp Ruin - Foundation	State	Mitigated
BS-new-E	Big Spring CCC Camp Ruin - Fire Ring	State	Mitigated
BS-new-F	Big Spring CCC Camp Ruin - Trough Structure	State	Mitigated
BS-new-G	Big Spring CCC Camp Ruin - Stone Retaining Wall	State	Mitigated
BS-new-H	Big Spring CCC Camp Ruin - Water Tower Posts	State	Mitigated
BS-new-I	Big Spring CCC Camp Ruin - Concrete Slab	State	Mitigated
BS-new-J	Big Spring CCC Camp Ruin - Shower House Foundation	State	Mitigated
BS-new-K	Big Spring CCC Camp Ruin - Septic Tanks	State	Mitigated
BS-new-L	Big Spring May/Winters Quarters Garage Foundation	State	Mitigated
CEM-LG	Lower Grassy Cemetery	Not Sig ⁹	Mitigated
CEM-LG-A	Lower Grassy Cemetery: Deatherage Grave Markers	Not Sig	Mitigated
CEM-LG-B	Lower Grassy Cemetery: Martin Family Grave Markers	Not Sig	Mitigated
CEM-LG-C	Lower Grassy Cemetery: Randolph Grave Markers	Not Sig	Mitigated
CEM-LG-D	Lower Grassy Cemetery: Individual Grave Markers	Not Sig	Mitigated
Culpepper-1	Culpepper Cemetery	Not Sig	Mitigated
Dyer-1	Dyer Cemetery	Not Sig	Mitigated
Dyer-1-A	Dyer Cemetery: Cooley, Nellie Grave Marker	Not Sig	Mitigated
Dyer-1-B	Dyer Cemetery: Coop Family Grave Markers	Not Sig	Mitigated
Dyer-1-C	Dyer Cemetery: Duncan Family Grave Markers	Not Sig	Mitigated
Dyer-1-D	Dyer Cemetery: Dyer Family Grave Markers	Not Sig	Mitigated
Dyer-1-E	Dyer Cemetery: Hardwick Family Grave Markers	Not Sig	Mitigated
Dyer-1-F	Dyer Cemetery: Ipock Family Grave Markers	Not Sig	Mitigated
Dyer-1-G	Dyer Cemetery: Stuart Baby Grave Marker	Not Sig	Mitigated
HS-1404	Big Spring Fire Lookout Tower	State	Mitigated
HS-1404-A	Big Spring Fire Tower, Grass Road	State	Mitigated
HS-1404-B	Big Spring Fire Tower, Gravel Road	State	Mitigated
HS-1404-C	Big Spring Fire Tower, Privy Site #1	Local	Mitigated
HS-1404-D	Big Spring Fire Tower, Privy Site #2	State	Mitigated
HS-1404-E	Big Spring Fire Tower, Rock Quarry Remnants	State	Mitigated
HS-1404-F	Big Spring Fire Tower, Stone Retaining Wall	State	Mitigated
HS-18A	Chilton-Williams Complex: Williams Cistern	Local	Mitigated
HS-208	Round Spring Historic Shelter	Not Sig	Mitigated
HS-220	Round Spring Old General Store	Not Sig	Mitigated

⁹ Not Sig = Not Significant

OZAR Identity	Name	Significance Level	Potential for Impacts
HS-222	Round Spring: Carrs Concession Building (Store #2)	Local	Mitigated
HS-222-A	Round Spring Cavern Steps	Not Sig ¹⁰	Mitigated
HS-225	Welch Cave Hospital	Not Evaluated	Mitigated
HS-229	Pulltite Cabin	Local	Mitigated
HS-230	Cedargrove Schoolhouse Ruins	Local	Mitigated
HS-231	Cedar Grove Community Ruins	Local	Mitigated
HS-233	Lower Parker Schoolhouse	Local	Mitigated
HS-233A	Lower Parker Schoolhouse Girl's Privy	Contributing	Mitigated
HS-233B	Lower Parker Schoolhouse Boy's Privy	Contributing	Mitigated
HS-242	Devil's Well Wallace Barn	Not Sig	Mitigated
HS-244	Nichols Cabin/House	State	Mitigated
HS-244B	Nichols Crib Barn	State	Mitigated
HS-244C	Nichols Road	State	Mitigated
HS-245	Nichols Corn Crib	State	Mitigated
HS-246	Maggard Cabin	Local	Mitigated
HS-311A	Owls Bend School, Outbuilding Foundation	Local	Mitigated
HS-313	Ramsey Barn	Not Sig	Mitigated
HS-315	Chilton-Williams Complex: Chilton House	Local	Mitigated
HS-318	Chilton-Williams Complex: Lesh/Williams House	Local	Mitigated
HS-319	Chilton-Williams Complex: Barn Foundation	Local	Mitigated
HS-320	Chilton-Williams Complex: Equipment Storage Shed	Local	Mitigated
HS-321	Chilton-Williams Complex: Small Barn #1	Local	Mitigated
HS-322	Chilton-Williams Complex: Corn Crib #1	Local	Mitigated
HS-323	Chilton-Williams Complex: Corn Crib #2	Local	Mitigated
HS-324	Chilton-Williams Complex: Williams Shed	Local	Mitigated
HS-324A	Chilton-Williams Feeder	Local	Mitigated
HS-326	Chilton-Williams Complex: Smokehouse	Local	Mitigated
HS-327	Chilton-Williams Complex: Tool Shed	Local	Mitigated
HS-328	Chilton-Williams Complex: Small Barn #2	Local	Mitigated
HS-329	Chilton-Williams Complex: Chicken House	Local	Mitigated
HS-337	Chilton-Williams Complex: Storm Cellar	Local	Mitigated
HS-339	Chilton-Williams Complex: Concrete Silo #1	Local	Mitigated
HS-340	Chilton-Williams Complex: Silo #2	Local	Mitigated
HS-342	Buttin Rock School	Local	Mitigated
HS-342A	Buttin Rock School Boy's Privy - Ruin	Local	Mitigated
HS-342B	Buttin Rock School Girl's Privy	Local	Mitigated
HS-342C	Buttin Rock School Well	Contributing	Mitigated
HS-343	Klepzig House Ruin	Local	Mitigated
HS-345	Klepzig Log Cabin - Ruin	Not Sig ¹¹	Mitigated
HS-346	Klepzig Machine Shed Ruin	Not Sig	Mitigated
HS-347	Klepzig Barn and Granary Ruins	Local	Mitigated
HS-348	Klepzig Smokehouse	Local	Mitigated
HS-348A	Klepzig Mill Chicken Coop Ruin	Contributing	Mitigated
HS-349	Klepzig Stock Shed and Granary Ruin	Not Evaluated	Mitigated
HS-350	Klepzig Springhouse	Local	Mitigated
HS-351	Reed Log House	State	Mitigated

¹⁰ Not Sig = Not Significant¹¹ Not Sig = Not Significant

OZAR Identity	Name	Significance Level	Potential for Impacts
HS-351A	Reed Cistern	State	Mitigated
HS-355	Klepzig Mill	State	Mitigated
HS-355A	Klepzig Mill Dam	Contributing	Mitigated
HS-355B	Klepzig Mill Headrace	Contributing	Mitigated
HS-355C	Klepzig Mill Retaining Wall & Steps	Contributing	Mitigated
HS-355D	Klepzig Road	Contributing	Mitigated
HS-356	Buttin Rock Road	Local	Mitigated
HS-356A	Buttin Rock Road Cattle Guard/Culvert	Contributing	Mitigated
HS-401	Big Spring Rental Cabin #401	State	Mitigated
HS-401B	Big Spring Cabin Road System	State	Mitigated
HS-402	Big Spring Rental Cabin #402	State	Mitigated
HS-403	Big Spring Rental Cabin #403	State	Mitigated
HS-404	Big Spring Rental Cabin #404	State	Mitigated
HS-405	Big Spring Rental Cabin #405	State	Mitigated
HS-406	Big Spring Rental Cabin #406	State	Mitigated
HS-407	Big Spring Rental Cabin #407	State	Mitigated
HS-408	Big Spring Rental Cabin #408	State	Mitigated
HS-409	Big Spring Rental Cabin #409	State	Mitigated
HS-410	Big Spring Rental Cabin #410	State	Mitigated
HS-411	Big Spring Rental Cabin #411	State	Mitigated
HS-412	Big Spring Rental Cabin #412	State	Mitigated
HS-413	Big Spring Rental Cabin #413	State	Mitigated
HS-414	Big Spring Rental Cabin #414	State	Mitigated
HS-415	Big Spring Cabin #415	State	Mitigated
HS-416	Big Spring Cabin #416	State	Mitigated
HS-417	Big Spring Maintenance Shop	State	Mitigated
HS-418	Big Spring Maintenance Storage Building	State	Mitigated
HS-419	Big Spring Garage	State	Mitigated
HS-420	Big Spring State Park Museum Building	State	Mitigated
HS-422	Big Spring Dining Lodge & Help's Quarters	State	Mitigated
HS-422A	Big Spring Dining Lodge Retaining Wall & Fountain	State	Mitigated
HS-423	Big Spring Latrine	State	Mitigated
HS-423A	Big Spring Retaining Wall & Abutments	State	Mitigated
HS-425	Big Spring Pavilion	State	Mitigated
HS-425A	Big Spring Nature Trail System	State	Mitigated
HS-427	Big Spring Chubb Hollow Open Shelter House #427	State	Mitigated
HS-427A	Big Spring Chubb Hollow Stone Culvert	State	Mitigated
HS-428	Big Spring Peavine Pavilion	State	Mitigated
HS-432	Big Spring Entrance Building	State	Mitigated
HS-432A	Big Spring Entrance Portal Walls	State	Mitigated
HS-432B	Big Spring Dump Incinerator	State	Mitigated
HS-443	Big Spring Pump House	State	Mitigated
HS-444	Big Spring May/Winters Quarters	State	Mitigated
HS-445	Partney Farm House	Local	Mitigated
HS-445-F	Partney Farm Chilton House Site Ruin	Local	Mitigated
HS-445-G	Partney Farm Chilton House Site Spring Box	Local	Mitigated
HS-445-RWall	Partney Farm Retaining Wall	Local	Mitigated
HS-454	Partney Farm Shed	Local	Mitigated
HS-456	Big Spring Chubb Hollow Foot Bridge	State	Mitigated

OZAR Identity	Name	Significance Level	Potential for Impacts
HS-464	Shockley Barn	Not Sig ¹²	Mitigated
HS-469	Big Spring Foot Bridge	State	Mitigated
HS-470	Atlantic & Pacific Railroad	Local	Mitigated
HS-501	Alley Spring Roller Mill	State	Mitigated
HS-501A	Alley Spring Pond, Dam, Turbine Pit & Raceway	State	Mitigated
HS-501B	Alley Spring Revetment Wall	State	Mitigated
HS-501C	Alley Spring Roller Mill Stone Walkway	State	Mitigated
HS-501D	Alley Spring Mill Main Bridge Abutment	State	Mitigated
HS-501H	Alley Spring Trail System East	State	Mitigated
HS-501I	Alley Spring Scenic Overlook	State	Mitigated
HS-501J	Alley Spring Trail System West	State	Mitigated
HS-502	Alley Spring District Maintenance Shop	State	Mitigated
HS-503	Alley Spring Picnic Shelter	State	Mitigated
HS-504	Alley Spring Park Keeper's House	State	Mitigated
HS-504B	Alley Spring Seasonal Cabin Steps and Pathway	State	Mitigated
HS-505	Alley Spring CCC Seasonal Cabin 505	State	Mitigated
HS-506	Alley Spring Seasonal Cabin 506	State	Mitigated
HS-507	Alley Spring Pump House	State	Mitigated
HS-508	Alley School House	Not Evaluated	Mitigated
HS-508A	Alley Schoolhouse Sidewalk & Drive	State	Mitigated
HS-511	Alley Spring Ranger Station	State	Mitigated
HS-511A	Alley Spring Ranger Station Steps	State	Mitigated
HS-520	Alley Spring Story's Creek Schoolhouse	Not Sig ¹³	Mitigated
HS-564	Buck Hollow: Cardinal Acres Cabin 1	Local	Mitigated
HS-564-Road	Buck Hollow: Cardinal Acres Road	Local	Mitigated
HS-565	Buck Hollow: Cardinal Acres Cabin 3	Local	Mitigated
HS-565A	Buck Hollow: Cardinal Acres Culvert	Local	Mitigated
HS-565C	Buck Hollow: Cardinal Acres Privy #1	Local	Mitigated
HS-565E	Buck Hollow: Cardinal Acres Privy #2	Local	Mitigated
HS-565F	Buck Hollow: Cardinal Acres, House Site A	Local	Mitigated
HS-565G	Buck Hollow: Cardinal Acres, House Site B	Local	Mitigated
HS-565H	Buck Hollow: Cardinal Acres, House Site C	Local	Mitigated
HS-565I	Buck Hollow: Cardinal Acres, House Site D	Local	Mitigated
HS-565J	Buck Hollow: Cardinal Acres, House Site E	Local	Mitigated
HS-565K	Buck Hollow: Cardinal Acres, House Site F	Local	Mitigated
HS-565L	Buck Hollow: Cardinal Acres, Concrete Cisterns	Local	Mitigated
HS-567	Buck Hollow: Cardinal Acres Pumphouse Ruin	Local	Mitigated
HS-567A	Buck Hollow: Cardinal Acres Retaining Walls	Local	Mitigated
HS-DIKES	Big Spring Stone Dikes	State	Mitigated
HS-Fountains	Big Spring Fountains	State	Mitigated
HS-Parking	Big Spring Main Parking Area	State	Mitigated
HS-PATH	Big Spring Cabin Path System & Stairs	State	Mitigated
HS-Road	Chilton-Williams Farm Road	Local	Mitigated
Kelley-1	Kelleys Cemetery	Not Sig ¹⁴	Mitigated
Medlock	Medlock Cemetery (Flying W Ranch)	Not Sig	Mitigated

¹² Not Sig = Not Significant¹³ Not Sig = Not Significant¹⁴ Not Sig = Not Significant

OZAR Identity	Name	Significance Level	Potential for Impacts
U6	Akers Ferry Cairns	Local	Mitigated
U600	Akers Cemetery: Banks, Lummas, Headstone	Local	Mitigated
U601	Akers Cemetery: Banks, Sarah, Headstone	Local	Mitigated
U602	Akers Cemetery: Banks, Marion, Headstone	Local	Mitigated
U603	Akers Cemetery: McEntire Headstone	Local	Mitigated
U604	Akers Cemetery: Briggs, Vester, Headstone	Local	Mitigated
U605	Akers Cemetery: Farris, J. M., Family Plot Marker	Local	Mitigated
U606	Akers Cemetery: Hodges, Dora, Headstone	Local	Mitigated
U607	Akers Cemetery: Hodges, Samuel, Headstone	Local	Mitigated
U608	Akers Cemetery: Akers, Ralph Vernon Headstone	Local	Mitigated
U609	Akers Cemetery: Purcell, Thomas, Headstone	Local	Mitigated
U610	Akers Cemetery: Purcell, Marion, Headstone	Local	Mitigated
U611	Akers Cemetery: Purcell, F.M. & Sarah Headstone	Local	Mitigated
U612	Akers Cemetery: Purcell, Arch & Clem Headstone	Local	Mitigated
U613	Akers Cemetery: Hodges, Billie Joe, Headstone	Local	Mitigated
U614	Akers Cemetery: Hodges, Thomas & Nora, Headstone	Local	Mitigated
U616	Akers Cemetery: Riley, Sara & James, Headstone	Local	Mitigated
U617	Akers Cemetery: Riley Family Plot Marker	Local	Mitigated
U618	Akers Cemetery: Riley, John Wesley, Headstone	Local	Mitigated
U619	Akers Cemetery: Purcell Family Headstones	Local	Mitigated
U621-28	Akers Cemetery: Dooley Family Plot Marker	Local	Mitigated
U629	Akers Cemetery: Mendenhall, Lucy Headstone	Local	Mitigated
U630	Akers Cemetery: Welch, R. E., Headstone	Local	Mitigated
U631	Akers Cemetery: Summers, William, Headstone	Local	Mitigated
U632	Akers Cemetery: Stringer, Dell A., Headstone	Local	Mitigated
U633	Akers Cemetery: Purcell, Jane & George, Headstone	Local	Mitigated
U634	Akers Cemetery: Maggard, F.E. & Louisa Headstone	Local	Mitigated
U635	Akers Cemetery: Dooley, Maudeline, Headstone	Local	Mitigated
U637	Akers Cemetery: Terrill, Mamie, Headstone	Local	Mitigated
U638	Akers Cemetery: Terrill, Virginia, Headstone	Local	Mitigated
U639	Akers Cemetery: Mascher, Lyle, Headstone	Local	Mitigated
U640	Akers Cemetery: Headstone (Concrete & Marble)	Local	Mitigated
U641	Akers District: Old Gladden Creek Road	State	Mitigated
U642	Akers District: Old Gladden Creek Road Bridge	State	Mitigated
U645	Akers Cemetery: Chrisco, Allen & Wilma Headstones	Local	Mitigated
U646	Akers Cemetery: Dooley Family Grave Markers	Local	Mitigated
U647	Akers Cemetery: Flat In-Ground Vernacular Markers	Local	Mitigated
U648	Akers Cemetery: Holland, Cecil R, Headstone	Local	Mitigated
U649	Akers Cemetery: Jennings, Manda Headstone	Local	Mitigated
U650	Akers Cemetery: Welch Family Grave Markers	Local	Mitigated
U651	Akers Cemetery: Ferguson Family Grave Markers	Local	Mitigated
U652	Akers Cemetery: Terrill, Besford, Jr., Headstone	Local	Mitigated
U653	Akers Cemetery: Hodges Family Grave Markers	Local	Mitigated
U653	Akers Cemetery: Pankey, J.R. & Dolly, Grave Marker	Local	Mitigated
U654	Akers Cemetery: Smith, Mary & Bob Headstone	Local	Mitigated
U660	Akers Cemetery: Maggard, Gaylord & Loreen Cenotaph	Local	Mitigated
Weese-1	Weese Cemetery	Not Sig ¹⁵	Mitigated

¹⁵ Not Sig = Not Significant

OZAR Identity	Name	Significance Level	Potential for Impacts
Weese-1-A	Weese Cemetery: Individual Markers	Not Sig	Mitigated
Weese-1-B	Weese Cemetery: Atchison (Atchenson) Family	Not Sig	Mitigated
Weese-1-C	Weese Cemetery: Cox Family Grave Markers	Not Sig	Mitigated
Weese-1-D	Weese Cemetery: Enloe Family Grave Markers	Not Sig	Mitigated
Weese-1-E	Weese Cemetery: Light Family Grave Markers	Not Sig	Mitigated
Weese-1-F	Weese Cemetery: Mailes Family Grave Markers	Not Sig	Mitigated
Weese-1-G	Weese Cemetery: Stulce Family Grave Markers	Not Sig ¹⁶	Mitigated
Weese-1-H	Weese Cemetery: Webber Family Grave Markers	Not Sig	Mitigated
Weese-1-I	Weese Cemetery: Weber Family Grave Markers	Not Sig	Mitigated
Weese-1-J	Weese Cemetery: Weese Family Grave Markers	Not Sig	Mitigated
Weese-1-K	Weese Cemetery: Smith Family Grave Markers	Not Sig	Mitigated
Weese-1-L	Weese Cemetery: Stewart Family Grave Markers	Not Sig	Mitigated
Weese-1-M	Weese Cemetery: Wood Family Grave Markers	Not Sig	Mitigated
CLI	Alley Spring State Park Historic District		
CLI	Big Spring Historic District		
CLI	Chilton-Williams Farm Complex		
CLI	Maggard Cabin Site		
CLI	Mt. Zion Church Site		
CLI	Nichols Farm		
CLI	Partney Farm		
CLI	Pulltite Cabin Site		
CLI	Reed Log House Site		
CLI	Welch Cave site		

PERI LCS

PERI Identity	Name	Significance Level	Potential for Impact
HB-01	Huntsville Road	National	Mitigated
HB-05	Elkhorn Tavern	Not Sig	Mitigated
HB-08	Ford Road	National	Mitigated
HB-14	Union Trenches	Contributing	Mitigated
HB-21	Telegraph Road	Contributing	Mitigated
HB-22-A	Tannery House Foundation	Contributing	Mitigated
HB-22-B	Tannery Well	Contributing	Mitigated
HB-24	Ford Cemetery	Not Sig	Mitigated
HB-25	Leetown Cemetery	Contributing	Mitigated
CLI	Entire park is a cultural landscape		

PIPE LCS

PIPE Identity	Name	Significance Level	Potential for Impact
HS-10	Circle Trail	Contributing	Mitigated
HS-11	South Quarry Line Trail	Contributing	Mitigated

¹⁶ Not Sig = Not Significant

PIPE Identity	Name	Significance Level	Potential for Impact
HS-7	CCC Footbridges	Contributing	Mitigated
CLI	Entire monument is a cultural landscape		

TAPR LCS

TAPR Identity	Name	Significance Level	Potential for Impact
HS 106	Loose Laid Stone Fences	Contributing	Mitigated
HS 109	Spring Hill Ranch Outhouse	National	Mitigated
HS 110	Spring Hill Ranch Barn	National	Mitigated
HS 111	Spring Hill Ranch Silo	Contributing	Mitigated
HS 112	Spring Hill Ranch Stone Corrals	National	Mitigated
HS 113	Stone Retaining Walls Near Barn	Contributing	Mitigated
HS 114	Shed #3	Contributing	Mitigated
HS 117	Chute Shed	Contributing	Mitigated
HS 126	Spring Hill Ranch Cistern	National	Mitigated
HS 127	Spring Box	Contributing	Mitigated
HS 201	Lower Fox Creek Schoolhouse	National	Mitigated
HS 202	Schoolhouse Water Well and Pump	Contributing	Mitigated
HS 115	Spring Hill Ranch Corrals	Unknown	Mitigated
HS 116	Scale House	Unknown	Mitigated
HS 401-7, HS412, and unnumbered	Loose Laid Stone Fences (preserve-wide)		Mitigated
HS 408	Red House Ruins	Unknown	Mitigated
HS 409	Red House Spring Box	Unknown	Mitigated
HS 410	Red House Barn Foundation	Unknown	Mitigated
HS 411	Red House Corrals	Unknown	Mitigated
No number	Windmill Stone Spring Box	Unknown	Mitigated
No number	Windmill Spring Box	Unknown	Mitigated
No number	Gas House (Big) Homestead Foundations, Site 1		Mitigated
No number	Gas House (Big) Homestead Foundations, Site 2		Mitigated
No number	West Branch (Big) Homestead Foundations	Unknown	Mitigated
No number	Davis Gas Field Infrastructure	Unknown	Mitigated
HS 501	Well House #1	Unknown	Mitigated
HS 501	Well House #2	Unknown	Mitigated
HS 503	Railroad Spur and Stockyard	Unknown	Mitigated
No number	Bottomland Corral and Feed Lot	Unknown	Mitigated
No number	Pole Barn	Unknown	Mitigated
No number	Rock Cairns	Unknown	Mitigated
No number	Two Section Corrals	Unknown	Mitigated
No number	Two Section Homestead Foundations	Unknown	Mitigated
No number	Lantry Lane Stone Culvert	Unknown	Mitigated
HS 301	Lantry Barn	Unknown	Mitigated
HS 302	Lantry Poultry House	Unknown	Mitigated
HS 303	Lantry Tack Barn	Unknown	Mitigated
HS 304	Lantry Earth Bern Flood Control Structure	Unknown	Mitigated
No number	Lantry Loading Dock	Unknown	Mitigated

WICR LCS

WICR Identity	Name	Significance Level	Potential for Impact
23	McElhaney House	Local	Mitigated
24	McElhaney Barn	Local	Mitigated
25	McElhaney Storm Cellar	Local	Mitigated
26	McElhaney Smokehouse	Local	Mitigated
27	McElhaney Cistern	Contributing	Mitigated
28	McElhaney Sidewalk	Local	Mitigated
29	Stone Field Wall #1	Contributing	Mitigated
30	Stone Field Wall #2	Contributing	Mitigated
HS-05	Ray, John A., House	Contributing	Mitigated
HS-10	General Lyon Marker	Contributing	Mitigated
HS-11	Telegraph Road	National	Mitigated
HS-13	Ray, John A., Spring House	Contributing	Mitigated
HS-15	Gibson's Mill & Headrace Ruins	Contributing	Mitigated
HS-15-A	Gibson's Mill House Site Ruin	Contributing	Mitigated
HS-17A	Short Spring Box	Contributing	Mitigated
HS-21A	Manley Cemetery: Manley, Caleb & Rebecca Headstone	Contributing	Mitigated
HS-21B	Manley Cemetery: Manley, Martha Headstone	Contributing	Mitigated
HS-21C	Manley Cemetery: Prunty, D. C., Headstone	Contributing	Mitigated
HS-21D	Manley Cemetery: Jennings, William Headstone	Contributing	Mitigated
HS-21E	Manley Cemetery: Howe Family Headstones	Contributing	Mitigated
HS-22A	Edgar Cemetery: Edgar, Susanah & J.J., Headstone	Contributing	Mitigated
HS-22B	Edgar Cemetery: Couch, Elisha P., Headstone	Contributing	Mitigated
HS-22C	Edgar Cemetery: Couch, Sarah J., Headstone	Contributing	Mitigated
HS-22D	Edgar Cemetery: Couch, Elisha M., Headstone	Contributing	Mitigated
HS-22E	Edgar Cemetery: White, Elzira B., Headstone	Contributing	Mitigated
HS-22F	Edgar Cemetery: Elmer, Hubert, Headstone	Contributing	Mitigated
HS-22G	Edgar Cemetery: Edgar, John & Centha, Headstone	Contributing	Mitigated
HS-22H	Edgar Cemetery: Edgar, Jannie L., Headstone	Contributing	Mitigated
Memorial 1	Battle of Oak Hills Commemorative Marker	Not Sig ¹⁷	Mitigated
CLI	Entire battlefield is a cultural landscape		

¹⁷ Not Sig = Not Significant

Appendix J: Tribal Affiliation

Park	Affiliated tribes
ARPO	Quapaw Tribe of Indians of Oklahoma
BUFF	Absentee Shawnee, Caddo Indian Tribe of Oklahoma, Cherokee Nation of Oklahoma, Eastern Shawnee Tribe of Oklahoma, Osage Tribe of Oklahoma, Quapaw Tribe of Oklahoma, The Shawnee Tribe, Tunica-Biloxi Tribe, United Keetoowah Band of Cherokee Indians in Oklahoma, Wichita and Affiliated Tribes
CUYA	Absentee-Shawnee Tribe of Indians of Oklahoma, Delaware Nation of Oklahoma, Delaware Tribe of Indians (Oklahoma), Eastern Shawnee Tribe of Oklahoma, Seneca-Cayuga Tribe of Oklahoma, Shawnee Tribe, Wyandotte Nation of Oklahoma
EFMO	Ho-Chunk Nation, Iowa Tribe of Kansas and Nebraska, Iowa Tribe of Oklahoma, Lower Sioux Indian Community, Otoe-Missouria Tribe of Indians of Oklahoma, Prairie Island Indian Community, Sac & Fox Nation of Oklahoma, Sac & Fox Tribe of the Mississippi in Iowa, Sac and Fox Nation of Missouri in Kansas and Nebraska, Shakopee Mdewakanton Sioux Community, Upper Sioux Community, Minnesota, Winnebago Tribe of Nebraska
GWCA	Park recognizes the Eastern Shawnee Tribe of Oklahoma, Miami Tribe of Oklahoma, Modoc Tribe of Oklahoma, Osage Nation, Peoria Tribe of Oklahoma, Quapaw Tribe of Oklahoma, Shawnee Tribe, THPO of Citizen Potawatomi Nation, THPO of Absentee Shawnee Tribe of Oklahoma, THPO of Choctaw Nation of Oklahoma, Cherokee Nation, Wyandotte Nation
HEHO	none
HOME	Pawnee Nation of Oklahoma, Otoe-Missouri Tribe
HOCU	Absentee-Shawnee Tribe of Indians of Oklahoma, Delaware Nation, Delaware Tribe of Indians, Eastern Shawnee Tribe of Oklahoma, Miami Tribe of Oklahoma, Ottawa Tribe of Oklahoma, Seneca-Cayuga Tribe of Oklahoma, Shawnee Tribe, Wyandotte Nation
HOSP	Caddo Indian Tribe, Osage Tribe of Oklahoma, Quapaw Tribe of Indians of Oklahoma
LIBO	none
OZAR	Absentee-Shawnee Tribe of Indians of Oklahoma, Cherokee Nation of Oklahoma, Delaware Nation of Oklahoma, Delaware Tribe of Indians, Eastern Shawnee Tribe of Oklahoma, Osage Tribe of Oklahoma, Osage Nation, Quapaw Tribe of Indians of Oklahoma, Shawnee Tribe, United Keetoowah Band of Cherokee Indians in Oklahoma
PERI	Cherokee Nation of Oklahoma, United Keetoowah Band of Cherokee Indians in Oklahoma
PIPE	Flandreau Santee Sioux Tribe of South Dakota, Lower Sioux Indian Community, Santee Sioux Tribe of Nebraska, Shakopee Mdewakanton Sioux Community, Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota, Upper Sioux Community, Minnesota, Yankton Sioux Tribe of South Dakota
TAPR	Kaw Tribe of Oklahoma, Osage Tribe of Oklahoma, Pawnee Tribe of Oklahoma, Wichita Tribe of Oklahoma
WICR	Cherokee Nation of Oklahoma, United Keetoowah Band of Cherokee Indians in Oklahoma

DRAFT

Appendix K: Park Maps

Map 1a.	Digital image of the features at Arkansas Post National Memorial	414
Map 1b.	Land cover, roads, trails, and water bodies at Arkansas Post National Memorial Unit	415
Map 2a.	Digital image of the features at Buffalo National River	416
Map 2b.	Roads and Rivers at Buffalo National River	417
Map 3a.	Digital image of the features at Cuyahoga Valley National Park	418
Map 3b.	Roads, Trails and Rivers at Cuyahoga Valley National River	419
Map 4a.	Digital image of the features at Effigy Mounds National Monument	420
Map 4b.	Satellite image of Effigy Mounds National Monument depicting vegetation types	421
Map 5a.	Digital image of the features at George Washington Carver National Monument	422
Map 5b.	Land Cover, trails, roads and rivers at George Washington Carver National Monument	423
Map 6a.	Digital image of the features of Herbert Hoover National Historic Site	424
Map 6b.	Management Zones and units at Herbert Hoover National Historic Site	425
Map 7a.	Digital image of the features at Homestead National Monument of America	426
Map 8a.	Digital image of the features at Hopewell Culture National Historical Park	427
Map 8b.	Roads, river and trails at Hopewell Culture National Historical Park	428
Map 9a.	Digital image of the features at Hot Springs National Park	429
Map 9b.	Land cover, trails, roads and rivers at Hot Springs National Park	430
Map 10a.	Digital images of the features at Lincoln Boyhood National Memorial	431
Map 10b.	Land cover, trails, roads and water bodies at Lincoln Boyhood National Memorial	432
Map 11a.	Digital images of the features at Ozark National Scenic Riverway	433
Map 11b.	Roads and rivers at Ozark National Scenic Riverway	434
Map 12a.	Digital image of the features at Pea Ridge National Military Park	435
Map 12b.	Land cover, trails, roads, and rivers of Pea Ridge National Military Park	436
Map 13a.	Digital image of the features of Pipestone National Monument	437
Map 14a.	Digital image of the features of Tallgrass Prairie National Preserve	438
Map 15a.	Digital image of the features of Wilson's Creek National Battlefield	439

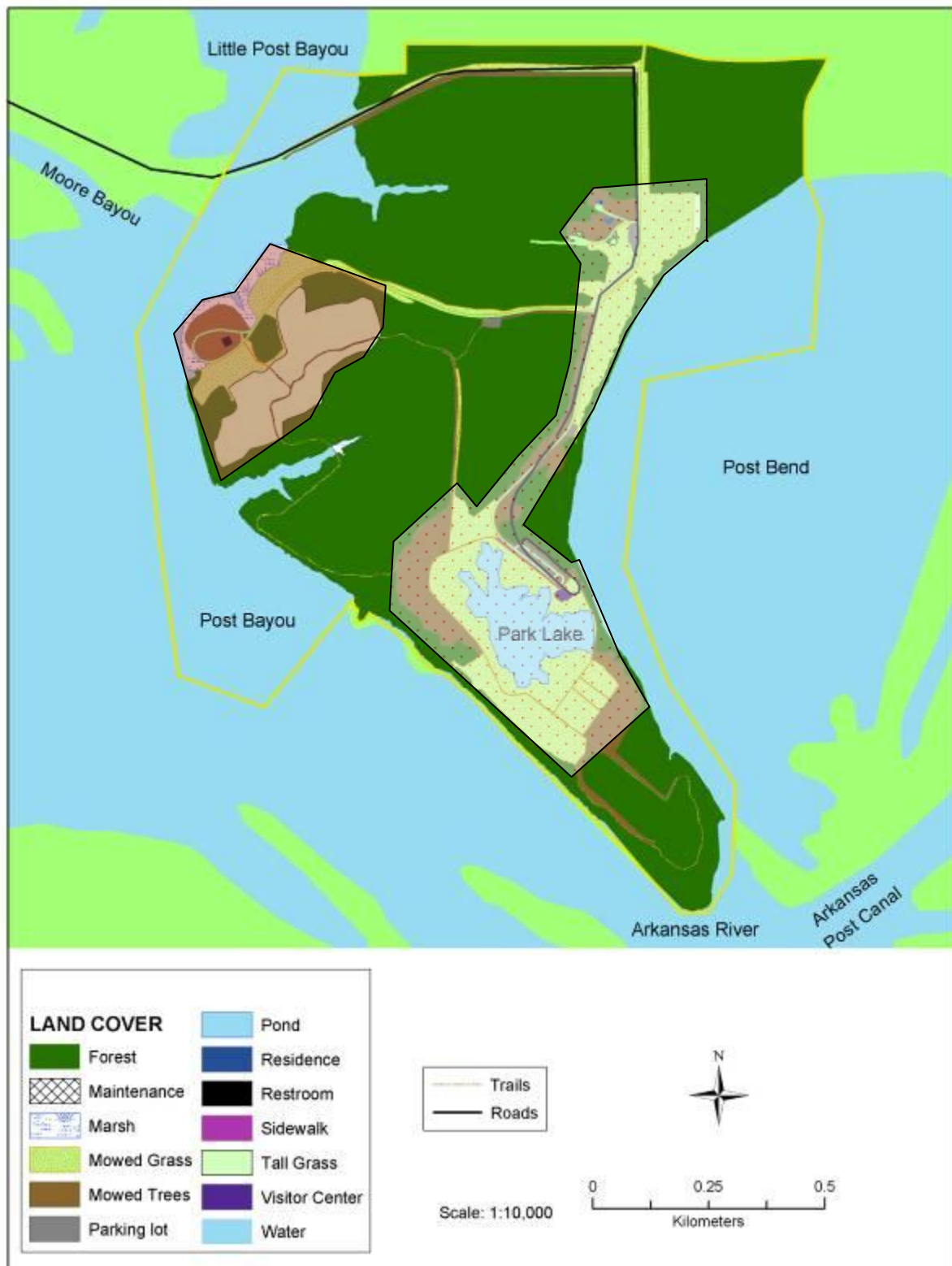
Map 1a. Digital image of the features at Arkansas Post National Memorial

(Source: State of Arkansas digital orthoquadrangles, 2002)



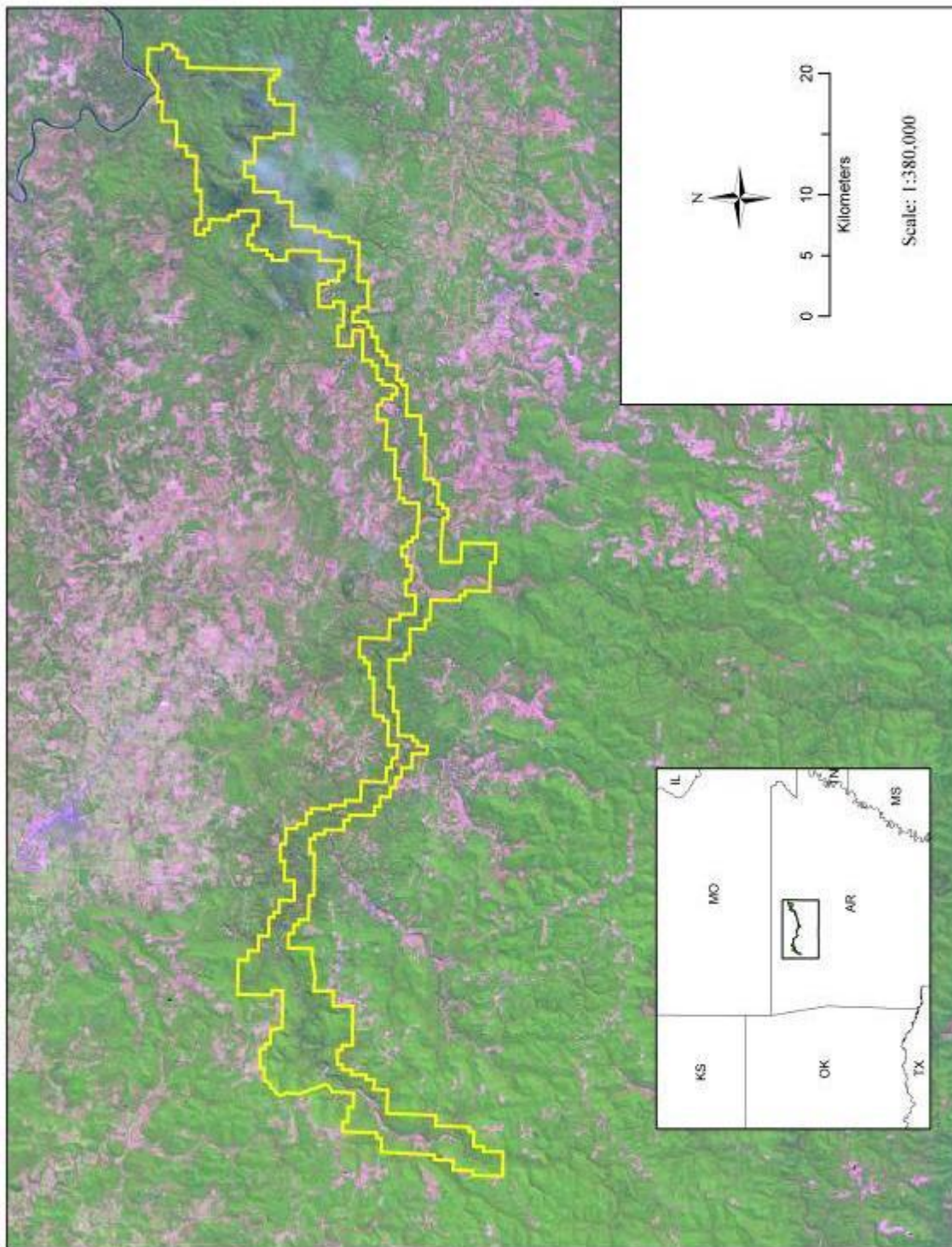
Map 1b. Land cover, roads, trails, and water bodies at Arkansas Post National Memorial Unit

(Sources: Vegetation: NPS, November 2000; Roads: Unknown; Trails: NPS, July 2001; Water Bodies: TIGER, January 2000)



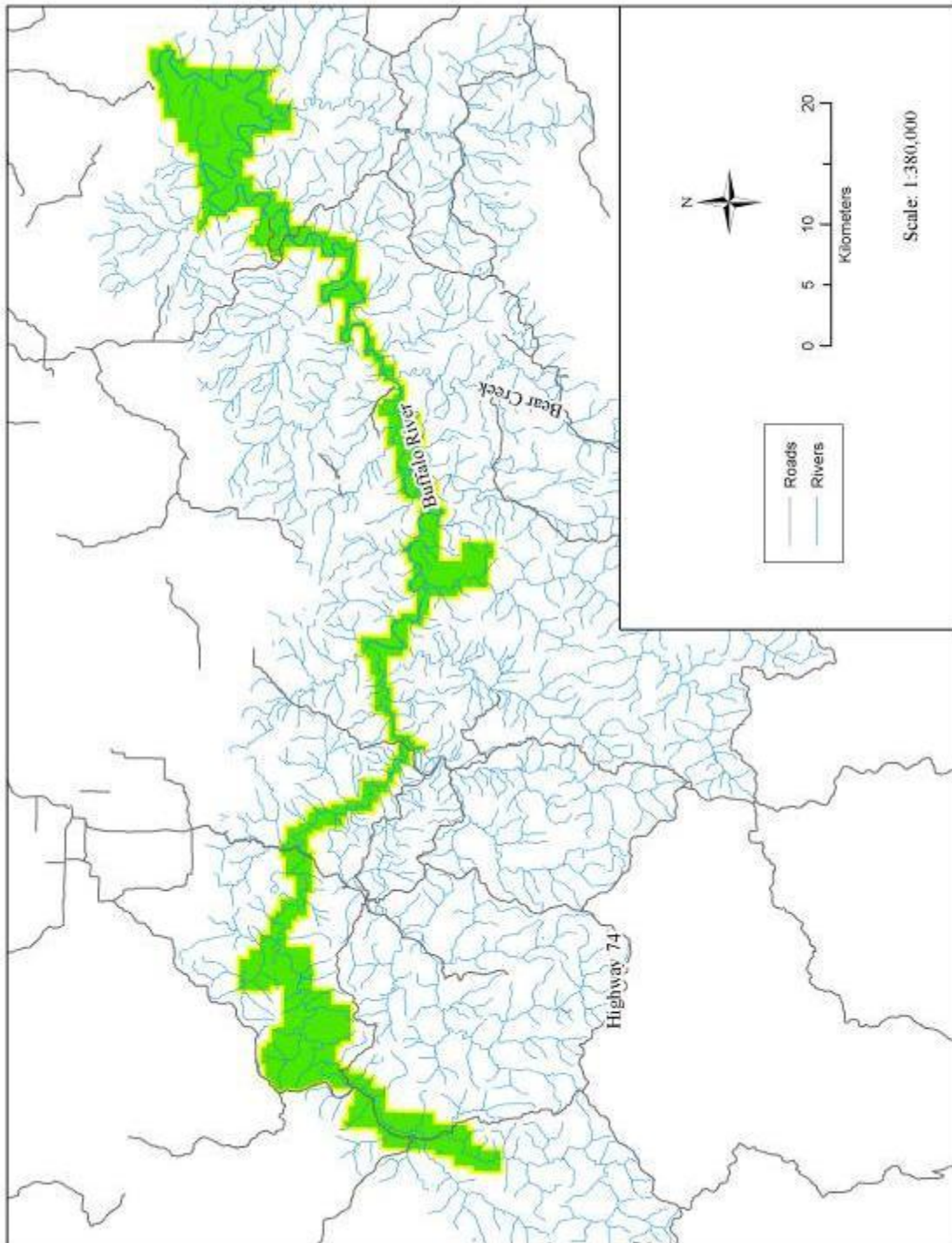
Map 2a. Digital image of the features at Buffalo National River

(Source: Landsat TM-7, August 2000)



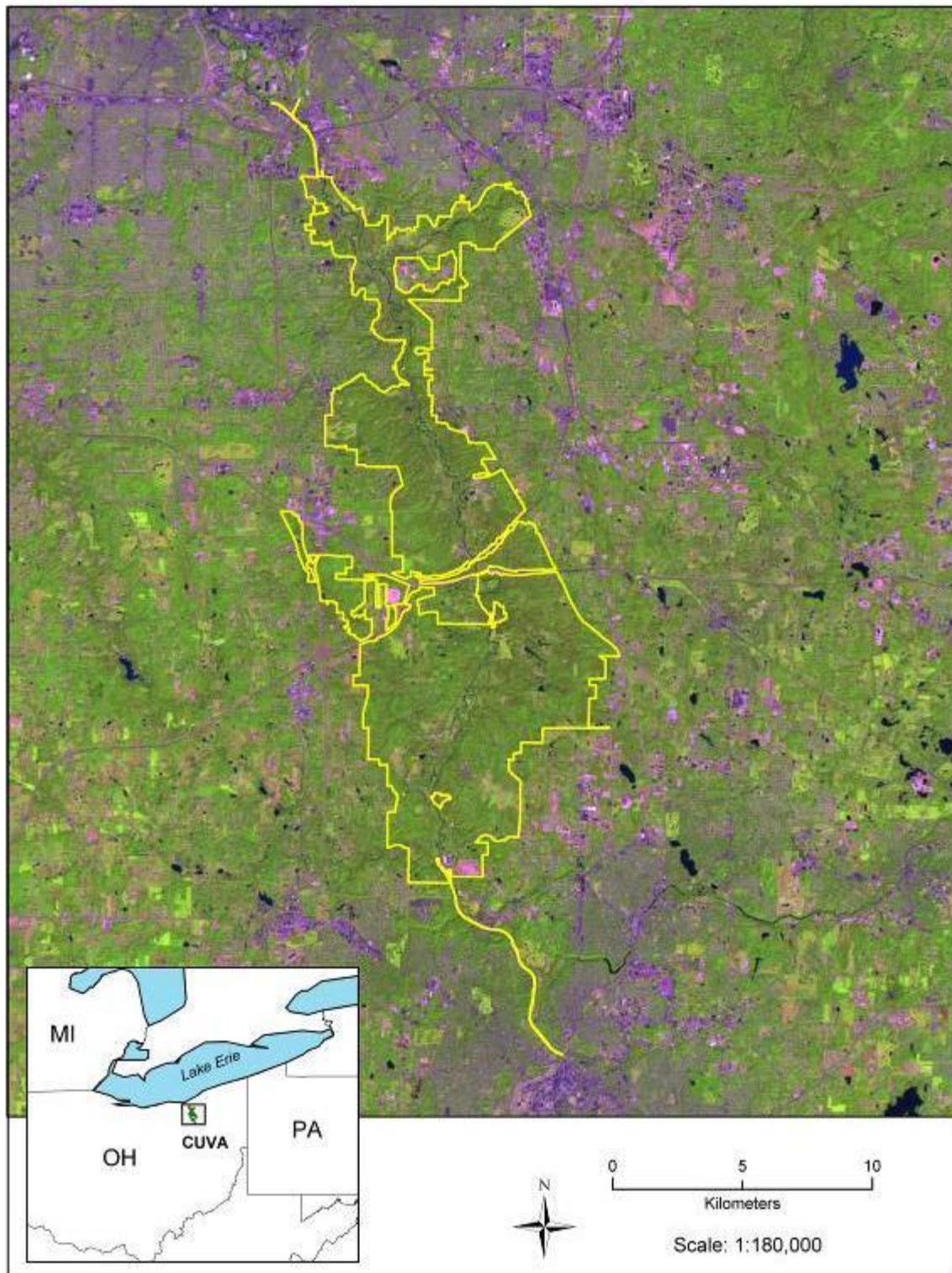
Map 2b. Roads and Rivers at Buffalo National River

(Source – Rivers: TIGER Lines, 2000; Roads: Arkansas Highway and Transportation Department, 2000)



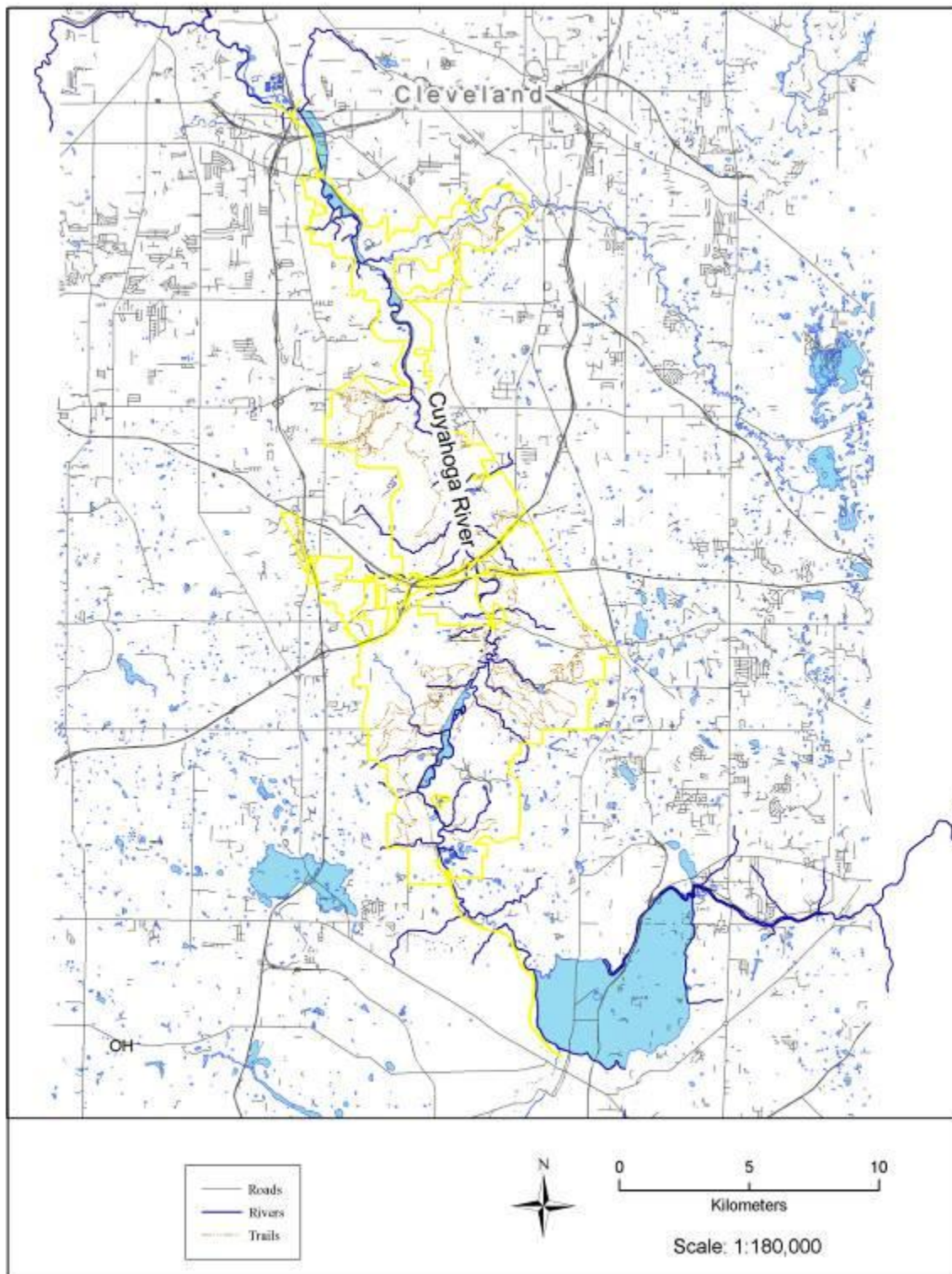
Map 3a. Digital image of the features at Cuyahoga Valley National Park

(Source: Landsat TM-7, August 2000)



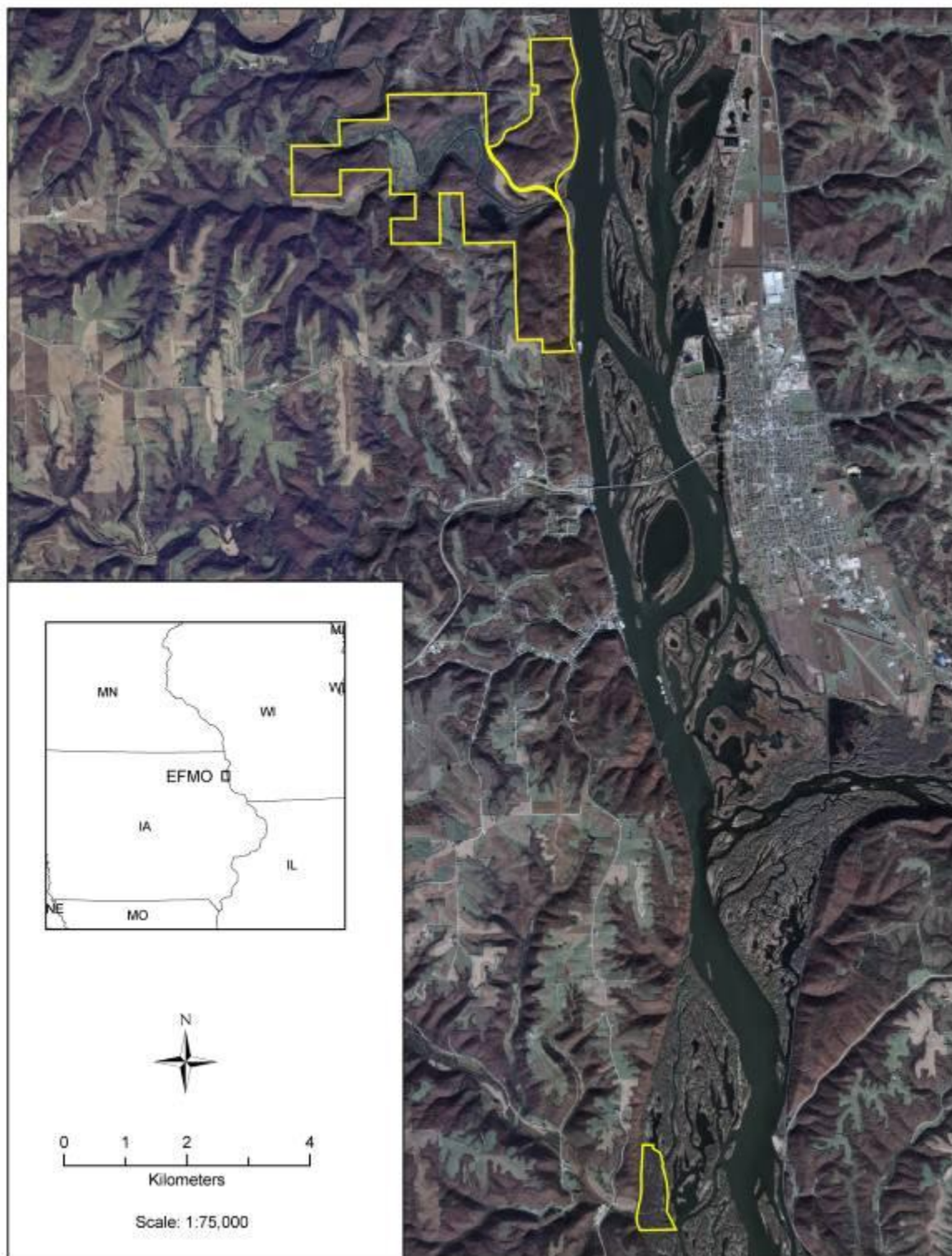
Map 3b. Roads, Trails and Rivers at Cuyahoga Valley National River

(Source: Rivers – Tiger Lines 1992; Roads; Trails: NPS, July 2001)

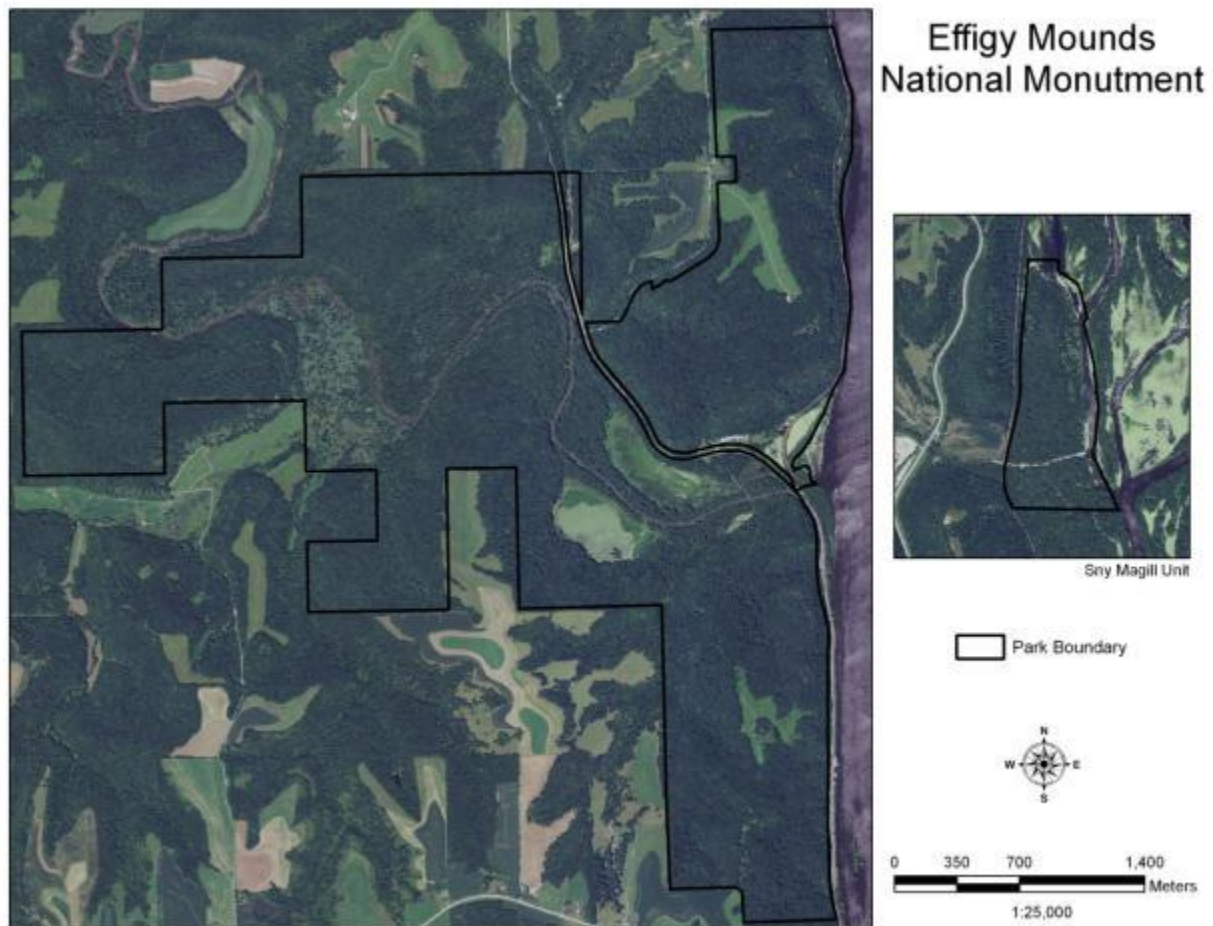


Map 4a. Digital image of the features at Effigy Mounds National Monument

(Source: Ikonos Satellite Image, November 2001)



Map 4b Satellite image of Effigy Mounds National Monument depicting vegetation types



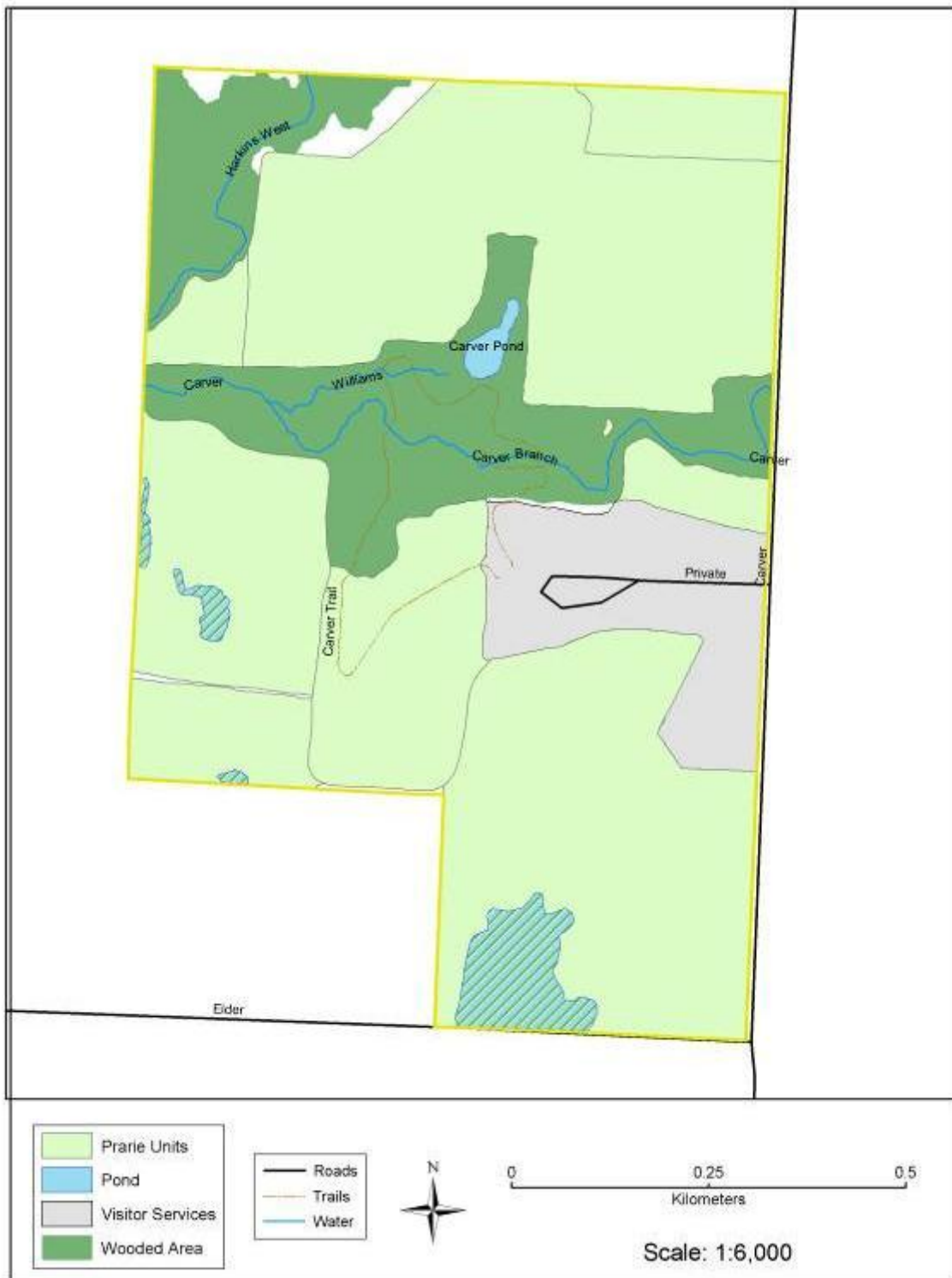
Map 5a. Digital image of the features at George Washington Carver National Monument

(Source: Ikonos Infrared Satellite Imagery, November 2001)



Map 5b. Land Cover, trails, roads and rivers at George Washington Carver National Monument

(Source – Landcover, trails, and rivers, June 1996; Roads TIGER/Line Files, 1995)



Map 6a. Digital image of the features of Herbert Hoover National Historic Site

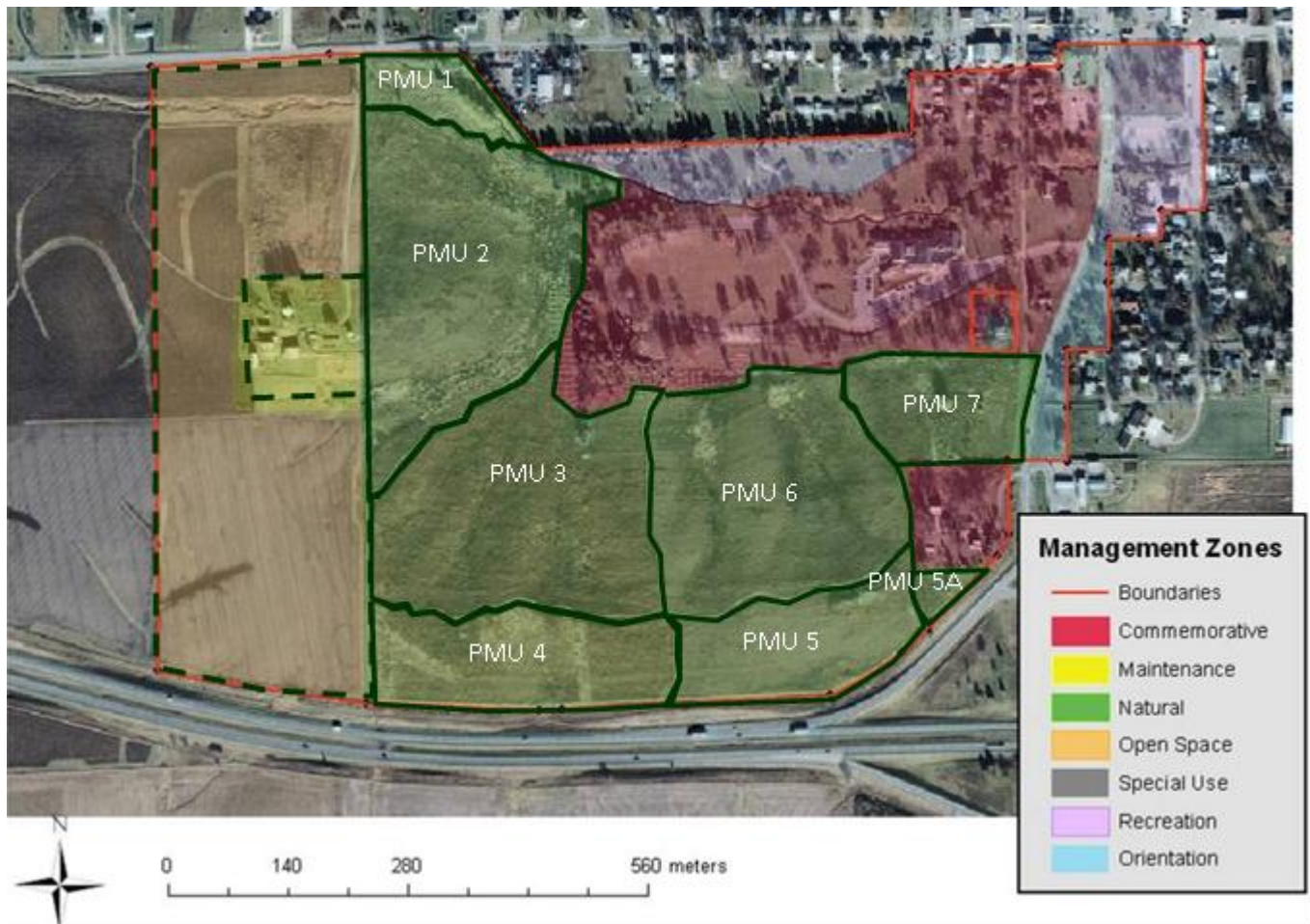
(Source: Ikonos Infrared Satellite Imagery, November 2001)



Map 6b. Management Zones and units at Herbert Hoover National Historic Site

(Source – park management plan overlay on Ikonos Infrared Satellite Imagery, November 2001).

Natural Zone and Open Space Zone were indentified for invasive plant management. Areas abutting these two zones will also be maintained to reduce invasion into the adjacent zone.



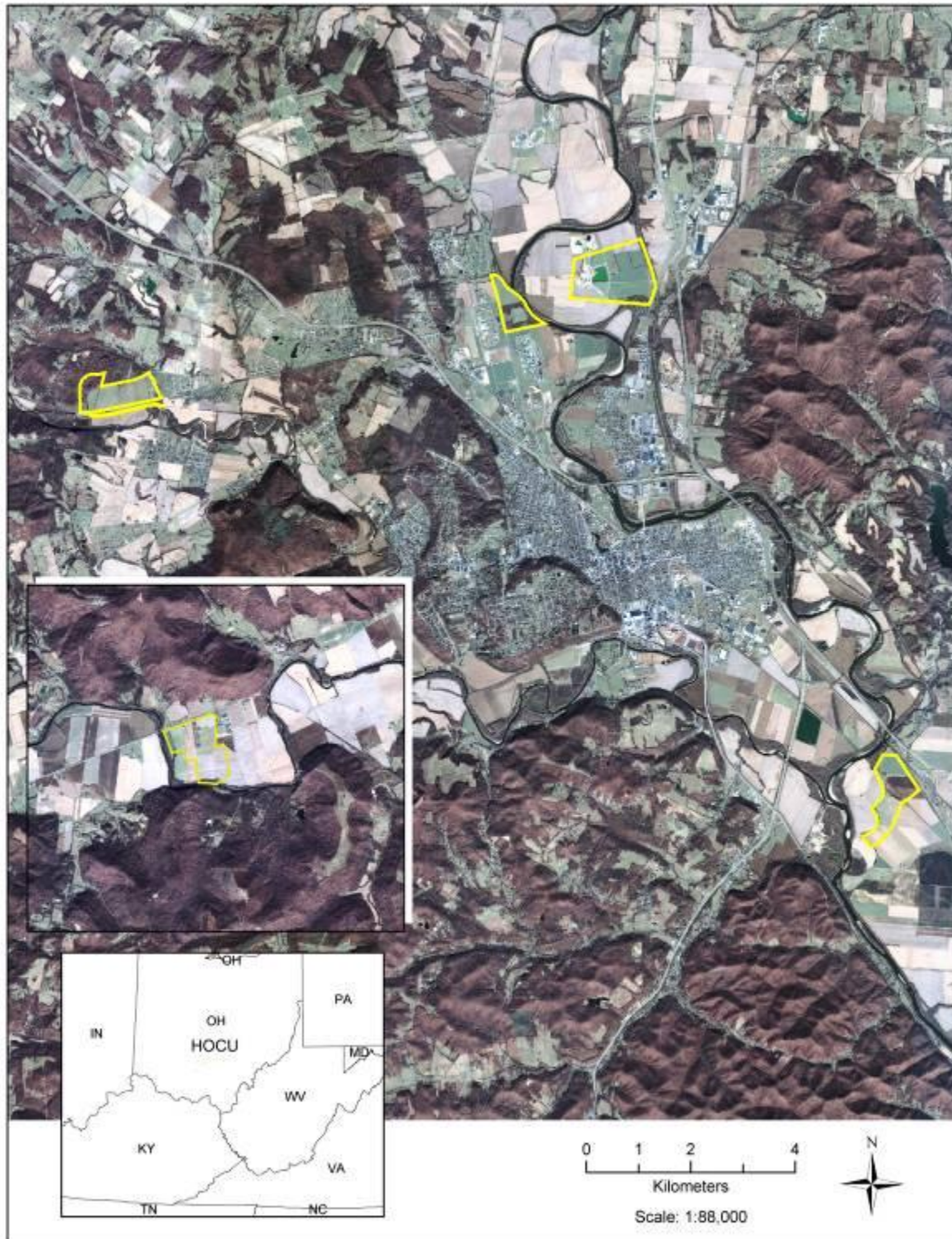
Map 7a. Digital image of the features at Homestead National Monument of America

(Source: USGS digital ortho quadrangle 1993)

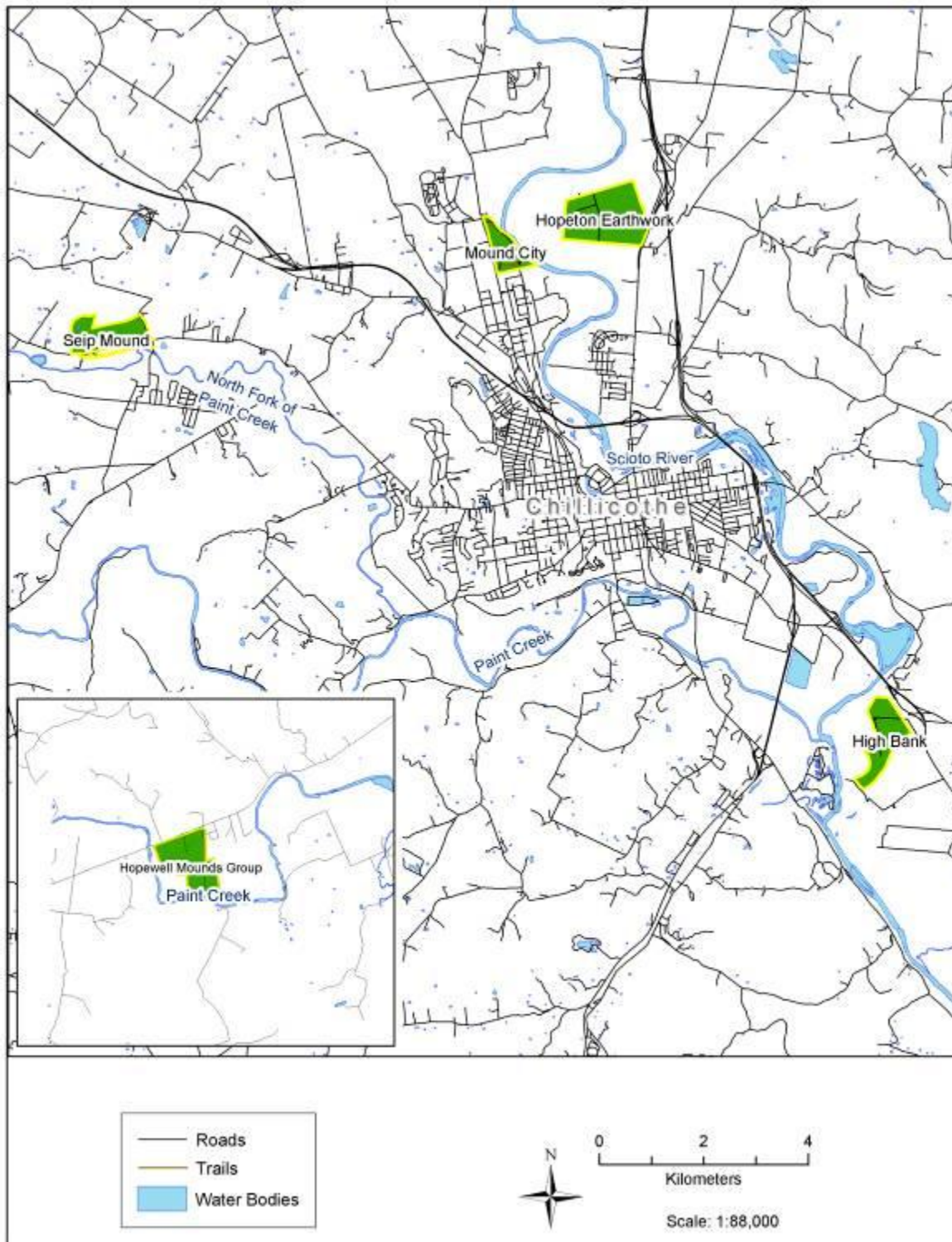


Map 8a. Digital image of the features at Hopewell Culture National Historical Park

(Source: Ikonos visible satellite image, December 2001)

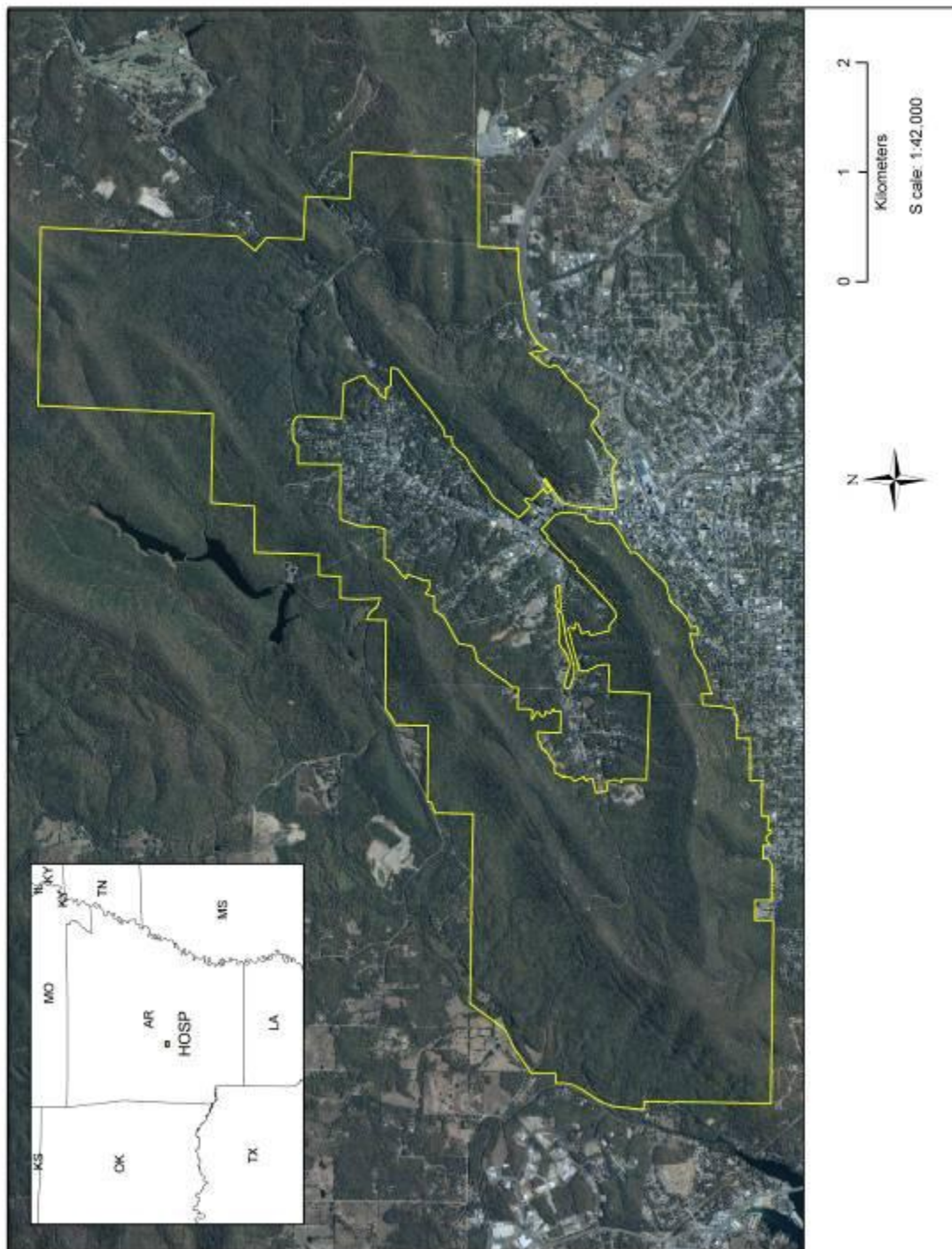


Map 8b. Roads, river and trails at Hopewell Culture National Historical Park
(Source - Roads: USGS 1984; Trails July 2001; Water Bodies: USGS 1984)



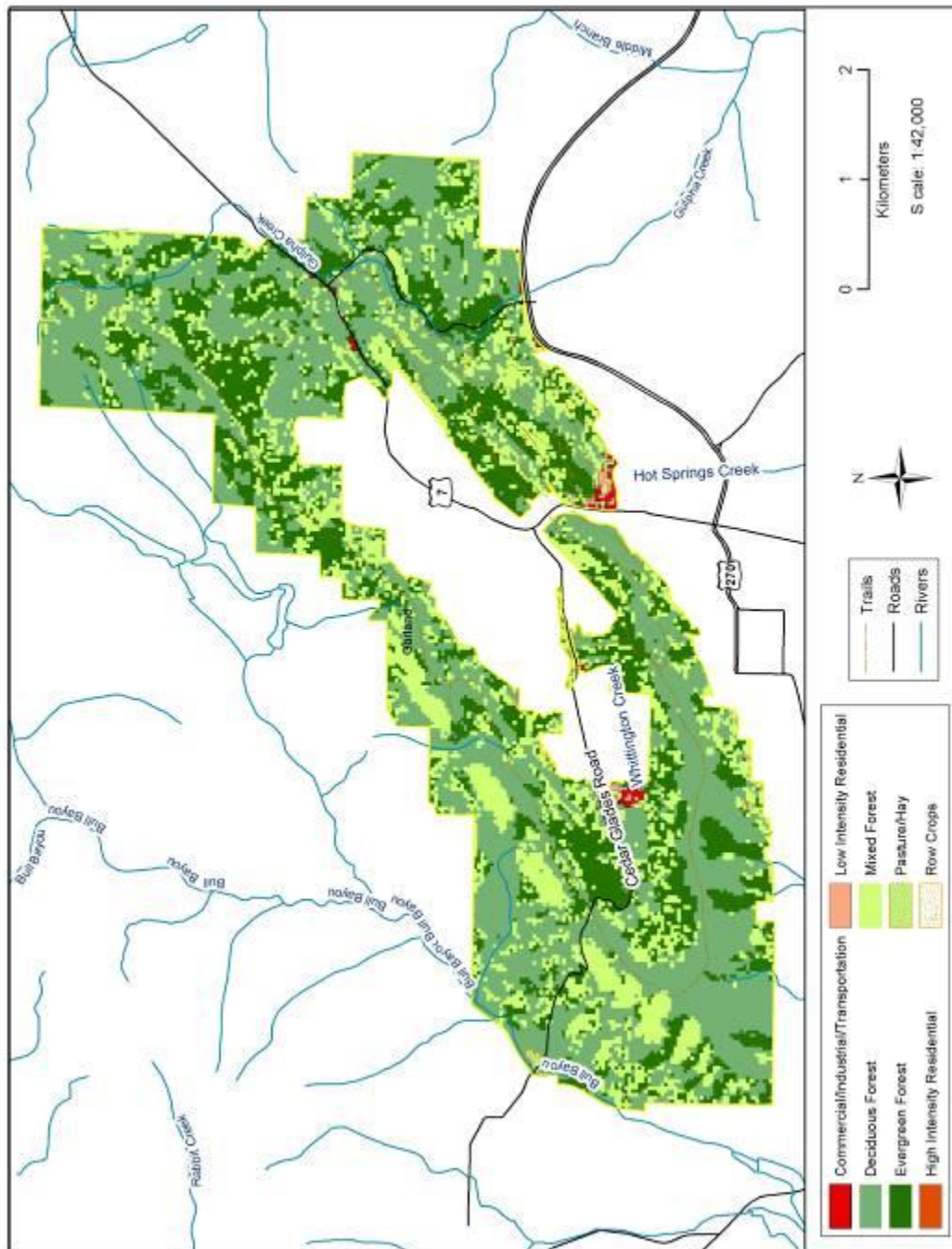
Map 9a. Digital image of the features at Hot Springs National Park

(Source: Ikonos visible satellite image, December 2001)



Map 9b. Land cover, trails, roads and rivers at Hot Springs National Park

(Source – Landcover: MRLC 2000; Roads TIGER/line 2000; Rivers: Tigerline 2000; Trails: NPS 2001)



Map 10a. Digital images of the features at Lincoln Boyhood National Memorial

(Source: Ikonos visible satellite image, December 2001)

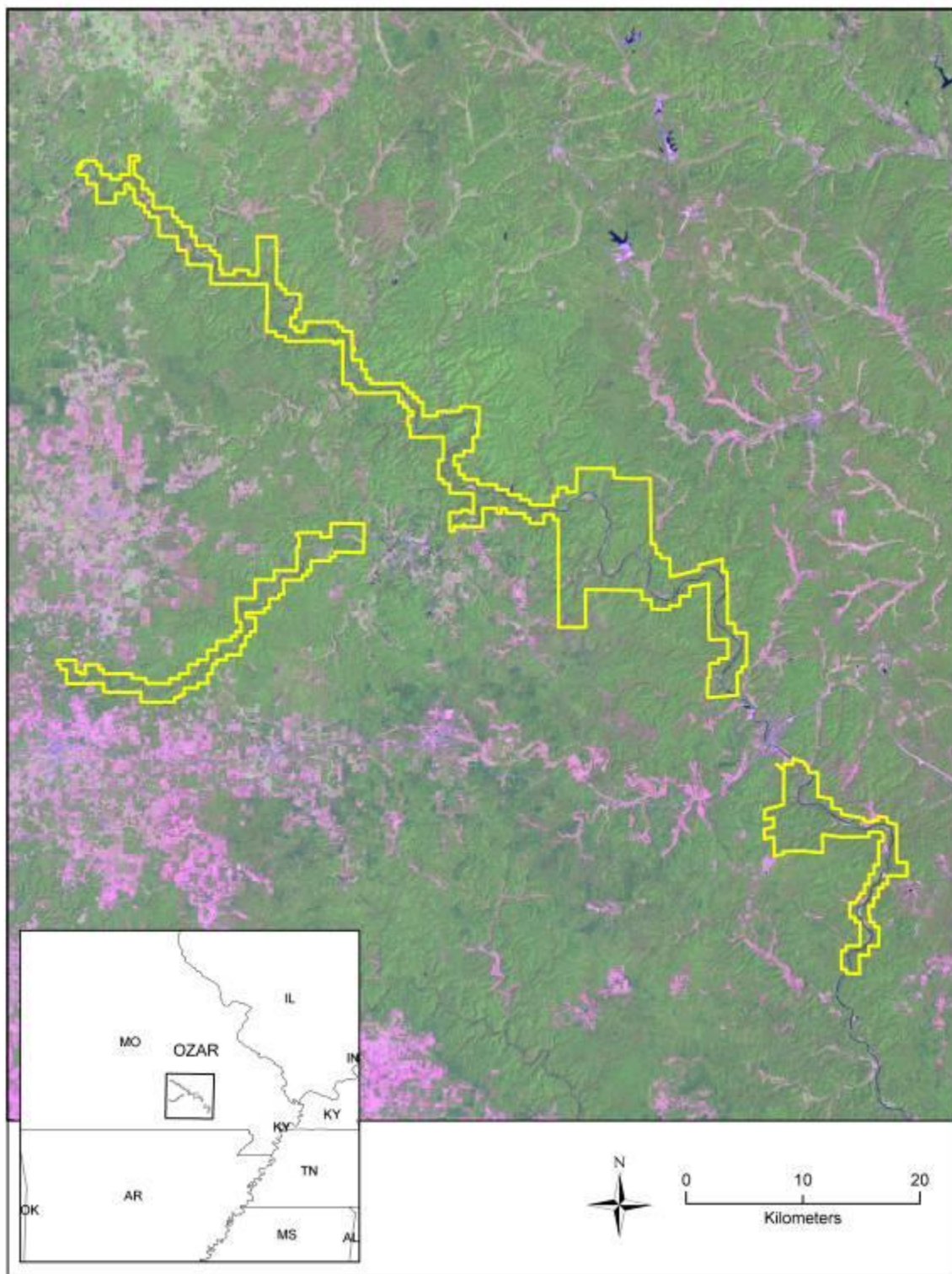


Map 10b. Land cover, trails, roads and water bodies at Lincoln Boyhood National Memorial



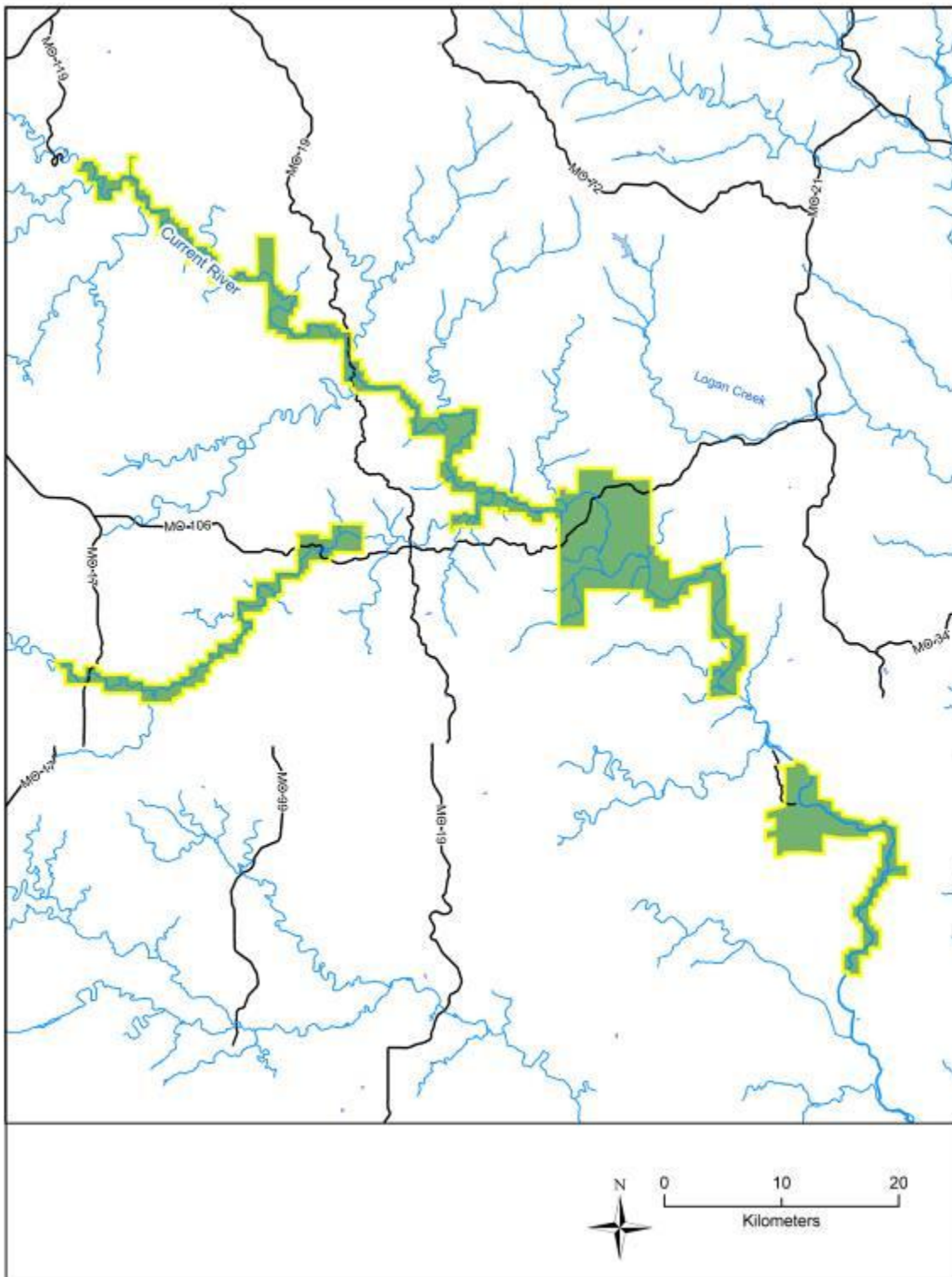
Map 11a. Digital images of the features at Ozark National Scenic Riverway

(Source: Landsat TM-7, August 2000)



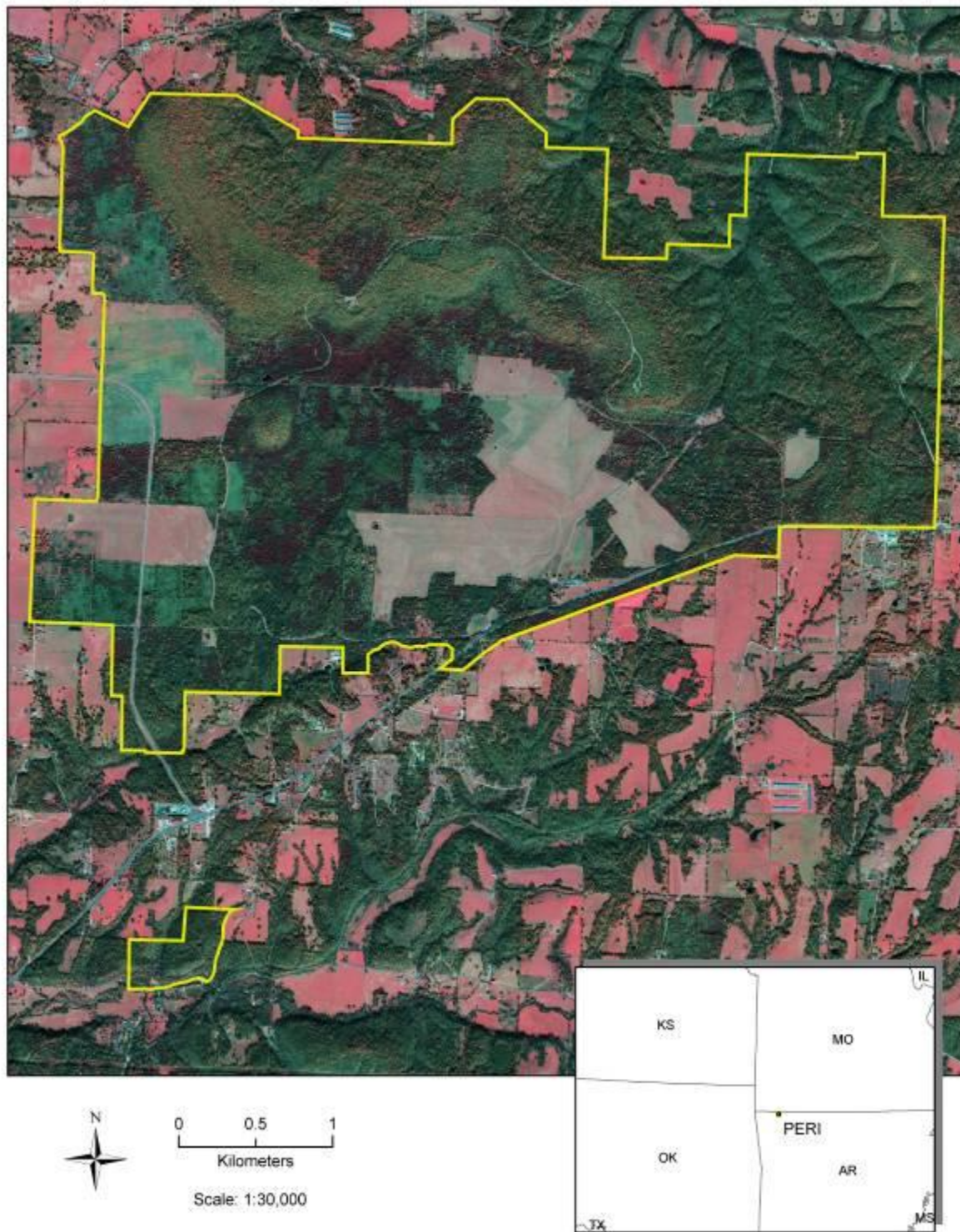
Map 11b. Roads and rivers at Ozark National Scenic Riverway

(Source – Roads: MODOT 2002; Rivers:USGS 1994)



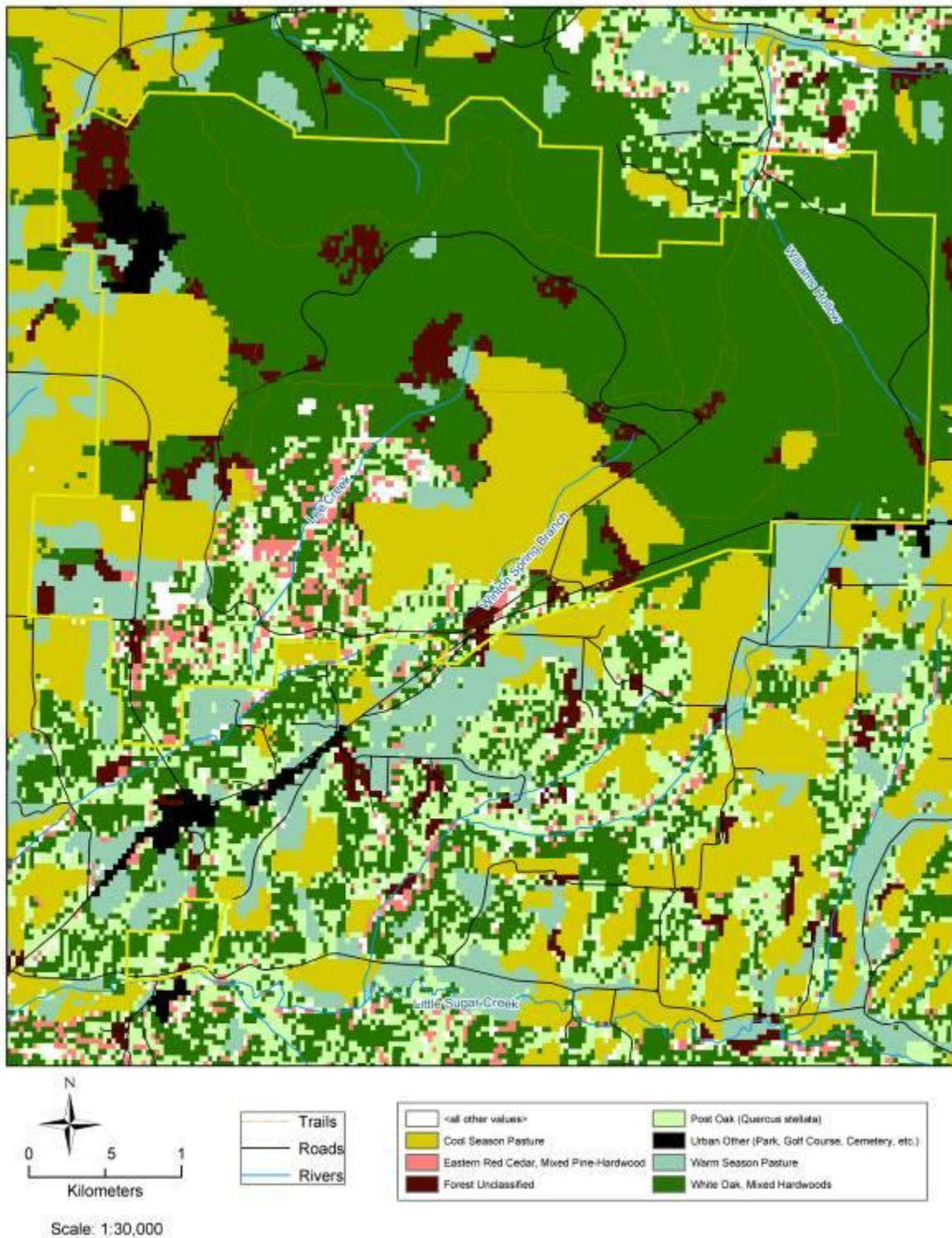
Map 12a. Digital image of the features at Pea Ridge National Military Park

(Source: Ikonos Infrared Satellite Image, December 2001)



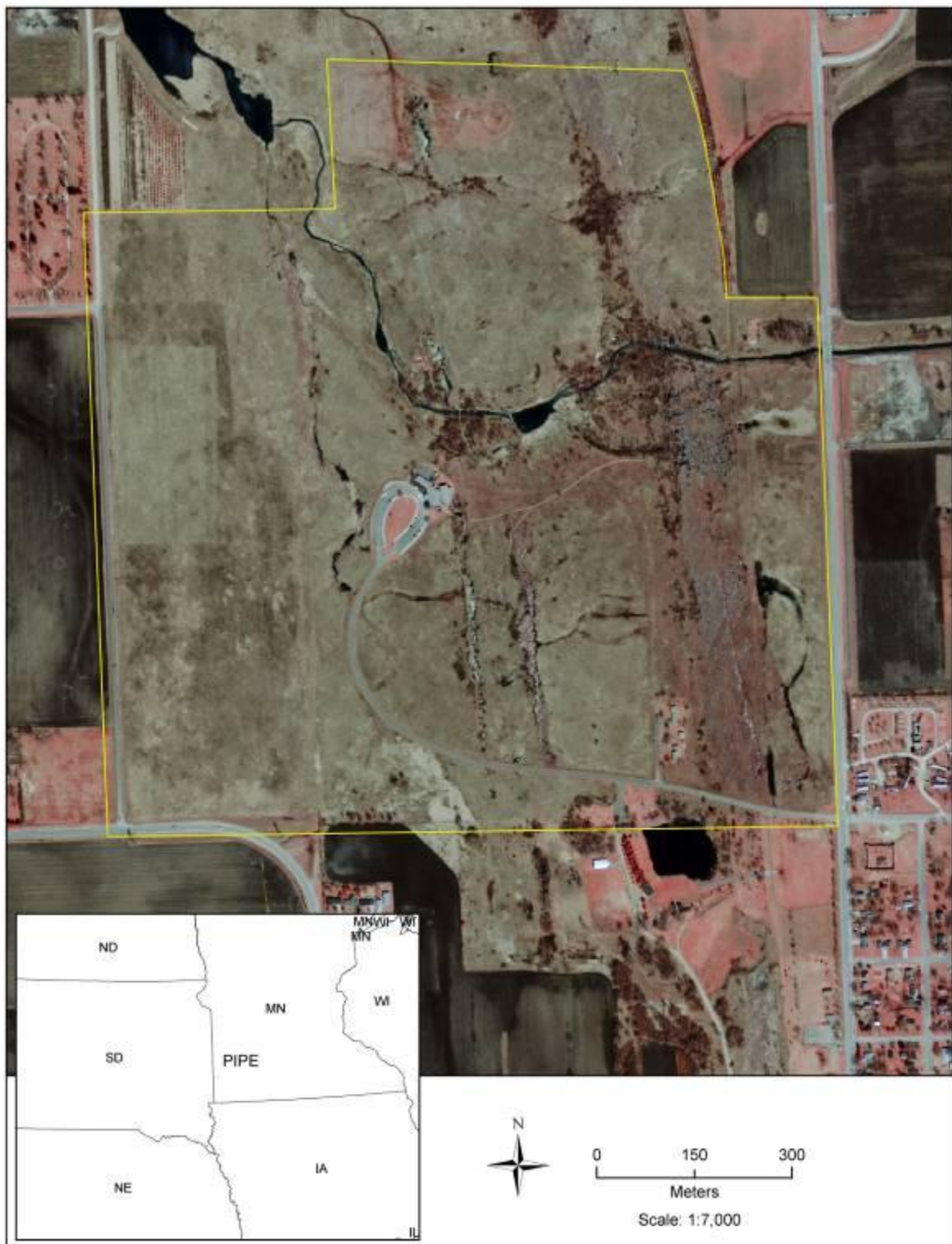
Map 12b. Land cover, trails, roads, and rivers of Pea Ridge National Military Park

(Source - Trails NPS August 2001; Roads: TIGER/lines 2000; Rivers: TIGER/lines 2000; Land cover: CAST 1999)



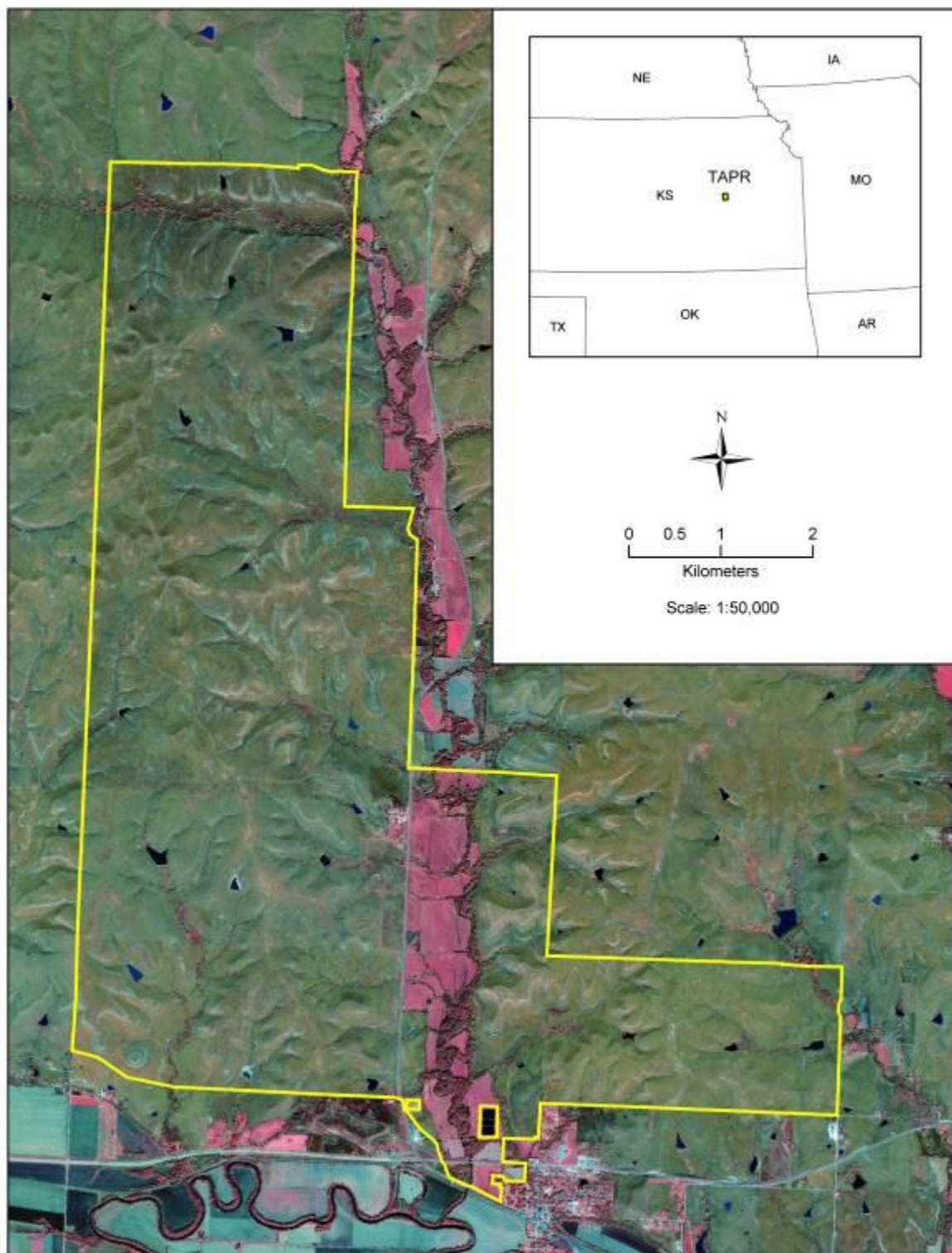
Map 13a. Digital image of the features of Pipestone National Monument

(Source: Ikonos Infrared Satellite Imagery, April 2001)



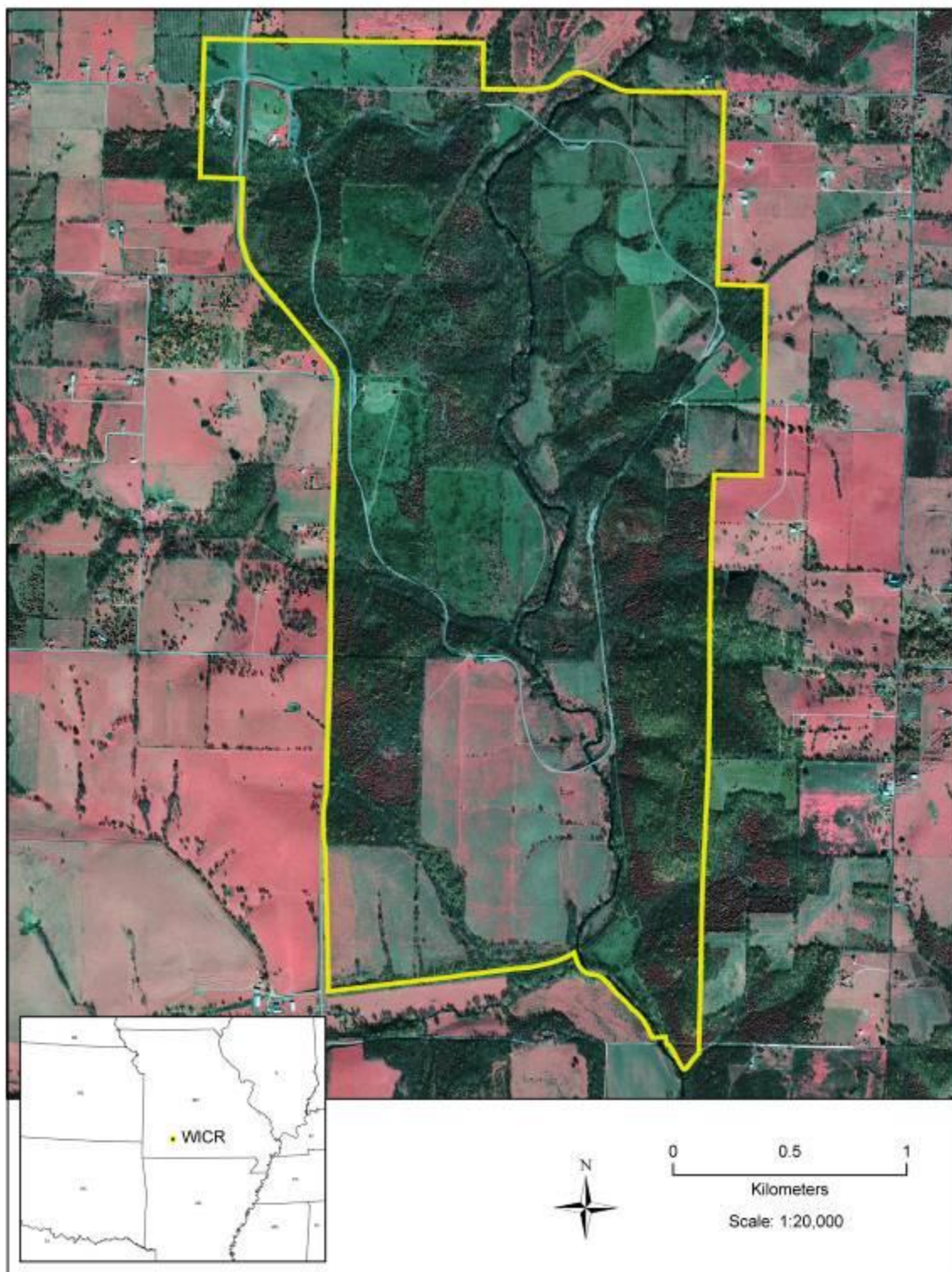
Map 14a. Digital image of the features of Tallgrass Prairie National Preserve

(Source: Ikonos Infrared Satellite Imagery, January 2002)



Map 15a. Digital image of the features of Wilson's Creek National Battlefield

(Source: Ikonos Infrared Satellite Imagery, November 2001)



Appendix L: Listed Federal and State Species

Vascular Plant and Fauna Species, and Birds of Continental Concern

The following lists are compiled from the NPSpecies (accessed April 11, 2011) park species lists and cross-referencing to federal and state endangered and threatened species list published by each state. Federal lists include endangered, threatened, and candidate species documented as present or for fauna, as probably present in the park and potentially affected by actions proposed in this plan.

The state lists include species documented as present and listed as endangered, threatened, or in another category with a great need for conservation. States call these categories by various, non-standardized names. Migratory, vagrant, and transient birds of state-level conservation status were excluded from the list. These birds will not be more than negligibly affected by actions taken in invasive plant management, because they could avoid treatment areas. The size and types of treatment proposed in this EPMP would not significantly alter roosting or feeding opportunities. Breeding or resident birds with state status are included in the following lists.

Federal listing of vascular plants

Status key:

T = Threatened

Family	Scientific Name	Common name(s)	Status	Occurrence	Park	Federal or State
Brassicaceae	<i>Lesquerella filiformis</i>	Missouri bladderpod	T	Present	WICR	Federal
Orchidaceae	<i>Platanthera praeclara</i>	Western prairie fringed orchid	T	Present	PIPE	Federal

State listing of vascular plants

Unconfirmed species are not included.

Family	Scientific Name	Common name(s)	Abundance	Park
Acoraceae	<i>Acorus americanus</i>	sweetflag	Uncommon	CUVA
Alismataceae	<i>Sagittaria rigida</i>	sessile-fruited arrowhead	Rare	CUVA
Apiaceae	<i>Perideridia americana</i>	Eastern yampah	Rare	PERI
Aspleniaceae	<i>Asplenium X gravesii</i>	Graves' spleenwort	Rare	HOSP
Aspleniaceae	<i>Asplenium pinnatifidum</i>	lobed spleenwort	Rare	HOSP, PERI
Aspleniaceae	<i>Asplenium X ebenoides</i>	Scott's spleenwort	Rare	HOSP
Asteraceae	<i>Antennaria neglecta</i>	field pussytoes	Rare	PERI
Asteraceae	<i>Echinacea purpurea</i>	Purple coneflower	Common	EFMO, HEHO
Asteraceae	<i>Silphium terebinthinaceum</i>	prairie rosinweed	Common	HEHO, EFMO
Asteraceae	<i>Solidago squarrosa</i>	leafy goldenrod	Rare	CUVA
Asteraceae	<i>Thelesperma filifolium</i> var. <i>filifolium</i>	greenthread	Rare	WICR
Berberidaceae	<i>Caulophyllum thalictroides</i>	blue cohosh	Uncommon	BUFF
Betulaceae	<i>Betula papyrifera</i>	paper birch	Rare	LIBO
Bignoniaceae	<i>Catalpa speciosa</i>	Northern catalpa	Rare	LIBO
Brassicaceae	<i>Leavenworthia uniflora</i>	Michaux's glade cress	Rare	BUFF

Family	Scientific Name	Common name(s)	Abundance	Park
Cactaceae	<i>Opuntia macrorhiza</i>	plains prickly pear	Uncommon	PIPE
Caprifoliaceae	<i>Symphoricarpos orbiculatus</i>	Indian currant coralberry	Uncommon	PIPE
Celastraceae	<i>Euonymus obovatus</i>	running strawberry bush	Unknown	BUFF
Cistaceae	<i>Lechea intermedia</i>	round-fruited pinweed	Rare	CUVA
Clusiaceae	<i>Hypericum denticulatum</i>	coppery St. Johns-wort	Rare	LIBO
Commelina-ceae	<i>Tradescantia ozarkana</i>	Ozark spiderwort	Rare	BUFF
Convolvulaceae	<i>Evolvulus nuttallianus</i>	shaggy dwarf morningglory	Rare	PERI
Cornaceae	<i>Cornus rugosa</i>	roundleaf dogwood	Rare	CUVA
Cupressaceae	<i>Juniperus ashei</i>	Ashe's juniper	Unknown	PERI
Cupressaceae	<i>Juniperus communis</i>	ground juniper	Rare	CUVA
Cupressaceae	<i>Juniperus horizontalis</i>	horizontal juniper	Rare	EFMO
Cupressaceae	<i>Taxodium distichum</i>	bald cypress	Rare	LIBO
Cupressaceae	<i>Thuja occidentalis</i>	Eastern white cedar	Rare	HOCU, LIBO
Cupressaceae	<i>Thuja occidentalis</i>	arborvitae	Occasional	CUVA
Cyperaceae	<i>Carex swanii</i>	swan's sedge	Rare	HOSP
Cyperaceae	<i>Eleocharis ovata</i>	ovoid spikerush, ovate spikerush	Rare	HOCU
Cyperaceae	<i>Carex alata</i>	broadwing sedge	Unknown	CUVA
Cyperaceae	<i>Carex arctata</i>	drooping woodland sedge	Rare	CUVA
Cyperaceae	<i>Carex argyrantha</i>	silvery sedge	Rare	CUVA
Cyperaceae	<i>Carex aurea</i>	golden-fruited sedge	Rare	CUVA
Cyperaceae	<i>Carex bebbii</i>	Bebb's sedge	Rare	CUVA
Cyperaceae	<i>Carex cephaloidea</i>	thinleaf sedge	Rare	CUVA
Cyperaceae	<i>Carex hitchcockiana</i>	Hitchcock's sedge	Common	BUFF
Cyperaceae	<i>Carex laxiculmis</i> var. <i>laxiculmis</i>	spreading sedge	Uncommon	PERI
Cyperaceae	<i>Carex mesochorea</i>	midland sedge	Rare	BUFF
Cyperaceae	<i>Carex retroflexa</i>	reflexed sedge	Rare	HOCU
Cyperaceae	<i>Carex shortiana</i>	Short's sedge	Rare	BUFF
Cyperaceae	<i>Carex willdenowii</i>	Willdenow's sedge	Rare	BUFF
Cyperaceae	<i>Cyperus acuminatus</i>	sedge	Rare	PIPE
Cyperaceae	<i>Eleocharis ovata</i>	ovate spikerush	Uncommon	CUVA
Dryopteridaceae	<i>Cystopteris fragilis</i>	brittle bladder-fern	Uncommon	CUVA
Elaeagnaceae	<i>Shepherdia canadensis</i>	Canadian buffalo-berry	Rare	CUVA
Equisetaceae	<i>Equisetum variegatum</i>	variegated scouring rush	Rare	CUVA
Ericaceae	<i>Rhododendron maximum</i>	white laurel	Rare	CUVA
Fabaceae	<i>Desmodium glabellum</i>	hairy tick-trefoil	Uncommon	CUVA
Fabaceae	<i>Lupinus perennis</i>	wild lupine	Rare	EFMO
Fagaceae	<i>Castanea dentata</i>	American chestnut	Rare	CUVA, LIBO
Fagaceae	<i>Castanea pumila</i> var. <i>ozarkensis</i>	Ozark chinquapin	Uncommon	BUFF, HOSP
Fagaceae	<i>Castanea pumila</i> var. <i>ozarkensis</i>	Ozark chinquapin, Ozark chinkapin	Rare	PERI
Fagaceae	<i>Juglans cinerea</i>	butternut	Rare	LIBO
Fumariaceae	<i>Corydalis sempervirens</i>	rock-harlequin, pink corydalis	Rare	CUVA
Gentianaceae	<i>Gentianopsis crinita</i>	fringed gentian	Uncommon	CUVA
Iridaceae	<i>Nemastylis nuttallii</i>	Nuttall's pleatleaf	Rare	BUFF
Isoetaceae	<i>Isoetes melanopoda</i>	blackfoot quillwort	Rare	PIPE
Juncaceae	<i>Juncus greenii</i>	Greene's rush	Rare	CUVA

Family	Scientific Name	Common name(s)	Abundance	Park
Marsileaceae	<i>Marsilea vestita</i>	hairy water-clover	Rare	PIPE
Ophioglossaceae	<i>Botrychium multifidum</i>	leathery grapefern	Rare	EFMO
Orchidaceae	<i>Cypripedium candidum</i>	small white lady's-slipper	Rare	EFMO
Orchidaceae	<i>Platanthera peramoena</i>	purple fringeless orchid	Rare	LIBO
Orchidaceae	<i>Platanthera praeclara</i>	Western prairie fringed orchid	Rare	PIPE
Orchidaceae	<i>Platanthera psycodes</i>	purple fringed orchid	Rare	EFMO
Orchidaceae	<i>Spiranthes lacera</i>	slender ladies-tresses	Rare	EFMO
Orchidaceae	<i>Spiranthes lucida</i>	shining ladies'-tresses	Rare	CUVA
Orchidaceae	<i>Spiranthes magnicamporum</i>	Great Plains ladiestresses	Rare	CUVA
Orchidaceae	<i>Spiranthes ovalis</i>	lesser ladies' tresses	Rare	CUVA, LIBO, HOCU
Pinaceae	<i>Pinus strobus</i>	Eastern white pine	Uncommon	LIBO
Plantaginaceae	<i>Plantago elongata</i>	longleaf plantain	Rare	PIPE
Poaceae	<i>Bouteloua gracilis</i>	blue gramma grass	Rare	WICR
Poaceae	<i>Buchloe dactyloides</i>	buffalo-grass	Rare	PIPE, WICR
Poaceae	<i>Elymus trachycaulus</i>	slender wild rye, slender wheatgrass	Rare	CUVA
Poaceae	<i>Oryzopsis asperifolia</i>	large-leaved mountain-rice	Rare	CUVA
Poaceae	<i>Panicum philadelphicum</i>	Philadelphia panicgrass	Rare	CUVA
Poaceae	<i>Poa languida</i>	weak bluegrass, weak spear-grass	Uncommon	CUVA
Poaceae	<i>Schedonnardus paniculatus</i>	tumble-grass	Uncommon	PIPE
Poaceae	<i>Setaria geniculata</i>	marsh bristlegrass	Uncommon	LIBO
Poaceae	<i>Sphenopholis pensylvanica</i>	swamp-oats	Rare	CUVA
Pontederiaceae	<i>Heteranthera limosa</i>	blue mud plantain	Rare	PIPE
Primulaceae	<i>Dodecatheon amethystinum</i>	jeweled shooting star	Rare	EFMO
Pteridaceae	<i>Argyrochosma dealbata</i>	powdery falsecloak fern	Unknown	BUFF
Pteridaceae	<i>Pellaea atropurpurea</i>	purple cliffbrake	Rare	EFMO
Pyrolaceae	<i>Chimaphila umbellata</i>	pipsissewa	Rare	CUVA
Ranunculaceae	<i>Delphinium newtonianum</i>	Newton's larkspur	Rare	BUFF
Ranunculaceae	<i>Hydrastis canadensis</i>	goldenseal	Rare	LIBO
Rhamnaceae	<i>Rhamnus lanceolata</i>	lanceleaf buckthorn	Rare	LIBO
Rosaceae	<i>Crataegus pruinosa</i>	hawthorn	Rare	EFMO
Rubiaceae	<i>Galium arkansanum</i> var. <i>pubiflorum</i>	Arkansas bedstraw	Rare	HOSP
Rubiaceae	<i>Galium asprellum</i>	rough bedstraw	Common	EFMO
Saxifragaceae	<i>Heuchera villosa</i> var. <i>arkansana</i>	Arkansas alumroot	Rare	BUFF
Scrophulariaceae	<i>Bacopa rotundifolia</i>	wet waterhyssop, disk water-hyssop	Rare	PIPE
Scrophulariaceae	<i>Limosella aquatica</i>	Northern mudroot	Rare	PIPE
Scrophulariaceae	<i>Penstemon canescens</i>	Eastern gray beardtongue	Unknown	CUVA
Scrophulariaceae	<i>Penstemon cobaea</i>	penstemon cobaea	Common	BUFF
Thelypteridaceae	<i>Thelypteris noveboracensis</i>	New York fern	Rare	HOSP
Vitaceae	<i>Vitis aestivalis</i>	summer grape	Rare	EFMO
Xyridaceae	<i>Xyris torta</i>	yellow-eyed grass	Rare	EFMO

Federal listed wildlife and fish species

Status key: E = Endangered DM = Delisted SC = Candidate SAT = Similar Appearance (Threatened)

Type: Breeding (B) or Incidental occurrence (IO)

Probably present species are unconfirmed, but may occur based on range maps for the species.

Cate- gory	Order	Family	Scientific Name	Common Name	Sta- tus	Occur- rence	Park	Type
Amphi- bian	Caudata	Plethodon- tidae	<i>Hemidactylium scutatum</i>	Ozark hellbender	E	Present	OZAR	B
Bird	Ciconiiformes	Accipi-tridae	<i>Haliaeetus leucocephalus</i> ¹⁸	American bald eagle	DM	Present	ARPO	B
Bird	Ciconiiformes	Laridae	<i>Sterna antillarum</i>	least tern	E	Present	ARPO, EFMO	IO
Fish	Cypriniformes	Cyprinidae	<i>Notropis topeka</i>	Topeka shiner	E	Present	PIPE, TAPR	B
Fish	Perciformes	Percidae	<i>Etheostoma cragini</i>	Arkansas darter	C	Present	GWCA	B
Fish	Percopsi- formes	Amblyop- sidae	<i>Amblyopsis rosae</i>	Ozark cavefish	T	Probably present	WICR, BUFF	?
Fish	Siluriformes	Ictaluridae	<i>Noturus trautmani</i>	Scioto madtom	E	Probably present	HOCU?	IO
Mam- mal	Chiroptera	Vespertilio- nidae	<i>Corynorhinus townsendii ingens</i>	Ozarks Big-eared Bat	E	Probably present	BUFF	?
Mam- mal	Chiroptera	Vespertilio- nidae	<i>Myotis grisescens</i>	grey bat	E	Present	BUFF, OZAR	B
Mam- mal	Chiroptera	Vespertilio- nidae	<i>Myotis grisescens</i>	grey bat	E	Probably present	GWCA, LIBO, PERI, WICR	?
Mam- mal	Chiroptera	Vespertilio- nidae	<i>Myotis sodalis</i>	Indiana bat	E	Present	CUVA, OZAR	B
Mam- mal	Chiroptera	Vespertilio- nidae	<i>Myotis sodalis</i>	Indiana bat	E	Probably present	GWCA, LIBO, PERI, WICR	IO
Reptile	Crocodylia	Alligator- idae	<i>Alligator mississippiensis</i> ¹⁹	American alligator	SAT	Present	ARPO	B
Reptile	Squamata	Viperidae	<i>Crotalus horridus</i>	timber rattle- snake	C	Probably present	HOCU ²⁰	?
Reptile	Squamata	Viperidae	<i>Sistrurus cate-natus catenatus</i>	Eastern massasauga	C	Probably present	CUVA	?
Inverte- brate	Unionoida	Unionidae	<i>Lampsilis higginsii</i>	Higgin's-eye pearly mussel	E	Probably present	EFMO	IO

¹⁸ The species has been delisted (DM), but is still federally protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c). It has been included for ARPO, where it has nested, because it is a high profile species.

¹⁹ The SAT species are not ecologically threatened themselves, but are listed due to their similarity in appearance and habitat to other species that are listed for protection. Because breeding individuals have been observed at ARPO, the listing has been retained in this document.

²⁰ The USFWS acknowledges a potential for this species to occur in HOCU, but the park's managers have determined that habitat does not exist for this species.

State listed wildlife and fish species

Category	Family	Scientific Name	Common Name	Park
Amphibian	Ranidae	<i>Lithobates pipiens</i>	Northern leopard frog	OZAR
Amphibian	Ranidae	<i>Rana sylvatica</i>	wood frog	BUFF, OZAR, PERI
Amphibian	Ambystomatidae	<i>Ambystoma annulatum</i>	ringed salamader	BUFF
Amphibian	Plethodontidae	<i>Hemidactylium scutatum</i>	four-toed salamander	OZAR
Amphibian	Plethodontidae	<i>Plethodon angusticlavius</i>	Ozark zig-zag	BUFF
Amphibian	Plethodontidae	<i>Plethodon kisatchie</i>	Louisiana slimy salamander	ARPO
Amphibian	Salamandridae	<i>Notophthalmus veridescens</i>	central newt	EFMO
Bird	Anatidae	<i>Cygnus buccinator</i>	trumpter swan	OZAR
Bird	Accipitridae	<i>Accipiter cooperii</i>	cooper's hawk	ARPO, BUFF, OZAR
Bird	Accipitridae	<i>Accipiter striatus</i>	sharp-shinned hawk	BUFF, CUVA, GWCA, OZAR
Bird	Accipitridae	<i>Buteo lineatus</i>	red-shouldered hawk	EFMO, OZAR
Bird	Accipitridae	<i>Buteo swainsoni</i>	Swainson's hawk	GWCA
Bird	Accipitridae	<i>Circus cyaneus</i>	Northern harrier	BUFF, CUVA, GWCA, HEHO, OZAR, PERI
Bird	Accipitridae	<i>Haliaeetus leucocephalus</i>	American bald eagle	BUFF, CUVA, EFMO, HOSP, TAPR
Bird	Accipitridae	<i>Ictinia mississippiensis</i>	Mississippi kite	LIBO
Bird	Accipitridae	<i>Pandion haliaetus</i>	osprey	BUFF, CUVA, OZAR
Bird	Ardeidae	<i>Ardea alba</i>	Great egret	ARPO, BUFF
Bird	Ardeidae	<i>Ardea herodias</i>	great blue heron	ARPO, BUFF, GWCA, OZAR, PERI
Bird	Ardeidae	<i>Botaurus lentiginosus</i>	American bittern	CUVA, GWCA
Bird	Ardeidae	<i>Egretta caerulea</i>	little blue heron	GWCA, OZAR
Bird	Ardeidae	<i>Egretta tricolor</i>	tricolor heron	ARPO
Bird	Ardeidae	<i>Ixobrychus exilis</i>	least bittern	CUVA
Bird	Ardeidae	<i>Nycticorax nycticorax</i>	black-crowned night heron	CUVA, OZAR
Bird	Caprimulgidae	<i>Caprimulgus vociferus</i>	whip-poor-will	TAPR
Bird	Ciconiidae	<i>Coragyps atratus</i>	turkey vulture	OZAR
Bird	Falconidae	<i>Falco peregrinus</i>	peregrine falcon	BUFF, EFMO, HOCU
Bird	Falconidae	<i>Falco sparverius</i>	American kestrel	BUFF, HOSP
Bird	Laridae	<i>Chlidonias niger</i>	black tern	CUVA
Bird	Laridae	<i>Larus pipixcan</i>	Franklin's gull	PIPE
Bird	Phalacrocoracidae	<i>Phalacrocorax auritus</i>	double-crested cormorant	ARPO
Bird	Podicipedidae	<i>Podilymbus podiceps</i>	pied-billed grebe	ARPO, BUFF, GWCA, OZAR
Bird	Scolopacidae	<i>Catoptrophorus semipalmatus</i>	willet	BUFF
Bird	Scolopacidae	<i>Gallinago gallinago</i>	common snipe	CUVA
Bird	Scolopacidae	<i>Scolopax minor</i>	American woodcock	BUFF, HOSP
Bird	Threskiornithidae	<i>Eudocimus albus</i>	white ibis	ARPO

Category	Family	Scientific Name	Common Name	Park
Bird	Cuculidae	<i>Coccyzus erythrophthalmus</i>	black-billed cuckoo	BUFF
Bird	Phasianidae	<i>Bonasa umbellus</i>	ruffed grouse	OZAR
Bird	Odontophoridae	<i>Colinus virginianus</i>	Northern bobwhite	HOCU
Bird	Rallidae	<i>Gallinula chloropus</i>	common moorhen	ARPO
Bird	Rallidae	<i>Porphyrio martinica</i>	purple gallinule	ARPO
Bird	Rallidae	<i>Porzana carolina</i>	sora	CUVA, GWCA
Bird	Rallidae	<i>Rallus elegans</i>	king rail	ARPO
Bird	Rallidae	<i>Rallus limicola</i>	Virginia rail	CUVA
Bird	Cardinalidae	<i>Passerina ciris</i>	painted bunting	BUFF
Bird	Certhiidae	<i>Certhia americana</i>	brown creeper	GWCA, OZAR
Bird	Certhiidae	<i>Cistothorus palustris</i>	marsh wren	CUVA
Bird	Certhiidae	<i>Cistothorus platensis</i>	sedge wren	CUVA, HOCU
Bird	Certhiidae	<i>Troglodytes troglodytes</i>	winter wren	CUVA
Bird	Emberizidae	<i>Ammodramus henslowii</i>	Henslow's sparrow	BUFF, CUVA, GWCA, HEHO, HOCU, PIPE, TAPR
Bird	Emberizidae	<i>Ammodramus savannarum</i>	savanna sparrow	PERI
Bird	Emberizidae	<i>Chondestes grammacus</i>	lark sparrow	BUFF
Bird	Emberizidae	<i>Junco hyemalis</i>	dark-eyed junco	CUVA, HOCU
Bird	Fringillidae	<i>Dendroica cerulea</i>	cerulean warbler	BUFF, CUVA, LIBO, OZAR
Bird	Fringillidae	<i>Dendroica pensylvanica</i>	chestnut-sided warbler	ARPO, GWCA, OZAR, BUFF
Bird	Fringillidae	<i>Dendroica petechia</i>	yellow warbler	ARPO, BUFF
Bird	Fringillidae	<i>Dendroica virens</i>	black-throated green warbler	ARPO, BUFF
Bird	Hirundinidae	<i>Riparia riparia</i>	bank swallow	ARPO
Bird	Icteridae	<i>Dolichonyx oryzivorus</i>	bobolink	ARPO, TAPR
Bird	Laniidae	<i>Lanius ludovicianus</i>	loggerhead shrike	GWCA
Bird	Motacillidae	<i>Anthus spragueii</i>	Sprague's pipit	ARPO
Bird	Muscicapidae	<i>Catharus guttatus</i>	hermit thrush	CUVA
Bird	Parulidae	<i>Limnithlypis swainsonii</i>	Swainson's warbler	ARPO, BUFF, OZAR
Bird	Parulidae	<i>Protonotaria citrea</i>	prothonotary warbler	HOCU
Bird	Parulidae	<i>Setophaga ruticilla</i>	American redstart	ARPO, BUFF
Bird	Parulidae	<i>Vermivora chrysoptera</i>	golden-winged warbler	ARPO, BUFF, CUVA
Bird	Parulidae	<i>Vermivora pinus</i>	blue-winged warbler	ARPO, BUFF, PERI
Bird	Parulidae	<i>Wilsonia canadensis</i>	Canada warbler	CUVA
Bird	Parulidae	<i>Wilsonia citrina</i>	hooded warbler	LIBO
Bird	Troglodytidae	<i>Thryomanes bewickii</i>	bewick's wren	ARPO, BUFF
Bird	Turdidae	<i>Catharus fuscescens</i>	veery	BUFF
Bird	Tyrannidae	<i>Empidonax traillii</i>	willow flycatcher	BUFF
Bird	Vireonidae	<i>Vireo bellii</i>	Bell's vireo	ARPO, GWCA, OZAR, WICR

Category	Family	Scientific Name	Common Name	Park
Bird	Vireonidae	<i>Vireo philadelphicus</i>	Philadelphia vireo	ARPO, BUFF
Bird	Picidae	<i>Melanerpes erythrocephalus</i>	red-headed woodpecker	ARPO, BUFF, HOSP
Bird	Picidae	<i>Picoides villosus</i>	hairy woodpecker	ARPO, BUFF, HOSP
Bird	Picidae	<i>Sphyrapicus varius</i>	yellow-bellied sapsucker	CUVA
Bird	Strigidae	<i>Asio flammeus</i>	short-eared owl	TAPR
Bird	Tytonidae	<i>Tyto alba</i>	barn owl	ARPO, BUFF
Fish	Polyodontidae	<i>Polyodon spathula</i>	American paddlefish	OZAR
Fish	Catostomidae	<i>Carpionodes velifer</i>	highfin carpsucker	OZAR
Fish	Catostomidae	<i>Cycleptus elongatus</i>	Blue sucker	OZAR
Fish	Catostomidae	<i>Erimyzon sucetta</i>	lake chubsucker	OZAR
Fish	Catostomidae	<i>Minytrema melanops</i>	spotted sucker	TAPR
Fish	Catostomidae	<i>Moxostoma macrolepidotum</i>	shorthead redhorse	BUFF
Fish	Cyprinidae	<i>Erimystax harrisi</i>	Ozark chub	BUFF
Fish	Cyprinidae	<i>Hybognathus nuchalis</i>	Mississippi silvery minnow	OZAR
Fish	Cyprinidae	<i>Luxilus cardinalis</i>	cardinal shiner	TAPR
Fish	Cyprinidae	<i>Nocomis asper</i>	redspot chub	PERI
Fish	Cyprinidae	<i>Notropis ozarcanus</i>	Ozark shiner	BUFF, OZAR
Fish	Cyprinidae	<i>Opsopoeodus emiliae</i>	pugnose minnow	OZAR
Fish	Esocidae	<i>Esox americanus</i>	grass pickerel	EFMO
Fish	Esocidae	<i>Esox masquinongy</i>	muskellunge	CUVA
Fish	Hiodontidae	<i>Hiodon tergisus</i>	mooneye	OZAR
Fish	Centrarchidae	<i>Centrarchus macropterus</i>	flier	OZAR
Fish	Percidae	<i>Etheostoma cragini</i>	Arkansas darter	GWCA
Fish	Percidae	<i>Percina uranidea</i>	stargazing darter	OZAR
Fish	Amblyopsidae	<i>Typhlichthys subterraneus</i>	Southern cavefish	OZAR
Fish	Petromyzontidae	<i>Lampetra aepyptera</i>	least brook lamprey	BUFF
Fish	Ictaluridae	<i>Noturus flavater</i>	slender madtom	OZAR
Fish	Ictaluridae	<i>Noturus lachneri</i>	Ouachita madtom	HOSP
Mammal	Mustelidae	<i>Mustela frenata</i>	long-tailed weasel	OZAR
Mammal	Mustelidae	<i>Mustela nivalis</i>	least weasel	PIPE
Mammal	Ursidae	<i>Ursus americanus</i>	black bear	OZAR
Mammal	Vespertilionidae	<i>Lasiurus borealis</i>	red bat	LIBO
Mammal	Vespertilionidae	<i>Myotis austroriparius</i>	Southeastern myotis	ARPO, HOSP
Mammal	Vespertilionidae	<i>Myotis grisescens</i>	gray bat	BUFF, OZAR, WICR
Mammal	Vespertilionidae	<i>Myotis leibii</i>	Eastern small-footed bat	BUFF
Mammal	Vespertilionidae	<i>Myotis sodalis</i>	Indiana bat	BUFF, CUVA, OZAR
Mammal	Talpidae	<i>Condylura cristata</i>	short-nosed mole	CUVA
Mammal	Leporidae	<i>Sylvilagus aquaticus</i>	swamp rabbit	OZAR
Mammal	Cricetidae	<i>Reithrodontomys humulis</i>	Eastern harvest mouse	ARPO

Category	Family	Scientific Name	Common Name	Park
Mammal	Muridae	<i>Ochrotomys nuttalli</i>	golden mouse	OZAR
Mammal	Muridae	<i>Oryzomys palustris</i>	marsh oryzomys	OZAR
Mammal	Muridae	<i>Synaptomys cooperi</i>	Southern bog lemming	EFMO
Mammal	Sciuridae	<i>Glaucomys volans</i>	Southern flying squirrel	EFMO
Reptile	Colubridae	<i>Nerodia cyclopion</i>	green water snake	ARPO
Reptile	Colubridae	<i>Opheodrys aestivus</i>	rough greensnake	LIBO
Reptile	Colubridae	<i>Opheodrys vernalis</i>	smooth green snake	HEHO
Reptile	Colubridae	<i>Pituophis catenifer sayi</i>	bullsnake	HEHO
Reptile	Colubridae	<i>Regina grahamii</i>	Graham's crayfish snake	ARPO
Reptile	Crotaphytidae	<i>Crotaphytus collaris</i>	Eastern collared lizard	BUFF, OZAR
Reptile	Chelydridae	<i>Chelydra serpentina</i>	snapping turtle	PIPE
Reptile	Emydidae	<i>Clemmys guttata</i>	spotted turtle	CUVA
Reptile	Emydidae	<i>Emydoidea blandingii</i>	Blanding's turtle	CUVA
Reptile	Emydidae	<i>Graptemys pseudogeographica</i>	false map turtle	HOCU
Reptile	Emydidae	<i>Terrapene carolina</i>	common box turtle	CUVA, HOCU
Non-vertebrate	Pupillidae	<i>Veritigo merimecensis</i>	bluff veritigo	EFMO
Non-vertebrate	Unionidae	<i>Cumberlandia monodonta</i>	spectaclecase	EFMO
Non-vertebrate	Unionidae	<i>Lampsilis teres anodontoides</i>	yellow sandshell	EFMO
Non-vertebrate	Unionidae	<i>Lampsilis teres teres</i>	slough sandshell	EFMO
Non-vertebrate	Unionidae	<i>Strophitus undulatus</i>	strange floater	EFMO

Bird Species of Continental Importance (Rich et al. 2004) by park

These species (accepted common names from Rich et al. 2004) are considered in planning and decision-making at each park that is monitored for breeding birds. Locations of breeding birds are approximated during monitoring at each park and locations are entered into a geodatabase. Occurrences may not indicate breeding within the park, but may represent incidental occurrences at the time of the breeding-bird monitoring.

[illegible]

Species	ARPO	EFMO	GWCA	HEHO	HOCU	HOME	LIBO	PERI	PIPE	TAPR	WICR
Olive-sided Flycatcher		X									
Prairie Warbler					X			X			X
Prothonotary Warbler	X	X					X			X	X
Red-bellied Woodpecker	X	X	X	X	X	X	X	X		X	X
Red-headed Woodpecker	X	X	X			X	X	X		X	
Red-shouldered Hawk		X	X								X
Swainson's Hawk											X
Swamp Sparrow				X							
Tennessee Warbler		X		X	X	X					
White-eyed Vireo	X	X			X		X	X		X	X
Willow Flycatcher		X		X	X						
Wood Thrush	X	X			X		X	X			X
Worm-eating Warbler		X				X		X			
Yellow-bellied Flycatcher			X								
Yellow-bellied Sapsucker		X				X		X		X	
Yellow-headed Blackbird									X		
Yellow-throated Vireo	X	X		X	X	X	X	X		X	
Yellow-throated Warbler			X		X		X	X			

Appendix M: Management Priorities

Parks identified priorities for DeBacker, et al. 2005. *Heartland Inventory and Monitoring Network and Prairie Cluster Prototype Monitoring Program Vital Signs Monitoring Plan*. September 30, 2005. They are presented here with minor editorial changes for clarity.

Cuyahoga Valley National Park

Wetland Management

A 2001 park-wide wetland inventory indicated that nearly 1500 wetlands exist. Most wetlands are small, but very small wetlands may remain undetected. Small emergent wetlands are most common and often found at the head of small, intermittent drainage ways, adjacent to ponds, or as groundwater seeps on hillsides. In addition to providing habitat for plants and animals, isolated wetlands, such as vernal pools, serve as breeding areas for amphibians. Long-abandoned farm ponds have gained natural wetland characteristics, and are treated as natural wetlands. The largest wetlands are located within the Cuyahoga River floodplain.

Management Objectives:

Maintain high quality wetland habitats at CUVA.

Restore degraded wetlands at CUVA.

Invasive Plant Management

The invasive species threat at CUVA is a landscape scale issue that requires a multi-tiered approach. Davey Resource Group documented 47 invasive plant species at CUVA during surveys in 2007. Three of these plant species were not previously documented in the park based on NPSpecies (accessed April 11, 2011). Multiflora rose, the most abundant invasive plant, covered between 20.4 and 436.5 acres. In general, several invasive plants are a major problem, but successful control appears possible for many species (Djuren and Young 2007). The relatively low cover of many species suggests that eradication or successful control may be possible. Wetland inventories revealed invasive species in at least 86 wetlands with 43 wetlands dominated by invasive vegetation. Park staff consider the following invasive species to be of greatest concern:

Garlic mustard (*Alliaria petiolata*) in upland and floodplain forests throughout the park.

Autumn olive (*Elaeagnus umbellata*) in disturbed areas throughout the park.

Japanese honeysuckle (*Lonicera japonica*) in disturbed habitats throughout the park.

Purple loosestrife (*Lythrum salicaria*) in a variety of wetland habitats.

Glossy buckthorn (*Rhamnus frangula*) in wetlands, forests, edges, and old fields.

Multiflora rose (*Rosa multiflora*) in a wide range of habitats throughout the park.

Reed canarygrass (*Phalaris arundinacea*) in wetlands and stream banks throughout park.

Common reed (*Phragmites australis*) in marshes, riverbanks, and disturbed soils.

Japanese knotweed (*Polygonum cuspidatum*) in open areas, roadsides, stream banks, and woodland edges.

Management Objective:

Control invasive plants to improve habitat for endangered, threatened, and other native species.

Effigy Mounds National Monument***Maintenance and Restoration of Native Plant Communities***

Remnant native plant communities and existing forest communities are believed to play an important role in the park. Although a restoration of the exact Woodland Period (500 B.C. to 1200 A.D.) forest structure is not possible, invasive plant control is critical to maintaining the desired communities.

Management Objectives:

The park has not defined the cultural landscape nor determined a final plant composition within the forest areas. As an interim condition, the park may manage for Potential Vegetation Type (PVT)²¹ that represents the appearance of forest during the mound-building period.

The preservation of the rare goat prairies on the bluffs has high priority.

Invasive Plant Management

While targeting garlic mustard during surveys in 2006 (Young, et al. 2007), crews documented five additional invasive plant species (Appendix B). The distribution and abundance of the species varied widely. Garlic mustard was the most abundant species.

Garlic mustard is widespread and is considered a major forest management problem or potential problem throughout the park.

Japanese barberry, multiflora rose, common buckthorn, and shrub honeysuckle (*Lonicera* spp) are invasive shrubs that were documented in the forest understory. Shrub honeysuckle was the most widespread invasive shrub with an observed cover of 390 m².

Resource management staff views invasive plant management as an essential component of the park's commitment to a collaborative resource management program. The size of many of the invasive plant populations and the costs associated with control suggests that invasive species control is feasible.

Management Objective:

Control invasive plants to improve habitat for endangered, threatened, and other native species, improve interpretation of the landscape, and protect archeology.

²¹ PVT is a stable vegetation community type based on the local biophysical environment and often best predicted by the type of historically native vegetation community on the same site.

Hopewell Culture National Historical Park***Invasive Plant Management***

During surveys in 2008, Davey Resource Group documented 34 high priority invasive plant species at HOCU. Three of these plant species were not previously documented as occurring on the park, based on NPSpecies (April 11, 2011), the service-wide database for plant information. Japanese honeysuckle, the most abundant invasive plant, covered between 0.75 and 10.4 acres in the forests and restored prairies of all mound groups. Of the 34 invasive plant species, 26 occurred in fewer than 25% of transects and occupied less than 1 acre. The relatively low cover of these species is encouraging and suggests that eradication or at least successful control may be a viable management option for some species.

Fallow farm fields at HOCU are commonly overgrown with multiflora rose and Johnsongrass. Other invasive plants such as periwinkle (*Vinca minor*) and summer grape (*Vitis aestivalis*) are also inhibiting native plant reproduction. The larger woody species, such as tree-of-heaven and autumn olive have the potential to damage buried archeological resources that are the primary resource of the park. Several species of thistle (*Cirsium* spp.) have become established during the disturbance created as old fields are restored. The invasive species make it difficult to establish and maintain the preferred vegetation cover.

Management Objective:

Control invasive plants to improve habitat for endangered, threatened, and other native species, protect archeology, and facilitate visitor understanding of resources.

Forest Management

Adjacent land uses cause pollutants in the forest. Examples include chemicals from paper mills and pesticide overspray from maintenance of power line rights-of-way that may negatively affect forest vegetation (Dafna Reiner, personal communication). The Gypsy moth (*Lymantria dispar*) and the emerald ash borer (*Agrilus planipennis*) are potential invasive insects that fall outside of the objectives of this plan, but must be considered as potential stressors to forests in the environmental analysis.

Management Objective:

Park staff intends to encourage the development of upland and lowland forest cover outside of earthworks sites through passive succession and restoration.



Lincoln Boyhood National Monument Forest Management (High Priority)

LIBO's primary natural resource issue is the protection of oak-hickory and mixed deciduous forest, which are representative of the early settlement period in Southern Indiana. Managers hope to restore the forest's function to the extent possible given the history and small size of LIBO. Based on current models, gypsy moths are expected to be present at LIBO by 2015 and could influence forest structure, affecting opportunities for invasive plant infestation. Prescribed fire and cutting will

be used to eliminate mesic species such as tulip poplar and sugar maple from well-drained soils that historically supported oak-hickory forests. A prescribed fire-return interval of 5 to 10 years is planned after a series of more frequent fires that are planned to reduce fuel loads by 75%.

Management Objective:

Restore the forest to approximate the composition and structure encountered by the Lincoln family and other Southern Indiana pioneers.

Invasive Plant Management (High Priority)

Exotic species are found throughout LIBO in varying densities. Adjacent land use, farming, and rural residential areas provide the means for invasion into LIBO. During surveys in 2006, crews documented 31 invasive plant taxa. Japanese honeysuckle was widespread and abundant on at least 3.2 acres and occurred in 94.8% of search units. Common periwinkle was the second most abundant species with a cover of 1.3 acres and occurred in 24.7% of search units. A total of 27 invasive plant species each covered one acre or less of the park. In general, several invasive plants are a moderate problem at LIBO, but successful control appears possible for a large group of species. Other species of primary concern include Chinese yam (*Dioscorea oppositifolia*), multiflora rose, privet (*Ligustrum* sp.), and various less aggressive ornamental shrubs and grasses. Chinese yam has invaded 1 to 2 acres, but the vine spreads rapidly via asexual bulbils and covers all vegetation and structures.

Management Objectives:

Eliminate or reduce the cover of invasive plants at LIBO.

Prevent future invasions of invasive species.

Indiana state-listed animal species

Indiana has an endangered species act that covers animals (excluding insects) (Ind. Code 14-22-34-1 et seq.) The act does not require agency consultation. There are three bird species, one reptile, and one mammal that are listed as state species of concern that occur in the park.

Arkansas Post National Memorial***Invasive Plant Management (High Priority)***

During surveys in 2006, crews documented 20 invasive plant taxa. Bluegrass, smooth brome (*Bromus inermis*), and reed canarygrass were widespread and abundant throughout the park. In general, several invasive plants are a major problem at ARPO, but successful control is possible for a large group of species. Four invasive species: trifoliate orange, common privet (*Ligustrum vulgare*), Chinese privet, and Japanese honeysuckle threaten the forest structure and contribute to hazard fuel accumulations. Trifoliate orange has overtaken approximately 10 acres of the Memorial Unit. Roughly eight to nine percent of the Memorial Unit is covered with invasive plants. The status of invasive plants at the Osotouy Unit is not documented.

Management Objectives:

Consistent with the approved CLR (NPS 2005) for the park that supports the management and control of invasive species of concern management objectives include eliminate trifoliate orange, common privet, Chinese privet, and Japanese honeysuckle, as well as other invasive plants from the Memorial Unit and prevent these species from spreading to surrounding private, state, and federally owned land. Vegetation plays a critical role in visitor understanding and is critical in stabilizing archeological resources within the Osotouy. Objectives for the Osotouy Unit are pending.

Buffalo National River***Management of Species of Concern***

Hibernating, bachelor, and maternity bat colonies exist in several park caves and abandoned mines. Over 300 caves are currently documented in the park. The caves provide critical habitat for three federally endangered bat species: gray bat, Indiana bat, and the Ozark big-eared bat. There are also reports of Eastern small footed bat, a G3N3S1²² ranked species, in at least one cave inside the park. Arkansas' largest hibernaculum for the gray bat is located approximately 200 feet outside of the Lower Buffalo Wilderness boundary. There are two known gray bat caves in the Lower Buffalo Wilderness, including a maternity cave with a population of ten to fifteen thousand bats.

Management Objectives:

Comply with all Endangered Species Act requirements and protect populations of rare species.

Support site dependent objectives for cultural landscapes and natural resources.

²² NatureServe Conservation Status numeric rank represents the conservation status of a species or ecosystem, designated by a number from 1 to 5, preceded by a letter reflecting the appropriate geographic scale of the assessment (G = Global), N = National, and S = Subnational). The numbers mean, 1 = critically imperiled, 2 = imperiled, 3 = vulnerable, 4 = apparently secure, and 5 = secure. (<http://www.natureserve.org/explorer/ranking.htm>, September 21, 2011).

George Washington Carver National Monument***Plant Community Restoration***

The NPS began a prairie restoration program on six acres in 1985. Today there are 120 acres being managed as restored prairie. Invasive plant species have also become established throughout the park. These invasive plants may impede successful prairie restoration. Another of GWCA's management objectives is to maintain forest cover as a buffer for riparian zones and to meet visitor experience objectives.

Management Objectives:

Maintain and restore prairies.

Maintain and restore riparian forests.

Invasive Plant Management

During surveys in 2006, crews documented 26 invasive plant taxa. Invasive plants occurred in the restored prairies and the forests at the park. The invasive Japanese honeysuckle, Tartarian honeysuckle (*Lonicera tartarica*), Johnsongrass, crownvetch (*Securigera varia*), and Chinese bushclover have colonized prairies at GWCA. Japanese honeysuckle, bald brome, fescue, and Osage orange were widespread and abundant. In general, several invasive plants are a moderate problem at GWCA, but successful control is possible for many. Extensive grazing on surrounding farms invites invasive species establishment and growth. Sumac (*Rhus* spp.), blackberries (*Rubus* spp.), woody briars (*Smilax* spp.), and grape vine (*Vitus* spp.) are also invading the restored prairies.

Management Objectives:

Control invasive plants in prairies to improve habitat for native species.

Control invasive plants in riparian forests to improve habitat for native species.

Hot Springs National Park

Watershed Management

Watershed management is designed to protect the integrity of the thermal springs, cold-water springs, and streams at HOSP, as called for in the enabling legislation. Shallow ground-water systems, containing cold water that mixes with thermal water, are dominated by fractures and are subject to rapid input of surface contaminants. Rapid transport of these contaminants to wells and springs may occur with little opportunity for natural degradation of contaminants before entrainment in the thermal water supply.

Management Objectives:

Promote and maintain high water quality in surface waters is particularly important in Gulpha Creek and Bull Bayou where visitors fish and swim.

Maintain high water quality in shallow ground-water systems and in recharge areas to park the water quality of the thermal and cold springs.

Invasive Plant Management

Because of the urban setting and disturbed land from the removal of former housing developments within the park, Japanese honeysuckle, kudzu (*Pueraria montana* var. *lobata*), common privet (*Ligustrum vulgare*), nandina (*Nandina domestica*), cherry laurel (*Prunus laurocerasus*), Chinese bushclover, southern magnolia (*Magnolia grandiflora*), and Russian olive (*Elaeagnus angustifolia*) continue to flourish. Some of these species are former or escaped domesticated plants from housing communities once located in the park. Kudzu (*Pueraria montana* var. *lobata*), an invasive exotic spreading throughout the South, colonizes disturbed areas quickly and covers forest and native vegetation. As the park reclaims residential lots and buildings are removed (over 300 to date), kudzu becomes established quickly. This has made the reclaimed areas impenetrable in some places. The Cultural Landscape Report (NPS 2010) provides guidance on invasive plant management in the historic landscape.

Management Objectives:

Eradicate or control invasive plants at HOSP.

Forest Management

Based on tree-ring analysis, HOSP protects the oldest stand of oak-hickory-pine in the state of Arkansas (Stephen Rudd, 2011, personal communication). The 40 to 50 acres stand is located on the edge of Hot Springs Mountain. Another 90 acres stand is located to the side of Sugarloaf Mountain near Cedar Glades Road. Gypsy moth (*Lymantria dispar*), red-oak borer (*Enaphalodes rufulus*) and southern pine beetles (*Dendroctonus frontalis*) threaten the forest composition. These threats fall outside of the scope of this plan, but must be considered as an ecosystem stressor contributing to forest community conditions.

Management Objectives:

Maintain high priority forest types.

Ozark National Scenic Riverways***Threatened and Endangered Species Management***

These rare species utilize a variety of habitats including caves, riparian forest, giant cane, seeps, bluff tops, upland forests, spring branches, deep river pools, and forest canopy openings in the park. Many of these rare species protected through federal or state mandates.

Management Objectives:

Prevent future Endangered Species Act listings through sound management practices.

Plant Community Management

The matrix forest provides the scenic setting for park visitors as they float on the river. The landform divides the matrix cover into approximately 75% upland forest and 25% riparian and floodplain forest. High quality examples of rare Missouri natural communities include glades, fens, woodlands, cliffs, caves, rivers, streams, sloughs, springs, spring branches, and washes. Compared to upland and riparian forests within the park, rare plant communities are relatively small, discrete areas harboring a set of distinctive environmental conditions. These communities are subject to enormous edge influence given their size. Therefore, protection and management of these unique sites within the larger forest and river matrix is required to preserve "natural features" and meet the park legislative mandate. Decisions on the nature of the actions must emerge from a series of cultural landscape studies and reports to document, evaluate and provide treatment recommendations for historic agricultural and recreational landscapes.

Management Objectives:

Protect and restore rare plant communities.

Maintain matrix forests.

Manage open fields to meet cultural landscape and wildlife objectives.

Invasive plants Species Management

Once ranked low priority with less than 11% invasive vegetation species, increased recreational use has changed the level of priority for invasive plant management within the park. The Natural Resource Management Plan (NRMP in Resource Management Plan, NPS 1995) recommends controlling encroachment of woody vegetation and invasive species. During surveys in 2009, crews documented seven invasive exotic plant taxa in the Big Spring Pines Natural Area, Chubb Hollow, Long Bay Field and Long Bay. The most widespread and abundant of the exotic plant species observed included Johnsongrass, ground ivy (*Glechoma hederacea*), and Nepalese browntop (*Microstegium vimineum*). In general, several invasive exotic plants are a major problem, but successful control is possible. Management objectives include identifying the major vectors of invasive species, determining the susceptibility of plant communities to invasive species, and determining how these invasive species should be managed.

Management Objectives:

Eliminate or reduce invasive species at OZAR.

Prevent future invasions of invasive species at OZAR.

Pea Ridge National Military Park***Plant Community Management (High Priority):***

Fire suppression and logging have changed the character of the park's forests significantly since 1862, the year of the battle and basis for determining desired conditions for the landscape appearance. Ecological succession, grazing, and the lack of prescribed fire have promoted Eastern red cedar as the dominant overstory species, which has altered the native ecosystems and changed the landscape appearance.

Management Objective:

Restore forests to mimic their appearance in 1862, as recommended in the Cultural Landscape Report for the park.

Invasive Plant Management:

Pea Ridge National Military Park has a long history of cattle grazing, fire suppression and other human introduced disturbances. These disturbances have led to the introduction of invasive plants. During surveys in 2006, crews documented 13 invasive, exotic plant species and the invasive Eastern red cedar. The survey focused on the relatively mature forests at the park, excluding old fields and successional forests. Eastern red cedar, covering between 671 and 1152 acres, was by far the most abundant invasive plant documented in the survey (Young, et al. 2007). In general, only a few invasive exotic plants pose a problem in the park's forest. Other common invasive plant species include Carolina buckthorn (*Rhamnus caroliniana*), Japanese honeysuckle, bull thistle, Chinese bushclover, multiflora rose, Johnsongrass, English ivy, Kentucky bluegrass, and winter creeper (*Euonymus fortunei*).

Management Objectives:

- Eliminate or reduce invasive species.
- Prevent future invasions of invasive species.

Wilson's Creek National Battlefield***Invasive Plant Management***

During surveys in 2006, crews documented 35 invasive plant species. Chinese bushclover, the most abundant invasive plant at Wilson's Creek National Battlefield, is estimated to cover between 480 and 851 acres. In general, several exotic plants are a major problem to native plant community integrity at Wilson's Creek National Battlefield, but successful control is possible for a large group of species (Young, et al. 2007e).

Management Objectives:

Eliminate or reduce invasive species.

Prevent future invasions of invasive species.

Species of Concern Management

The Missouri bladderpod inhabits glades at WICR. The Cultural Landscape Report 2004 made numerous recommendations that support efforts to protect bladderpod populations.

Management Objectives:

Maintain Missouri bladderpod habitat to encourage natural propagation.

Plant Community Management

A restoration plan was developed by the Missouri Department of Conservation in 1986, and was implemented by WICR in 1987 and is consistent with restoring landscape appearance to match the 1861 battlefield landscape. The Cultural Landscape Report 2004 (NPS 2004b) made further recommendations for landscape treatment. Prescribed fire is one of several treatments being used to restore prairie and woodlands at WICR.

Management Objectives:

Restore forests to mimic their appearance in 1862.

Herbert Hoover National Historic Site

Invasive Plant Management

Invasive species pose a threat to prairie communities, stream rehabilitation efforts, and park aesthetics. Some of the most extensive invasions of plants occur along drainages from surrounding agricultural land and within floodplains of Hoover Creek. During surveys in 2009, crews documented 23 invasive plant taxa in the restored prairie. The most widespread and abundant of the exotic plant species observed included sweetclover (*Melilotus alba*), reed canarygrass, and smooth brome. Similar surveys were conducted and documented in 2006, providing an opportunity to compare two separate years of data collection, as well as an analysis of changes in invasive exotic plant composition, abundance and distribution. Seven of 27 species increased in frequency over the three year period, while 20 decreased, but overall reduction in invasive cover occurred. Fencerows and mowed areas of the park are planted in Kentucky bluegrass, fescue, and smooth brome. Smooth brome and Kentucky bluegrass encroach on the prairie edges and take advantage of open areas between the warm season bunch grasses. Reed canarygrass forms monotypic stands that exclude other species in riparian areas. Exotic woody plants such as Siberian elm (*Ulmus pumila*), white mulberry (*Morus alba*), and Russian olive have colonized at HEHO. Escaped ornamentals from the cultural landscape of the site, such as Tartarian honeysuckle, have invaded the prairie and woodlands as well. Canada thistle and ragweed (*Ambrosia* spp.) are also found in small, dense groups (less than one acre) in disturbed areas.

Management Objectives:

Control invasive plants in prairies to improve habitat for native species.

Control invasive plants in riparian forests to improve habitat for native species.

Prairie Restoration

After 40 years of development, the prairie continues to require active management. Prescribed fire had been the primary management over the years. The park's General Management Plan has established a low tolerance for invasive plant species in its Natural Zone as a desired condition. The draft Resource Stewardship Strategy calls for an increase in species diversity to attain desired conditions within the prairie.

Management Objectives:

Continue to restore the prairie per recommendations of the GMP 2006 and the Cultural Landscape Report 1995.

Homestead National Monument of America***Prairie Management***

The prairie at HOME is the Nation's second oldest restored tallgrass prairie. The restoration of the 100 acre prairie started in 1939. The prairie provides an important island of habitat for wildlife and native plant diversity. Restoration of the prairie increases retention and infiltration of overland flow to reduce pollutants and dissipate energy in Cub Creek. It also contributes to the representative landscape for the time of the Homestead Act.

Management Objectives

Continue prairie restoration to represent the landscape at the time of the Homestead Act.

The goals of prairie management, as listed in the Vegetation Management Action Plan, are to protect and promote native biodiversity, manage and monitor exotic species infestations and manage thickets so they remain a small part of the prairie.

Mesic-Bur Oak Forest Management

The 40-acre woodland at Homestead is classified as a mesic bur oak forest, a rare community type in Nebraska, as regarded by the state. Upon acquisition of the Freeman homestead by the NPS, much of the wooded area along Cub Creek had been heavily grazed, and most of the older trees had been harvested. However, approximately 20 acres of woodland remained undisturbed.

Management Objectives

Restore the bur oak forest to represent the landscape at the time of the Homestead Act.

Pipestone National Monument (PIPE)***Endangered Species Management (High priority)***

The federally threatened western prairie fringed orchid and the federally endangered Topeka shiner occur at PIPE. Western prairie fringed orchid populations are affected by climate factors, and by overall prairie health. The Topeka shiner may be negatively affected by alteration in water quality and flow, and by species predation and competition.

Management Objectives:

Maintain habitat conditions for the Topeka shiner.

Maintain habitat conditions for the western prairie fringed orchid.

Invasive Plant Management (High priority)

During surveys in 2006 and 2009, 20 invasive plant taxa were documented. Three grass species are widespread and abundant: bluegrass and smooth brome were each estimated to cover at least 21 acres, while reed canarygrass occurred on at least four acres. Survey findings suggest that the park's control efforts have reduced the distribution and abundance of several invasive plant species. This observation combined with the low abundance of many of the other species suggests that ongoing park control efforts are likely to be very effective.

Management Objectives:

Manage invasive species.

Prevent future invasions of invasive species.

Tallgrass Prairie National Preserve***Plant Community Management***

The park is dominated by unplowed upland tallgrass prairie and perpetuated by fire, climate, and grazing. According to park personnel, cattle and bison are managed on the park lands and a varied fire and grazing regime (initiated in 2006) is used for vegetation and range management. Prior to 2006, nearly all of the 10,000 acres of prairie on the park burned every spring. In 2001, the bottomland smooth brome fields were converted from cattle pastures to brome hay fields and the park has worked to restore these fields back to bottomland tallgrass prairie. At this time, the native upland prairies are relatively free of significant invasive plant encroachment however; the bottomland fields have a number of problematic agricultural weeds.

Management Objectives:

- Maintain and restore native prairie communities.
- Maintain and restore native riparian communities.
- Maintain and restore rare and small-patch plant communities.

Invasive Plant Management

An invasive plant inventory was completed in 2006 (Young, et al. 2007). During surveys, 16 invasive plant species were documented. Smooth brome was the most abundant invasive plant. Smooth brome was planted in previously tilled bottomland along Fox Creek in 1995, prior to the park's establishment. Two small fields along Fox Creek are currently planted to soy beans annually. In general, invasive plants are not a major threat, but species such as Chinese bushclover, Johnsongrass, and the Old World bluestems are a concern in the native and restored prairies.

Management Objectives:

- Manage invasive species.
- Prevent future invasions of invasive species.

Appendix N: Nationwide Rivers Inventory

Designated Wild and Scenic Rivers in parks affected by this proposal.

River	County	Reach	Length (miles)	Year Listed/ Updated	Potential Classification	ORV	Description
Buffalo River	Marion, Searcy, Newton	From confluence with White River upstream to headwaters	150	1982		S, R, G, F, W, H	It flows through clear pools and rushing rapids, mountains, past unique caves and waterfalls, old pioneer cabins, long abandoned homes of cliff dwellers, and spectacular rock formations. The watershed contains 700 species of trees and other plants, furnishing habitat for 250 species of birds and other animals. It is nationally known as an exceptional recreation resource, including a smallmouth bass fishery.
Current River	Dent, Shannon, Carter	Entire segment within Ozark National Scenic Riverways	100	1993	S	S, R, G, F, W, H, C	It has large karst springs, the most of any river on Ozark plateau. Water quality is good. Landscape includes many caves, and geologic features.
Jacks Fork	Texas, Shannon	Entire segment within Ozark National Scenic Waterways	38	1993	W, S	S, R, G, F, W, H, C	It includes many federally threatened and endangered plant species. There are vertical bluffs and karst features on river.
Yellow River	Allamakee	Entire segment within Effigy Mounds National Monument	1	1982 / 1993	S	S, R, G, W, H, C	One of fastest falling rivers in Iowa, providing excellent fishing and canoeing opportunities. Numerous prehistoric Indian burial mounds. The site of Jefferson Davis Sawmill is upstream from boundary.

Potential Classification

Wild rivers (W): Free of impoundments and generally inaccessible except by trail with essentially primitive watersheds or shorelines, and waters unpolluted. These represent vestiges of primitive America.

Scenic rivers (S): Free of impoundments, with largely primitive shorelines or watersheds and largely undeveloped shorelines, but accessible in places by roads.

Recreational rivers (R): Readily accessible by road or railroad that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

Outstandingly Remarkable Values (ORVs)

Scenery (S): The landscape elements of landform, vegetation, water, color, and related factors result in notable or exemplary visual features and/or attractions. Scenery and visual attractions may be highly diverse over the majority of the river or river segment.

Recreation (R): Recreational opportunities attract visitors from throughout or beyond the region for river-related opportunities, such as sightseeing, wildlife observation, camping, photography, hiking, fishing and boating. Interpretive opportunities may be exceptional.

Geology (G): The river or the area within the river corridor contains one or more example of a geologic feature, process or phenomenon that is unique or rare within the region.

Fish (F): Fish values may be judged on the relative merits of fish populations, habitat, or a combination of these river-related conditions.

Wildlife (W): Wildlife values may be judged on the relative merits of either terrestrial or aquatic wildlife populations or habitat or a combination of these conditions.

Prehistory (P): The river or area within the river corridor contains a site(s) where there is evidence of occupation or use by Native Americans. Sites must have unique or rare characteristics or exceptional human-interest value(s). Many such sites are listed on the National Register of Historic Places.

History (H): The river or area within the river corridor contains a site(s) or feature(s) associated with a significant event, an important person, or a cultural activity of the past that was rare or one-of-a-kind in the region. Many such sites are listed on the National Register of Historic Places.

Cultural (C): The river or area within the river corridor contains archeological sites or areas significant to traditional cultures. Examples might be American Indian burial grounds, petroglyphs, the oldest known human use site in a region, or streams that support traditional agriculture, subsistence fishing, or religious ceremonies.

Other Values (O): While no specific national evaluation guidelines have been developed for the "other similar values" category, assessments of additional river-related values consistent with the foregoing guidance may be developed -- including, but not limited to, hydrology, paleontology and botany resources.