

Schell-Osage Conservation Area

10-Year Area Management Plan FY 2019-2028



Joel W. Porath

Wildlife Division Chief

10/4/2018

Date

Schell-Osage Conservation Area Management Plan Approval Page

PLANNING TEAM

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OVERVIEW

- **Official Area Name:** Schell-Osage Conservation Area, #5701
- **Year of Initial Acquisition:** 1957
- **Acreage:** 8,633 acres
- **County:** St. Clair, Vernon
- **Region:** Kansas City
- **Division with Administrative Responsibility:** Wildlife
- **Division with Maintenance Responsibility:** Wildlife
- **Statements of Purpose:**
 - A. Strategic Direction**

Protect, restore, and manage fish, forest, and wildlife habitats, particularly wetlands, grasslands, and forests, and their associated plants and animals; emphasize biodiversity and ecosystem integrity while providing high quality public use opportunities for hunting, fishing, and wildlife viewing.
 - B. Desired Future Condition**

The desired future condition of the Schell-Osage Conservation Area (CA) is a diverse complex of intensively managed wetlands in the floodplain, along with grassland and forest communities in the uplands, interspersed with old fields and crop fields to provide diverse habitats for a suite of species.
 - C. Federal Aid Statement**

Schell-Osage CA, or a portion thereof, was acquired with Pittman-Robertson Wildlife Restoration funds to restore and manage wildlife, conserve and restore suitable wildlife habitat, and provide public access for hunting or other wildlife-oriented recreation.

GENERAL INFORMATION AND CONDITIONS

- I. Special Considerations**
 - A. Priority Areas:** Upper Osage Grasslands Terrestrial Conservation Opportunity Area, Four Rivers Wetland and Wet Prairie Complex, Upper Osage Grasslands Priority Geography, Prairie Chicken Focus Area
 - B. Natural Areas:** None

- II. Important Natural Features and Resources**
 - A. Species of Conservation Concern:** Species of conservation concern are known from this area. Area managers should consult the Natural Heritage Database annually and review all management activities with the natural history biologist.
 - B. Caves:** None
 - C. Springs:** None

- D. Other:** This diverse area lies in the Osage Plains Section, Cherokee Plains Subsection, and is broken into three landtype associations (Nigh & Schroeder, 2002).
- The Four Rivers Alluvial Plains Landtype Association consists of flat alluvial plains and terraces with little elevation change. Deep, finely textured alluvium forms poorly drained soils. Historically, bottomland prairie, marshes, and bottomland forests dominated this landtype (Nigh & Schroeder, 2002).
 - The Four Rivers Low Prairie Plains Landtype Association grades onto the alluvial plains, and is a basin-like area with less than 50 feet of relief and a notable claypan. Historically, over 90 percent of this landtype was prairie with timber along the wetter margins (Nigh & Schroeder, 2002).
 - The Clear Creek Prairie/Savanna Dissected Plain Landtype Association consists of mostly broad, flat prairie breaking to gentle slopes with relief of 75-150 feet, some with bedrock. Historically, the landtype was prairie on ridges and upper slopes grading into oak savanna and woodland (Nigh & Schroeder, 2002).

III. Existing Infrastructure

- Headquarters Buildings: Office/Draw Room Building, two storage buildings, shop building, chemical storage shed, fuel containment facility, grain bin, and Americans with Disabilities Act (ADA)-accessible parking pad for headquarters
- Three ADA-accessible privies at Headquarters building, Schell Lake campgrounds, and Atkinson Lake campgrounds
- Atkinson Lake (461-acre fishing lake)
- Schell Lake (355-acre fishing lake)
- Two gravel boat ramps (at Atkinson Lake and Schell Lake)
- Nine wetland pools and associated water-control structures, levees, and roads
- Eleven fishing ponds (total of 17.9 acres)
- Seven marsh access boat ramps
- Twenty-eight gravel parking lots (two are ADA-accessible with concrete pads)
- Two campgrounds: One at Schell Lake and one at Atkinson Lake
- Twenty-seven waterfowl hunting blinds (two are ADA-accessible)
- Hiking trail (non-interpretive, 2.5 miles)

IV. Area Restrictions or Limitations

- A. Deed Restrictions or Ownership Considerations:** The floodplain below 742' above mean sea level (AMSL) lies within the Harry S. Truman Reservoir flowage easement held by the U.S. Army Corps of Engineers (ACOE) and is subject to review for Consent to Easement for repairs, renovation, and new construction.
- B. Federal Interest:** Uses of land acquired with federal funds may not interfere with the purpose for which it was acquired. Federal funds may also be used in the management of this land. Fish and wildlife agencies may not allow recreational

activities and related facilities that would interfere with the purpose for which the State is managing the land. Other uses may be acceptable and must be assessed in each specific situation.

C. Easements:

- U.S. Army Corps of Engineers Harry S. Truman Dam and Reservoir flowage easement (affecting elevations below 742' AMSL)
- Sac Osage Electric Cooperative powerline easement
- Easement with neighbor for three culvert crossings along the western boundary
- United States of America Whiteman Air Force Base
- Public Water Supply District #1 of St. Clair County, MO waterline easement
- Southwestern Bell Telephone telephone line easement
- State of Missouri Highway Commission right of way easement
- Federal mineral right (access by U.S.)

D. Cultural Resources Findings: Yes, records kept with Missouri Department of Conservation (MDC) environmental compliance coordinators. Managers should follow best management practices for cultural resources found in the MDC *Resource Policy Manual*.

E. Endangered Species: Endangered species are known from this area. Area managers should consult the Natural Heritage Database annually and review management activities with the natural history biologist.

F. Boundary Issues: Establishing accurate and identifiable boundary markers is a priority for this property.

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

Renovate and manage floodplain to benefit wetland habitat and continue to restore and manage grasslands and forest, which supports a diversity of game and non-game species for the benefit of public use.

Challenges and Opportunities:

- 1) High quality wetland habitat is essential to support waterfowl and other wetland-dependent species.
- 2) Quality waterfowl refuge is needed to provide resting areas that support abundant waterfowl populations during fall migrations.
- 3) The development of the Harry S. Truman Dam and Reservoir significantly affected hydrology and overall wetland management capabilities of the Schell-Osage CA wetland complex. Infrastructure renovation is needed to improve floodplain function.

- 4) Prior to acquisition, wet bottomland prairie was lost to agriculture, other land-use changes, and the impacts from the Truman Lake flowage easement.
- 5) Nearly all the oak-hickory forest has been lost in the floodplain due to the influence of Truman Lake. In some locations, more flood-tolerant species persist. Forest management opportunities exist in the upland portions of the area.
- 6) The Upper Osage Grasslands program was initiated because most quality grasslands had been lost to agriculture, or transitioned to old field dominated by brush. Only five small prairie remnants exist; so, reclaiming and restoring grasslands is a priority.
- 7) Invasive species, particularly sericea lespedeza, Johnson grass, *Sesbania*, *Phragmites*, reed canary grass, and Japanese honeysuckle are present on the area.

Management Objective 1: Manage wetland pools to provide resources for migrating waterfowl, as well as other wetland species.

Strategy 1: Manage pools using a variety of moist-soil management techniques, including, but not limited to, draw-downs, mowing, spraying, herbicide, disking, and flooding. (Wildlife)

Strategy 2: Plant small- and large-grain crops, not to exceed 20 percent of the area's wetland acres, for the benefit of waterfowl in the fall. (Wildlife)

Strategy 3: Drill, broadcast, or aerial broadcast small-seed cultivars when flooding significantly damages wetland habitat. Examples may include, but are not limited to, buckwheat and Japanese millet. (Wildlife)

Strategy 4: On the lowest elevations, such as Barber Lake and See Lake, manage water through late spring and summer to provide areas of shallowly flooded habitat interspersed with mudflats, when compatible with other wetland management objectives. These areas will provide habitat for dabbling ducks, wading birds, and shorebirds, as well as fish and herptiles. (Wildlife)

Management Objective 2: Provide high-quality inviolate refuge to support large numbers of waterfowl.

Strategy 1: Continue to provide high-quality inviolate refuge for resting and foraging areas to help waterfowl build fat reserves and improve body condition. (Wildlife)

Strategy 2: Expand and enhance waterfowl refuge through the Golden Anniversary Wetlands Initiative renovation to provide quality, shallow-water habitat in areas such as See Lake, and a shallow portion of Atkinson Lake. (Wildlife, Resource Science, Fisheries, Design and Development)

Management Objective 3: Improve floodplain function and wetland resiliency through the Golden Anniversary Wetlands Initiative renovation.

Strategy 1: Conduct renovations using a stream-floodplain systems approach by incorporating the latest wetland renovation technologies (such as LiDAR) and soils and hydrology data, as aging or failing infrastructures are replaced, and as funding permits. (Wildlife, Resource Science, Fisheries, Design and Development)

Strategy 2: Conduct renovations in accordance with the *Wetland Planning Initiative Strategic Guidance Document* (MDC, 2015). (Wildlife, Resource Science, Fisheries, Design and Development)

Management Objective 4: Restore wet bottomland prairie communities, where practical.

Strategy 1: Reconstruct wet bottomland prairie on suitable areas that were formerly converted, but are less susceptible to the influence from Truman Lake. (Wildlife)

Management Objective 5: Manage forest, woodland, and savanna communities to provide healthy and diverse habitats for wildlife associated with these habitats.

Strategy 1: Conduct inventories on bottomland compartments, as well as upland forest/woodland compartments, according to the inventory schedule to develop prescriptions for ecological and silvicultural treatments. (Forestry)

Strategy 2: Monitor for invasive plants, insects, and diseases, and take action to suppress or eradicate as appropriate. (Forestry)

Strategy 3: Monitor decline, note elevations, and determine if regeneration of desirable bottomland hardwood species is present. (Forestry)

Strategy 4: On appropriate sites, manage forest, woodland, and savanna habitats for healthy and diverse communities. (Forestry, Wildlife)

Strategy 5: Implement management prescriptions identified in the forest management plan resulting from each inventory within five years of completion of the inventory. (Forestry)

Strategy 6: Follow the appropriate best management practices when conducting forestry operations, per the *Missouri Forest Management Guidelines Voluntary Recommendations for Well-Managed Forests* (MDC, 2014a). (Forestry)

Strategy 7: Follow the appropriate best management practices outlined in the *Missouri Watershed Protection Practice* booklet (MDC, 2014b) when conducting forest management operations. (Forestry, Wildlife)

Strategy 8: Follow the appropriate guidelines per *Watershed and Stream Management Guidelines for Lands and Waters Managed by the Missouri Department of Conservation* (MDC, 2009). (Forestry, Wildlife)

Management Objective 6: Manage grasslands as part of the Upper Osage Grassland Focus Area to provide a diversity of plant structure and species composition to benefit all wildlife to include mammals, birds, fish resources, and invertebrates.

Strategy 1: Manage grasslands with prescribed fire, applied in a variety of time frames, to provide diverse plant communities and vegetation structure. (Wildlife)

Strategy 2: Implement patch-burn grazing on three units, following best management practices, as outlined in the approved grazing plan. (Fisheries, Wildlife)

Strategy 3: Manage grasslands to control succession by removing woody invaders with prescribed fire, herbicide, and mechanical removal methods, as deemed necessary. Follow MDC's *Guidelines for Avoiding and Minimizing Impacts to Federally-Listed Bats on Missouri Department of Conservation Lands* (MDC, 2016) and stream best management practices, as found in the *Missouri Watershed Protection Practice* booklet (MDC, 2014b). (Fisheries, Wildlife)

Strategy 4: Participate in research projects related to grassland management, such as breeding bird, invertebrate, rabbit, and other surveys, when appropriate. (Wildlife, Resource Science)

Management Objective 7: Monitor, treat, and/or minimize the spread of invasive species.

Strategy 1: Monitor invasive species. Spot-treat, broadcast or aerial spray invasive species, including, but not limited to, sericea lespedeza, reed canary grass, *Phragmites*, *Sesbania*, and Johnson grass. Natural communities, wetlands, and restored grasslands are prioritized for treatments. (Wildlife)

VI. Aquatic Resource Management Considerations

Challenges and Opportunities:

- 1) Landscape-scale alterations in the Osage River Basin have changed the hydrology and habitat conditions instream and across the floodplain, threatening water quality, streambank stability, and biodiversity on the area.
- 2) Missouri species of conservation concern have been documented nearby in the Osage River in recent decades. Ghost shiner were documented in 1995 and silver chub in 2002. However, these species have not been documented on the area.
- 3) Streams on the area range from first-order to fourth-order. The Osage River forms the northern border of the area and is an eighth-order stream.
- 4) Two large lakes and 11 smaller fishing ponds exist on the area. The large lakes have a history of being shallow and lacking native aquatic vegetation.
- 5) Invasive species should be monitored and treated, as possible. Zebra mussels have been detected on the area.

Management Objective 1: Manage the area's streams and adjacent floodplain for a diversity of aquatic species, consistent with other management objectives.

Strategy 1: Manage all riparian corridors per MDC's stream management guidelines (MDC, 2009). Along first-order streams, maintain riparian corridors of at least 50 feet in width. Along second- to fourth-order streams (based on topographic map blue-line streams), maintain corridors of at least 100 feet in width. Along the Osage River, maintain a woody riparian corridor of at least 300 feet in width. (Wildlife)

Strategy 2: Maintain water in borrow areas on portions of the area until June 15 of each year, to benefit fish spawning and nurseries, when consistent with wetland management objectives. (Wildlife)

Strategy 3: Hold water in portions of See Lake and Barber Lake to benefit fish spawning and nurseries throughout the year, when consistent with wetland management objectives. (Wildlife)

Strategy 4: As aging infrastructure is replaced, design new infrastructure to minimize seasonal mortality of native fish species in developed wetlands. (Wildlife, Fisheries, Design and Development)

Management Objective 2: Manage fishing ponds and lakes.

Strategy 1: Monitor fish communities in fishing basins, as needed. (Fisheries)

Strategy 2: Periodically stock supplemental channel catfish in ponds. (Fisheries)

Strategy 3: Monitor and manage vegetation in fishing ponds. (Fisheries)

Strategy 4: Evaluate non-fishing ponds and consider potential as amphibian ponds. (Fisheries, Wildlife)

Strategy 5: Renovate Schell Lake as part of the Golden Anniversary Wetlands Initiative renovation, and as funding allows. (Fisheries, Resource Science, Wildlife, Design and Development)

Strategy 6: Enhance natural aquatic vegetation along Schell and Atkinson lakes, as opportunities arise. (Fisheries)

Management Objective 3: Monitor, treat, and/or minimize the spread of invasive species.

Strategy 1: Monitor zebra mussels and minimize spread to the extent possible. (Fisheries, Wildlife)

VII. Public Use Management Considerations

Challenges and Opportunities:

- 1) The waterfowl hunting program on Schell-Osage CA provides excellent blind-hunting opportunity, while also offering some wade-and-shoot hunting.

- 2) Archery deer hunting is popular on the area. Area user conflicts arise due to access limitations, hunting pressure, and road or zone closures.
- 3) River access for public fishing is somewhat limited, but popular on the area. The nearest boat access to the Osage River is located at Taberville Access.
- 4) Lake and pond fishing resources include Atkinson Lake (461 acres), Schell Lake (355 acres), and 11 fishing ponds.
- 5) Access is somewhat limited on portions of the area. Maintenance of existing parking lots is a priority to provide opportunities for hunting, fishing, and nature viewing.
- 6) Work to build positive relationships with stakeholders (e.g., neighboring landowners, “duck clubs,” etc.) by providing timely assistance if boundary or public use issues develop.
- 7) The area’s size, habitat diversity, and reasonable proximity to populated areas provide educational and interpretive opportunities.
- 8) Camping is a popular activity on the area. Area user conflicts occasionally arise due to limited space, abuse of regulations, or zone closures.

Management Objective 1: Provide a range of waterfowl hunting opportunities to meet the needs and preferences of waterfowl hunters.

Strategy 1: Provide blind hunting opportunities at or near current capacity. (Wildlife)

Strategy 2: Provide an appropriate level of wade-and-shoot hunting opportunities in A-pool by considering safety, pool configurations, Waterfowl Hunt Program guidelines, and hunter expectations for a quality hunting experience. (Wildlife)

Strategy 3: Provide at least one ADA-accessible waterfowl hunting blind. (Wildlife)

Management Objective 2: Provide deer hunting opportunities in appropriate locations.

Strategy 1: Promote deer hunting using archery methods to maximize hunting opportunities, consistent with other resource and public use objectives. (Wildlife)

Management Objective 3: Provide stream-based recreational opportunities.

Strategy 1: Maintain bank-fishing opportunities along the Osage River road. (Design and Development, Wildlife)

Strategy 2: Conduct a boat ramp feasibility study to consider adding one concrete boat ramp to the area, as funding permits. (Fisheries, Design and Development)

Management Objective 4: Provide and enhance, where possible, lake fishing opportunities.

Strategy 1: Explore the creation of additional fishing opportunities in Schell Lake by developing fishing jetties as part of the Golden Anniversary Wetlands Initiative renovation. (Design and Development, Fisheries, Resource Science, Wildlife)

Strategy 2: Maintain all current parking lots and boat ramps to be inviting to the public. (Design and Development, Wildlife)

Management Objective 5: Provide wildlife viewing areas and parking areas that are informative and inviting to the public.

Strategy 1: Maintain existing signage, parking lots, roads, and accesses to be inviting to the public. (Design and Development, Wildlife)

Management Objective 6: Foster positive relationships with neighboring landowners.

Strategy 1: Work with neighbors to prevent or resolve any ingress, egress, boundary, or trespass issues. (Wildlife, Private Land Services, Protection)

Management Objective 7: Improve educational and interpretive opportunities as opportunities arise.

Strategy 1: Provide taxidermy mounts of water birds for the public meeting room/draw room, as specimens are made available and as funding permits. (Wildlife)

Strategy 2: Maintain hiking trails. (Wildlife, Design and Development)

Strategy 3: Maintain signage in accordance with MDC policy. (Wildlife)

Strategy 4: Update maps and information in the MDC Atlas Database to inform the public of area opportunities. (Wildlife)

Strategy 5: Communicate the area's educational programs to teachers and other youth leaders, as opportunities arise. (Outreach and Education)

Management Objective 8: Provide camping opportunities for the public.

Strategy 1: Continue to provide camping opportunities for the public, while striving to minimize user conflicts by maintaining signage and enforcing area regulations. (Wildlife, Protection)

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) Maintain and clearly demarcate area boundary lines.
- 2) Evaluate land offered as additions to the area.

Management Objective 1: Clearly identify area boundaries.

APPENDICES

Area Background:

Schell-Osage Conservation Area (CA) and the Osage River, which forms the area's northern boundary, derive their names from the Osage tribe of Native Americans that once inhabited the area.

Initially purchased in 1957, development of the wetland units and water supply lakes was completed in 1962 and opened to waterfowl hunting in 1964. The Harry S. Truman Dam and Reservoir was completed in 1979, which affected flood frequency and duration of the Osage River and floodplain, including portions of Schell-Osage CA.

The area features a unique combination of habitats including wetlands, upland and bottomland forest, cropland, old fields, and lakes and ponds. Also, Little Headwaters, Little Gem, Little Stony Point, Little Savanna, and Little Sandy prairies combine to make up over 40 acres of native prairie remnants, which have been augmented with over 340 acres of restored grasslands. The 1,425 acres of managed wetlands provide habitat for a wide variety of waterfowl, shore birds, wading birds, and other wetland-dependent species, which make this area popular for both waterfowl hunters and birders.

Schell-Osage CA is nationally recognized as a waterfowl hunting destination. The area provides opportunity for nearly 4,000 hunter-use-days during some seasons. Hunters at the area consist of about 75 percent Missouri residents and 25 percent non-residents. The area also attracts numerous birders, hikers, mushroom hunters, fishermen, deer hunters, turkey hunters, and dove hunters.

Legal Description: Saint Clair County: Township 37N, Range 28W, Section 4-9, 17-19; Township 38N, Range 28W, Section 30, 31. Vernon County: Township 37N, Range 29W, Section 1-3, 11, 12; Township 38N, 29W, Sect. 22, 25-27, 34-36.

Current Land and Water Types:

Land/Water Type	Acres	% of Area	Miles
Forest/woodland/savanna	2,606	30	
Developed wetlands	1,425	17	
Old fields	1,300	15	
Grasslands	1,200	14	
Open lands	1,000	12	
Open water (lakes and ponds)	961	11	
Infrastructure	141	<1	
Total	8,633	100	
Stream frontage (Osage River)			12

Public Input Summary:

The draft Schell-Osage Conservation Area Management Plan was available for a public comment period May 1–31, 2018. MDC received comments from 12 respondents (Appendix A). The Schell-Osage Conservation Area Planning Team carefully reviewed and considered these ideas as they finalized this document. A brief summary of public input themes, including how they were incorporated or why they were not, can be found below. Rather than respond to each individual comment, comments are grouped into general themes and are addressed collectively.

Prior to writing this draft area management plan, MDC conducted a public input process (the Schell-Osage Conservation Area Idea Gathering Stage) from Nov. 1, 2016- Feb. 15, 2017. During this “idea gathering” stage, MDC received input from 39 respondents (see *Schell-Osage Conservation Area Idea Gathering Stage Public Input Summary* at <http://short.mdc.mo.gov/ZiU>). The area management planning team took comments into consideration as they drafted this 10-year management plan for the area. MDC responses to comments received during the Nov. 1, 2016- Feb. 15, 2017 idea gathering stage can be found in the report, *Missouri Department of Conservation Responses to Public Comments – Schell-Osage Conservation Area Idea Gathering Stage*. This report is available upon request by contacting Amy Buechler (amy.buechler@mdc.mo.gov).

MDC responses to themes and issues identified through the Schell-Osage Conservation Area Management Plan public comment period.

Terrestrial Resource Considerations

Opposes closing all pools during the wetland renovation period. Suggests keeping some areas open at all times.

Several factors make it unlikely that portions of the wetlands will be open to waterfowl hunting during construction. First, intentional fall flooding of pools would slow the drying process and

ultimately delay completion of the project. The area will likely be affected by seasonal flooding already, so keeping the area dry when possible will be a priority. Also, Schell Lake was drained to be renovated, so no lake water will be available for flooding. Once the contract is awarded and construction begins, that contractor will have authority over the project area. It is typical that public use within the construction zone will be prohibited for safety reasons.

Supports the plan’s strategies for managing waterfowl areas. Supports the renovation at Schell-Osage CA to improve the area. Does not feel that the renovations will be effective in preventing flooding at the area.

This is true. The renovation will not significantly affect the timing, frequency, or depth of flooding from the Osage Arm of Truman over Schell-Osage CA. However, by designing the new infrastructure (broader/flatter levees, larger structures, concrete “floodways”) to function better, damages to levees and roads should decrease, and wetland habitat should be more resilient. This will reduce annual maintenance and repair costs associated with flooding, as well as improve wetland habitat for wildlife and area users.

Suggests maintaining willow tree cover near the blinds.

Waterfowl blinds are being replaced and blind mounds are being reshaped, which will require removal of most trees. That said, there are plans to encourage shrubby cover, such as button bush, as well as other natural vegetation on the blind mounds.

Suggests increasing areas for hunting instead of providing more habitat for prairie chickens. Opposes destroying upland forest (i.e., deer/turkey habitat) to create habitat for prairie chickens.

The areas that were historically forest and woodlands will continue to be managed as such. The upland habitat work is not being done with the intent to destroy forest, but rather is broadly focused on restoring grassland habitat for ground-nesting birds. The work has and will continue to benefit game species, such as turkeys and quail, in addition to nongame wildlife, such as prairie chickens.

Suggests conducting more brush-hogging at the area.

There are varying opinions on what is the appropriate level of management for a range of activities on any conservation area; this is demonstrated in the public comments in this document. Brush-hogging is done to mow roadsides, interior field roads, and entrances, and can be a useful tool to address some management concerns. Having said that, mowing/brush-hogging is often detrimental to wildlife habitat when not done judiciously.

Suggests liming the fields and providing hedge rows. Opposes recent management actions, e.g., burning the tree-line and leaving it as-is, and allowing a reduction in crops on the area. Promoting hedge rows or encroachment of other tree species on historically grassland landscapes is not consistent with current efforts to improve habitat for ground-nesting birds. Prescribed fire plays a vital role in the maintenance of grassland ecosystems. In most cases, it is the most cost-effective and ecologically sound management practice available. Cropping is still a significant component of the management on Schell-Osage CA, but some acres have been reduced to connect or expand grasslands.

Aquatic Resource Considerations

Opposes renovating the north lake to add more marsh area. Is concerned that the change in habitat will result in lost fishing opportunities for local residents and a loss of big fish at the lake.

The lake renovation is needed to increase deep-water areas for fish, improve spawning habitat, and lessen large expanses of shallow water. There will be lost fishing opportunity in the short term, but the improved lake conditions for fish, as well as added features for anglers (multiple rocked jetties, disabled-accessible fishing, etc.) should make up for the inconvenience.

Suggests prioritizing the protection of water quality and providing a quality fishery at the area. Is concerned about the negative impacts that increased area usage may have on the area's ponds/lakes.

Conditions in Schell Lake should improve due to additional deep-water habitat, less fluctuation in lake levels, as well as reconnecting the natural stream channel, which will reduce sedimentation in the lake from upland runoff. It is true that Atkinson Lake and some of the area's fishing ponds may experience a higher concentration of anglers in the short term, but usage should return to previous levels once Schell Lake is reopened.

Public Use Considerations

Appreciates how the draw process is conducted at Schell-Osage CA. The staff make the draw enjoyable and efficient. Appreciates the number of blinds available for hunting at Schell-Osage CA. Opposes adding more duck blinds to Schell-Osage CA. Would like the existing marsh hunting areas to continue to be open for hunting in the future.

The waterfowl hunting program will continue to be a priority at Schell-Osage CA, and this includes providing waterfowl hunting blinds. Some blind locations will be lost, but new areas will be added to end up with about the same number of blinds once development is completed.

Suggests conducting more maintenance at the campsites (e.g., fill mud holes, gravel and grade campsites).

Staff will continue to look for ways to make improvements to the campgrounds as time, funding, and equipment availability allows.

Suggests improving accessibility to forested areas by making parking lots closer to forested areas.

There are numerous parking lots and entry points to the area due to several roads within and around Schell-Osage CA. There are no plans to add parking lots, other than those associated with the renovation of the wetlands and Schell Lake.

Enjoys watching wildlife and fishing at Schell-Osage CA.

Fishing and wildlife viewing are popular activities on Schell-Osage CA and staff will continue to manage the area in ways that promote both.

Administrative Considerations

Opposes allowing bicycles on the area.

There are no plans to add multi-use trails on Schell-Osage CA.

Would like to continue to be updated on the renovation progress at Schell-Osage CA.

You can go to <https://mdc.mo.gov> and do a search for “Schell-Osage updates” or sign up at the following link: public.govdelivery.com/accounts/MODC/subscriber/new?topic_id=MODC_101.

References:

Missouri Department of Conservation. (2009). *Watershed and stream management guidelines for lands and waters managed by Missouri Department of Conservation*. Jefferson City, MO: Missouri Department of Conservation.

Missouri Department of Conservation. (2014a). *Missouri forest management guidelines: Voluntary recommendations for well-managed forests*. Jefferson City, MO: Missouri Department of Conservation.

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Nigh, T. A., & Schroeder, W. A. (2002). *Atlas of Missouri ecoregions*. Jefferson City, MO. Missouri Department of Conservation.

Maps:

Figure 1: Area Map

Figure 2: Aerial Map

Figure 3: Land Cover Map

Figure 4: LiDAR Topographic Map

Figure 5: Easements Map

Additional Appendices:

Appendix A: Schell-Osage Conservation Area Management Plan Public Comments

Figure 1: Area Map

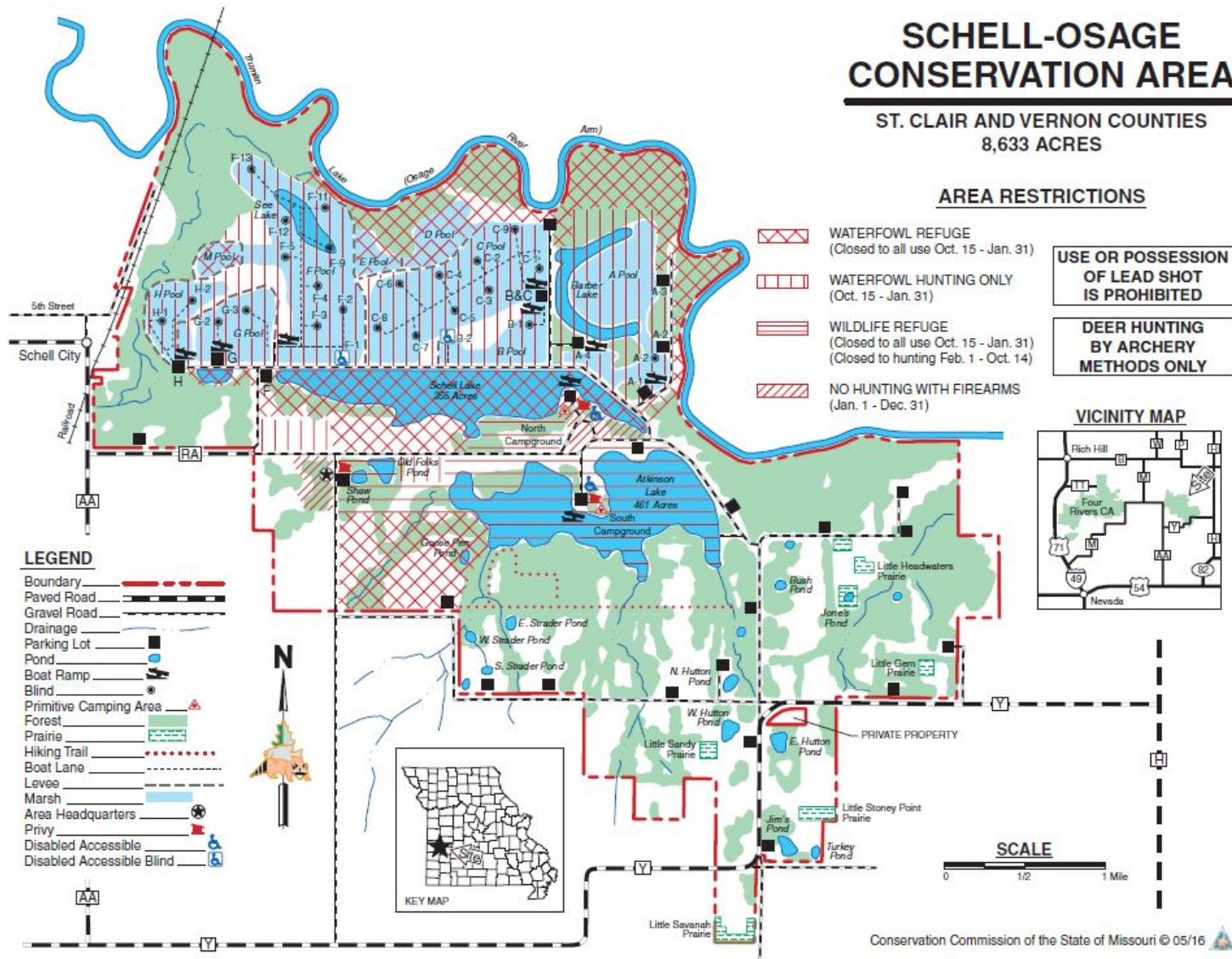


Figure 2: Aerial Map

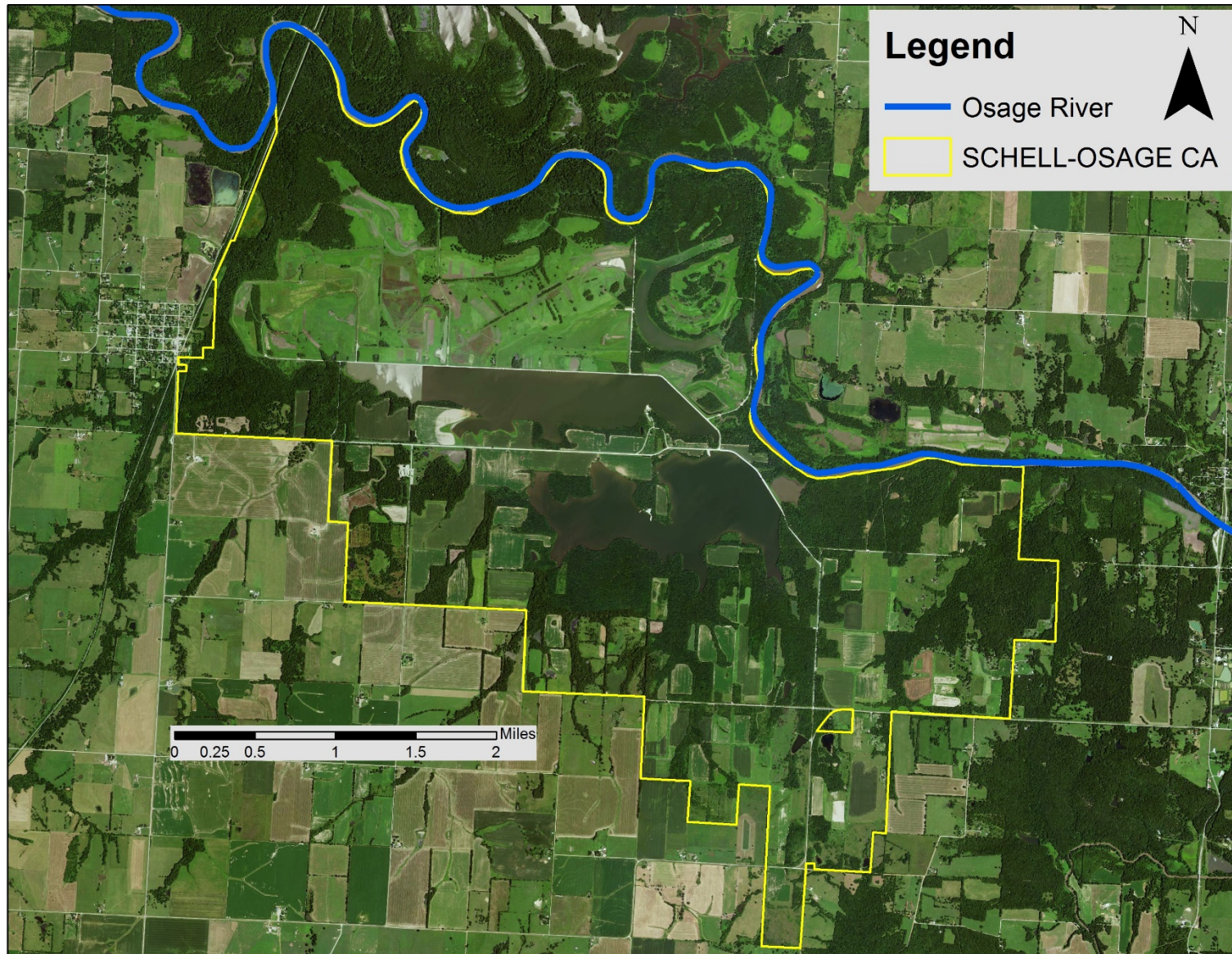


Figure 3: Land Cover Map

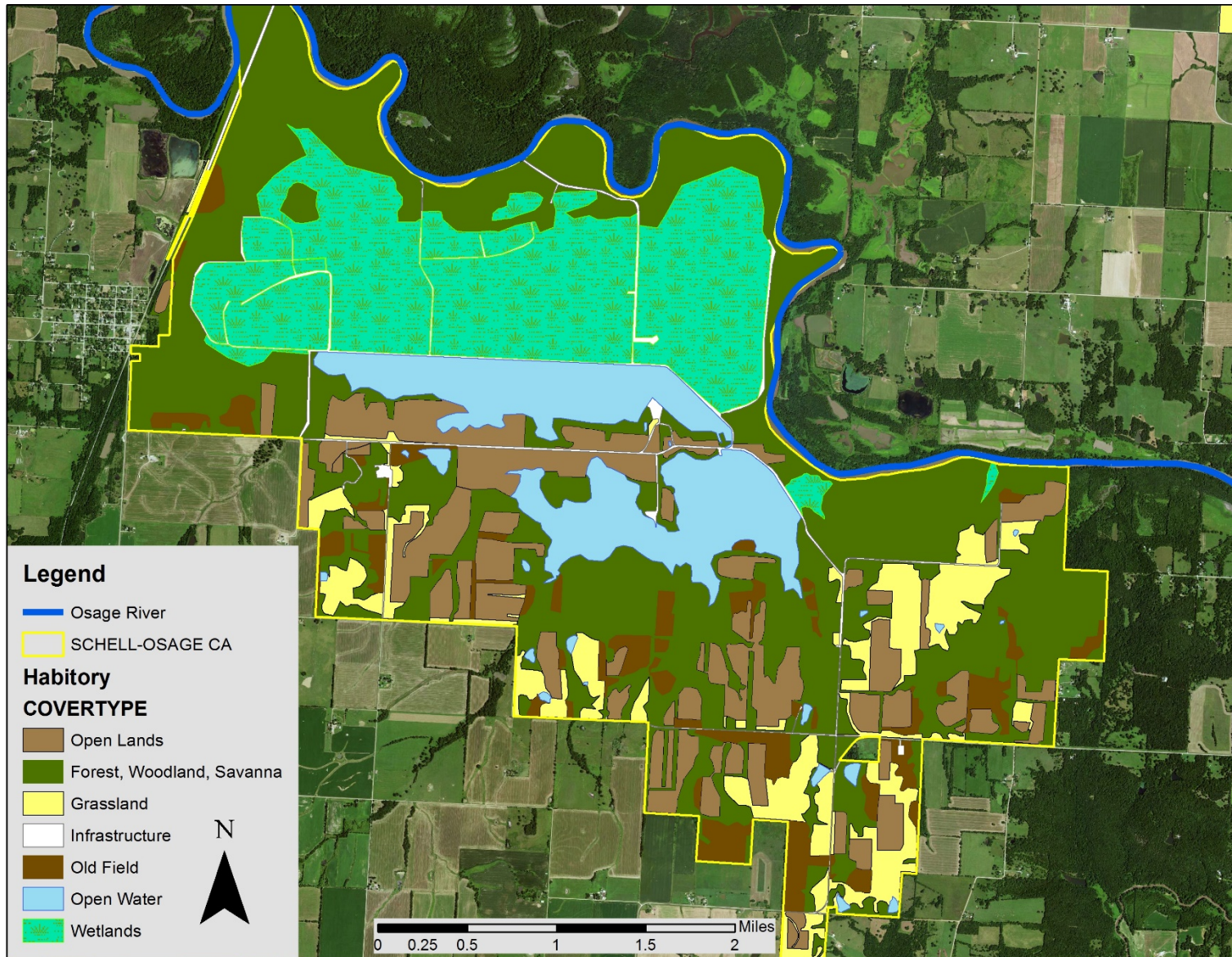


Figure 4: Topographic Map (Using LiDAR Technology – Flown February 2013)

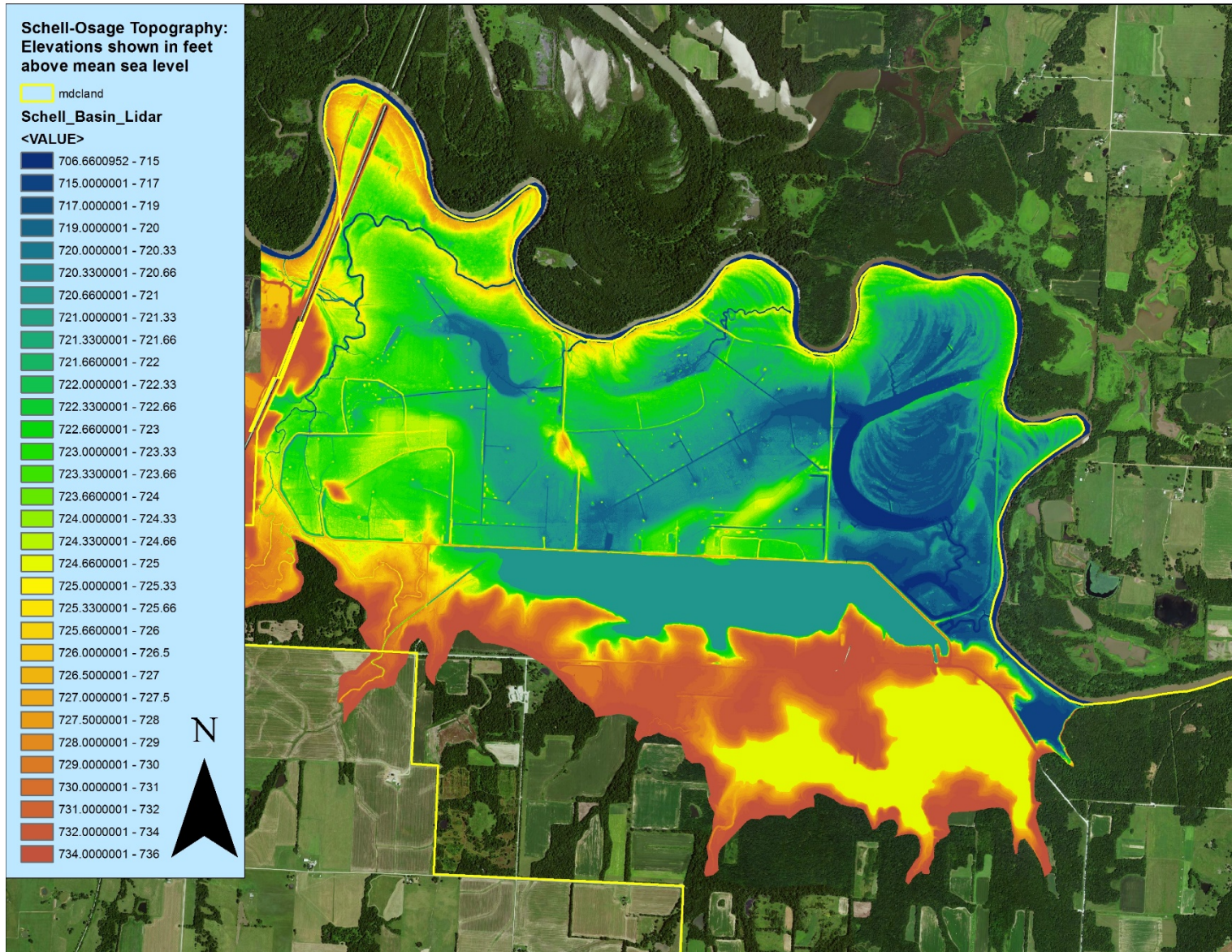
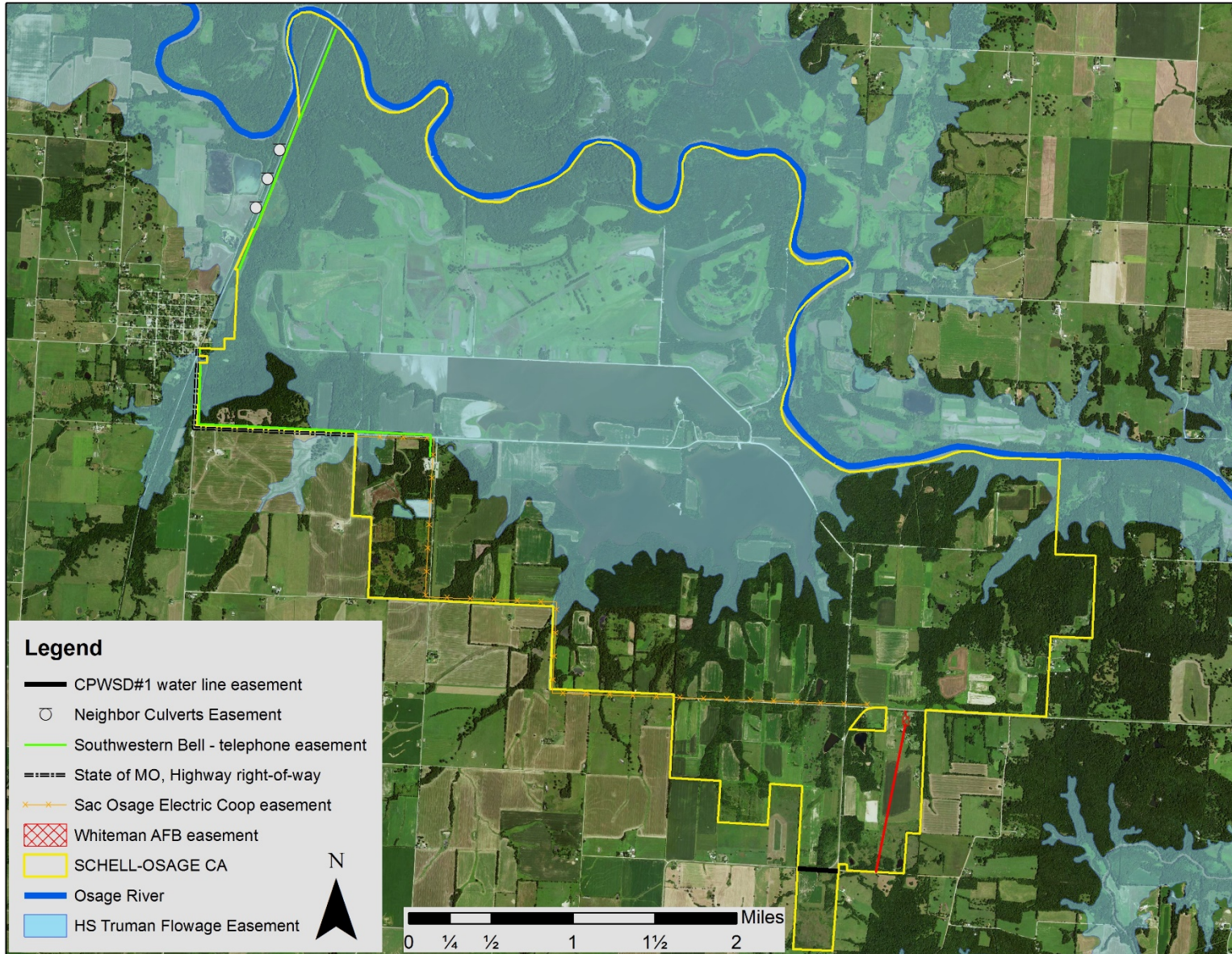


Figure 5: Easements Map



Appendix A: Schell-Osage Conservation Area Management Plan Public Comments

Received during public comment period (May 1–31, 2018):

<p>I hope you do not take away any of the blinds in the area. WE love to duck hunt Schell because unlike the other areas the state the area is divided by pools that have numerous blinds to sit and hunt. We hunt Otter and our amazed at all of the wasted opportunities to provide more hunting areas by having these huge Fields with only one party one them. WE have also got to know the staff at Schell. Not by name, but we know them if we see them. They are great guys and made the whole "draw" procedure as enjoyable as it can be. When we go to Otter, because everyone draws it takes forever and the folks who run it are normally not as nice. Otter needs to cut its fields in half and add ground mound blinds like at Schell. It would double their hunting opportunities.</p>
<p>Not sure there is anything to add from previous comments I have made as it appears as though decisions were made prior to the prior comment processes but would like to keep updated on progress at Schell Osage.</p>
<ol style="list-style-type: none"> 1. Waterfowl plan is excellent 2. The destruction of the upland forest for the Prairie Chicken Focus is a real Travesty. This has now taken prime hunting ground, displaced Deer and Turkey, and now has crowded hunters and game, in a smaller area. This project should have been carried out on an area not as well/historically, utilized by the hunting public, and done on other areas of public ground that already better matched the habitat. 3. I am personally really upset about this as are a huge amount of other hunters I know. I cant not understand the rational for what has happened. But it is almost done and in my lifetime I predict there will not be any more Prairie Chickens-due to predation- and I am positive it will take a generation for the forest to come back!
<p>I strongly disagree with the changes of SCHELL OSAGE AND LIMSCOMB WILDLIFE AREAS . Fence rows where good cover and nesting areas for small game. Now we have more weeds, mud, further to walk, less timber to hunt, if you wanted to improve things you could brush hog the walking lanes, weeds, some has not been brushed hogged for years. The camp grounds needs mud holes filled and camp sites graveled and graded . In short the land is harder to use and less enjoyable for the young and old. Parking lots needs to be moved closer to access the timber for the old as well as the young.</p>
<p>In regards to the draft most of my time spent at Schell Osage W.A. is waterfowl hunting. I feel you have prioritize the management objectives and strategies in the renovation draft that is important to most waterfowl hunters who use the area. I hope hunting on the area will continue by Fall of 2020 and not be delayed.</p> <p>Please keep as much of the landscape of the hunting marsh areas intact as it remains now and since it's inception.</p> <p>I'm glad to see that MDC is improving Schell Osage as well as other areas throughout the State.</p> <p>Thanks for all you do for managing public use areas for all persons who love the outdoors whatever their passions.</p>
<p>lime the fields and hedge rows healthy soil equals healthy plants equals healthy animals</p>
<p>I know this has been discussed before, but I really think it is a disservice to waterfowl hunters to shut the entire area down for any length of time. A-pool and possibly B - Pool could remain open while the remaining pools are under construction. Then A and B pool could be closed</p>

while the remaining pools are re-opened. If this isn't an option, then perhaps some of the ponds or fields on the area could be opened to waterfowl hunting in some limited fashion. I appreciate all the planning and efforts being made to improve this area as world class waterfowl hunting area. Thank you for all the work being done!

I believe the priorities and goals are realistic and fall inline my ideas for the use of this land and area. My main concern is the water element of the plan. I believe it is imperative to maintain the water quality and fishery element of the plan and any impacts more usage (camping, privies, boat launches, trash) will have on the water of Truman reservoir and the small lakes on this CA.

Bicycles should not be allowed in any natural area. They are inanimate objects and have no rights. There is also no right to mountain bike. That was settled in federal court in 1996: <https://mjvande.info/mtb10.htm> . It's dishonest of mountain bikers to say that they don't have access to trails closed to bikes. They have EXACTLY the same access as everyone else -- ON FOOT! Why isn't that good enough for mountain bikers? They are all capable of walking....

A favorite myth of mountain bikers is that mountain biking is no more harmful to wildlife, people, and the environment than hiking, and that science supports that view. Of course, it's not true. To settle the matter once and for all, I read all of the research they cited, and wrote a review of the research on mountain biking impacts (see <https://mjvande.info/scb7.htm>). I found that of the seven studies they cited, (1) all were written by mountain bikers, and (2) in every case, the authors misinterpreted their own data, in order to come to the conclusion that they favored. They also studiously avoided mentioning another scientific study (Wisdom et al) which did not favor mountain biking, and came to the opposite conclusions.

Mountain bikers also love to build new trails - legally or illegally. Of course, trail-building destroys wildlife habitat - not just in the trail bed, but in a wide swath to both sides of the trail! E.g. grizzlies can hear a human from one mile away, and smell us from 5 miles away. Thus, a 10-mile trail represents 100 square miles of destroyed or degraded habitat, that animals are inhibited from using. Mountain biking, trail building, and trail maintenance all increase the number of people in the park, thereby preventing the animals' full use of their habitat. See <https://mjvande.info/scb9.htm> for details.

Mountain biking accelerates erosion, creates V-shaped ruts, kills small animals and plants on and next to the trail, drives wildlife and other trail users out of the area, and, worst of all, teaches kids that the rough treatment of nature is okay (it's NOT!). What's good about THAT?

To see exactly what harm mountain biking does to the land, watch this 5-minute video: <http://vimeo.com/48784297>.

In addition to all of this, it is extremely dangerous: https://mjvande.info/mtb_dangerous.htm .

For more information: <https://mjvande.info/mtbfaq.htm> .

The common thread among those who want more recreation in our parks is total ignorance about and disinterest in the wildlife whose homes these parks are. Yes, if humans are the only beings that matter, it is simply a conflict among humans (but even then, allowing bikes on

trails harms the MAJORITY of park users -- hikers and equestrians -- who can no longer safely and peacefully enjoy their parks).

The parks aren't gymnasiums or racetracks or even human playgrounds. They are WILDLIFE HABITAT, which is precisely why they are attractive to humans. Activities such as mountain biking, that destroy habitat, violate the charter of the parks.

Even kayaking and rafting, which give humans access to the entirety of a water body, prevent the wildlife that live there from making full use of their habitat, and should not be allowed. Of course those who think that only humans matter won't understand what I am talking about -- an indication of the sad state of our culture and educational system.

Total closure of the wetlands in the Schell-Osage CA for three seasons would severely limit water fowl hunting opportunities for residents of the southern part of the state. The pressure on an already overcrowded Otter Slough will increase and force those hunting public lands to seek opportunities along and north of the Missouri river or in Arkansas. The additional expense to those living south of highway 60 will make it impractical to hunt. Please consider a plan to renovate the area in such a manner as to not have all pools closed in any one year.

Received via e-mail: We visit the area quite often throughout the year! We do enjoy seeing the deer, duck, eagles, and fishing. However the last few years the plan has not up to our standards. Taking down tree line, where the wildlife stayed. Then they burned them and left it. I have noticed that you are finally burring them. However the tree lines are gone and what a shame it took years for those trees to grow. The crops are not what they used to be either This is very sad, the wildlife fed on this through the winter.

Now you are going to drain the north lake and make a levy and have part marsh and part fishing. Does anyone really give a rip about all the big fish that are there? This is a big gathering for the local and nearby residents. When you drain this it means I will never see fishing of this level in my life.

This is being done to help keep the river from flooding the area. I live on a small creek and I can tell you that you never know that the river is going to do, and it all depends on the amount of rain received in and around the area! However you are going to be adding extra duck blinds. How often are all the blinds used?

I am a very disappointed tax payer .

Please maintain willow tree cover on blind mounds.

Please do not close the entire waterfowl area for hunting at the same time for doing the work.