

Port Hudson Lake Conservation Area

Fifteen-Year Area Management Plan FY 2018-2032




Fisheries Division Chief

May 7, 2018

Date

OVERVIEW

- **Official Area Name:** Port Hudson Lake Conservation Area, # 9006
- **Year of Initial Acquisition:** 1989
- **Acreage:** 225 acres
- **County:** Franklin
- **Division with Administrative Responsibility:** Fisheries
- **Division with Maintenance Responsibility:** Forestry
- **Statements of Purpose:**

A. Strategic Direction

The area was purchased to provide a quality angling experience with secondary use opportunities such as nature viewing, hiking, picnicking, and outdoor recreation.

B. Desired Future Condition

The desired future condition at Port Hudson Lake Conservation Area (CA) is a quality sport fishery surrounded by healthy woodlands and forests at different stages of successional growth and infrastructure that is inviting to the public.

C. Federal Aid Statement

N/A

GENERAL INFORMATION AND CONDITIONS

I. Special Considerations

A. **Priority Areas:** Bouef-Bourbeuse Valley Quail 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:** Occurs in the Osage-Gasconade River Oak Woodland/Forest Hills Landtype Association. The Osage-Gasconade River Oak Woodland/Forest Hills Landtype Association consists of moderately broad ridges with thin loess over Pennsylvanian sandstone and shale that give way to steep slopes and valleys. Historically, it was timbered with oak savanna and woodland high in the landscape, grading into mixed-oak and mixed-hardwood forests in lower positions (Nigh & Schroeder, 2002).

III. Existing Infrastructure

- Three asphalt parking lots, one is American with Disabilities Act (ADA) accessible
- One asphalt public access road, approximately 0.6 miles
- Two single privies (ADA accessible)
- One double-lane concrete boat ramp
- One boat/courtesy dock (ADA accessible)
- One fishing dock (ADA accessible)
- One pavilion (ADA accessible)
- Four picnic tables
- Four barbecue grills
- Two gravel service roads, approximately 0.35 miles
- Two low-water crossings
- One foot bridge
- Two pipe gates
- One lake dam
- Port Hudson Community Lake (fishing lake, 55 acres) with water-level control structure
- One wetland/marsh (2 acres) with water-level control structures

IV. Area Restrictions or Limitations

A. Deed Restrictions or Ownership Considerations: None

B. Federal Interest: Federal funds were used in the development of this area, or a portion thereof. The Missouri Department of Conservation (Department) must maintain the developed project throughout its useful life. 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:

- Ingress/egress easement to 10-acre inholding resident on area road;
- Right of way electric line easement with Ameren, Missouri;
- Flowage easements (held by the Department) on private adjoining property for high water, 7 and 10 acres.

D. Cultural Resources Findings: Yes, records kept with the Department environmental compliance specialist. Managers should follow best management practices for cultural resources found in the Department Resource Policy Manual.

E. Endangered Species: None observed.

F. Boundary Issues: None

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

Port Hudson Lake CA contains approximately 112 acres of forest and woodland and 36 acres of fields (Figure 4).

Challenges and Opportunities:

- 1) Manage the area to keep woodlands and forests healthy. Mixed oak woodlands occur on ridge tops, exposed slopes and protected slopes. Post oak woodlands occur mainly on ridges and exposed slopes. Pine oak woodlands occur mainly on ridges and exposed slopes in the southwest part of the area. The white oak forest type is the main upland forest type and occurs mainly on protected slopes. This forest type includes red oak and other oaks as well as hickory and other hardwoods.
- 2) Fields include tree plantings, old fields in varying stages of natural succession, prairie and pollinator plantings. Old fields are predominantly fescue and are managed by mowing.
- 3) Invasive species, such as Japanese honeysuckle and autumn olive, exist on this area.
- 4) Port Hudson Lake CA is located in the geographic boundary of the Boeuf-Bourbeuse Valley Quail Focus Area. The Department is working closely with private landowners in this focus area on quail habitat and these properties provide both quality quail habitat and demonstration sites for management practices and workshops as needed.

Management Objective 1: Maintain healthy forests and woodlands.

Strategy 1: Monitor forests and woodlands for invasive species and implement control measures, as needed, when time and funding allows. (Fisheries, Forestry)

Strategy 2: Allow old fields that are currently mowed to transition into trees. (Forestry)

Strategy 3: Control species composition in future years, if desired, in old fields through contracted forest thinning. (Fisheries, Forestry)

Management Objective 2: Manage open land areas containing two pollinator plots and two prairie fields.

Strategy 1: Either conduct prescribed burns or mow, if conditions do not allow burning every three years, to control unwanted plant growth and to stimulate native planted vegetation in pollinator plots and prairie plantings. (Forestry)

Strategy 2: Continue sign posting supplied by Quail Forever, recognizing Pollinator Plots partnership. (Forestry)

VI. Aquatic Resource Management Considerations

Port Hudson Lake CA contains a 55-acre fishing lake. The area also contains or borders a stream and several drainage ways with intermittent surface flows, as well as a man-made 2-acre wetland/marsh.

Challenges and Opportunities:

- 1) Port Hudson Lake is the only public fishing lake in Franklin County, and fishing pressure is relatively high for a lake of its size. The lake was acquired and built specifically to provide public flatwater fishing opportunities in Franklin County. The lake provides fishing opportunities for largemouth bass, bluegill, redear sunfish, and catfish.
- 2) Nuisance levels of exotic Eurasian water milfoil have invaded the shallow parts of the lake.
- 3) Quality of water, fish habitat, and aquatic species depend on maintaining and improving the integrity of the upland watershed and drainage ways.
- 4) The wetland/marsh provides opportunities to view seasonal waterfowl and a demonstration area for ephemeral wetland management.

Management Objective 1: Maintain quality fishing opportunities for largemouth bass, bluegill, redear sunfish, and channel catfish.

Strategy 1: Monitor and treat aquatic vegetation levels as necessary to facilitate both bank and boat fishing while providing cover and food for fish. (Fisheries)

Strategy 2: Monitor reproduction, mortality rates, and growth of fish populations through standard sport fish sampling techniques and modify populations and/or regulations as appropriate if population indices indicate that fisheries are declining. (Fisheries)

Strategy 3: Stock adult fish if recruitment is not adequate to maintain current populations. (Fisheries)

Management Objective 2: Maintain or improve watershed health, including riparian corridor areas and the supply and transport of sediments and gravel.

Strategy 1: Assess the integrity of stream channels and drainage ways, and the need to implement stabilization projects or repair stream-crossing structures. (Fisheries, Design and Development)

Management Objective 3: Manage the wetland/marsh as an ephemeral wetland/moist soil unit.

Strategy 1: Maintain standing water in the wetland/marsh from October through June, drain it through July, and fill it again through September. (Fisheries)

VII. Public Use Management Considerations

Challenges and Opportunities:

- 1) Maintain the area so that it is inviting to the public.
- 2) Provide access to fishing and compatible recreational opportunities, such as bird watching, hiking, and picnicking.
- 3) Enforce area regulations to provide a safe place for visitors.
- 4) Successful bank-fishing opportunities are limited during times of heavy vegetation growth and low-water periods.

Management Objective 1: Provide access to fishing and compatible recreational opportunities and ensure that the area is attractive for area users.

Strategy 1: Maintain standard Department signs on the area, pertinent to area information and regulations. (Forestry, Fisheries)

Strategy 2: Continue maintaining area and facilities according to Department maintenance standards, including mowing and trash pick-up. (Forestry, Fisheries, Design and Development)

Strategy 3: Maintain trails for bank-fishing through tree removal and mowing. (Forestry)

Management Objective 2: Provide an area for visitors to enjoy outdoor recreational opportunities.

Strategy 1: Conservation agents patrol the area to ensure that area users comply with area rules and the Wildlife Code of Missouri. (Protection)

Management Objective 3: Improve and increase bank-fishing opportunities near parking lots.

Strategy 1: Request feasibility study for installation of jetty(ies) to extend shoreline access. (Fisheries)

Strategy 2: If approved through budget, install jetty(ies). (Fisheries)

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) Maintain area boundary lines.
- 2) Consider acquisition of land, when available.
- 3) A Youth Pollinator Habitat Project, sponsored by the local Missouri River Valley Chapter of Quail Forever, was installed in November 2013 at two locations on the area. Pollinator plots provide plant pollination, educational opportunities, and unique partnership.

Management Objective 1: Maintain area boundary lines.

Strategy 1: Post boundary lines per Department guidelines, every seven years, or as needed. (Fisheries, Forestry)

Management Objective 2: Maintain partnership with the Missouri River Valley Chapter of Quail Forever for Pollinator Plots.

Strategy 1: Assist with elementary school yearly field day, as needed and in coordination with volunteers, in maintaining pollinator plots where possible under the Department's volunteer policy. (Forestry)

Lands Proposed for Acquisition:

When available, inholdings and adjacent land may be considered for acquisition from willing sellers. Tracts that improve area access, provide public use opportunities, contain unique natural communities and/or species of conservation concern, or meet other Department priorities, as identified in the annual Department land acquisition priorities, may be considered.

APPENDICES

Area Background:

Port Hudson Lake Conservation Area is in Franklin County, approximately 6 miles northeast of Gerald on Bald Hill Road. The Department acquired the majority of the area in 1989-1990 and the 55-acre lake and facilities were developed in 1992-1993. Lake elevation is 700 feet. The lake opened for fishing March 31, 1997.

Port Hudson Lake was created by impounding two unnamed tributaries of Middle Fork of Boeuf Creek. The area is mainly forested, but also contains open areas, including tree plantings, old fields in various states of succession, and mowed areas maintained for bank-fishing, and as required per dam safety regulations.

The area is open to the public from 4 a.m. to 10 p.m., daily. Facilities include one concrete boat launch, one courtesy boat dock, one fishing dock, three asphalt parking lots, one asphalt public access road, a pavilion with four picnic tables and four barbecue grills, two single privies, and a graveled service road.

Current Land and Water Types:

Land/Water Type	Acres	Miles	% of Area
Woodland and Forest	112		50
Impounded Water	55		24
Old Fields	36		16
Developed (dams, spillways, roads, and parking lots)	16		7
Prairie/Pollinator Fields	4		2
Wetland/Marsh	2		1
Total	225		100
Stream Frontage		0.86	

Public Input Summary:

The draft Port Hudson Lake Conservation Area Management Plan was available for a public comment period Nov. 1–30, 2017. The Missouri Department of Conservation received comments from 10 respondents (Appendix A). The Port Hudson Lake 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.

Department responses to themes and issues identified through the Port Hudson Lake Conservation Area Management Plan public comment period.

Suggests planting a perennial food source for ducks.

The lake and wetland already contain naturally occurring plants, such as smartweed, water plantain, naiads, and pondweeds that provide a lost cost but highly desirable food source for many types of waterfowl.

Suggests liming the fields and hedge rows.

Lime is generally used in agricultural situations to maintain pH levels to promote the growth of crops. Since this area has been idle for many years the soil pH is most likely balanced and liming would provide no benefit.

Suggests banning lead shot at the area.

Current regulations prohibit all hunting on Port Hudson Lake CA. Due to its small size and focus on providing a quality fishery there are currently no plans to allow hunting on the area.

Suggests managing the lake to improve the quality of fishing. Suggestions to improve the fishery include:

- **Decreasing length limit of bass;**
- **Stocking more fish;**
- **Posting signs that direct people to other fishing areas to reduce fishing pressure;**
- **Implementing a slot limit; and**
- **Cleaning old fish beds.**

Information on the size and abundance of bass, sunfish, and catfish populations in Port Hudson Lake have been collected since the lake's creation; regulations are constantly under scrutiny to ensure that they remain appropriate for the lake. The current regulations focus on preventing overharvest of fish in this relatively small, but heavily fished lake. According to population surveys, the regulations are currently producing high-quality sunfish and channel catfish fisheries, and a fair to average bass fishery; numbers and sizes have been relatively stable in the last 10 years. Lowering the bass length limit or introducing a bass slot limit has the potential to allow the numbers of bass harvested in the lake to increase dramatically given the fishing pressure, which would then decrease the overall number of bass and cause the quality of the sunfish populations to decrease.

According to our sampling, bass and bluegill numbers are already high enough that additional stocking would not result in notable increases in angler catches. Channel catfish do not reproduce well in lakes with bass present, and so they are stocked annually. Crappie have never been abundant in the lake, and given its relatively small size and the focus on other predatory species (bass), the lake is not able to reliably produce quality crappie limits.

Information about other public fishing opportunities in the area is available via the Department's website and brochures. Given that Port Hudson Lake is relatively far from those other

opportunities and it's often not feasible for anglers to drive to another location, the best way to address high fishing pressure and maintain quality fishing is to keep harvest rates low, which is the aim of the current regulations. If there is room to keep a brochure highlighting other opportunities on a bulletin board, we will explore that option to keep anglers well-informed of their options.

Regarding fish beds, please see the vegetation response below. We have seen the size and density of the vegetation stands in the lake change in response to weather and water levels. From our sampling, the sunfish and bass beds appear to be producing a consistent number of fry from year to year, even though they may be in different locations in various years.

Values the outdoor recreational opportunities at Port Hudson Lake (e.g., fishing and bird watching).

Thank you for the support! The Department will continue to provide outdoor recreational opportunities for all Missourians.

Does not support allowing the old fields to transition to trees. Concerned that wildlife habitats (e.g., edge and transition zone) would be lost. Suggests planting tall grass species instead.

The area surrounding Port Hudson Lake was historically wooded containing bottomland forest and woodlands. Therefore, it will take continued maintenance to keep these areas open, even with warm-season grass plantings. The conversion from open habitat to woodland takes several decades and provides a variety of edge during the process. Wildlife species and use may change throughout the process, but the area will ultimately provide quality habitat.

Would like to know if the small creek and its riparian corridor are included under *Aquatic Resource Considerations/Objective 2*. Suggests including these areas in plans for improving watershed health.

Yes, the small creek and its corridor are included in Objective 2. Hands-on management efforts to re-establish trees within 100 feet of the streambank have been made (i.e., spraying competing grasses and planting trees); this, along with natural regeneration, is helping the wooded corridor to re-establish along the stream.

Suggests removing eastern red cedar where they are encroaching on existing field habitat.

Similar to the old field-woodland transition response above, the area planning team is limited with time and funds to manage terrestrial wildlife habitat on this area. The transition period from old field to woodland takes decades in most cases. As time and funds allow, the area planning team can revisit the terrestrial conditions and manage for quality terrestrial habitat.

Suggests adding hiking trails (e.g., a path that connects the existing mowed trails so that users can walk around the entire lake).

There are several waterway crossings that make connecting a trail around the entire lake in a safe way extremely costly because of initial infrastructure as well as long-term maintenance needs far from easily drivable locations. The team will continue to maintain the 1.25 miles of footpaths closest to adjacent parking lots with the best access to easily fished parts of the lake. As time and funds allow, the team can consider adding paths in the more difficult to access parts of the area.

Suggests adding a foot bridge over the headwater creek.

See previous comment about trail additions. Adding area infrastructure, such as a footbridge and the associated maintenance/trash pickup associated with it, is not suggested at this time due to budget and staffing restraints.

Suggests allowing permitted camping at the area.

Camping opportunities in Franklin County include Missouri State Parks and several privately owned and operated campgrounds. With constraints on staff and funds and other existing opportunities within the county, the Department does not plan to pursue offering camping as a regular permitted activity at Port Hudson Lake CA.

Appreciates the covered dock at the area.

Thank you for the support! The Department will continue to maintain this structure.

Suggests reducing weeds in the lake. The weeds are difficult to paddle through in the summer.

We do assess and monitor the aquatic vegetation growth in the lake. Having some vegetation is necessary for the lake to support the fish population present; however, Eurasian water milfoil (an exotic and invasive species) has become established in the lake and is extremely difficult to manage. Both herbicides and grass carp are used to help keep the vegetation at desirable levels and efforts to establish more desirable plant species to compete with the milfoil are underway.

Suggests better enforcement of fishing at the area. Has seen trotlines with jug markers multiple times.

Frequency of patrols is determined by budgets, staffing, and availability. Any violations witnessed should be immediately reported to the Operation Game Thief hotline at (800) 392-1111 or the Franklin County Agents.

Suggests better locks/chains on public bathroom doors to provide privacy.

The area planning team will explore options for improving privacy on the privies and implement as funding allows.

Appreciates the Department managing the conservation area.

Thank you for the support! The Department will continue to provide outdoor recreational opportunities for all Missourians.

References:

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: Topographic Map

Figure 4: Land Cover Map

Figure 5: Easement Map

Additional Appendices:

Appendix A: Port Hudson Lake Conservation Area Management Plan Public Comments

Figure 1: Area Map

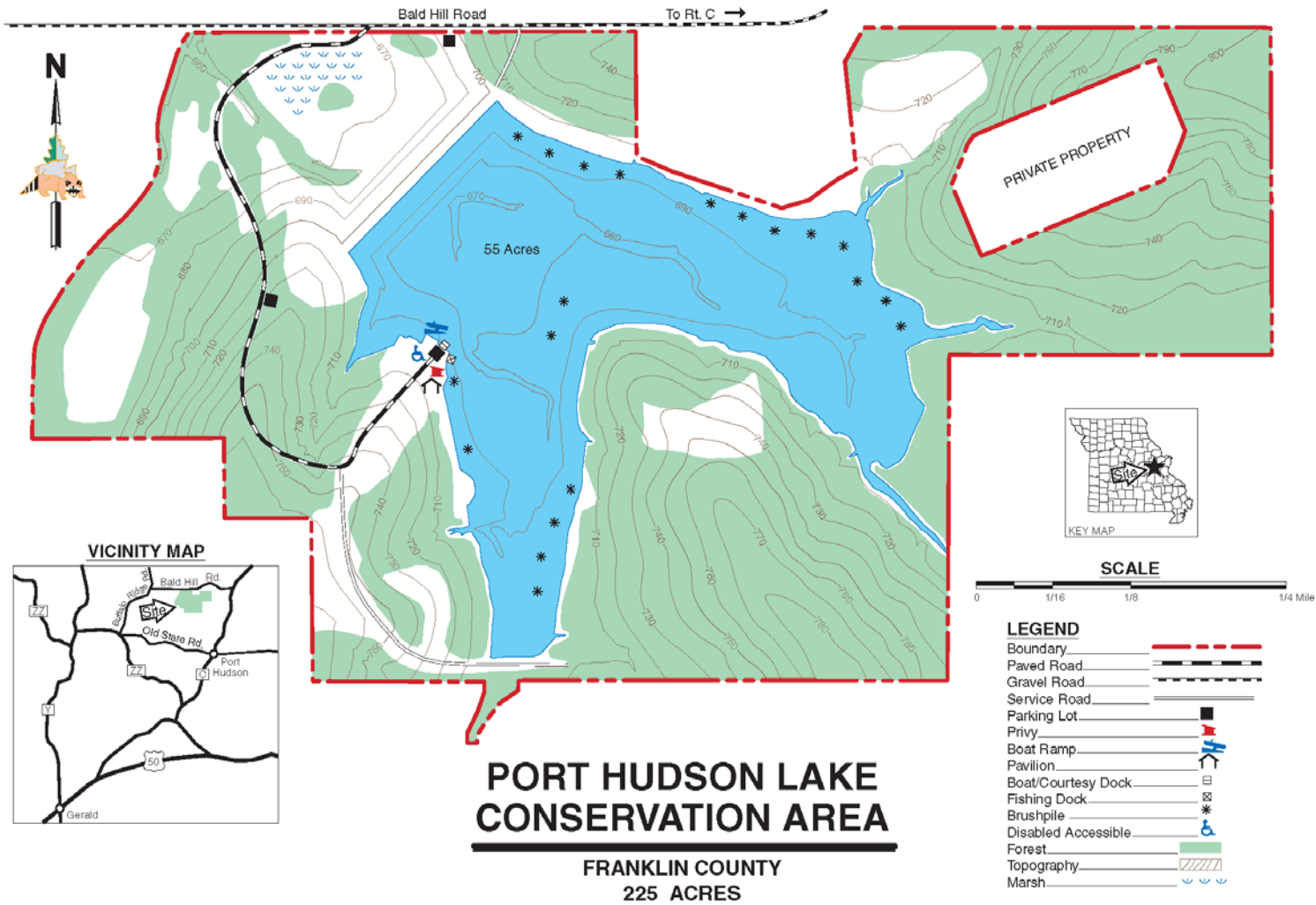


Figure 2: Aerial Map

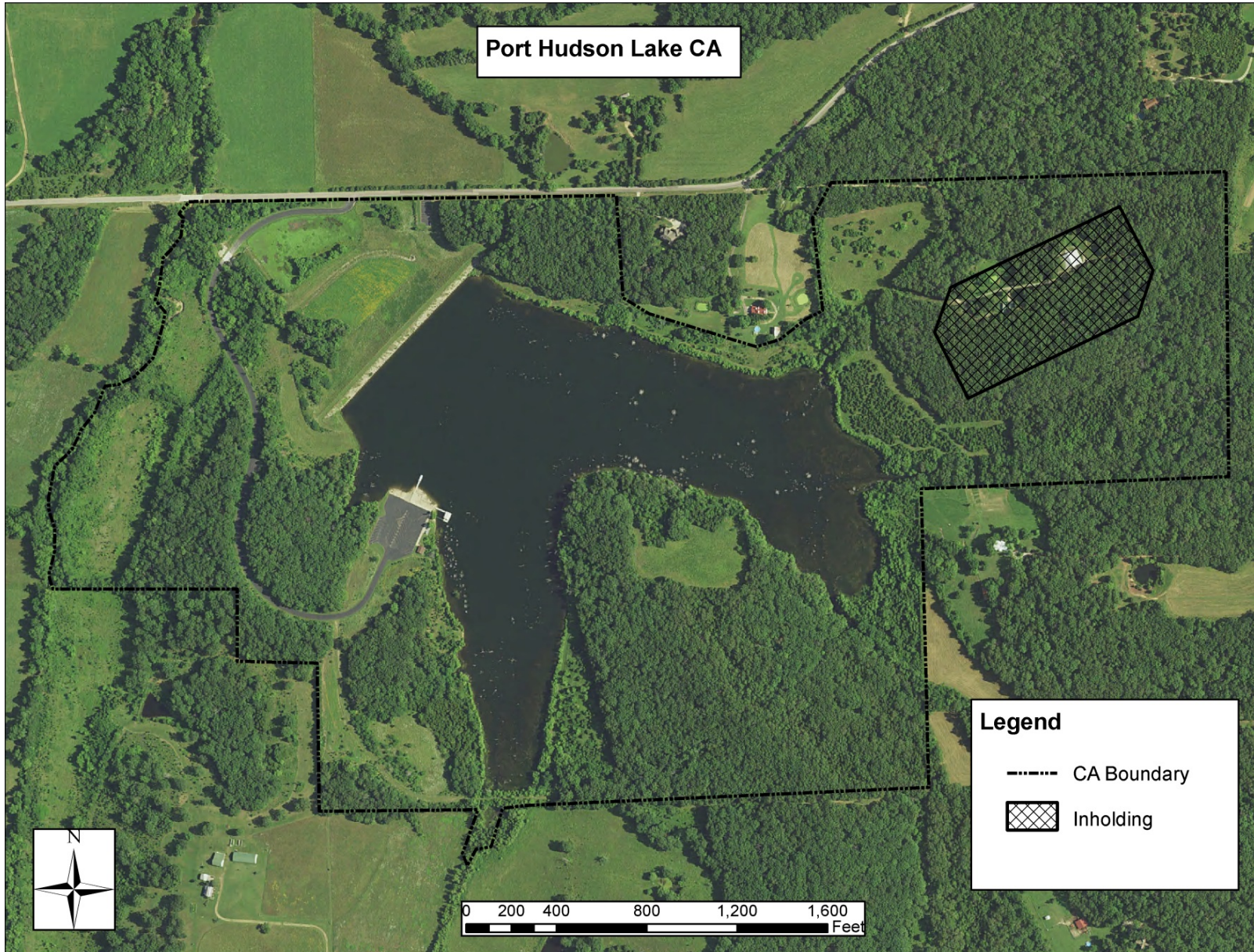


Figure 3: Topographic Map

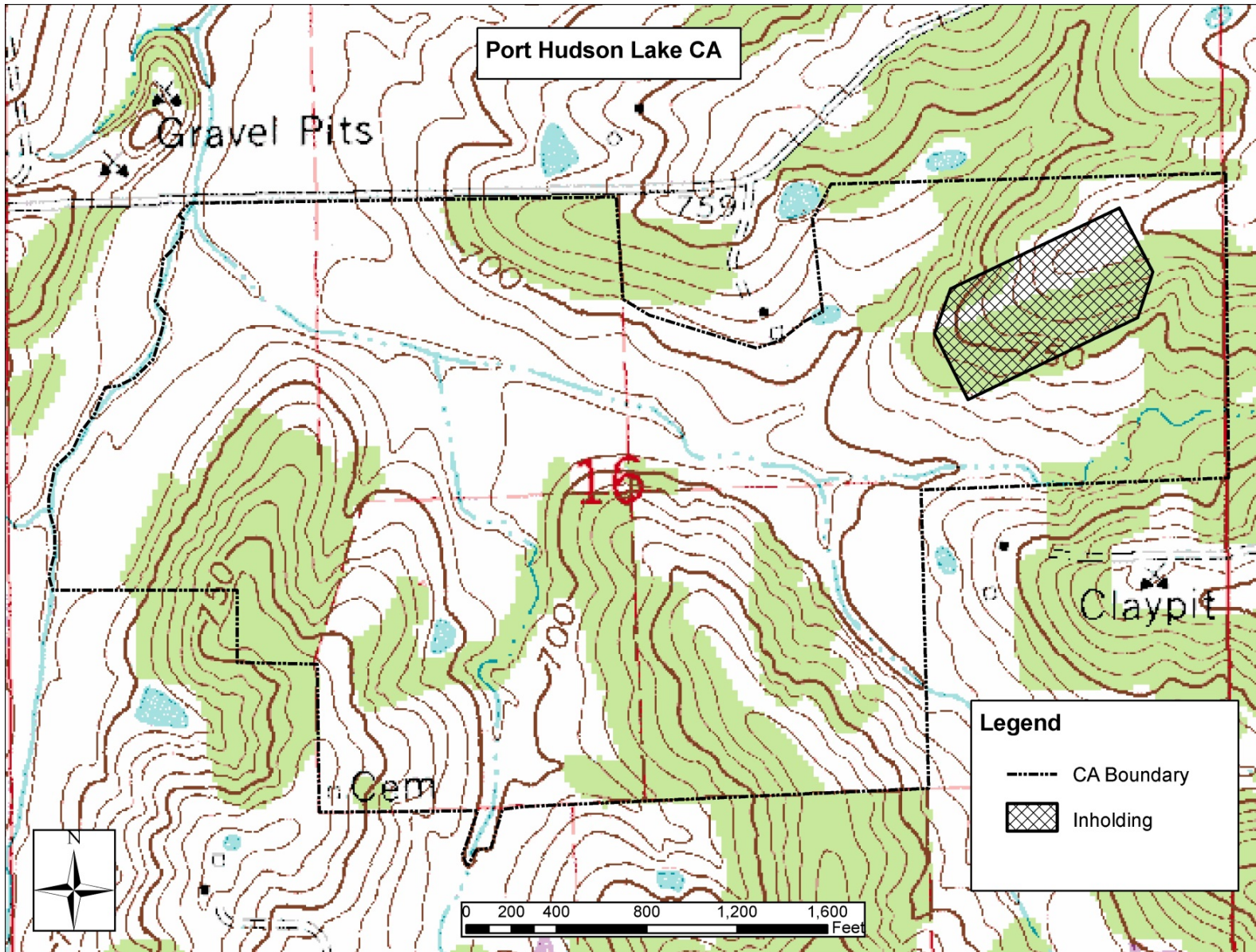


Figure 4: Land Cover Map

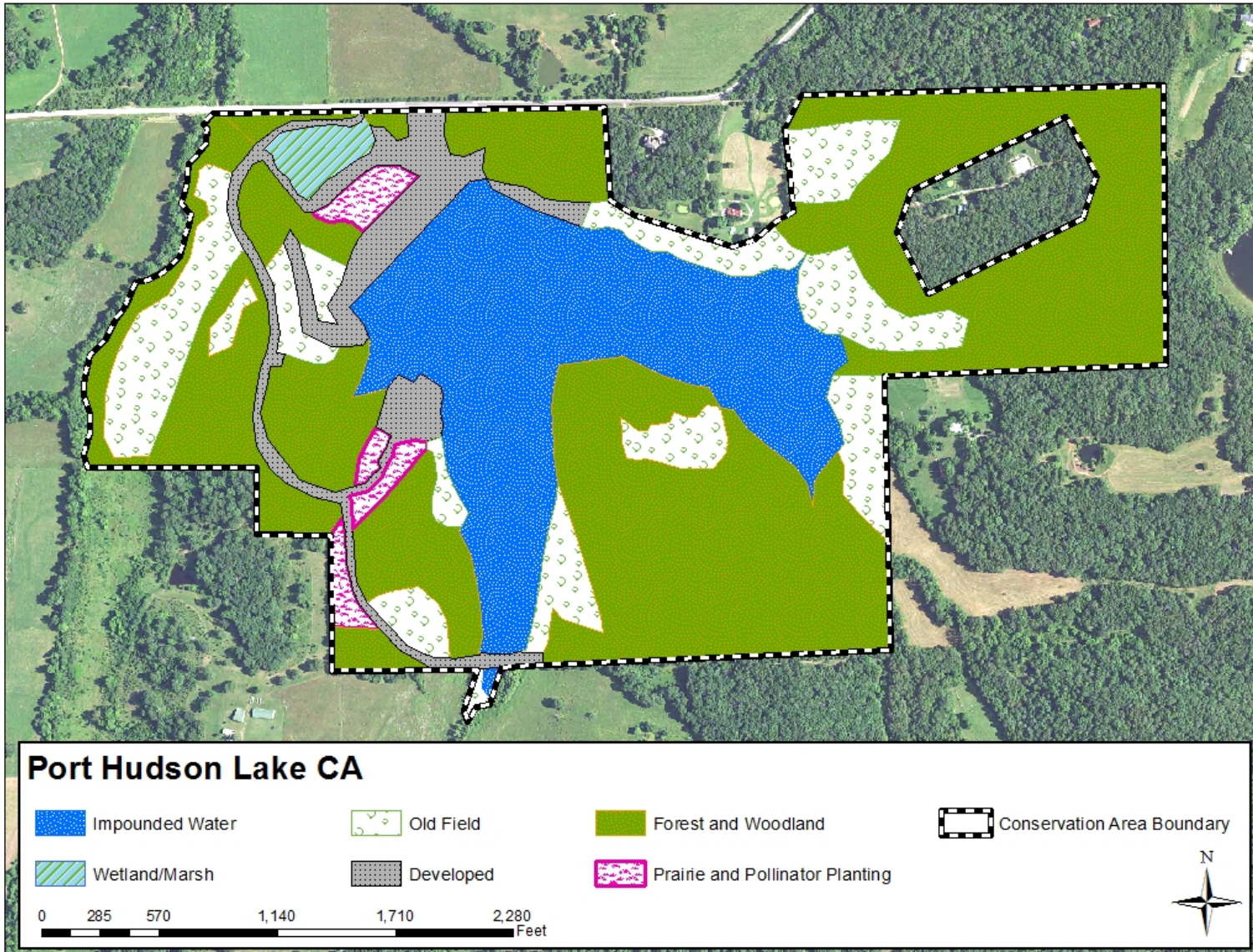
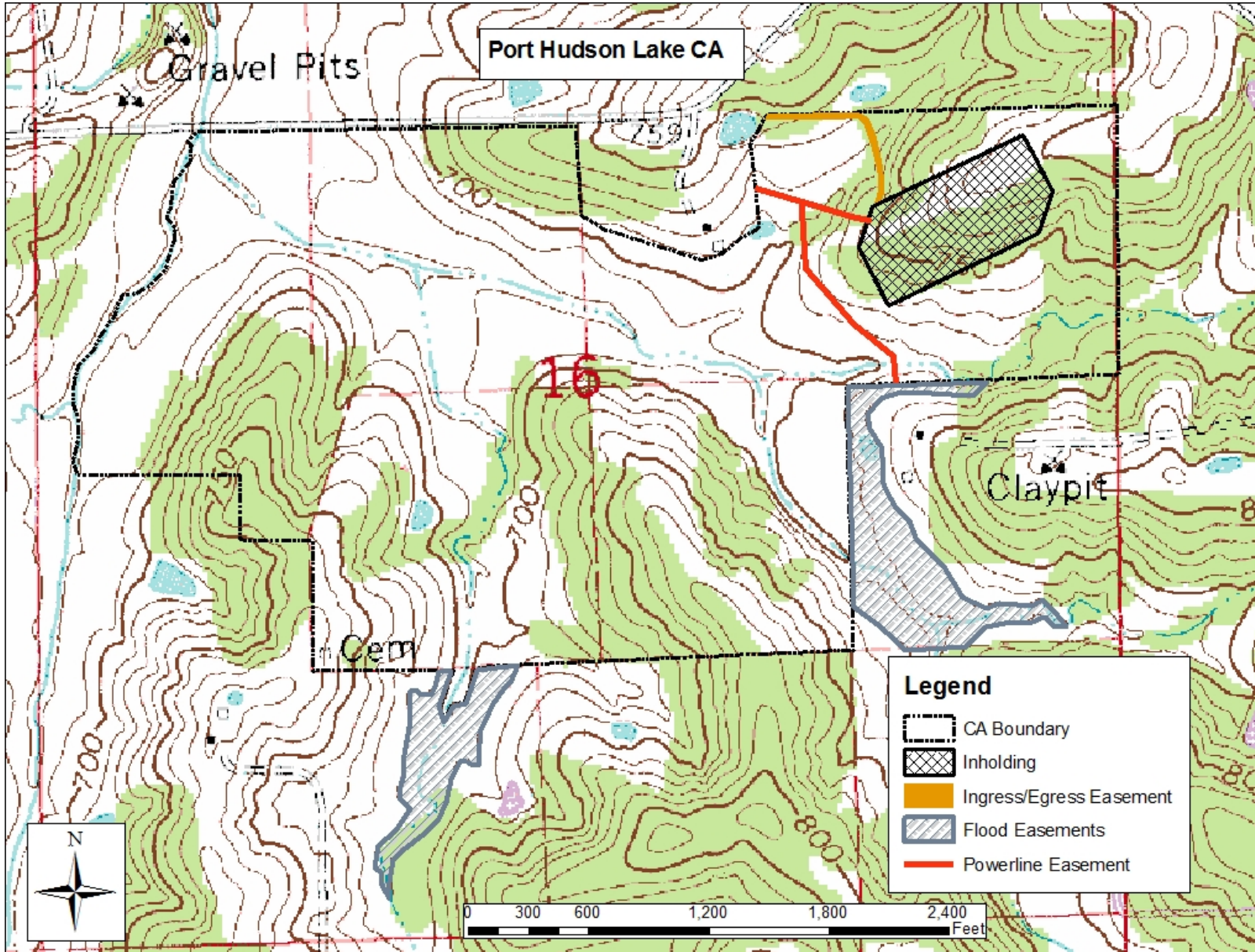


Figure 5: Easement Map



Appendix A: Port Hudson Lake Conservation Area Management Plan Public Comments

Received during public comment period (Nov. 1–30, 2017):

plant food for ducks that will grow year after year in all the ponds lime the fields and hedge rows no lead shot

Fished Port Hudson over 10 times in last 3 years, have not caught a bass over 15". Need length limit changed, 18" minimum has allowed too many small bass ,need to shock lake and check results. premium bass lake did not develop after initial opening.

Port Hudson Lake CA. We live 15 miles from there and my family has spent hundreds of hours out there, on the lake itself fishing, but even more so walking the lakeside, forest, and old fields. We are avid birders and have identified 138 different bird species there as of November 2017. I am grateful for this opportunity to comment on the area plans, which I have read closely. I'm in agreement with most of the proposals but would like to offer a couple of suggestions that I hope you will consider.

1.-Under the Terrestrial Resource management Considerations I read that the old fields that are currently mowed be allowed to transition to trees. I'd hate to see that happen. While the transition period itself would make some great wildlife habitat, that would be a very temporary effect and the end result would actually be a net loss of habitat. Those small fields (and their corresponding edges and transition zones) add greatly to the diversity of wildlife that are attracted to forested areas without those small cleared fields interspersed within. Field edges, for a variety of reasons, are bird magnets. If the expense of mowing is a consideration a possible alternative would be to sow those fields in tall grass species, something like Indian Grass or Big Bluestem, etc. No mowing required, the area wildlife would benefit greatly, and other than the initial planting, the expense and upkeep would be minimal.

2.-Under the Aquatic Resource Management Considerations I read that one objective is to maintain or improve watershed health, including riparian corridor areas. This of course I agree with whole heartedly. But I'm not sure if you are including the small creek and it's riparian corridor that runs along the western side of the area as it's waters do not contribute to the lake itself and thus does not actually effect the lake water quality. But if this area is not part of your considerations I urge you to include it in your plans.

This area consists of 2 old fields that run from the creek bank all the way to the base of the ridge. It is approximately a quarter mile long and probaby averages five or six hundred feet in width. It has always been very attractive to wildlife and is one of our favorite places to bird at Port Hudson. But over the years we have watched it being slowly taken over by Eastern Red Cedar. It's not completely taken over but is well on it's way. Although I have nothing against Eastern Red Cedar, love them in fact, but we have no need of another field completely overgrown by them here in Franklin County. There are litterally hundreds of such places and the numbers are growing every year as small farms continue to be abandoned and the fields are left untilled.

This area is divided by a small brushy area about half way up along it's length so you can't

really see the upper half from the road but it is being taken over by the cedars even faster than the half that you can see from the road. I believe that cutting the cedars would be a worthwhile project and would improve the overall wildlife habitat of the area. The cedars wouldn't even have to be removed, just cut down and left where they fell as was done at Canaan CA in Gasconade county. A Service road of sorts, or even a narrow path mowed once a year, would sure make for easier walking for us birders would be nice and greatly appreciated too...

3.-My last suggestion concerns the mowed walking path that follows the lake shoreline. Right now there are two paths, one that begins near the overflow and runs along the north side of the lake and another which begins at the shelter house and follows the cove all the way around that arm of the lake and then ends at the old field atop the ridge that splits the two arms. I'd love to see those paths extended and joined together so that one could walk around the entire lake. It's possible to do so now but it's very brushy and very difficult to negotiate back near the headwater area of the lake. A narrow footpath only a couple feet wide that connects the two existing mowed trails would make it much easier. I would be very happy to help clear it, and or maintain it in the future. A foot bridge would be nice over the main headwater creek for use during highwater but that's definitely not a priority.

Thanks for listening and for all that you do for Missouri wildlife.

Port Hudson Lake is a great area that I have fished at several times over the last 30 years. I inquired numerous years ago when involved in Boy Scouts for permission to do primitive camping at this location. Unfortunately permission was denied. I still think this would be an excellent area to allow primitive camping. Franklin County has very few areas for this purpose whether for groups or individuals.

Thank you, *****

The comment that I often hear and do agree with is that "there isn't many fish in Port Hudson". I don't know what the stocking plan is but my humble opinion is that you really need to stock it more. It is a beautiful place and with the dock it is family friendly. But, if people don't catch fish they won't come back.

Thank you for the opportunity to submit my comments.

I am a catch and release bass fisherman. I only keep a trophy larger than 7 pounds. I have fished there the last 3 years and all I catch are small bass less than 14 inches. Most much smaller. Is there a slot or some kind of management that you set to let fish get bigger before people can keep them?

Since the lake has heavy fishing activity, would it be wise to post signs with suggestions and directions for other places to fish. Thereby introducing fishermen to other areas and reducing pressure on this one. Also hiking trails are always a good idea.

Thanks

I would like to see the lake stocked more often. I live only about 5 miles from it & it's very convenient to go there, however, my wife & I never caught a fish for about the last ten times

we were there. we do like to fish from the covered dock.
Thank You

The weeds are so bad in the summer you can't even paddle a boat through them. Keep a better eye on the fishing. Twice we have seen trotlines in there with jug markers. Also people with overloaded boat jug fishing. Last spring we never saw any bluegill or red ear spawning on beds. None of the older beds were cleaned. Doors or better chains on bathrooms so when using one no one can walk in on you.

We bought the area just south of the Port Hudson southern Boundary in 2004. We moved into our new home 6 months ago. We brought our place for several reasons but the Port Hudson Lake and having MDC as a neighbor was a real plus. I like and support the MDC Policies which promote the peace and quiet that you bring to our area. Thank you.