



Interim Forest Management Plan

Richard Bong State Recreation Area

Property Identifiers

Property Name and Designation: **RICHARD BONG STATE RECREATION AREA**

Forestry Property Code: **3001**

Property Location - County: **KENOSHA**

Property Acreage: **4,558 acres**

Master Plan Date: **Master planning is not yet scheduled for this property. Previous Master Plan was approved in June 1979.**

Property Manager: **Andrew Starch**

Part 1: Property Assessment

A. GENERAL PROPERTY DESCRIPTION – MANAGEMENT, ADJACENT LAND USES, TOPOGRAPHY, SOILS, ETC.

Bong State Recreation Area (BSRA) is located in the northwest corner of Kenosha County in southeast Wisconsin, 12 miles from the Illinois border. Historically the Kenosha County landscape supported oak savannas, wetlands, and prairies, all of which are represented in various states on the wildlife areas. During the settlement period many of these cover types were converted to farming activities: wetlands were drained and plowed; prairies were plowed and planted to crops; and savannas were grazed.

The BSRA property was accrued in the 1950s by the U.S. Government, whose original intention was to use the land as a jet fighter base. Preliminary work was completed for a runway and just prior to pouring the cement foundation the project was aborted. Bong is currently listed as southeast Wisconsin's largest prairie. Bong also has forest and wetland areas. The landscape surrounding Bong State Recreation Area is a matrix of agriculture, small woodlots, wetlands, and rural communities.

Bong is a multiuse high intensity property with activities ranging from camping, hunting, fishing, trapping, dog training, ATV/dirt bike trails, hiking, horseback riding, nature watching, model airplane flying, model rocketry launching, and many other activities. Overall Bong is about 4,558 acres and has two campgrounds with over 200 campsites as well as a lake with beach access.

Past and current management focuses on balancing the high intensive activities with the natural resources, such as wetland, prairie, woodland, and oak savanna restoration, as well as water level management to promote waterfowl, waterbirds, pheasants, and other semi-aquatic wildlife. Current management activities include mowing of prairies and surrogate grasslands, mechanical and chemical treatment of brush to remove non-native invasive species and limit brush encroachment in open areas, oak savanna restoration through forest management, prescribed burning, and moist soil management. Additionally, in recent years there has been a strong effort to manage the outbreak of Emerald Ash Borer on the property. A substantial number of ash trees have been removed, with a focus on the more developed portions of the property (i.e., beach, campground).

As might be expected with a property of this size, there are numerous soil series present. However they break down into a few main soil types. The most abundant soil type is clayey land, and includes the area that was originally levelled and filled to create the airfield that was to occupy this site. This is a heavy soil, and is heavily compacted by machinery, and generally not suitable for tree growth.



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However, it is very adequate for growing grass prairie. Silt loam is the next most abundant soil type, and several silt loam soil series are present, with Morley silt loam being the most common. Some of these are more upland soils, some wetter, but generally these are all heavier soils. Fertility is variable, but most are very fertile soils that can grow trees and other plants very well. The third general soil type present are muck soils, which are found in low-lying wet areas. Two main soil series are represented here, including the Houghton and the Palms muck. These sites are not suitable for intense management, but are usually wetland areas that are protected from disturbance, or in bottomland hardwood stands.

B. ECOLOGICAL LANDSCAPE DESCRIPTION AND PROPERTY CONTEXT

This property is located within the Southern Lake Michigan Coastal Ecological Landscape (EL). This EL is the most highly populated and heavily developed landscape in the state. Most ecosystems here are severely fragmented and disturbed by widespread and intensive agriculture, industrial and residential development. All of the formerly extensive plant community groups - forests, savannas, prairies, and wetlands - have been greatly reduced from their historical abundance. Most natural community remnants are small, scattered and isolated, occurring within a context of lands and waters that are now dedicated to supporting residential, industrial, and agricultural uses. Invasive species are a major problem here, more so than in other Ecological Landscapes. Wetland and aquatic systems have been significantly diminished or degraded, often leading to serious water management issues that are difficult and expensive to fix.

Despite all of the development that has occurred, this Ecological Landscape still supports rare and declining species and communities that occur at few other locations. Coastal wetlands, wet-mesic prairies, large surrogate grasslands, sedge meadows and major river and stream corridors represent major ecological and socioeconomic priorities within this landscape.

BSRA, like so much of the surrounding landscape, is a heavily disturbed and altered environment. Following abandonment of the proposed air base, the Southeast Wisconsin Regional Planning Commission successfully argued that the greatest single asset of Bong was the large acreage under single public ownership. The Commission argued successfully for the land to be protected and minimally developed as recreational land, at a time when less than 1% of the acreage in Racine and Kenosha Counties was devoted to public recreation despite 40% of Wisconsin's population residing within a 40-mile radius of the property. Today, the large surrogate grasslands and embedded prairie, sedge meadow and marsh community remnants at sites such as Bong State Recreation Area are important ecologically and for recreation purposes.

C. CURRENT FOREST TYPES, SIZE CLASSES AND SUCCESSIONAL STAGES

This property consists primarily of non-forest vegetation types. Of the 4,558 acres that make up the Bong Recreation Area, only 471 acres (10%) are classified as forested. A break down by forest type is as follows:

- 1) Central Hardwoods (16 stands totaling 317 acres): The largest portion of the forested acres is made up of the central hardwood timber type. The majority of these stands are younger, being sapling (0 – 5") to pole sized (5 – 11"), but with a few typed as sawtimber. Black locust is a major component in these stands, but also included is elm, box elder, black cherry, ash and walnut. These are all early successional tree species.
- 2) Oak (6 stands totaling 74 acres): These are all older stands with the oaks being mostly large sawtimber sized (15+"), but with some small sawtimber (11- 15") present as well. White and burr oak are most common, but red and black oak are present as well. Present at times are cherry, hickory and elm, generally as poletimber or saplings. Upland brush, often being buckthorn and honeysuckle, is present in the understory of these stands.



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- 3) Walnut (1 stand totaling 44 acres): This stand is not heavily stocked, but walnut dominates the overstory, while central hardwood species are mixed in as poletimber and saplings. Upland brush is present here as well.
- 4) Bottomland Hardwoods (3 stands totaling 28 acres): These are younger stands as well, including sapling and pole-sized trees. Swamp white oak, green ash, cottonwood and silver maple are the main components of this type, although some aspen and elm are mixed in at times.
- 5) White Pine (1 stand totaling 8 acres): This stand is a plantation with a mix of white pine and oak present. The stand includes pole-sized trees, with a few still sapling sized that have not grown into pole size. The stocking here is moderately light.

Then the non-forest area totals 4,087 acres. This includes grasses covering 1,180 acres: upland brush areas totaling 1,651 acres, wet vegetation areas (including marsh grasses, cattails, and lowland brush) totaling 256 acres, open water areas totaling 424 acres, and developed areas (campgrounds, trails, parking, etc.) totaling 576 acres.

D. NHI: ENDANGERED, THREATENED, SPECIAL CONCERN SPECIES, SPECIES OF GREATEST CONSERVATION NEED (SGCN)

Four rare birds (two Endangered, two Threatened), two rare fish (one Threatened and one Special Concern), one Endangered frog, one Special Concern turtle, one Special Concern plant, and two natural community types have been documented within a two mile buffer of the property.

NHI screening protocols will be conducted and species guidance protocols will be followed prior to and during any current and future management activities.

E. WILDLIFE ACTION PLAN CONSERVATION OPPORTUNITY AREAS (COA)

As identified in the [2005 Wisconsin Wildlife Action Plan](#), Bong State Recreation Area is a Conservation Opportunity Area. It is noted as a place for managing extensive grassland communities of statewide significance within the Southern Lake Michigan Coastal Ecological Landscape. These communities should be managed to capture maximum SGCN diversity and feature a continuum of an extensive matrix of grasslands including both restored or surrogate grasslands as well as remnant prairie.

F. SIGNIFICANT CULTURAL OR ARCHEOLOGICAL FEATURES

According to the Wisconsin Historical Society database, a review of the timber sale locations on the property did not turn up any cultural or archeological sites. It is known that Native American settlement is in the general geographic area of the state. Standard procedure calls for known sites to be protected during forest management operations.

G. INVASIVE SPECIES

Several non-native invasive plant species are present through the property, most of which are fairly common throughout southeast Wisconsin. They include common buckthorn, honeysuckle, multiflora rose, garlic mustard, and black locust. Efforts to control these species in targeted areas for specific purposes are made, but elimination from this entire property area is not a realistic or feasible goal. In the areas of these properties that have timber harvesting scheduled, efforts to control the invasive vegetation will be performed prior to any harvest. Brush control efforts will also be made in areas where oak savanna/oak opening is the eventual goal. As mentioned previously, in recent years there has been a strong effort to manage the outbreak of Emerald Ash Borer on the property by removing a significant number of ash trees.



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H. EXISTING STATE NATURAL AREAS (SNA) DESIGNATIONS/NATURAL COMMUNITY TYPES LIMITED IN THE LANDSCAPE

There are no existing State Natural Areas on any of the properties, nor are there any identified examples of High Value Conservation Forests (HCVF).

I. PRIMARY PUBLIC USES (RECREATION)

The property provides a high number of intensive recreational activities listed previously and impacts from forest practices will be considered to minimize conflicts.

J. BIOTIC INVENTORY STATUS

There is no Rapid Ecological Assessment or Biotic Inventory for the property.

K. DEFERRAL/CONSULTATION AREA DESIGNATIONS

There are no existing deferral or consultation area designations on the property.

Part 2: Future Management – IFMP components

FOREST MANAGEMENT OBJECTIVES *(Outline primary forest management objectives)*

With all forest management objectives, there are several more universal objectives that can be attained including options such as increasing large snags and coarse woody debris, controlling the spread of invasive plant species and consideration for Wildlife Action Plan priorities and management of SGCNs. Integrating Priority Actions from Wisconsin's 2005-2015 Wildlife Action Plan to the extent possible within the framework of this document, or avoiding actions that might preclude successful implementation of these actions in the future is recommended.

The primary objective of this property is to provide various recreational opportunities to the public, from camping, picnicing and trails, to hunting and bird watching. The majority of the vegetation is managed for prairies, both upland prairie and wet prairie. Part of the objective is to benefit the wildlife species that utilize and prosper in prairie ecosystems, or that otherwise require these ecosystems to exist.

In the forested areas, much of the management objective is to promote oak and desirable central hardwoods. Management to encourage oak regeneration will be a main objective, along with a component of black walnut, black cherry and hickory as well. Undesirable hardwoods such as black locust, box elder and elm will be managed against. Oak savanna or oak openings may be pursued in some areas. In all forested areas, efforts to control non-native invasive vegetation will be an objective as well.

Specific management objectives by species are as follows:

1. Oak: The primary objective in these stands will be to promote the growth and retention of large oak and to encourage regeneration. The native dominant oak woodland/savanna tree species are typically managed passively. However, some thinning of the canopy to promote replacement trees as well as understory manipulation and shrub control via harvest, brushing or fire may be needed to mimic natural disturbance patterns. Stands will be managed to create overstory conditions that allow enough light to penetrate the canopy and reach the forest floor to stimulate light dependent understory oak woodland and savanna species that are often suppressed from inadequate light. Secondly, associated hardwoods such as hickory, black cherry and walnut may be retained or promoted at low densities.



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2. Central and Miscellaneous Hardwoods: The management objective in these stands is to promote desirable hardwoods, with the possibility to shift them to an oak type if possible, and away from less desirable hardwoods such as black locust and box elder. Brush control is an objective in these areas as well, especially when trying to establish new regeneration.
3. Bottomland Hardwoods: The management objective in these stands will be to promote the growth of desirable tree species (swamp white oak, silver maple, and possibly other tree species) and encourage species other than ash to have a greater presence here. Ash would not be favored due to the presence of the Emerald Ash Borer in the area.
4. Conifer stands/plantations: As with the aspen, the management objective for the conifer plantations will vary by location. In some locations, the conifer stands will be eventually harvested and the sites converted over time towards hardwoods (oak, hickory, cherry). In other locations the management will be to maintain healthy conifer stands through periodic thinning.
5. Non-forested areas: Generally the management of the non-forested areas will be to promote prairie vegetation, both for upland and wet prairie community types.

PROPERTY PRESCRIPTIONS *(Identify specific and pertinent prescriptions by area or forest type, including passive management areas, extended rotation, and other information that will help achieve the objectives)*

ALL STANDS – The Wildlife Action Plan describes Priority Conservation Actions that make effective use of limited resources and address multiple species with each action. All proposed forestry prescriptions should reference Priority Conservation Actions, Wildlife Action Plan priorities, property objectives and be based on individual stand level needs.

Forest management prescriptions are described as follows:

1. Oaks: These stands will be managed to promote the oak type by utilizing techniques such as modified shelterwood harvest, thinning, extended rotation and managed old forest coupled with efforts to control invasive brush species. Reserve, or legacy, trees should be retained as groups or individuals throughout the property within harvested stands. Timber harvests will focus on removal of central and northern hardwood species (primarily non-oak and non-hickory species) and aspen, with some thinning of suppressed oak where dense patches occur (leaving largest diameter/crowned individuals) or where small crowned individuals are shading open grown, larger crowned trees. Additional thinning of canopy trees could occur when replacement trees are vigorous, but to a more limited extent than traditional shelterwood harvests. Black cherry and hickory may be retained or promoted as well, but managing for the oak species and its regeneration is the primary objective for these sites. In each case, invasive species control will be performed prior to a harvest in order to promote more desirable conditions for oak regeneration. Supplemental planting may be utilized after brush control and harvesting are completed in order to encourage regeneration of the desirable tree species. Invasive species management will continue at least until the hardwood regeneration is established, and preferably be continued over the long term in order to promote overall health and vigor of the natural community. Invasive species control will involve some combination of mechanical and chemical techniques, possibly including prescribed burning.
2. Central Hardwoods: Management will be focused on promoting the better quality central hardwoods (oak, cherry, hickory, walnut) while encouraging a shift towards oak where site conditions allow. This will involve techniques such as thinning and/or shelterwood to remove less desirable tree species, brush control using a combination of cutting or mowing and herbicide, and planting desirable native tree species (especially white and red oaks) in open areas. Oak and hickory will be retained and promoted as much as possible. Care will be taken to manage non-native invasive woody species, preferably prior to harvest.



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3. Bottomland Hardwoods: Management in these limited areas will involve favoring the more desirable hardwoods by thinning to remove less desirable species. In particular swamp white oak will be promoted, however, silver maple and cottonwood may be encouraged as well. Green ash should not be encouraged due to the presence of Emerald Ash Borer on the property. If conditions allow, tree planting may be utilized to encourage other bottomland tree species to promote replacement of the green ash following. When feasible, care will be taken to manage non-native Invasive woody species, preferably prior to harvest.
4. Conifer stands/plantations: The young white pine and oak plantation will be managed as a mixed stand, with periodic thinning. If needed, supplemental planting may be done to fill in open portions of this stand, with brush control performed as needed. In some locations, the conifer stands will be completely harvested and sites converted over time towards hardwoods (oak, hickory, cherry).
5. Non-Forested Areas: The primary management tool for the non-forested areas will be prescribed burning to reduce or eliminate undesirable vegetation and to promote the desirable plants. In targeted areas, some brush mowing may be utilized as well to eliminate undesirable brushy cover, to be followed up by burning.

For areas with a heavy population of black locust, funding will be pursued to kill and eliminate the locust through cutting and herbicide treatments. If there are not sufficient desirable trees present in these sites, then tree planting can be performed to restock the area with oak and other desirable hardwoods. Invasive brush would have to be dealt with as well to allow for the small trees to get established.

PREPARED & REVIEWED BY:

T. New *12-5-15*
Property Manager Date

Michael Sieja *18 NOVEMBER 2015*
Forester Date

[Signature] *11/30/2015*
District Ecologist Date
NATE FAYRAM - For Sharon Fandel

APPROVED:

Jason Fitz *12-14-15*
Area Program Supervisor Date