



LAND MANAGEMENT PLAN

KICKAPOO VALLEY RESERVE
LA FARGE, WI
2020-2025

INTRODUCTION

LAND MANAGEMENT PURPOSE

In compliance with Wisconsin State Statute 41.41 (3) objective:

“The Kickapoo Reserve Management Board (KRMB) shall manage land in the Kickapoo Valley Reserve (Reserve) to preserve and enhance its unique environmental, scenic and cultural features, to provide facilities for the use and enjoyment of visitors to the reserve and to promote the reserve as a destination for vacationing and recreation.”

Since assuming responsibility to manage the 8,600-acre Reserve in 1999, the KRMB adopted an ecosystem management approach to policies, projects, and plan implementation. Ecosystem management encompasses the natural environment, society, and regional economy—the entire system. This vision coincides with the Memorandum of Understanding between the Ho-Chunk Nation and State of Wisconsin to jointly manage the property with an awareness that the resources protected within the Reserve are not isolated from the surrounding communities and environment but are inextricably linked to them. The primary purpose of ecosystem management is to conserve, restore, and maintain the ecological integrity, productivity, and biological diversity of these public lands.

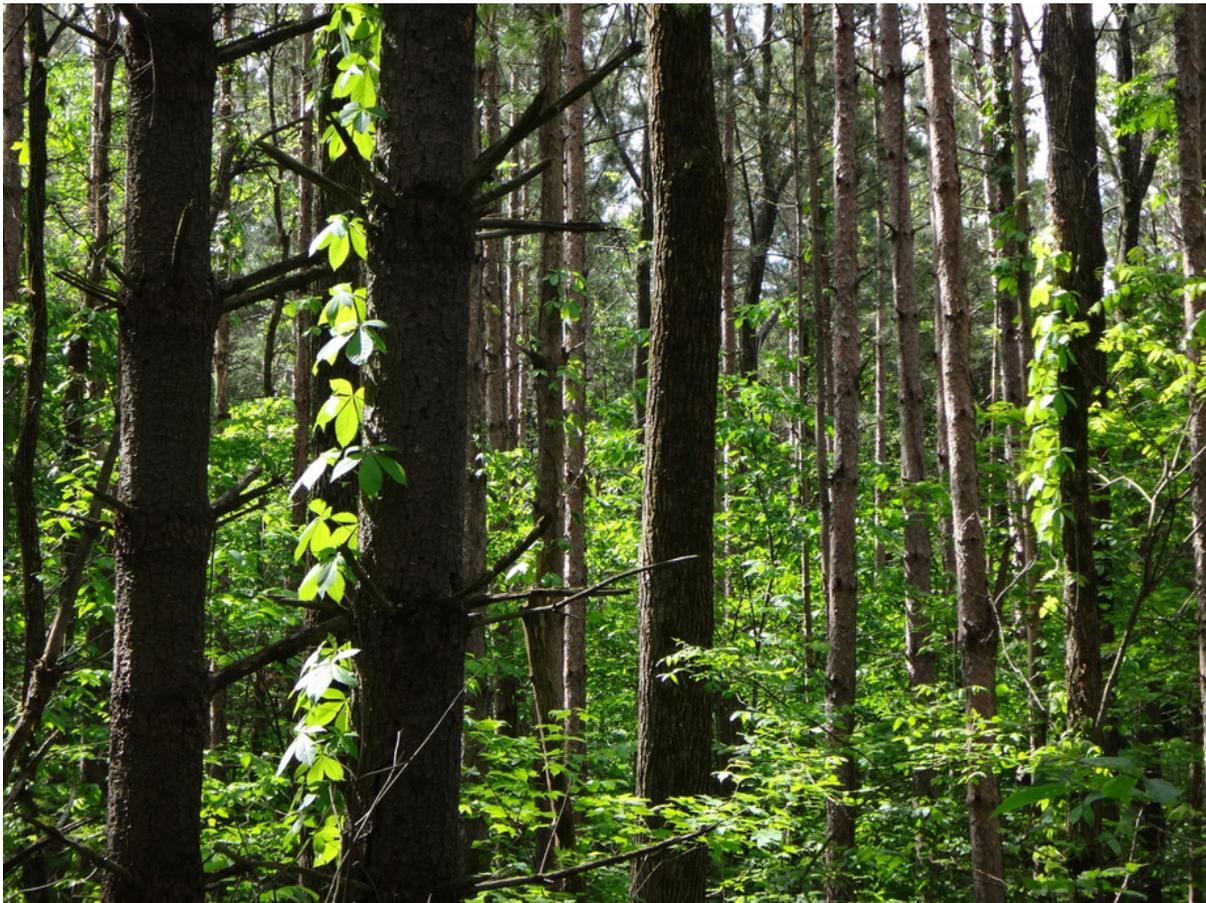
Any upcoming initiatives the KRMB embarks upon be clearly outlined for future board members and staff as it is a shared goal to minimize human impact and ensure long-term environmental protection.



LAND MANAGEMENT OVERVIEW

PLANNING PROCESS

The Management Plans are formally reviewed and updated every five years. Plan review and approval intervals coincide with the Memorandum of Understanding between the State of Wisconsin and Ho-Chunk Nation wherein, the KRMB is required to report to the President for the Ho-Chunk Nation and Governor for the State of Wisconsin on the status of the Kickapoo Valley Reserve. Keeping with the citizen-based history of the KVR, plans are reviewed through subcommittees, staff and open to the public for comment prior to adoption by the Board. The exercise serves as a refresher on policies that have been adopted and allows input on goals and objectives for the next five years. It is also an opportunity to review accomplishments in the three main program areas of Land Management, Education, and Tourism.



LAND MANAGEMENT OVERVIEW

RESOURCE OVERVIEW

Natural Features - The exceptional value of natural resources in this portion of the Driftless Area is gaining recognition through research projects, media attention, and general awareness. A great deal of work has been done to inventory the diverse flora and fauna of the Reserve. Over 400 plant species and more than 100 species of nesting birds have been documented. Educational brochures with a checklist of species were completed in 2000 for use by students of all ages.

Cultural Features – Over 500 known archeological sites on the property of such significance generated the designation as the Upper Kickapoo Valley Prehistoric Archeological District, which is listed on the National Register of Historic Places. As outlined in the Memorandum of Understanding (1997) and Joint Management Plan, all Land Management projects must first consider potential impact to sites prior to determining feasibility. As the property becomes more popular and the public explores areas they may not know are sacred, the KRMB will need to consider additional efforts to protect them. In addition, updated documentation of sites may be needed as natural forces reduce their distinct features such as marker trees and petroglyphs.

Prairie Restoration – Valley bottoms, former grazed land or farmland have become prairie plantings through significant efforts of the KVR and Ho-Chunk Nation staff. Maintenance and enhanced diversity require prescribed burns, invasive species control, and supplemental seeding. In addition, fragments of goat prairie that remain where agriculture did not previously impact vegetation should earn special attention for the unique and historic vegetation they sustain.



LAND MANAGEMENT OVERVIEW

RESOURCE OVERVIEW

Water – The dendritic pattern of tributaries to the Kickapoo River is fully displayed throughout the Reserve. Flowing springs connect with creeks and streams to feed into the river. Wetlands and ponds are spring fed and also add to the diversity. Some of the former homesites have artesian wells once used for the only water source. These wells provide easy access for monitoring and long-term tracking of groundwater flow rates. Streambank repair, such as the five phases of the Weister Creek project, has evolved to incorporate flood resiliency as well as habitat improvement for amphibians and reptiles in addition to the trout. Flood resiliency and water quality will continue to drive many of the projects on the Reserve in the future as storms are trending with increased intensity and rainfall (See References: Monroe County Change Task Force). Efforts to mitigate damage from the flash floods through constructed wetlands or deep-rooted perennial grasses will serve as demonstration sites for others to learn from.

Woodland/Forestry – Revered by foresters and ecologists alike, the large blocks or contiguous acres of mixed hardwoods are vitally important to the rich diversity within the Reserve. Efforts continue to enhance the health of the forests through pine plantation harvests, invasive species control, and timber stand improvement practices. Restoration following harvests is labor intensive but vital to the long-term success of the property.

Significant transitions from agriculture to woodlands are documented for historic records:

1930 Land Designation	1930s Acres	1990 Land Designation	1990s Acres	2017 Land Designation	2017 Acres
Agriculture	5978	Agriculture	1279	Agriculture	863
Developed	NA	Developed	108	Developed	148
Old Field	NA	Old Field	1321	Old Field	846
Water	NA	Water	142	Water	143
Wetland	NA	Wetland	1421	Wetland	1586
Woodland	2054	Woodland	4220	Woodland	4911

LAND MANAGEMENT OVERVIEW

2015-2020 NOTEWORTHY HIGHLIGHTS

- Completed forest inventory on State-owned parcels; Data entered in WisFirs.
- Weister Creek habitat project completed; Collaborative effort with outstanding results.
- Restoration of Historic Bridge 13 through the Ho-Chunk Nation and Bureau of Indian Affairs.
- Trail restoration and re-routes; Old 131 paving from Bridge 13 to Rockton; West Ridge segment re-route and expansion to multi-use; hiking trail in conjunction with Weister Creek project.
- Relocated campsites out of the floodplain in compliance with County Zoning and secured licensing of campsites in compliance with State law.



LAND MANAGEMENT OVERVIEW

ESTABLISHED POLICIES

Agriculture – Nearly 700 acres of cropland is leased to area farmers. Lease agreements are set on a six-year cycle to encourage the best conservation methods in crop rotations. Additional measures for buffer strips along waterways and restrictions on manure spreading are intended to protect the resource. Leasing lands is beneficial to the reserve as a revenue source and requires minimum maintenance.



Enforcement – Administrative Rules KB1 specify regulations to protect the property and public safety. Visitor safety and protection of the natural resources is an essential part of the mission to preserve on the KVR. The KRMB has always endorsed the honor system for compliance regarding fees, trail etiquette, and campsite occupancy. Mutual Aid for emergency response and patrolling has worked well whenever needed.



Floodplain – Repetitive flooding of historical proportions over the last ten years has brought about an acute awareness to consider resiliency and mitigation in managing the property. Human safety concerns as well as minimizing repair costs has led to policies of streambank restoration, managed vegetation, and minimal or modified structures within the floodplain.



LAND MANAGEMENT OVERVIEW

ESTABLISHED POLICIES

Forestry – Sustainable timber harvests are an integral part of the overall management of the Reserve. The 3,600 acres of officially designated State Natural Area are primarily left undisturbed. Harvest plans are developed based on the Wisconsin State Forest Inventory Reporting System (WiSFIRS) data that was completed for the State-owned portion of the Reserve in 2019. Prior to conducting a harvest, the site will be thoroughly evaluated for sensitive archeological, cultural, and environmental resources. The need for revenue will not overshadow the commitment to protection.



Invasive species – The greatest threat to the diverse populations of plants and animals are the aggressive invasive species, many of whom are well established on the Reserve. A few of the invasive species include honeysuckle, garlic mustard, buckthorn, hedge parsley, autumn olive. Weighing risk to benefit, the KVR staff does use chemical control treatments when applicable. Mechanical control is preferred but very labor intensive with marginal results. Through staff training, interagency networking, and research, determinations are allowed to be made on a case by case basis in addressing the intruders.

LAND MANAGEMENT OVERVIEW

ESTABLISHED POLICIES

Trails - Most visitors experience the Reserve through using the trails. Whether it is the natural surface trails, the paved Old Highway 131 Trail, or the Kickapoo River Water Trail, all trails lead to the exploration of the beauty of the Kickapoo Valley Reserve. The fifty plus miles of trails for hiking, biking and equestrian use have undergone an extensive evaluation over the past fifteen years to ensure they are built sustainably and do not impact cultural or environmentally sensitive sites. Lessons have been



learned from the frequent flooding, visitor impacts and the effects of mother nature. The most important protective policy is to close the trails during wet weather. Not only is it unsafe to ride a horse or bike on natural surface trail during wet conditions, but it also quickly damages the trail.

Depressions are created that hold or channel water and do not allow the trail to shed water as designed. Regular maintenance is imperative to keeping a trail sustainable. Over time, all trails will begin to form a berm on the edge of the trail. By taking the berm off periodically, it ensures the trail has proper drainage and performs as it was designed to. Efforts to keep the trail corridor cleared are especially important after any storm events. Staff and volunteers check for downed trees to remove as soon as possible. This prevents users from making a new trail to navigate around the downed tree, which could result in damage to the surrounding vegetation and increased erosion.

In addition, users are encouraged to practice responsible trail etiquette, including educating themselves on other uses of the trail system. With most of the trails being shared use trails, proper trail etiquette is very important. Education of bikers, hikers, and equestrian riders on what to do when meeting each other keeps all users safe. Additionally, users are reminded to treat all users with respect and courtesy regardless of their sport, speed, or skill level. Finally, trail users are directed to protect the trails and surrounding areas by staying on designated trails.

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ESTABLISHED POLICIES

Recreation – Non-motorized, low impact recreation has been the model for welcoming visitors. Consistent adherence to protecting the property by preventing or minimizing impacts has proven effective through the following initiatives: sustainable trail design, closing natural surface trails during wet conditions, posting Leave No Trace/Pack It Out principles, requiring frozen ground and snow for winter trail use, providing rustic, designated campsites, and providing river access sites to minimize new impacts.



Restoration – Recognition that the inherited property had been settled, logged, farmed and utilized by humans for hundreds of years leads to acceptance that restoration will take time. Conversion of previously grazed or farmed land to prairie and establishing diversity in the woodlands following timber harvests are ongoing and long-term efforts to restore previously impacted lands.



LAND MANAGEMENT OVERVIEW

2020-2025 ACTION ITEMS

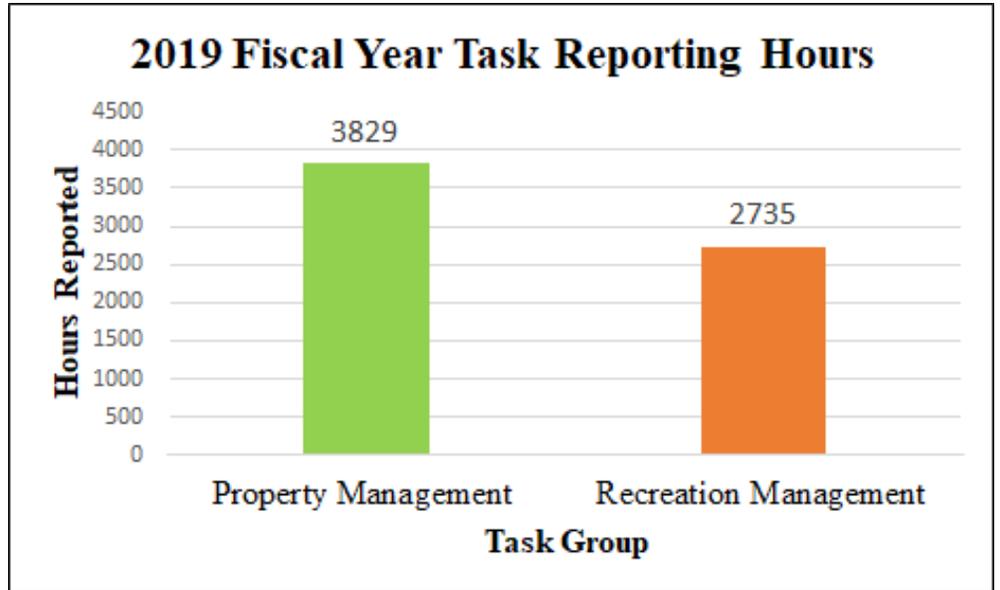
- Dark Sky protection and formal recognition through the International Dark Sky Association in conjunction with Wildcat Mountain State Park.
- Trails: Hay Valley trail boardwalk/crossing project, Old 131 trail and streambank stabilization below Bridge 16.
- Detailed Forest Management Plan which includes schedule for next timber harvest and ongoing restoration efforts of previously harvested pine plantations.
- Utilize volunteers in new roles; adopt a trail, river access site, or campsite; invasive species control; citizen science in monitoring and inventory. Master Naturalist course may generate new ideas for utilizing volunteers.
- Evaluate protection of sensitive cultural and ecological sites and address accordingly.
- Secure funding to match initiatives, programs, and projects through revenue, grants, or special events.
- Recovery from pandemic including financial impacts and impacts of increase in user numbers, re-start events and group activities.



LAND MANAGEMENT OVERVIEW

LAND MANAGEMENT STAFFING & BUDGET

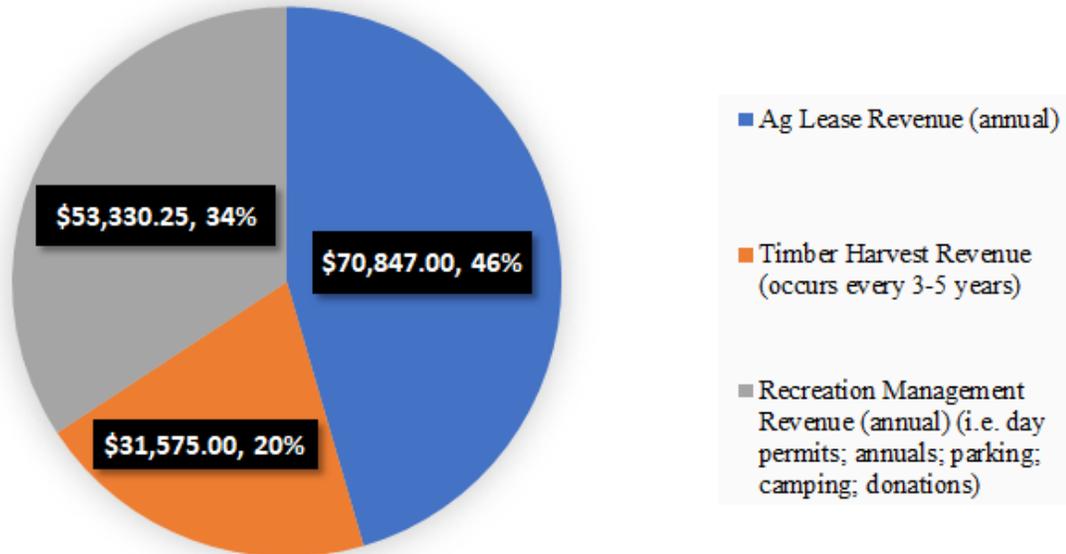
Staffing consists of a permanent, full-time equivalent Property Manager whose position is 75% property management and 25% Enforcement. The crew also consists of Limited Term Employees (up to 1040 hours per year) including: Forestry Technician, Recreation Technician and summer additions of Laborers and Groundskeeper. At times, interns and volunteers assist as well. Supervision responsibility is through the Executive Director. Funding support is through a combination of the Conservation Fund in the base allocation, Tribal Gaming appropriation for the enforcement expenses, and revenue generated from user fees, agriculture leases and timber harvests.



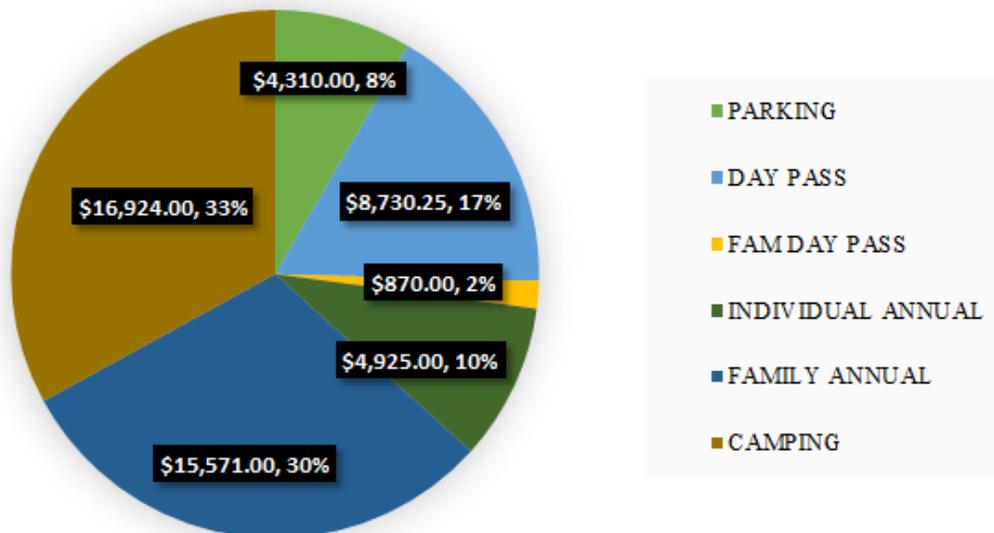
LAND MANAGEMENT OVERVIEW

LAND MANAGEMENT STAFFING & BUDGET

2019 Fiscal Year Land Management Funding Sources



Fiscal Year 2019 Recreation Management Revenue Breakdown



Land Management Project Priorities and Objectives

The following is a summary of the priority projects and the strategies for implementation over the course of the five year Master Plan (2020-2025). Implementation strategies are identified where appropriate and priorities are assigned.



Project	Priority	Implementation Strategies	Involvement
Invasive Species Control/Eradication to protect diversity of native species.	 High	Mechanical, if possible Chemical Preventative – clean equip	Volunteers and staff for labor; Trained staff or contract for Chemical; Information and Education of public
Natural Areas & Endangered Species Protection: goat prairie & other unique habitats	 High	Inventory, Monitor, Targeted invasive control, prevent human impacts	Verify DNR responsibilities; KVR & HCN staff efforts
Forest Management: Harvest & Restoration post-harvest	 High	Prepare a Forest Management Plan with site specific recommendations.	Foresters & Ecologists from DNR, HCN – utilize template and existing inventory info.
Visitor Impact • Monitor • Minimize	 High	Establish a long-term monitoring program; metrics of visitor numbers to specific sites i.e. camp sites, ice caves, Blackhawk Rock	KVR staff assignments; KRMB policy initiatives
Hunting: Safety on Multi-Use property	 High	Information/Education, provide accurate maps; signage etc.; Work with Pheasants Forever/Whitetails Unlimited/Turkey Federation to improve understanding; utilize social media; highlight ethics and safety	Staff; Organizations; Enforcement as needed.

Land Management Project Priorities and Objectives

Project	Priority	Implementation Strategies	Involvement
Trails: land and river	 High	Ongoing Maintenance; Repair as needed; Hay Valley trail reopening plan for 2021.	Education Staff/Volunteers Money Property
Law Enforcement	 High	Visitor safety and protection of natural resources through regular patrolling of the property by KVR Enforcement and mutual aid.	Property Manager Enforcement Officers Mutual Aid
Prairie: establishment or expansion; maintenance	 Medium	Overlaps with Forest Management Plan and Invasive Species initiatives. Prepare annual burn plan and additional task lists.	Staff & trained volunteers.
Water: Monitor wells, creeks, river Wetlands/ponds Flood resiliency.	 Medium	Weister Creek project follow through: control woody vegetation. Flowing wells: rates recorded. Mitigate flood damage by keeping structures out of floodplain; streambank work when possible.	KVR/HCN staff Opportunities for Citizen Scientists. Trappers to remove beaver/muskrat where problems exist. Secure funding for resiliency projects.
Agriculture: Conservation Plans; Buffer strips/grassed waterways; Soil quality	 Low	Leases continue through 2022; prepare for re-bid; evaluate conditions.	Property manager; Soil Test agronomist & lab; area farmers for any recommendations in future leases.



**KICKAPOO VALLEY RESERVE
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REFERENCES – SEE ADDITIONAL DETAILS:

Archeology of the Kickapoo River Valley: <https://obtu.org/conservation/conservation-commitment/>

Climate Change Task Force | Monroe County, WI:

<https://www.co.monroe.wi.us/government/county-board-of-supervisors/boards-committees/climate-change-task-force>

Important Bird Areas: <http://www.wisconsinbirds.org/iba/>

Geology of the Kickapoo Valley: <https://www.youtube.com/watch?v=YqIC0x6Cu-w>

Kickapoo Valley Reserve: <http://kvr.state.wi>

Landscape and Property: <https://uwpress.wisc.edu/books/3720.htm>

National Natural Landmarks: <https://www.nps.gov/subjects/nnlandmarks/site.htm?Site=KIRI-WI>

Stories from the Flood Project: <https://nelson.wisc.edu/news/issue-brief/extreme-precipitation-driftless-wisconsin-flooding.php>

Weister Creek Project: <https://obtu.org/conservation/conservation-commitment/conservation-commitment/>

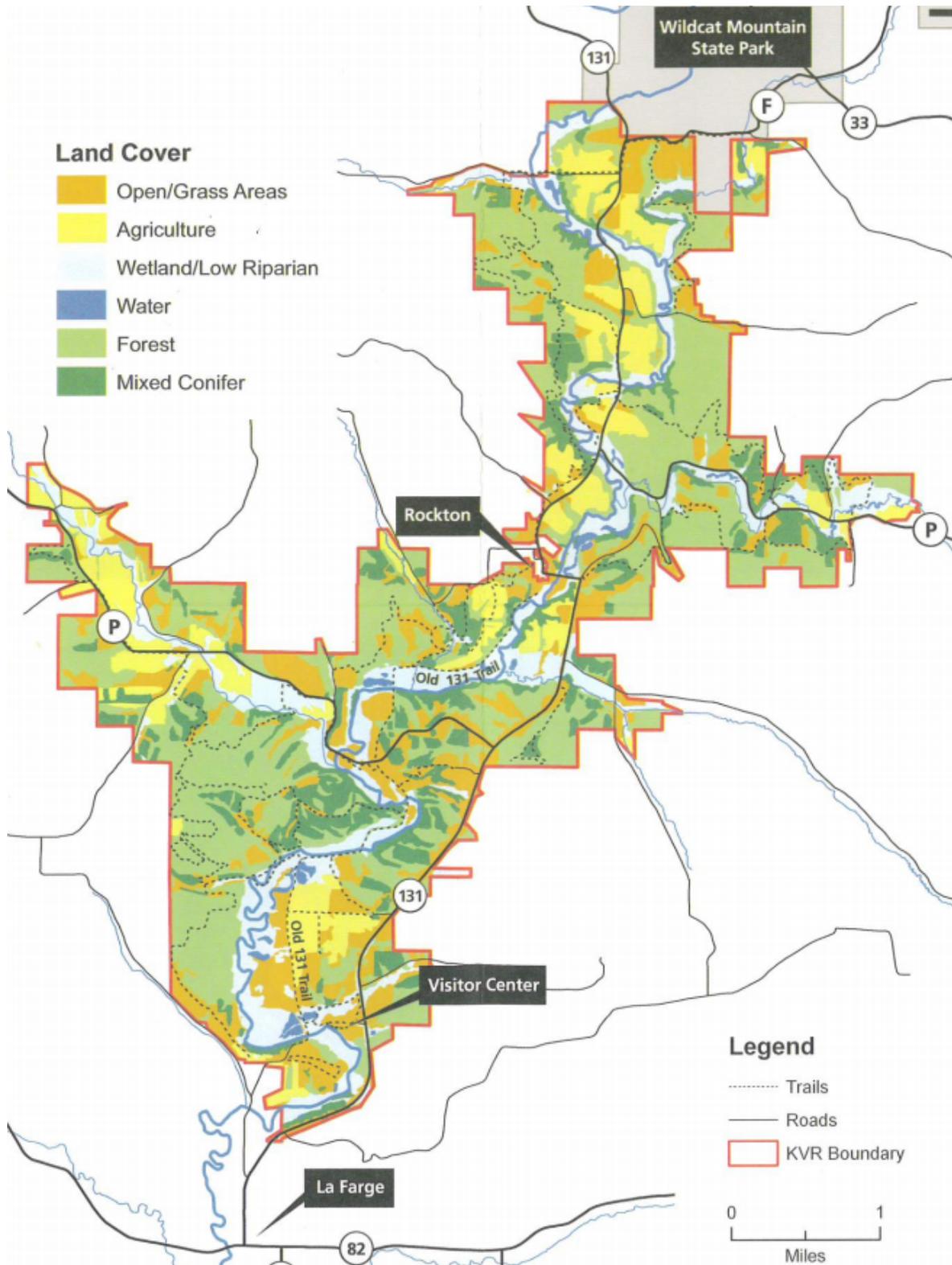
Wisconsin State Natural Areas: Kickapoo:

<https://dnr.wi.gov/topic/Lands/naturalareas/index.asp?SNA=354>

Wisconsin State Statute 41.41: <https://docs.legis.wisconsin.gov/statutes/statutes/41/iii/41/10/a/1>

Note: All photos courtesy of Kickapoo Valley Reserve Staff except Dark Sky photo taken by Stephen Deutsch at Campsite J on KVR property..

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